Board of Trustees

Annual Meeting

September 26-27, 2018

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Agenda

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

ANNUAL MEETING OF THE BOARD OF TRUSTEES
September 26-27, 2018

Anchorage Marriott Downtown
820 West 7th Avenue, Anchorage, AK 99501

Webinar Access (click link to join webinar)
Join via WebEx and enjoy the ability to listen on your computer and follow presentations:
https://alaskapfc.webex.com/join/apfc

Teleconference Access
Call-in toll-free number: 1-844-740-1264 / Access Code (Meeting Number): 809 584 681

AGENDA

WEDNESDAY, SEPTEMBER 26, 2018

8:30 a.m. CALL TO ORDER

ROLL CALL (Action)

APPROVAL OF AGENDA (Action)

APPROVAL OF MINUTES (Action)
- May 23-24, 2018
- July 24, 2018

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

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

9:00 a.m. CHIEF INVESTMENT OFFICER'S REPORT (Information)
Marcus Frampton, Acting Chief Investment Officer

9:15 a.m. REPORT OF ANNUAL AUDIT (Action)
Beth Stuart, Office Managing Partner, KPMG
Valerie Mertz, Chief Financial Officer

9:45 a.m. PERFORMANCE REVIEW (Information)
Greg Allan and Steve Center, Callan Associates Inc.

10:45 a.m.	*BREAK*
11:00 a.m.	RISK OVERVIEW (Information) Marcus Frampton, Acting Chief Investment Officer
	ASSET CLASS UPDATES (Information)
11:45 p.m.	PUBLIC EQUITIES Fawad Razzaque, Director of Public Equities
12:15 p.m.	*BREAK / LUNCH*
12:45 p.m.	FIXED INCOME Jim Parise, Director of Fixed Income
1:15 p.m.	PRIVATE EQUITIES & SPECIAL OPPORTUNITIES Steve Moseley, Director of Private Equity & Special Opportunities
1:45 p.m.	ASSET ALLOCATION STRATEGIES Valeria Martinez, Director of Risk & Asset Allocation
2:15 p.m.	*BREAK*
2:30 p.m.	REAL ASSETS, PRIVATE INCOME, & ABSOLUTE RETURN Marcus Frampton, Acting Chief Investment Officer Rose Duran, Director of Real Estate Jared Brimberry, Senior Portfolio Manager
3:00 p.m.	REVIEW OF STRATEGIC PLAN Angela Rodell, Chief Executive Officer
3:45 p.m.	FY20 BUDGET APPROVAL (Action) Valerie Mertz, Chief Financial Officer
4:30 p.m.	LEGISLATIVE REQUESTS (Action) Angela Rodell, Chief Executive Officer
5:00 p.m.	*RECESS FOR THE DAY*

AGENDA CONTINUED ON NEXT PAGE

THURSDAY, SEPTEMBER 27, 2018

8:30 a.m.	*MEETING RECONVENES*
8:35 a.m.	INVESTING IN GLOBAL REAL ESTATE (Information) Moderator: Marcus Frampton, Acting Chief Investment Officer Taylor Mammen, RCLCO, Managing Director, Institutional Ben Maslan, RCLCO, CFA Principal Myles Sanger, CBRE, Portfolio Director Tim Munn, CBRE, Director Separate Accounts EMEA, Head of Inbound Capital Chris Harris, Brookfield, Senior Vice President Barry Blattman, Brookfield, Senior Managing Partner and Vice Chairman
10:00 a.m.	*BREAK*
10:15 a.m.	INVESTING IN ALASKA EMERGING MANAGERS (Information) Steve Moseley, Director of Private Equity & Special Opportunities Paul Yett, Hamilton Lane, Managing Director Investment Committee Jason Howard, GCM Grosvenor, Partner
11:15 a.m.	ALASKA INVESTMENT POLICY (Action) Marcus Frampton, Acting Chief Investment Officer Angela Rodell, Chief Executive Officer
12:15 p.m.	*BREAK/LUNCH*
12:45 p.m.	CHIEF INVESTMENT OFFICER INTERVIEWS
4:00 p.m.	EXECUTIVE SESSION – CIO CANDIDATES (If needed) Angela Rodell, Chief Executive Officer
4:45 p.m.	ELECTION OF CORPORATE OFFICERS (Action) Chair and Vice Chair, APFC Board of Trustees
5:00 p.m.	OTHER MATTERS 2019 and 2020 Calendar of Board Meetings (Action) Angela Rodell, Chief Executive Officer
5:15 p.m.	INVESTMENT ADVISOR COMMENTS (Information) George Zinn
5:30 p.m.	TRUSTEE COMMENTS FUTURE AGENDA ITEMS
5:45 p.m.	*ADJOURNMENT*

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

Approval of Minutes Memo

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

SUBJECT: Approval of Minutes ACTION: ____X______

DATE: September 26th, 2018 INFORMATION: ___________

BACKGROUND:

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

- May 23-24, 2018 Quarterly Board of Trustees Meeting
- July 24, 2018 Special Board of Trustees Meeting

RECOMMENDATION:

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

May 23-24, 2018

ALASKA PERMANENT FUND CORPORATION

QUARTERLY MEETING OF THE BOARD OF TRUSTEES

May 23-24, 2018
8:00 a.m.

Location of Meeting:
Atwood Building
550 West 7th Avenue, Suite 104
Anchorage, Alaska 99501

SUMMARY MINUTES

Trustees Present:	William G. Moran, Chair Carl Brady, Vice Chair Marty Rutherford Andrew Mack Craig Richards	
Staff Present:	Angela Rodell, CEO Valerie Mertz, CFO Paulyn Swanson Marcus Frampton Fawad Razzaque Chad Brown Danielle Graham	Russell Read, CIO Chris Poag, General Counsel Valeria Martinez Stephen Moseley Jim Parise Robin Mason Nellie Metcalfe
Invited Participants and Others Present:	Bob Schroeder, Public Comment Rick Steiner, Public Comment Ceal Smith, Public Comment Chris Rose, Public Comment Clem Tillion, Public Comment Gregory Allen, Callan Associates Inc. Steven Center, Callan Associates Inc. Brian Deese, BlackRock John Goldstein, Goldman Sachs Hilary Irby, Morgan Stanley Michael Abbott, Alaska Mental Health Trust Authority Andrew Stemp, Alaska Mental Health Trust Authority Michael Oak, McLagan Partners	

CALL TO ORDER

CHAIR MORAN called the meeting to order at 8:00 a.m.

ROLL CALL

VICE CHAIR BRADY, TRUSTEE RICHARDS, TRUSTEE RUTHERFORD, TRUSTEE MACK, CHAIR MORAN were present to form a quorum.

APPROVAL OF AGENDA

CHAIR MORAN stated that on the third page of the agenda, the section on real estate investment pacing, and then a review of the annual asset allocation needed to be switched so that the asset review would be at 11:00 and pacing at 12:30. There were no objections raised to the meeting agenda, as modified.

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

CHAIR MORAN stated that there were two sets of minutes, and if there were no changes, they are considered approved.

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

CHAIR MORAN moved to the schedule of appearances and public participation, and stated there were a number of people listed that would like to address the board. Each testimony was limited to two minutes. He recognized Mr. Steiner.

MR. STEINER stated that he had two brief asks of the board that, if possible, could be acted on today. He commended the board and staff for organizing the Environmental Social and Governance session, and for the fantastic panel. First, he endorsed the CIO's recommendation to the board to provide guidance to the staff on the Environmental Social and Governance policy, and asked that the board direct staff to develop a robust, comprehensive ESG policy to bring back to the board for consideration and possible adoption at the next board meeting. Second, he asked to look at the fossil fuel divestment request that hundreds of Alaskans have made since last December's meeting. He asked that the board direct staff to aggregate and understand the total fossil fuel holdings of the fund, analyze performance over time, and their future risk, and then come to the board with a recommendation regarding divestment from a fiduciary standpoint, even over and above the ESG standpoint. He continued that these two simple steps would be a giant leap forward to progressive government policy. He thanked the board.

CHAIR MORAN recognized Ms. Ceal Smith.

MS. SMITH stated that she was with the Alaska Climate Action Network and thanked the board for putting together the ESG panel today. She continued that since the submission of their letter in November, 250 more Alaskans have joined the 200 who initially called for the divesting from fossil fuel. Alaskans have a growing awareness of the seriousness of climate change and the ending of the old energy road. She added that the signs say that coal, oil and gas will be replaced by renewable energy by mid-century. In the spirit of AT CAN!, there is a fossil fuel divestment due to be pursued beyond ESG as a standalone risk to the fund in accordance with the prevailing fiduciary standards of the Permanent Fund, applicable statues and industry best practices. She stated that the trustees have first and foremost a fiduciary and a moral obligation to the people of Alaska to meet and to best the two-degrees test and divest. She thanked the board.

CHAIR MORAN recognized Mr. Chris Rose.

MR. ROSE stated that he is the director of Renewable Energy Alaska Project and was speaking for himself. He started the project, REAP, which is a coalition of over 80 organizations around the state, including electric utilities, Native corporations, businesses and developers, conservation organizations, educational institutions, all with the purpose of increasing energy literacy, increasing energy efficiency, and increasing renewable energy development in the state. He continued that the project has been instrumental in many of the state programs that have been created, including the Renewable Energy Fund, the Emerging Energy Technology Fund and the financing of over $600 million of energy efficiency, weatherization, that AHFC has done. REAP has promoted all of that work which is now saving about 55 million gallons of liquid fuel for Alaskans today. He added that some responsibility to move into the future in a positive way should be taken. He stated that he is currently a member of the Governor's Climate Action for Alaska leadership team that is working with several cabinet members to make recommendations to the Governor by September. They have been hearing from the public that bold action needs to be taken. He stated appreciation for the opportunity to testify, and thanked all.

CHAIR MORAN recognized Mr. Robert Schroeder from Juneau.

MR. SCHROEDER stated that he is a long-term Juneau resident in his career as a research and applied anthropologist and works on natural resource issues for the State of Alaska for the Federal Government. He continued that he is the steering committee for 350 Juneau, an Alaskan organization whose goal is to promote reduction of greenhouse gas emissions to a maximum of 350 parts per million, and to encourage social justice approaches to mitigation. He added that the interest and direction at this point is to examine divestment on purely fiduciary bases. He stated that they believe that fossil fuel investments have been a bad bet for the past ten years and that they will not likely perform well in the future. In further correspondence with APFC's executive director, a letter and e-mail requested on March 28th to meet at the convenience of APFC staff. Specifically what was wanted was detailed and clear information on returns to the Permanent Fund from fossil fuel investments. He continued that APFC has not been forthcoming with this information and has had to use proxy measures to estimate the amount that APFC has lost and potential earnings from what is believed to be excessive investment in this investment category. He added that their meeting request was declined, and by May 12th the request was clarified for information, and to meet before this meeting. A response has not been received. Performance information cannot be an APFC secret. He stated that if APFC is not forthcoming and simply will not provide the fossil fuel past performance, prospective yields and identified risks, a FOIA request will be filed to get what should be public information. He added that he will also be submitting written testimony.

TRUSTEE RICHARDS recommended filing a public records request rather than a FOIA request. A public records request is for the State.

CHAIR MORAN asked for anyone else on-line that would like to participate.

MS. SWANSON stated that the lines are open.

TRUSTEE MACK stated that Mr. Clem Tillion is present and asked if he would like to speak. He added that he has a long history with the Permanent Fund.

MR. TILLION stated that he is a figurehead on the public defender's Permanent Fund Defenders and spends most of his time representing the Aleutian Island Natives at fisheries meetings. He explained that he was there when Hugh Malone's bill that set the fund up was passed, and is not complaining about the way investments are made. He wanted to make sure to not get carried away with trying to increase the yield by taking risks. Elmer Rasmuson said that it is not how much money is made; it is how safe the investment is. He continued that the dividend is an absolute essential to keep the people in defending the Permanent Fund, or someone may start dipping into it. He reminded all that Legislators are elected by special interests, and the special interests need money. There is an endeavor to put the existing statute into the Constitution so that it cannot be monkeyed around with, like that one that was put in when the Permanent Fund was made. He stated that there is a need for the proposal that is presented to the people to get two thirds of the vote in the Legislature to be able to get that on the ballot for voters to vote on. He continued that the fight has been going on for three years and has succeeded in keeping the Legislature from changing the law. The instructions under the law states to inflation-proof and, as long as that statute is there, there is the authority to move. He asked the trustees to think about what should be put into the Constitution if it comes up for a vote of the people. Simplicity is wanted. Inflation-proofing, 50 percent to the people. He continued that under the 1872 Act, 12.5 percent royalty, plus enough taxes to pay for the roads and stuff to develop it. That is his grandchildren's inheritance. He added that 83 percent of the people said no when paying off the Permanent Fund and ending it was suggested. He is worried about the Legislature's thirst for cash to pay off special interests. That is the biggest threat that the Fund needs to be protected from.

CHAIR MORAN moves to the Chief Executive Director's report.

CHIEF EXECUTIVE OFFICER'S REPORTS

CEO RODELL introduced her full-time executive assistant and board liaison Danielle Graham. She stated that the capital project is moving forward swiftly, and we will have a slide show that is a mock-up for the board showing what the offices will look like upon completion. She would like the board to start thinking about whether or not they will have a new board conference center; and if they want to move the Hugh Malone name to the conference center boardroom, or if it should be renamed something else. She added that there are three naming opportunities with that facility. She continued that bids from contractors have been received, and we hope to have an award and a contractor on the premises starting July 1st.

CHAIR MORAN asked for the target date of completion.

CEO RODELL replied that the target completion date is March of 2019. She moved to the packet and pointed out that one of the things made available to staff is lynda.com, an on-line training suite, which is also available to the trustees. She explained that the site has thousands of different courses under different types of work that can be looked through. She stated that if there is anything of interest, enrollment and getting signed up is available. It has been found to be a good training tool because it can be done on-line on your own time. The courses tend to be short and are targeted to specifics. She moved to cash flow for the three months, which points out activity and reflects what actions are being done day-to-day. She completed her comments and asked for any questions.

TRUSTEE RUTHERFORD asked for a reiteration on how staff will continue to function while this major capital project is occurring, assuring the board that there will be continuity in the work.

CEO RODELL replied that staff is relocating on site, on premises and we are consolidating that. It is called Suite 303, and will be the new board suite. Staff will be accommodated in that room. The other site is where private markets is currently located on the west side of the building, and that will accommodate 20 people. She stated that the board approved the virtual desktop which will allow work from home by staff because of how crowded it could be. She continued that there will be some discussion in budget about moving some money and using some money that would otherwise lapse in FY18 to make sure that all is up and running by July 1st. She added that all of the staff will still be located at the Michael J. Burns Building, which will be their duty station. They will have remote tools if there is a need to travel.

TRUSTEE RUTHERFORD asked if all the computer space will be there prior to the actual construction of the existing facilities.

CEO RODELL replied yes, and thanked the board for the commitment in moving those funds into IT and buying both the software and hardware.

CHAIR MORAN moved to the CIO report.

CHIEF EXECUTIVE OFFICER'S REPORT

CIO READ stated that in contrast to the generally strong market returns for both the U.S. and international stocks during the 18-month period from mid-2016 through the end of 2017, this year, 2018, is proving to be a different one altogether. He continued that the story for stocks' cumulative calendar year-to-date is largely that they are range-bound and are investment-performance flat. With rising interest rates, fixed-income-plus has retreated nearly 2 percent in the first three months of 2018, as noted at the previous board meeting in February. Anticipated is that the impact of rising interest rates will continue to mute stock returns for most of the remainder of the calendar year or longer. He moved to the first three quarters of the current fiscal year through March 2018, and stated that the Permanent Fund has returned 8.86 percent or slightly less than one-half percent better for the six-month period reported at the February meeting. The strong nine-month overall return for the fund resulted from better than a 15-percent return on private equity and special opportunities. He continued that the performance scorecard, which will be presented later, the long-term five-year performance of 8.35 percent has outperformed the Fund's CPI-plus-5 percent objective by nearly 2 percent. He added that the overall size of the Permanent Fund rose to $64.6 billion, up only slightly from the end of 2017; but $4.8 billion more than the start of the fiscal year in July of 2017. The Fund size is comprised of $47 billion of principal, and a record $17.6 billion in its earnings reserve, up by $2.3 billion in December. If the stock market continues to be range-bound for the remainder of 2018 or longer, the Permanent Fund could expect to add value because of its multiple sources of investment returns. He continued that, first, U.S. stocks comprise only about 20 percent of the Permanent Fund's overall portfolio; second, APFC's strong private equity and private income programs, including infrastructure, have been increasing moderately in scale, while preserving their top quartile record against peer programs; third, the Fund is more diversified globally, particularly across the emerging markets, in every asset class, compared to many of the U.S. fund peers. He explained that this diversification advantage has also resulted in meaningful ways from investment partnerships that the Fund has already established or continues to develop investment managers or large plan peers internationally in virtually every asset class. It is anticipated that the strength of these international investment partnerships will give the Permanent Fund a materially higher quality and quantity of investment opportunities compared with other U.S. and other international sovereign wealth funds. He stated that the board meeting will cover some special topics, in addition to the additional review of the fund and asset classes, and we will hear from a panel of environmental social and governance, or ESG, experts from the leading fund management partners regarding prevailing industry best practices. He continued that an entirely new revision of APFC'S investment policies and procedures which reflects prevailing best practice standards among investment plans, as well as APFC'S unique investment history and trajectory, has been completed. He stated that he would be happy to answer any questions.

TRUSTEE RICHARDS requested a very brief summary of the Capital Constellation and MEASA and how it was reported.

CIO READ stated that, regarding those two initiatives, one is in the private markets and the other is in the public markets. The history was that, for almost all public plans, the APFC is the allocator, almost exclusively. Over the past several years, this shifted to more direct investments and have changed the relationship with both the fund managers and peer plans. He continued that the view is that the quality and quantity of investment opportunities has not declined around the world but has shifted in the geography and how it can be accessed. He added that this is a very important time in terms of a partnership model for seeing deal flow.

TRUSTEE RICHARDS stated his thanks.

CIO READ introduced Brian Deese from BlackRock; John Goldstein from Goldman Sachs; and Hilary Irby from Morgan Stanley. Each has run the ESG and sustainable investing practices for their institutions. He added that they are very seasoned on this topic. He turned the presentation over to Brian Deese.

MR. DEESE began by setting the stage for what is being seen in the industry. He talked about the prevailing best practice that has been seen in terms of investment research on the issue of ESG and its incorporation to investment strategies. He explained that the space of ESG is a stable investing space that is rife with terminology and often short on precise definitions. Sustainable investing is defined as a combination of traditional investment approached with insights about the environments, society and governance in an effort to try to improve long-term, risk-adjusted return. He pointed out that the field of sustainable investing and the incorporation of ESG into investment strategies is fundamentally consistent with a core fiduciary duty. It is an effort to try to improve the investment process and investment outcomes over time. He moved to the second point, which is that interest in this issue in terms of assets invested into strategies and demand interest from the client base has taken off over the last 12 to 18 months. Regional variation continues around that, both the level of flows into investments and interests is higher in Europe than in the United States. He added that the pace of increase both in terms of commitment of assets and interest is accelerating quite significantly in the United States, as well. He noted a couple of high-level points that summarized where BlackRock research is with respect to investment strategies. He talked about the particular opportunity in the area of private markets where there are a number of impact or thematic investment themes that are quite exciting. He stated that in emerging markets, where the research actually demonstrates the highest opportunity to actually drive over performance by the incorporation of ESG, where there is traditionally less focus on these issues and less structured regulatory process, the risks of being on the wrong side of ESG issues are higher. In looking at a particular variable, there is a lot of discussion about carbon and the carbon footprint of companies and securities. He continued that what their research found is that the carbon footprint is principally relevant in thinking about how exposed the security is to regulatory or idiosyncratic risks associated with controls that might be put in place or technological changes. He highlighted four board approaches that institutional investors are taking: First is a focus on exclusions, which translates in approach of negative and exclusionary screens; second is integration of ESG considerations into the investment process itself; third is in investment solutions where the research is increasingly pointing to the opportunities in that space; the final is stewardship and engagement.

CIO READ thanked Mr. Deese and introduced John Goldstein from Goldman Sachs.

MR. GOLDSTEIN stated that the question is how to thoughtfully integrate ESG in a changing world, into stewarding a large portfolio. He continued that the world is changing and there are things to do in an investment portfolio and sometimes focusing too narrowly can delay action in a way that is less constructive. Step one is to ask the right question; step two is to take an investment-minded practical approach; three, for anything investment-wise, implement well and thoughtfully with great care; and finally, learn and adapt. He moved on and clarified the different tools in the tool kit. He continued that Mr. Deese talked about exclusions, and he called it alignment. The idea is getting efficient market exposure in a way that the ability to get that efficient market exposure is not changed. He stated that alignment is about the financial irrelevance in the near term of these factors, and the ESG integration is all about materiality. He continued that impact investing, private investments with measurable social and environmental impacts within a growing market, and solving a problem around health, around education, around efficiency, is a driver of growth and profitability. He added that progress is meaningful when engaging with the changing world as it matters to the portfolio. He continued on to efficiency where a suite involving broader-based employee ownership was created. Worker safety is actually a proxy for quality, training. Margins could increase by 5 to 15 percent of the companies that were bought. He stated that he talked to a lot of institutions on how to get smarter across all the data inputs. This is genuinely building muscles for market intelligence and insight, which is hard. The other big thing is not getting dragged into labeling. He went back to investing and the solutions transformation where there are sectors that are quickly growing in a disruptive way with interesting opportunities. He stated that digging deeper into these sectors may be attractive, which the competitors do not yet appreciate, which is good business.

CIO READ recognized Hilary Irby of Morgan Stanley.

MS. IRBY stated that it is exciting to be having this conversation because this is one of the few places where the day-to-day realities of this conversation are playing out in real time. She continued that for many of the institutional clients this is playing out in terms of both risk management, fiduciary duty and investment opportunity. Some macro-tech trends are driving increased stress on natural resources around the world, with food, energy and water at the top. She added that these are interesting debates for investors of all sizes. In a recent poll of institutional investors, more than 60 percent of those who responded are $10 billion in assets or larger. 84 percent are actively incorporating ESG consideration or are actively considering doing so, which is a significant shift from the past years; and 43 percent of them can envision a time where the only investments that are made are considering ESG. She moved to the range of factors that are motivating institutional investors. Risk management is at the top with return potential close behind; mission alignment and expectations around changes in policies and regulations, and then stakeholder demand. She added that the outcome in the approach that is taken is often very different than what might be stated or requested specifically by external stakeholders. She stated that shareholder engagement takes on a number of forms, and it is a clear proxy and engagement in public markets; and private markets are an active part of the investment process. She talked about ESG integration, measuring ESG risk, and ESG improvement where a lot of variables are factoring in. She continued that true integration is using all of these factors to understand the material ESG issues for a company and a sector, and looking for how a company is positioned relative to that. Plus the belief with how that will help the forward drive. She stated that, in terms of institutional investors' approaches, ESG integration is pretty significantly the place where most institutional investors are playing. She continued that impact investment is something that a lot more investors are doing on an opportunistic basis; but not something that is often seen consistently applied across an entire portfolio. She added that the top three themes are: Climate change; inclusive growth; and gender diversity. She stated that climate change is seen as a binary decision and that is because of the conversation around the question of divestment, which is asking the right question. Investors are fossil-fuel aware and are taking a strategic approach to the impacts of fossil fuel within the investment context. She continued that this is a progressive approach and recognizes the best practices within the industries that are the most exposed to fossil fuel are evolving and will be consistently investing in line with best practices. She moved to inclusive growth which lends to investing and looks to reducing the inequalities by investing opportunities that help lift people out of poverty and helps to promote human rights. She stated that she sits on the Global Sustainable Finance Group at Morgan Stanley, and partners across three core businesses of the firm to drive sustainable investing opportunities for clients, and to help think about how to incorporate this into core thinking.

CIO READ launched the discussion about some different approaches to ESG-related investing and incorporating everything ranging from divestment to value-added programs with thematic or impact investing. He asked if an ESG policy is needed by the board or if this is a discussion that is had with investment staff about day-to-day activities for adding value to the portfolio.

MS. IRBY replied that whether it is specifically an investment policy statement or a documented approach taken and how it will be applied across the investment portfolio can be very important and is a good practice.

MR. GOLDSTEIN agreed and stated that having a place where it lives is important. He pointed out that there is a lot that goes into making good investment decisions, and overly prescribing how those get made tends not to be conducive of a great practice. It tends to work.

MR. DEESE responded that he would strongly recommend developing an ESG strategy, and then, a policy statement can be an effective way to achieve that strategy. He also cautioned against creating any sort of ESG policy if there is no confidence in a strategy underneath it. He stated that one thing that is the most persistent in the data is that there is a strong, persistent, negative relationship between companies that are out there proclaiming a lot of policies but are not actually acting.

CIO READ asked how the ESG part of a portfolio can be separated to adopt those principles.

MR. DEESE replied that it is an important distinction in terms of thinking about incorporating the ESG considerations in the index passive investments and in the active part of the portfolio. He stated that the approach would be different and there are two things about the index side that are worth considering.

CHAIR MORAN stated that investment managers are picked and all of them make independent investment decisions.

MR. DEESE stated that, with respect to indexes, there is emerging data that suggests that a traditional benchmark index can be swapped out with a version that is optimized for ESG consideration. He continued that, second, ESG provides an opportunity to build a systematic approach to manager diligence.

MR. GOLDSTEIN stated that on the passive side, there is less conviction in leaning on the ESG scores. Choices are still being made in building a passive portfolio with efficient ways to embed other choices in that. On the manager selection he added that it is just part of the management diligence process. The whole point of hiring an active manager is that they will pick the stock.

CHAIR MORAN asked if there are any policies or way of doing business that addresses the subsets in the Fund doing business with Goldman, BlackRock and Morgan Stanley.

MR. DEESE responded that they have a couple of specific policies that could be looked toward but thinks that the diligence process involves both looking at those policies and also understanding how they operate in practice within a set of investment processes.

MR. GOLDSTEIN replied that there are two layers of ESG: The layer of it all clients should get because it helps manage risk and return; and the views that develop good sector-based views. He stated that this is a balance of having an R&D function and integrating what is discovered more broadly in the portfolio.

MS. IRBY stated that she agreed with both and used the real estate portfolios as an example. She continued that one area in real estate that is currently under-researched is resilience. Not just resilience of a building or city, but finding the context of an area both on an individual asset basis and a portfolio basis.

CEO RODELL asked if companies move off these exclusionary screens and if there are benefits and observations.

MS. IRBY replied that a lot of active managers are doing company engagement through proxy voting, in person or phone calls where issues are identified that can have material, financial impacts. She stated that there are great examples of managers who have gotten companies to recognize that value may be left on the table if these things are not thought about. One of the significant things that are being done is looking at and using that data to look at the market-based and accounting-based metrics on ESG factors and how that is equated to financial value, and putting the conversation in that language.

MR. GOLDSTEIN replied that the conversation can be messy, sometimes very constructive and other times less so. He stated that the good management teams thoughtfully engage, figure out what is useful and try to do it well, and ignore the rest.

MR. DEESE added that, at BlackRock, there is an extraordinary amount of engagement directly with corporate management teams. He emphasized that this is a dynamic and rapidly-evolving conversation.

MR. MITCHELL asked if, in the public markets, proxy voting comes into play in ESG investing, and if the firms take adversarial positions to management in those issues.

MR. DEESE answered yes it comes into play and is in the category of shareholder engagement. He stated that there is a value principally in having a private engagement interaction where these conversations are had in a meaningful way. He continued that the approach is to be clear and to try to focus on issues that are material, and the entire engagement approach is tied to where the connection between the ESG issue and long-term financial performance is seen.

MR. GOLDSTEIN replied that they have a very different business profile in terms of the perspective. He stated that this is rough material and are learning what is going on in companies and sectors, things woven into the agenda to basically have a conversation with management. The proxy is one of the modes of having something on that agenda. He added that it is grounded in the sense of the best material research in some of the contextual specifics.

MS. IRBY echoed what Mr. Goldstein said, and stated that they have a publicly available proxy policy and also report on proxy voting.

CIO READ stated that the only ESG factor that the Fund has is given by the Alaska Legislature by statues and that is an Alaska investment policy. He asked what type of direction would they like to give to the board.

CHAIR MORAN disagreed a bit on the composition of the policy and stated that what he heard is that when there is a social issue or an environmental issue it seems to be a governance issue. He stated that the board worked really hard on the governance issues in that investment policy and these subsidiary issues should be driven from that.

TRUSTEE RUTHERFORD stated that she was curious about how they have dealt with the fossil fuel market in the ESG sustainability analyses for various companies or themselves.

MR. GOLDSTEIN replied that they have taken a lot of approaches and have clients from every end of the spectrum, from clients that were profoundly centered on fossil fuels to folks at all points in between. He stated that they like to take more risk-aware approaches that allow people to express their view in an efficient way.

MR. DEESE stated that he understood, in the context of the Permanent Fund, there is the question of what the Permanent Fund's overall exposure is and then there is a broader question about what the State of Alaska's overall exposure is from a budget perspective. He continued that part of the unique situation could be a consideration about the risk from the perspective of the overall exposure to future oil price or fossil prices, which is a different lens to think about from the traditional arguments around reducing the exposure in the portfolio.

MS. IRBY stated that focusing it from the question of divestment is the wrong place in starting how to apply it on the portfolio context. She continued that when thinking of it at an asset-class level, the implementation could be very different on more liquid investments versus longer-term investments. She added that the permanence in Permanent Fund is an important part of that overall equation.

TRUSTEE RICHARDS stated that it was alluded to earlier that this board has been given its investment guidelines by the Legislature, and the Legislature has adopted the proven investment rule as our standard for investment. He continued that in looking at ESG issues and other governance issues this dialogue should be occurring in front of the Legislature.

TRUSTEE MACK stated appreciation for the presentation and thought that it is a very critical conversation to have. He continued that one of the themes of the Walker/Mallott Administration was to really think about how to manage the volatility of the price of oil and understanding that the investment policies going forward should be focused on and discussed. He added that there is room for further discussion on this, and he encouraged that.

CIO READ appreciated the comments from the panel members. He stated that the fund is pretty progressive and successfully progressive in the transformational quality of the private-market investments from private equity, venture capital, extending into infrastructure, and potentially real estate. He added that these factors can be value-added if used in the right way, particularly in the private markets.

CHAIR MORAN asked if, as the CIO, he is finding enough direction in the investment policy to enable to stretch the portfolio that eliminates investments that do not have long-term returns that meet your goals and selecting ones that do.

CIO READ replied that the fund is on an excellent run in terms of seeing a quality and quantity of attractive deal flow.

CHAIR MORAN asked if there are tools available in that policy to address those issues.

CIO READ replied that from the investment staff perspective they have the tools that they need.

CHAIR MORAN called a break.

(Break.)

CHAIR MORAN moved to the performance review.

PERFORMANCE REVIEW

MR. CENTER began the presentation with a review of the capital markets, what happened during the quarter, and then moved on to discussing the performance of the Permanent Fund as a whole, along with various asset-class summaries. He started with the red numbers and stated that for the first time in quite some time there are some negative numbers, particularly in looking at various capital markets indices during the first quarter. He added that the longer-term performance remained quite positive. He talked about the equity markets and stated that the emerging market and equity overweight was a positive for this quarter and was one of the few areas of the equity market that performed in the positive territory. He stated that emerging markets are up over 25 percent, and the U.S. equity market remains to be the strongest performing area. He continued that the U.S. equity market saw a pullback during the quarter which is after 300 straight days of not experiencing a 3-percent correction. That is a record for the U.S. equity market.

MR. ALLEN stated that, in the last five years, this was only the second quarter where U.S. equities were down.

MR. CENTER looked at sector performance divided up by large-cap and small-cap equities and saw some divergence this quarter. He stated that small-cap health care was a very strong performer, while energy and small-cap area was a very weak performer. He continued that technology was the strongest performing sector in both small-cap and large-cap equities in the U.S.

MR. ALLEN stated that the technology sector is now 25 percent of the U.S. equity market and there has only been a few times when a single sector has gotten that large as a percentage of the

U.S. equity market. He added that the market has gotten very concentrated in technology, once again, in the U.S.

MR. CENTER moved to the non-U.S. equities and stated that most posted negative results. He continued that Japan and China were two areas that actually had positive returns.

CHAIR MORAN asks how much of the emerging market strength was dollar weakness.

MR. CENTER replied that it helped a bit, but a lot of it was driven by the increase in the price of oil, and Brazil and Russia were the two best performers. He added that China was also a very strong performer based upon manufacturing growth rather than dollar weakness.

MR. ALLEN noted that the Permanent Fund recently installed a currency overlay hedging program. The way that was designed it would be almost impossible to make money in a market like the one in the first quarter where there was a strong dollar. The goal is just not to lose as much during those types of periods and the manager did a good job of protecting it. The total impact of the overlay program was about 2 basis points, but it was in the negative direction.

MR. CENTER moved to the long-term performance of four major currencies versus the U.S. dollar, and stated there was a tailwind for non-US. Equity investors over the last 12 months. He continued on to fixed income and stated that there was some shifting within the interest rates for the quarter. The new Fed Chair, Jerome Powell, introduced his first rate hike during March. This was widely anticipated, and the market currently expects two more rate hikes before the end of the year, as well as some additional hikes during 2019. He stated that the Bloomberg Barclay's U.S. Aggregate Index fell by 1.5 percent during the quarter. Credit had a pullback, and investment-grade credit was the worst performing area of the fixed income market, falling over 2 percent. The U.S. bond market continued to tighten, and more moves from the interest rate side from the Fed are anticipated by the end of the year.

TRUSTEE RICHARDS asked if industry rates go up when bond prices go down.

MR. CENTER replied that was correct.

TRUSTEE RICHARDS asked if there is any measurable income on quantitative easing policy on bond prices and if there is any correlation.

MR. CENTER replied that it depended on how telegraph quantitative easing is.

CHAIR MORAN asked if there was anything that happened in the TIPS market that was noteworthy.

MR. CENTER replied that TIPS held in okay during the quarter. They did move negatively, but it was pretty much in line with the aggregate. He added that they moved more in line with the bond market than with inflation, which is not uncommon. He touched on real estate where supply-and-demand fundamentals remain fairly balanced. All areas of the real estate sector remained positive for the quarter. He stated that hedge funds performed better than hoped for in the quarter, and came in positive. Private-equity investors remained enthusiastic; however, rising borrowing costs and the impact of tax reform may curb some of the optimism on a near-term and long-term basis. The U.S. economy as a whole remained healthy during the first quarter with quite a few positive earnings announcements in the March period that helped to steady things.

CHAIR MORAN asked about private equity and if there was a demographic coming to that, or was it just a cycle of the market.

MR. CENTER answered that it is a cycle of the market and moved to the fund as a whole first, looking at the asset allocation for the Permanent Fund. He stated that, as of March 31, it remains well diversified across all major asset classes using standard asset allocation bucket classifications. He continued that the Permanent Fund was allocated 40 percent, the public equity 21 percent to fixed income, and 39 percent to alternatives. He explained, that represented a minor downturn from the equity allocation from the last quarter. He stated that the remainder of the presentation would focus on total fund performance with a few highlights from the sector standpoints. He continued that the total fund outperformed the performance benchmark by 0.3% during the quarter. Manager performance within public equities and infrastructure/private credit/ income opportunities was beneficial and offset manager performance within asset allocation, which detracted slightly. In aggregate, active management added 26 basis points to the relative performance, while deviations from the policy target were neutral. He added that, for fiscal YTD 2018, the total fund outperformed the performance benchmark by 1.5%. He touched on the overall risk for the fund and looked at the historical standard deviation over the last three, five, seven, 10, and 20 years. He moved on to the Sharpe ratio for the fund, which is a measure of return per unit of risk, and the Sharpe ratio has been quite high for the Permanent Fund over time. He stated that the equity portfolio had a negative return for the quarter, coming in at negative 0.4 percent, which was ahead of its benchmark, which came in at negative 0.9, and over the fiscal year to date in the last year has outperformed its index by over a percent over both time periods. He continued on to the U.S. equity portfolio versus peers and stated that the U.S. equity portfolio ranks favorably versus the other U.S. equity portfolios of other fund sponsors within the database. It returned a negative 0.4 percent for the quarter, and long-term performance exceeded the benchmark and ranked above median versus peers. APFC's large-cap portfolio ranks around median within the large cap universe over all time periods shown and compared favorably versus the benchmark. He looked at the small-cap portfolio which performed well during the quarter up positive 0.5 percent versus about flat for the Russell 2000 Index. It met the benchmark over all time periods and performed around the median over long term, seven and 10 years; overall it has performed well versus peers. He identified the emerging market equity portfolio which performed in line with its benchmark over time, and slightly lagged the index during the quarter. He noted that last year that emerging market equity portfolio underperformed the index by about 50 basis points. He added that a positive 25.4 percent return on an absolute basis is very impressive for the emerging market equity portfolio. He stated that the global equity portfolio ranked in the third quartile over all time periods, and noted that over the five, seven, and 10-year periods it is ahead of the benchmarks overall, three of the longer-term time periods. He continued that it was important to touch on fixed-income-plus this quarter because it is the first time since REITs and listed infrastructure were added to this portfolio. Both REITs and listed infrastructure were down over 5 percent for the quarter, and that negatively impacted the performance of fixed-income-plus allocation relative to other fixed income portfolios that he compared. He moved to the performance of the real estate portfolio relative to the real estate performance of other public funds. He explained that the fiscal year-to-date showed that the real estate performance was ranked in the bottom quartile. He stated that that came back to the same performance issue that was discussed two quarters in a row when the lag was implemented which had to do with reevaluation of some underlying real estate investments. He noted that long-term performance compares favorably versus the peers and the index. He continued with the performance of absolute return portfolio relative to the hedge fund of funds universe. He added that the hedge fund portfolio performance last quarter was positive and came in at 0.8 percent. That was ahead of the asset return benchmark which is the HFRI Fund of Funds Index. Fiscal year-to-date, the program is up 5.25 percent; and over the last 12 months was up over 6 percent. He closed his comments and stated that they would be here this afternoon to make any comments when the specialists present.

CHAIR MORAN called a lunch break.

(Lunch break.)

CHAIR MORAN called the meeting back to order.

CIO READ introduced Valeria Martinez, director of asset allocation, for an overview and update on asset allocation.

FUND PERFORMANCE OVERVIEW AND UPDATE

MS. MARTINEZ began with a review of how the Fund is positioned and what the performance was as the scorecard was introduced last year. She continued with that and how the Fund did versus benchmarks and added that position translated to a risk which will be discussed later. She stated that last year the Fund was divided into two big groups: income and growth. In the income category there were 27 percent tradeable which included fixed income, REITs and public infrastructure, and for the liquid income categories that included real estate and private infrastructure and private credit which represented 14 percent of the fund. On the other side, for the 59 percent of growth assets, the tradeable portion was mostly public equities at 40 percent, and the rest is private equity and hedge funds that represented 19 percent of the fund. In terms of performance, she explained that the Fund outperformed the passive benchmarks and performance benchmarks and lagged in the CPI-plus-5 objective during the first quarter. This 2018 quarter started with higher volatility, and there is an expected correction in the equity markets. She added that returns for the longer-term periods look very good, and pointed out the fund outperforming all the benchmarks including the CPI-plus-5 objective for the year, last year and five years. It also helped that there was an overweight to public equities. She reminded all that there will be a discussion of the liquidity overlay, and the asset allocation bucket has the cash account which is used for anything that has to do with operations for the fund, funding new strategies and so on, and will also be used for funding any liquidity out of the fund. She talked about the Sharpe ratios and then moved to the performance scoreboard that introduced how to measure success for the fund over the short and long term. Overall, during all time periods, given this new scorecard, we outperformed.

RISK OVERVIEW

CIO READ stated that the next part is a risk overview which will provide a historical context in a way that has not been done before. He continued that, in the future, this will be presented by Samantha LaPierre. He added that this is about risk management measurement and efficiency. He reinforced some of the measures, the target, where it came from, and what happens. He stated that this uses a new technique which would be a weighted moving volatility. He explained that this used the actual historical of the fund and is intended to give an estimate just using the performance information on the realized volatility. He stated that it is specifically data from a year ago, which is half as important as current data, and is weighted to consider the most recent information. He added that the difference here is that history can actually be looked at and questions on what happened here could be asked on why there was a spike. There is a story in each of those that can be seen. He talked about how comparative volatility was attributable to U.S. stocks, and that most of the risk of the fund comes from stocks. That has been true as of late except in the most recent time period stocks were flat. He stated that the two charts show volatility of an asset class, and the Sharpe ratio of an asset class. In equities, the equity markets have declined substantially in volatility since the financial crisis. At the peak of the financial crisis, 30 percent volatility was coming from stocks. He continued, that declined fairly substantially to only about 10 percent volatility in the stock portfolio. Fixed income is running at about a 4 percent realized volatility, and this has been an efficient asset class where that 5.5 percent was met. In real estate, the illiquid asset classes expect a higher Sharpe ratio generally because there is smooth volatility. He added that infrastructure, private credit, and income opportunities realized volatility inching up toward 10 percent, and the Sharpe ratio has been very efficient at about 1.25. He stated that private equity has been a success story with a realized volatility running at about 20 percent. He added that the Sharpe ratio actually did not change. He continued on to absolute return funds that are running at about a 4 percent realized volatility, and a Sharpe ratio that has been above 0.5 for the past year and a half. He wanted to make sure that absolute returns have enough volatility that will be consistent with the CPI-plus-5. Next, he went to asset allocation, which includes both the multi-strategy funds and, also, the liquidity of the portfolio. A 3 percent volatility and the Sharpe ratio, most of the time, above 0.5. He continued on to value at risk, which is a going-forward value at risk measure from the BlackRock system. He explained that it shows on an ex ante basis; the markets had been in a much lower volatility state and have upticked more recently.

TRUSTEE RICHARDS asked how much of the private equity risk is really reflecting a lack of transparency during a liquid market as to value.

CIO READ replied that some of that is absolutely the case and, generally, the private equity is more levered. He stated that it is managed differently and was adjusted for leverage, the private equity portfolio. He added that private equity was more volatile than public equity. He continued that the other part of this is that a privately managed company, privately managed funds are managed toward an absolute return objective, relative to a stock market.

MS. MARTINEZ added that private equity considers some of the liquidity, lack of transparency and leverage.

CIO READ moved on to currencies and stated that the primary currency risk was from developed markets; emerging markets do not hedge. He stated that it is only about 4 percent of the overall currency risk. Then, the emerging markets in South Korea are the largest emerging markets currency exposure, followed by India, Brazil, Taiwan, and South Africa. He continued that the liquidity risk becomes increasingly important as the private-market part of the portfolio increased. There is nearly $18 billion invested into the private markets and future commitments of about $6.9 billion. He moved on to the asset class updates.

ASSET CLASS UPDATES

CIO READ stated that Marcus Frampton, director of real assets and absolute return investing, is next.

REAL ASSETS (Infrastructure, Special Income, Real Estate, Absolute Return)

MR. FRAMPTON stated that the presentation will cover real assets/private income and absolute return. He added that real estate is now included in the overall presentation on private income. He explained that it has a similar objective to what is being done in infrastructure and private credit in terms of privately generated income source for the Permanent Fund. It is an inflation protection and is 11.7 percent of the portfolio. He stated that it is worth remembering that they instituted the lag and these numbers are through December 31; and the fiscal-year-to-date numbers are nine months ended December 31. He continued that there was a large divestment in the calendar first quarter and, as of December 31, that number was actually $5.6 billion. He continued that performance has been strong and began with absolute return. The industry and the Fund's portfolio did not distinguish well in the financial crisis and was not hedged as advertised. There were some hedge funds that were left-hand skewed or had kurtosis in terms of fat tails. Historically, money was lost in a down market and his view is that the return stream is not worth having in the portfolio; it is a high fee, does not have a lot of transparency, and was no protection in the down market. He stated that his expectation is to get about half of that money back in the next 12 months. The target returns were benchmarked against the industry as measured by the fund-of-fund index. He continued that he is more focused on the return objective because it is absolute return. He explained that in the concept of kurtosis, the strategy that exemplifies that best is fixed-income arbitrage. Arbitraging anomalies on Treasury curves with a lot of leverage is a common hedge-fund strategy. He added that they will continue to update the board on these metrics. He moved to the real estate portfolio which targets return between equities and fixed income. It is a lower-leveraged portfolio than a private equity real estate-type strategy where people might be using 50 or 60 percent leverage. He stated that this portfolio has, in the period that included the financial crisis, delivered on that return between equities and fixed income. The real estate strategy has been worked on for the last few months and is very close to engaging a real estate consultant, which is planned for in the next few weeks. He explained in detail the need for this consultant. He talked about the portfolio prior to the Simpson Housing sale, which showed the sector mix and then the NCREIF. He stated that with the Simpson sale, the 5.7 became 4.1, with about $3 billion under target in real estate. The target is 11 percent and the fund is around 6 percent now. This sale brought about being inline with the NCREIF on office exposure; retail exposure is relatively high at around 45 percent. He added that the Fund is underweight in multifamily and industrial. He moved to infrastructure which has a similar objective to real estate. The approach has been very different and there was no strategy of buying control interests in infrastructure assets away from managed. He stated that the base of the strategy was to lead with fund commitments and co-invested with funds, which has been a successful strategy. He continued that infrastructure has put up good returns recently and had been a great area recently. He moved to private credit and income opportunities. The private credit and income opportunities program objective is to provide an income source to the APFC in excess of what is available in public markets for similar risk investments and outperform a U.S. high yield and a blended real assets benchmark. He stated that his strategy in private income is to default to real estate and infrastructure, and then do credit and income opportunities. He continued that these income opportunities being a private income-generating deal that is neither real estate, credit or infrastructure when the risk/return is better in that category than what is seen in real estate. He added that there are four investments in income opportunities which are American Homes 4 Rent, two small fund investments, and Generate Capital, which is a preferred stock investment made in a sustainable infrastructure company. There is also a board seat at Generate Capital. He commented that they are two-and-a-half years into moving away from fund of funds and private credit. He concluded his presentation.

CIO READ moved to asset allocation strategy with Valeria Martinez.

ASSET ALLOCATION STRATEGY

MS. MARTINEZ stated that this is part of the portfolio that had never been reviewed individually and is increasing. She continued that this part of the portfolio includes three main strategies: One is the liquidity portfolio that includes cash, fixed income, and the overlay; the ECIO program; and then the currency overlay. She began with the liquidity portfolio which, as of March 31st, was $3.7 billion; which increased from $900 million. This is becoming a more important part of the fund. She stated that the introduction of an overlay program was presented to the board last year which can be exposed to the market, reduce the cash drag and still have the liquidity because of being exposed to the market via futures derivatives. She moved to the overview and explained that a liquidity overlay manager was hired to securitize the cash. It was decided to split it, which was similar to how we are exposed to the market, except no private investment, 65 percent in equities and 35 percent in fixed income. The initial amount was around $1 billion and was divided into almost $350 million, and the fixed income portion and the rest on the equity program. She explained this with the help of her slide presentation. She stated that the second area under the asset allocation strategies is the multi-asset managers or ECIOs. This is a mix of managers that allocate risks in a more balanced way. She continued that AQR has been the best-performing manager since the inception of the program. It started with five managers and now there are three. Right now the risk parity is very heavy, which is a good thing because it is something different than what has been done. She added that the last portion of this area is the FX overlay and is basically hedging currency from the public equities portfolio.

CIO READ thanked Ms. Martinez and recognized Jim Parise, director of Fixed Income Plus.

FIXED INCOME

MR. PARISE stated that he would go over the Fixed Income Plus portfolio and will focus in the beginning on the internally managed portfolios. First is the internal Agg portfolio, showing the performance with the one- and three-year numbers beating the index. The attribution is where the actual performance comes from and is on a quarterly basis. The asset allocation is overweight corporates, and corporates underperformed the broad market; the asset allocation is a negative 6. He explained that the predicted tracking error showed that the majority of it comes from the fact of overweight spread product. The index comparison was looked at very closely and was recently moved away from. It will not look the same at the next board meeting. He stated that 30 percent of the portfolio is corporates versus 25 percent for the index, the underweight to Treasurys, and essentially slightly underweight MBS, which is close to neutral. The duration is neutral. He continued that the benchmark is slightly short, which means that duration is slightly short. He added that the internal corporate bond portfolio continues to do well and beat in all periods: one, three, and five years. He stated that the internal TIPS portfolio is now at $100 million, having sold $500 million over the last month; $400 million will be put into global rates, and $100 million into emerging markets. He continued that completely eliminating the asset class is not wanted. The market is still being tracked and it will be a small portfolio. He added that is the best way to go about it. He pointed out that in the global government bond portfolio FX is now done in-house. This used to be outsourced, but it cost a lot of basis points through that frustration of underperforming, and a lot of it had to do with the fact of paying a custodian to do it. It came out of the performance to see if it could be done internally. He stated that they started to go into India, which is exciting, getting into markets that we were not in before. They are also trying to get into China, if possible. There are a lot of people working on this because it is very complicated. There are regulatory and currency issues to get through. He continued to the Fixed Income Plus allocation where there are overweights and underweights. The benchmark of non-U.S. rates is at 10 percent, and it is at half of that. He added, that will be much closer because of this selling out of TIPS. TIPS will have a much larger underweight. He stated that TIPS went into non-U.S. rates, global rates and EM; $100 million into EM and $400 million into non-U.S. rates. He continued that the value in this is the actual asset allocation, and we have gone to more passive types of portfolios when possible. He talked about ADAC which is the new thing being worked with private credit. This is a high-quality, high-yield, in-house bond portfolio that is buying and selling bonds versus a double B index. The idea it to get it up to about $500 million of ETFs and actual bonds.

CHAIR MORAN called a 15-minute break.

(Break.)

CIO READ recognized Fawad Razzaque, director of Global Equities.

PUBLIC EQUITIES

MR. RAZZAQUE stated that there were modestly negative returns of public equities for the quarter. He continued that part of public equities and emerging markets noticed positive returns, while other parts have modestly negative returns. The quarter had a strong start in January, and then quickly gave it all back in February. This was partly because interest rates went up sharply and what really spooked the markets was the employment report in February. He added that the wage inflation part was way above inflation, 2.9 percent year-over-year growth, and the market was concerned about margin pressures coming from high labor costs affecting corporate profitability. He stated that equities were replaced for the rising rate environment, and it gave back all of January gains. He continued that information technology was the best performing sector, and all the areas of the public equity market each had more organic growth and reasonable valuations did well, even in that market. Emerging markets was the other one where strong growth prospects for cyclical rise plus good valuation did very good returns. He moved to equity price. Equities were repriced downwards to account for higher interest rates, which, for a ten-year yield, went up from 2.4 at the end of 2017, to almost 2.95. 50 basis points rose in ten-year yield within two months. He continued that in 2017 the estimates were pretty stable and were not revised down. What is unusual for 2018 is that estimates actually went up for the S&P 500 with very strong corporate revenue and earnings growth that have not been seen for a lot of years. He added that equities were priced downwards; and earnings estimates were revised upwards, which means valuation contraction. He stated that it looks like corporate earnings growth and all of the global growth remains quite strong, and valuation is a lot more reasonable across the board, and it is a better time for public equities. In a rising earnings environment, it is cyclical areas of the market, like financials, energy, industrials, materials, tech, that are green, and defenses outperformed. He explained that the opposite is true when the earnings are going down for heat, utilities, staples, telecom, health care-type, and things like that. He stated that in terms of relative performance, public equities did better than the MSCI All Country World Index by 47 basis points for the quarter, and just over 100 basis points of outperformance for fiscal year to date. He continued that in global equities the biggest drag was all the way to Europe. He then went over the performance of fund managers over one-, three-, and five-year time horizon, as well as the last one year; 68 percent of the fund managers outperformed.

CHAIR MORAN asked how often the managers are turned over.

MR. RAZZAQUE replied that if turning over means termination, then very infrequently. He explained that over the last three years only two managers were terminated. He stated that he has seen a lot of underperformance due to styling, which can last for years, but that does not mean the manager is bad. He added that his bias is to give them more time and have as little turnover as possible. He stated that the need is to have equally good managers and use a single manager concentration, rather than having one or two really big allocation managers going south and impacting the entire public equity returns. He moved on and stated that performance was good last quarter and tactical tilts outperformed 40 basis points. He looked at it from the allocation which is overweight to U.S. equities and overweight to emerging markets and underweight to the non-U.S. developed markets. Sector tilts, tactical are feeling economically sensitive, and higher beat sectors have shown that is the area that does well, and earnings are increasing. He went through the risk factors and moved to yield curve. He added that there is a flat yield curve that has about 47 basis points. He explained this is more detail, and stated that the single largest risk factor is the earnings trend.

CIO READ introduced Steve Moseley, director of Private Equity and Special Opportunities Investing.

PRIVATE EQUITY AND SPECIAL OPPORTUNITIES

MR. MOSELEY stated that he will talk about performance of the portfolios, the market and strategy. The portfolio continued generating strong returns; cumulative net gains reached $4.9 billion at calendar year end. He added that the private equity portfolio and the special opportunities portfolio are composed of a lot of other investments, most of which do not have a lot of fees attached to them. He discussed market performance strategy which supports the market performance. Things are expensive, which is heard from all the other asset managers and are also progressively levered; it is hard to make money. He added that people are selling, and the underlying managers are selling when they can, and there is a lot of activity out there. The third point is that allocations from existing private equity investors are increasing all the time on a dollar-weighted basis. In particular, it is pension funds trying to hit their targets, and the way to do that is asset class with higher expected returns, which will compress returns. He stated that vintage year is one common and sensible way to measure private equity performance. It says that the fund commitments that were made in each one of these years, remember the commitments in year X and then draw it down over as many as five years. Commitments made in each one of those years have outperformed the median. The portfolio has outperformed public markets because it is less liquid, and the amount of that outperformance has increased and compounded over time. He summarized that the overall objective, the strategy in private equity and special opportunities, is to deliver great returns. He continued that the second task is to make those returns sustainable to try to industrialize the process more. It is not just co-investment by co-investment, personal relationships or hard work, but competitive benches that can be sustained over time. He added that the process elements that have been introduced over time, like the investment committee process and the calling efforts on GPs to talk about co-investment, can be replicated over time and can be repeated. Performance distributions have been high, and he is pleased with the performance.

EXECUTIVE SESSION

CEO RODELL asked Mr. Poag to explain before the motion.

MR. POAG stated that the question is why would an executive session be convened. He continued that the Open Meetings Act allows for a body of this type, who is subject to the Open Meetings Act, to convene in executive session to discuss identified subjects. He explained that one of these subjects is to consider government records that are confidential under state law. The presentation is a preliminary audit report regarding the Alaska Mental Health Trust. That preliminary audit report is confidential under state law until it is reviewed by the Legislative Budget and Audit Committee and approved for release. He added that, at this point in time, that report has not been released and is still covered by confidentiality requirements. Therefore, if the board is going to hear about the impacts that the preliminary audit report may have on the Permanent Fund Corporation, the need is to convene in executive session and discuss that.

> **MOTION:** In accordance with Alaska's Open Meeting Act, VICE CHAIR BRADY made a motion that the Board of Trustees convene in executive session to discuss how the pending audit of the Alaska Mental Health Trust Authority could impact the Alaska

> Permanent Fund Corporation. Because the contents of this audit are currently required to be kept confidential under Alaska law, this discussion should take place in executive session. CEO RODELL seconded.
>
> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RUTHERFORD, RICHARDS, MACK, MORAN and BRADY.)

(Executive session from 4:42 p.m. until 5:18 p.m.)

CHAIR MORAN called the meeting back into session. He announced that, while in executive session, the board considered only the matters mentioned in the motion and took no action. He recessed the meeting until the following morning at 8:30 a.m.

(Alaska Permanent Fund Corporation Quarterly Board of Trustees meeting recessed at 5:19 p.m.)

MAY 24, 2018

CHAIR MORAN reconvened the meeting and stated that the first item on the agenda is the investment policy review and update.

INVESTMENT POLICY REVIEW AND UPDATE

CIO READ stated that any revision of policies and procedures usually requires the extended efforts of a great number of investment staff, which included the investment staff, legal, finance, and executives at APFC. He continued that a hard look was taken at what prevailing best practices are for policies and procedures, and we got to something very fundamental. The policy statement should be the best means for the board to set the direction, the strategic direction, setting policy for the organization. He explained that the complication is that there are a combination of two types of concepts: One is the high-level concepts that set policies that are understandable; second are detailed operational concepts. The combination of these two together in a policy document typically renders the resulting policy unreadable, which puts the board in a potentially hazardous position of signing off on something that is not necessarily fully understood. He stated that a hard look was taken at prevailing policies and procedures among the top public plans across the United States and Canada. He continued that they are not offering a revision, but a new set of policies and procedures, a new document. The objective is to go over how it is organized and to let the board set policy. This document, as written, is intended to be a translation document. With the advice of Callan and others, this document is not to set new policy. He added that it represents a translation of what already exists and what is already prevailing practice at APFC. But, it is written in a way that differentiates the high-level concepts from the operational details. The hope and intent is to work on it and get a more readable document. He explained that the principle was to try to adhere to the original as much as possible. He added that this is a voting item. This represents the annual review, and, if approved today, this document would go into effect July 1st with the new fiscal year. He moved to the first section, which is objectives, which has the statement of the mission as well as vision and values.

CEO RODELL stated that the commission is written in the statute for the corporation; the vision and values were done in the strategic planning May meeting in 2016 for the 2017 five-year strategic plan, which was adopted by the board.

CIO READ stated that there are no changes from what has been seen in the past. He continued that the total fund objectives are stated in terms of three criteria: One is achieving outstanding investment performance; two, investing efficiently; and three, measuring and controlling investment risk. He added, that is in line with State and board tolerances, as well as peer group norms.

TRUSTEE RICHARDS stated that one of the areas where the Permanent Fund can do a lot better is the statutory mandate on Alaska investing. He would like to see the reference to secondary statutory requirement of the investment rules on page 3, as well as in section 5 regarding the Alaska investment policy.

CIO READ moved to the total fund mix where things were organized in terms of asset classes with the investment objective that is growth versus income, and liquidity. Then, part (e) seeks to codify and put an extra burden on Callan regarding the performance scorecard. The three measures are a long-term objective, CPI-plus-5 percent, the medium term three-year objective of doing well versus peers, and the one-year short-term objection of doing well versus indexes; demonstrating investment skill versus indexes. A discussion ensued, and from his perspective he stated that the nature of this type of discussion is exactly the intent of the document. He continued that it should be a document that can be dug into and changed in a way that maybe was a bit more difficult when the detailed investment concepts were embedded with the high-level concepts.

TRUSTEE RUTHERFORD was interested in knowing how staff felt about the optimum or alternative ways of dealing with this annual draw.

CHAIR MORAN replied that his read of the explanation was that it was more of an accounting issue than a portfolio issue.

CIO READ stated that may be true for Day One, but Day Two is that the part managed for the two-year profile is going to move differently than the rest of the portfolio. He added that in aggregate, starting out, they add up to the same.

TRUSTEE RUTHERFORD asked how smart people in other endowment situations looked at this, and the time spent optimizing it for their situation.

CEO RODELL stated, for the board's benefit, that when looking at other sovereign law endowment behavior, they have more greater control with the spending amount and get to adjust the spending rate. This board does not have those same controls, and we wanted to make sure to put that caveat there. There is still a tremendous amount of control of this fund that does not reside with this entity.

CHAIR MORAN observed that, if the draws are defined and sequential over time, he cannot think of a time in the Fund's history that the portfolio has been in a situation where it could come up with a billion dollars in four or five days, let alone what was needed in 60 or 100 days. Of a $65 billion fund, structured the way it is right now, he does not see a liquidity issue if it is known when the draws are coming and we need to write the check for it.

CIO READ stated that illiquidity in the two different accounts is not irrational even if was to be divided up for accounting reasons. There are certain portfolio reasons to make sure that the amount of illiquidity that can be undertaken is a function of how large the principal is.

CHAIR MORAN stated that there are two concerns on the earnings reserves: One is the part that can be controlled; and then the part that cannot be controlled. He speculated that if the whole balance of the fund goes down $15 billion, there are no earnings reserves.

TRUSTEE RICHARDS replied that everything is apportioned, and if 30 percent of the value of the fund is lost, the ERA would go down 30 percent of the corpus.

CEO RODELL stated that the point about realized is important. If it is unrealized it is going to stay and be proportional in the corpus, and there will no longer be an ability to restore the losses endured by the corpus of that fund that was once had. She added, that is off the table because it will not be able to be rebalanced.

TRUSTEE RICHARDS stated that he had worked through some of the beginning aspects of this thought process before and requested that this be economically modeled to be a public model and that we put out something that this board can consume, look at and analyze, and that the public can as well. He continued that there are a lot of moving parts, and it is very complex.

CIO READ moved on to Table 2 and pointed out in real estate and private income, absolute returns, the long-term objective with those plans for those programs is a CPI-plus-5 percent or better. He stated that Section 3 looks at the public markets, in general. This is where there are more references to guidelines with more details. This was structured so the guidelines correspond to the sections in the investment policy. He continued that this document structurally makes it much more workable for staff. He added that the investment guidelines should be part of the overall document, should not be hidden from the board, and whenever a change is made to the guidelines it should be reported to the board. The innovation is formally establishing the difference between policies and procedures versus guidelines and the process by which they are reported and revised.

CHAIR MORAN asked if the guidelines for these managers will be changed, or have their mandates expanded at some point.

CIO READ replied that most of the managers that survived are already risk parity. He stated that another key difference with the absolute return program where liquidity is not necessarily being sought from the absolute return program.

MR. ALLEN stated that one other important distinction is that in order to have things that are being asked for, leverage is needed. A risk parity generally employs leverage.

CIO READ stated that the idea is that there are identifying risks, and we want managers that are identifying risks that are attractive; and some of those risks are in low-volatility markets. They want to compare the markets on a risk-adjusted basis and use leverage to equalize that, which is essentially what risk parity is. He continued that the other part of this is securities lending, which is an artifact not of the private markets, but of the public markets for stocks and bonds. Securities lending has generally been a value-added part of the portfolio. He moved to Section 5, Alaska Investment Policy, which is verbatim to what was there previously. He continued that the remaining sections have to do with the authorized use of derivatives risk management and the internal and external managers. The authorized use of derivatives is a better articulation, two pages of the intent by which derivatives are used to efficiently invest the assets of the program beyond traditional investments to be able to shift the risks as needed and particularly to manage and control the risks of the portfolio. He then went through the document's appendices.

CHAIR MORAN stated the need for a motion to approve the discussed amendments, with a final approval at the September meeting.

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> **MOTION:** A motion that the board accept the rewritten, re-presented policy document pending a red-line associated with overall cleanup, as well as specific language identifying some sort of trigger for notifying the board on major positions, and the leverage language as identified by Chair Moran was made by TRUSTEE RUTHERFORD.

CEO RODELL questioned the motion to make sure that this document has the full force in place. She stated that if it is pending, she is not sure it does.

TRUSTEE RUTHERFORD asked if the motion is accepted as is or if an amendment is needed.

TRUSTEE RICHARDS stated that he did not have a problem passing this document with the authority to do things that are needed to talk about with the staff, with the Alaska policy and the other big piece that will be tacked on separately.

TRUSTEE RUTHERFORD stated that with those amendments, the staff will make those changes and the cleanup.

CHAIR MORAN asked for a second.

> TRUSTEE RICHARDS seconded the motion.
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> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RICHARDS, BRADY, RUTHERFORD and MORAN.)

CHAIR MORAN called a break.

(Break.)

CHAIR MORAN stated that the agenda was adjusted, and Callan will present next.

REVIEW OF ANNUAL ASSET ALLOCATION CAPITAL MARKETS ASSUMPTIONS

MR. ALLEN began with the whole asset allocation process, the capital market assumptions that will play into the 5 percent real and the new bill that is going to result in a spending that is even greater than that for the first couple of years. He stated that Callan goes through this exercise every year, coming up with a ten-year projection for the various capital markets. He continued that their capital expectations are long-term, 10 years, and are designed to operate as a set and have fairly standard relationships. He added that stocks are expected to return more than bonds; bonds are expected to bring in more than cash. He stated that there is not a lot that really changes from year to year. One of the challenges is that the Permanent Fund has a fairly complicated portfolio, with a lot of different asset classes to come up with for return projections. He continued that the 10-year projections focus on the compound 10-year geometric return, and have a return of about 7 percent for global equities. He added that the geometric return incorporates the impact of capital market volatility (standard deviation) earned by an investor over time. His second point was about projecting bonds, and he explained that there is an expected return of around 3 percent, which is a 75-basis-point expected real return. Bonds are expected to outperform inflation for about three quarters of a percent per year over the next 10 years. He added that nothing has really changed since last year in terms of the 10-year outlook. He noted that the Permanent Fund has a number of advantages: A very mature program, well-diversified across time and across every investment category; great general partners; long-term relationships; co-investments; a lot of advantages with a huge dispersion between the good implementations in private equity and the implementations that are captured in the risk numbers. He continued that with this mature program the potential implementation risk relative to the broad market is narrowed down. He stated that hedge fund expectations are on the low end relative to some of the peers, particularly those with robust hedge fund practices. He added they were very reasonable. He moved on to the 2019 target for illiquidity and stated that it is one way to 40 percent, but moving out of the liquid into the illiquid in this type of constrained efficient frontier analysis tends to move up and to the left. He continued that 2019 is already in the process of being addressed by the five-year plan. The only thing that is available is to get rid of the last bit of cash. He suggested that it would be prudent to have cash in the target as opposed to equitizing all of it, and it is a decision open to discussion. He talked about inflation-proofing and stated that the theory behind it is that it inflation-proofs itself because the return is high enough.

CHAIR MORAN stated that yesterday there was a presentation on ESG and there were a number of people commenting that there was a desire on behalf of the people that the fund should divest all of the interest in fossil fuels. Staff would like a general sense of the board’s viewpoint on fossil fuel investments. He continued that he is not inclined to completely divest fossil fuel investments anytime in the near future.

TRUSTEE RUTHERFORD stated that she thought that there was going to be some follow-up conversation which she thought was decided.

CEO RODELL replied that there was no motion and no decision yesterday. She stated that the ESG presentation was an educational piece and the investment policy was not talked about;

which was an oversight on her part. She moved to fossil fuels and asked for clarity from the board as to the direction they would want to take.

CHAIR MORAN stated that, in the presentation, it was clear that it was the governance issues that were the primary driver of people's success. He continued that he thought the governance issues were addressed with the consolidation of and improvement of the investment portfolio. He added that if the governance issues are continually addressed, over time the position will be stated and improved across the board. As a trustee, he stated that he does not see any way that directing staff to divest fossil fuel investments, given the Permanent Fund's dependence on fossil fuels and the future of the State's dependence on them.

TRUSTEE RICHARDS agreed with everything Chair Moran said and does not think that the fossil fuel risk in the portfolio should be thought about in a vacuum to the State situation. He continued that the board cannot ignore the demands on the cash flows for the funds, which will be influenced in some way by where oil prices are.

CHAIR MORAN agreed, and added that the issue of whether there should be fossil fuel investments in the portfolio and the size of those fossil fuel investments should be a risk management, portfolio management and not a social statement issue.

TRUSTEE RUTHERFORD added that she completely agreed that it has to be done within the portfolio risk assessment. She stated that it was important and clear from the presentation that a divestment of fossil fuel assets would be a very flat-footed approach to what was considered to be ESG investment strategies.

CEO RODELL stated that there has been an effort to try to comply with the requests of members of the public to compile data. This has been very difficult because of things that happened over time with databases changes and how things get coded. She assured the board that staff has been looking into and have been getting at this. She explained that in 2011, as oil prices fell, the holdings fell, which is what is expected. She added that as oil prices went back up, external managers found the stocks to be more attractive and got back into it.

CHAIR MORAN stated that it is important to emphasize this to the extent of getting the information out. He continued that what is in the portfolio should be transparent to the public. An effort to get as much transparency out of the partners, even into the hedge fund realm, as to what is being held without jeopardizing the risk strategy has always been made.

CEO RODELL clarified that the holdings are not as much of a problem as figuring out the performance because the stocks go in at different performance points. The challenge is tying the two together.

CIO READ stated that there is a sort of sensitivity of the portfolio to changing oil prices, but it is not the biggest risk factor of the portfolio.

CHAIR MORAN asked CEO Rodell if there has been enough direction of the board to make a firm response.

CEO RODELL replied that she understood the direction of the board and can make a firm response.

CHAIR MORAN called a break for lunch.

(Lunch break.)

CHAIR MORAN recognized private equities and special opportunities.

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

CIO READ recognized Steve Moseley, director of Private Equity and Special Opportunities.

MR. MOSELEY stated that the answer to the question about how quickly we should commit to private equity funds and invest in operating companies at a different time is how quickly the money is put out. He continued that this is super important because it determines outcomes to a large degree; and investing inconsistently consistently leads to bad outcomes. He added that it is extremely important to continue doing what has been done recently, investing in a fairly linear way. Which is as important as picking the right investments. He stated that the objective is going back to the asset allocation discussion. The plan in the background is to go from 11 percent exposure to private equity and special opportunities, to 12, to 13, to 14 percent in a few years. The projections developed and the models that were built will get us there. He continued that there is a separation between private equity fund commitments and special opportunities, which include some fund commitments and other structured deals. He added that there are assumptions being made and the real range of outcomes is unpredictable. The rate of distributions is also something that is not controlled but is very important. The goal is not to control a certain amount but to return a certain amount, and there is a limited degree of control and an expectation that the process will be adjusted along the way. He stated that the goal, the plan and the expectation is to commit $1.6 billion. If the markets changed dramatically, then that will change. If things get very cheap, we want to accelerate. He continued that sometimes it is hard to do that in private markets because transaction volume slows. He added that as much success as there has been in venture, venture is very expensive and that continues to be the case; and the group is increasingly reluctant to put money to work in venture.

CIO READ stated that Marcus Frampton will present the pacing targets and ranges for private income, including real estate, infrastructure, private credit.

MR. FRAMPTON stated that he is covering the same topic, the same concept as Steve Mosely, and starting in a different point where the current exposure for real assets and private income is well below the current target. He continued that the target is going to grow modestly, whereas, in private equity, it is at target and the target is going to grow modestly. He added that this portfolio is $82 billion and is 12.7 percent of the fund. The current target is 17 percent, which goes up to 18 percent next year. That represents about a $3 billion deficit from the current target, and coincidentally, the current unfunded commitments are $2.7 billion. He noted direct versus funds and stated that the bulk of what is being done in funds is everything except for real estate, with a handful of co-investments and direct investments. In terms of exposure, real estate has really declined in the last two years.. The two drivers there are moving up the REIT portfolio, which included close to a billion dollars of American Homes 4 Rent stock. That is the dip to fiscal '17, and the dip to fiscal '18 is the Simpson sale. He highlighted that the current target allocation is not a higher number than what it used to be.

CHAIR MORAN asked how much of the infrastructure stuff is turning out to be co-investment or opportunities.

MR. FRAMPTON replied that, looking at the portfolio NAV, it is about 18 percent co-investment, direct investment.

CHAIR MORAN asked if there are expected superior returns being seen from those co-investments.

MR. FRAMPTON replied that the direct line is about 12 percent IRR now, and the fund investments are about 10 percent. He stated that one factor that does not make that gap bigger is the timber deal, Twin Creeks Timber, where there is a joint venture with the State of Oregon, State of Washington, and a private timber company with about $120 million of exposure. He continued, that has been about 2.5 percent return because lumber prices went up quite a bit, but log prices have been pretty stagnant. He continued that the short answer is that they have had outperformance, but it was not a dramatic outperformance in the co-investment direct portfolio. He added that it is a lower risk investment because there is no leverage, and if there are no demands, the trees can grow. He agreed with Mr. Mosely about the importance of having a steady commitment pace into the market so there is no overcommitment in an expensive environment. He continued to a sensitivity analysis that is most intuitive and easier for people to think about the total fund size at different points. This forecasts to a point in time, to June 2021, and shows different CAGRs and different commitment pacers. He added that a process was run to help identify some international real estate funds that are being executed now. The ambition and expectation is to see more deal flow once there are those fund partners in the international market.

CIO READ added that, in previous years, the C model was a voting item. That has shifted to an informational item with the caveat that we have the banks, where the targets are for asset allocation, and we are coming to the board on an annual basis for the plan. He continued that this is a good plan for how to manage the program. Procedurally, this is no longer a formal voting item. He stated that a vote is not required, and the plan is to do this on a consistent basis annually.

MR. FRAMPTON stated that the real estate bands were a lot tighter than the other banks, and one of the changes in the investment policy was to put real estate's bands in line with infrastructure's. This resulted in real estate being in the green zone.

CEO RODELL stated, for the record, that for reasons that we do not understand, WebEx extended the meeting midstream and the telephone number that is in the public notice cannot be utilized. She continued that an alternative number has been set up and if folks were listening in, can call the Permanent Fund Corporation headquarters and get the new number to dial into.

CHAIR MORAN asked if anyone was cutoff.

MS. GRAHAM replied close to 20; a lot of them were Permanent Fund employees but there were a few other callers.

CHAIR MORAN stated that there are two action items.

CEO RODELL agreed and added that one is for fiscal year '18, and the other is for fiscal year '19. She thanked Valerie Mertz and her staff for the work they have done over this last year. A lot of time and money was spent on a new accounting system that was not IRIS because the prior system was done before IRIS. This system is called One Solution, which was the accounting system used, and a lot of it has to do with models that were needs for accounting and things like that. It has a budget module that has been incorporated and produces the regular reports. She asked Ms. Mertz to continue.

MS. MERTZ stated that there are two items to take care of in relation to the budget. One is an overview of where we are currently and where the end of the fiscal year '18 is projected. Second is the authorization to expend the FY19 budget. She continued that there are memos related to each in the packet, and an action item associated with each of them potentially. She stated that board resolution 98-4 requires staff, prior to the end of the fiscal year, to present an analysis of the budget situation for the current year. It also gives the board an opportunity to consider staff recommendations on transferring funds between items of expenditure. She recapped that the FY18 budget authorization is in one appropriation, which is split into two allocations. The first is the corporate operating budget, and the second is the allocation for investment management fees; and then separate from the operating budget other appropriations for the capital project have been added. She stated that the corporate operating budget is split into five items of expenditure: Personal services; travel; contractual services; commodities; and equipment. The board does have authority to move budgetary funds between these categories within the operating budget. There was an authorization of $12.3 million for the fiscal '18 operating budget. She reminded all that any funds that were lapsed or go unspent in the budget remain in the earnings reserve invested alongside the rest of the fund. She went through the detail of the corporate operating budget beginning with personal services, and then moved through the other items of expenditure. She moved on to the investment management fee allocation and stated that the authorization of $143.8 million includes the $5 million supplemental that the board approved in December and was ultimately approved by the Legislature. She stated that part of the process at this time of year is for staff to review where we stand on the budget and figure out if it is appropriate to request board approval to transfer funds between items of expenditure. She continued that staff projected to lapse $109,000 in IT services under the contractual services line, and are requesting approval to move $83,000 to commodities and $12,000 of that to equipment. The additional funding on commodities would be used to purchase additional workstation equipment in order to build out the VDI fully, as well as general IT supplies related to moving offices. She added that the $12,000 is to move to equipment and the leftover in equipment would be to purchase some switches and other hardware for the data center.

MOTION: TRUSTEE RUTHERFORD made a motion to approve the proposal for $95,000, which was seconded by VICE CHAIR BRADY.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees (BRADY, MACK, RICHARDS, RUTHERFORD.)

MS. MERTZ stated that resolution 98.6 requires staff to present the final operating and capital budgets as they were authorized by the Legislature, and part of this is an action item for the board to authorize the chief executive officer to begin expending those funds, as authorized, on July 1. The FY19 budget request was a total of $168.5 million. The board put this forward as a single allocation, combined operating and manager fees into one allocation, and also suggested that it be included in the language section of the budget, which is a change from prior years. She continued that the budget as approved by the Legislature is shown with one small difference between what is here and what was approved in September. When the single allocation was split between the corporate operating budget and the investment management fee budget, there was about $750,000 moved from investment systems under the management fee budget to IT services, under contractual services. That is a slight difference, and there is no recommendation to change it at this point. She also highlighted in the investment due diligence budget, in the investment management fee area, that amount does include $300,000 to cover costs associated with hosting the 2019 annual meeting of the International Firm for Sovereign Wealth Funds in Juneau. That will happen in the fall of 2019. She stated that there is a motion at the end of the memo to authorize CEO Rodell to begin this budget as authorized by the Legislature on July 1.

MOTION: TRUSTEE RICHARDS made the motion to authorize CEO Rodell to begin this budget as authorized by the Legislature on July 1.

TRUSTEE RUTHERFORD seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RICHARDS, BRADY, MORAN, and RUTHERFORD.)

LEGISLATIVE UPDATE

MS. SWANSON stated that, in listening to the discussion over the past few days, the board is quite up to speed on what has happened with the Legislature. She continued that the 30th Alaska State Legislature adjourned sine die on May 13, 2018. That was within their constitutional 120-day session limit. She added that throughout the course of this Legislature, the debate was on how to use the Alaska Permanent Fund earnings reserve to help fund the fiscal gap. The Board's resolution 1801 and 1701 actually added to and informed that legislative debate towards the last part of the session. Two bills did pass this session that directly impact the fund. Senate Bill 26 provides a statutory structure to use the Permanent Fund earnings, and the other one is HB286, that is the FY19 operating budget, and within that budget is the first time in the history of the fund that a POMV has been put into place to use funds from the earnings reserve account to fund the General Fund government and also the dividend. She stated that both bills are still awaiting transmittal to the Governor for signature. They have not been signed or enacted yet. She continued that Senate Bill 26 does implement a statutory structure for withdrawals from the Permanent Fund earnings reserve account, and it does maintain the current royalty deposit structure to the principal of the fund. That is the 25 percent constitutional mandate of royalty deposits, and the 50 percent statutory structure for deposits.

TRUSTEE RICHARDS asked if there was a deliberate and intentional decision not to include that extra little bit or royalty, or was it just lost in the shuffle.

CEO RODELL replied that it was neither. She stated that this was a discussion that was going on for three years and there have been a number of different bills that had been proposed and were pulled back. She explained that the version of SB26 was sitting in conference committee for a year, and it did roll back to the 25 percent royalty as a ceiling.

MS. SWANSON stated that there are many renditions of Senate Bill 26 throughout the course of the debate, and at the end of the day, they did not make a change to that structure. She continued that it does allow for a POMV draw of 5.25 percent from the earnings reserve account, and that is for fiscal years '19, '20, and '21 and the rate steps down to 5 percent effective July 1 of 2021, which is FY22. She added that the Permanent Fund Corporation will determine the amount that is available under that POMV percentage, and then the Legislature will have to make that appropriation within the budget. She pointed out that part of the debate for the conference committee was that they did not want to change the current construct in statute that pertained to the statutory net income calculation and the amount available for distribution. She added that the caveat to all of that is that appropriation limit maximum POMV percentage draw for each fiscal year. She continued that Senate Bill 26 also maintains the existing inflation-proofing mechanism, which is important to note. She stated that SB26 is the operating budget, and that is the appropriations bill. It sets out the statutory structure for the appropriation, and then HB286, the operations bill for the operating budget, puts in the appropriation. She added that a contingency to make an additional draw if the CBR vote was not attained. The CBR requires a three-quarter vote to access monies from the CBR account. This was not used because they did get the three-quarter vote. She stated that it was a successful legislative session, full funding for the APFC budget, also inflation-proofing for FY19, and a structural statutory draw for withdrawals from the earnings reserve account.

CHAIR MORAN commended the staff on the work that went into this. He called a break.

(Break.)

CHAIR MORAN stated that there is a presentation about incentive compensation.

INCENTIVE COMPENSATION STRUCTURE

CEO RODELL introduced Mike Oak from McLagan. She stated that her goal with this board item is to really start the process. There is a resolution to approve, and that resolution will give the framework, the outlines to put the detail into the personal management plan that would then be adopted at the September meeting. This will set an outline as to eligibility, maximum amounts of incentive compensation, and then will go into the numbers. She continued that goal

No. 5 was to implement a competitive incentive compensation program for FY19 by October of 2019. The FY19 budget has already been passed, so this is a bit behind. She added that this compensation program is being designed with no pay cuts to base salaries so that in the event the Governor does not want to carry this forward in a budgetary request, and the Legislature does not approve it, staff are not overly harmed because they have taken a pay cut in anticipation of receiving incentive compensation. She walked through the incentive compensation program beginning with the need to adopt a peer group, which is an important first step because it gives the information needed to compile the data by setting this peer group. She stated the recommendation that the board adopt a blended peer group which is comprised of 75 percent public funds and 25 percent of private funds. She asked Mike Oak to continue.

MR. OAK stated that he assembled two pieces of information: One is about pay levels; and the other is about pay structure and what an incentive plan looks like at other public funds. He assembled pay data from three peer groups: U.S. and Canadian public funds with internal/direct asset management capability; private sector investment organizations with AUM less than $100 billion, including advisory firms, banks, insurance companies, endowments, foundations, and corporate plan sponsors; and a blended peer group, 75% public fund and 25% private sector firms.

CEO RODELL added that the idea of a blended peer group rather than all public or all private is not a unique recommendation to the Permanent Fund Corporation.

MR. OAK explained that 75/25 means that one row in the information from the public fund, the median bonus from the public funds, and the second one would be median salary, median bonus from the private sector; then a weighted average of those two is done. He stated that one of the suggestions was to reflect back on the compensation and philosophy, and then refine the position in the competitive organizations. The second recommendation is to implement an incentive compensation plan. He explained that the fact that the compensation is so far behind market is why looking at the incentive compensation is recommended.

CEO RODELL stated that the proposal she made in the resolution is to cap the incentive compensation, the maximum amount of eligibility would be 50 percent of the base salary. This is for the investment staff that are eligible for incentive compensation; the incentive pool would be about $1.9 million. That is the maximum amount, and if all employees were incorporated it would be about $2.5 million, maximum.

VICE CHAIR BRADY asked if there was a formula to get to that.

CEO RODELL replied yes, and continued that staff wanted to tweak the formula and will provide it as part of the personnel management plan. She emphasized that the resolution recognized that it is a three-year performance review.

CHAIR MORAN asked for a summary of all that will participate in this.

CEO RODELL replied that she divided corporate staff into three categories: management or executive; investment; and administration. Generally, CFO, chief operating officer, general counsel do not receive incentive compensation.

CHAIR MORAN asked if this is for a resolution to move to the next step.

CEO RODELL replied yes.

CHAIR MORAN asked for a motion.

> **MOTION:** TRUSTEE RUTHERFORD made a motion that the Board of Trustees adopt resolution 18-02, allowing the Executive Director to progress this compensation program as discussed. It was seconded by TRUSTEE RICHARDS.
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> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (BRADY, RICHARDS, RUTHERFORD, and MORAN.)

CHAIR MORAN moved to other matters.

OTHER MATTERS

CEO RODELL stated that she did not have any other matters to come before the board at this time.

CHAIR MORAN asked for adviser comments.

MR. MITCHELL stated that he admired the board and staff's willingness to take on a revision of the procedures, which is always a difficult thing to do. He continued on about performance, which has been excellent, and as important as good performance is, the way that the board and staff have achieved that is equally important. He added that he has confidence that the staff knows what it is doing. He stated that there has been 30 years of up bond market performance which means that most of the participants in the bond market were in middle school when there was last a down market. He continued that he is concerned on whether they will be able to deal with a falling bond market. The other thing is about currencies, and it stated that the hedging program, the approach to currencies that the staff has put in place is good, but that is for normal times. He stated that the combination algorithmic trading, high-frequency trading, trading programs, passive trading all make up, like, 90 percent or more of all the trades that go on in the stock exchanges, and there have been some glitches. He continued that they were rectified, but he is concerned that could really have an upset in the trading platforms which would wash out over the entire confidence that people are supposed to have in the market. He added that he is optimistic, positive, and thinks that everyone here is doing a good job. He suggested writing down their three worst fears just to help prepare if they do occur.

CHAIR MORAN asked for any trustee comments.

VICE CHAIR BRADY added that he has kids that have bought homes in this low interest environment and remembered a mortgage he had once at 13 percent; Jimmy Carter, 19 percent. He thanked CEO Rodell and her staff for all their work, and he has never seen a session with this Legislature where the Permanent Fund was able to do as well while the Government was working in a different direction. He congratulated them for that.

TRUSTEE RUTHERFORD echoed that and added that the entire Permanent Fund staff is doing a fabulous job in representing all of us at the Legislature and being so successful.

TRUSTEE RICHARDS stated that he heard once that it is fun to be on a board when the company is winning, and not so much fun when they are not. He continued that you guys are winning, and that makes this fun and a good job. He directed to Russell that he was not sure if he was clear about his comments on the Sharpe ratio and was just concerned about some of the specific asset classes, whether the distributions are normal enough to use the Sharpe ratio as a statistically meaningful tool. He added that the discussion of the 4.3 percent Callan projection versus the 5 percent board expectation was very good, and he would like to keep having that. He stated that regarding the Alaska policy, to use the opportunity over the summer to think about developing that in more detail. He also looks forward to that dialogue.

CHAIR MORAN thanked all and stated that this was one of the best meetings that he has attended in his time here. A great job was done, and is greatly appreciated.

CEO RODELL stated her thanks, and that the meeting is adjourned.

(Alaska Permanent Fund Corporation Quarterly Board of Trustees meeting adjourned at 4:07 p.m.)

July 24, 2018

ALASKA PERMANENT FUND CORPORATION

SPECIAL MEETING OF THE BOARD OF TRUSTEES

July 24, 2018
1:00 p.m.
Teleconference

SUMMARY MINUTES

Trustees Present:	William G. Moran, Chair Carl Brady, Vice Chair Andrew Mack Sheldon Fisher Craig Richards Marty Rutherford
Staff Present:	Angela Rodell, CEO Danielle Graham Chris Poag Marcus Frampton Jim Parise Fawad Razzaque Russell Read Valeria Martinez Robin Mason

PROCEEDINGS

CALL TO ORDER

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

ROLL CALL

VICE CHAIR BRADY, TRUSTEE RICHARDS, TRUSTEE RUTHERFORD, TRUSTEE MACK, TRUSTEE FISHER, CHAIR MORAN were present via teleconference.
MS. GRAHAM reported that there was a quorum.

APPROVAL OF AGENDA

CHAIR MORAN moved to the agenda and stated that it is a limited agenda. There being no changes or corrections, the agenda was approved.

OPPORTUNITY FOR PUBLIC PARTICIPATION

CHAIR MORAN asked if there was anyone on-line that would like to address the board. Hearing none, he moved to the personnel discussion.

PERSONNEL DISCUSSION

CHAIR MORAN asked CEO Rodell for a summary.

CEO RODELL stated that Russell Read resigned the first part of July to head to an exciting new opportunity in London with MSCI. His last day is August 8th, which creates a vacancy here. She continued that the FY19 budget included full funding for ten new positions. The idea was to continue to bring in-house management for private markets. She added that there are two current vacancies in private markets, and an additional vacancy expected on August 1st,with the retirement of one of the real estate team. She stated that there is an opportunity for a Chief Investment Officer role and the need to think about the role. She continued, for the board's consideration, and put forward three possibilities to consider with some pros and cons attached to each one. The idea is to combine the CEO and CIO into one role, which was a method that the Permanent Fund Corporation used early on in its existence. She explained that the roles were split out about 20 years ago, and it does create some capacity and alignment in that the board has delegated the investment authority to the CEO, and new investment policies and guidelines were adopted that added additional governance protocols. This would allow for the continuity of investment policies and programs that the board approved in May. She stated that the second plan is to recruit and promote from within Alaska, which is a more limited recruitment. This has a more reduced timeframe than combining the roles. The third plan is to do an open recruitment worldwide. This would entail hiring an executive recruiter to do a search, similar to what was done three years ago. She added that this will most likely offer up the opportunity to create a whole new investment policy and program. It may also be possible, with that person, to recruit entire teams. She stated that those are the three plans for consideration, and asked for advice as to the direction to head toward.

CHAIR MORAN asked for any questions.

TRUSTEE MACK asked for more detail on Plan C, and the possibility to recruit entire teams.

CEO RODELL replied that when someone with experience as a CIO is recruited, there is a possibility of having a group around that is willing to go with him to do certain things. She stated that, from past experience, there were times that a deputy was available to come in to do certain things; that would be getting two for one. She added that it was probably a low probability because Juneau is a difficult place to recruit to begin with.

VICE CHAIR BRADY asked about the other positions that were referred to.

CEO RODELL replied those are the vacant positions that came with the new budget.

TRUSTEE FISHER asked if there is a sense of time being critical that a recruiter would be foregone but will allow non-Alaskan candidates to apply.

CEO RODELL clarified that Plan B is that the recruitment would be put up on the Website and anyone worldwide could apply.

TRUSTEE MACK asked to be refreshed on the hiring of a recruiter and what that would entail.

CEO RODELL explained that a limited procurement, for a flat fee, was done for the executive recruiter, which still took 14 days. That resulted in three firms responding.

TRUSTEE MACK stated that he was attracted to a hybrid of B and C, and Alaskans could apply in the recruiting process.

CEO RODELL continued that the last time Alaskans and internal candidates that expressed an interest notified the executive recruiter, and they were vetted by him.

TRUSTEE MACK asked about how long the prior CIOs were in Alaska.

CEO RODELL replies that one was here for three years; then the next was four years; and Mr. Read has been here for two years.

TRUSTEE FISHER stated that one of the issues that needs to be discussed is attracting high-quality talent that is capable of continuing to deliver in the top-quartile performance of the Permanent Fund, ideally with a greater longevity. He added that two to three years seems too short of a time.

TRUSTEE RUTHERFORD agreed and would like to see a four- or five-year commitment. She stated that she would also like to see a broad solicitation so that the Permanent Fund does have the opportunity to choose the very best available. She asked CEO Rodell how Option No. 1 would work, because, in reality, it would be working two full-time jobs.

CEO RODELL replied that it is incredibly challenging and would require reorganization probably further down. She explained her sense of what the reorganization would entail.

TRUSTEE MACK stated that the combined CEO/CIO creates a bigger replacement challenge.

TRUSTEE RICHARDS stated support for the idea of open recruitment, and suggested helping get the board more engaged in setting the goals for hiring on the front end. He continued that a subcommittee under Rule 5 of the bylaws was created, and anyone that wants to participate can; but there is a subcommittee for the purposes of working with CEO Rodell on hiring. He suggested using that platform to vet some of these issues, and also to try to decrease the timeline a bit.

TRUSTEE MACK asked, on Plan A, Bullet 1 states that "Precedent: Half of the U.S. public plans combine the CEO and CIO roles, and asks if that refers to pension programs.

CEO RODELL replied that it is primarily pension plans.

TRUSTEE FISHER stated that he was under the impression that most sovereign-wealth plans do not combine the roles and do tend to separate them. He asked if that was true.

CEO RODELL replied that was correct, and that the majority of sovereign-wealth plans do have separate CEOs and CIOs. She stated that on the external recruitment, Plan C, the board needs to realize that there will be a heavy competition because CalPRS, New York Common, New York City, State of Wisconsin Investment Board are all recruiting and have announced openings. She continued that they all pay incentive comp, and pay considerably more, in more desirable locations.

TRUSTEE FISHER stated that if the mission and goal is to get the most qualified candidate that would stay for some period of time, the broader the net is cast the more likely the best candidate will be caught. The fact that there is competition is not an argument to constrain the scope of the review.

CEO RODELL agreed and stated that what happens is that it becomes very difficult for the person that is in the acting role. She added that they are doing the job, competing for the job, and get to 12 months and do not get the job because they are not the best. She asked to talk about this idea of limiting the recruitment in some way because there are very deserving candidates here. She added that there are very good quality candidates here that could take on the responsibilities of the CIO. She stated concern that by doing another executive recruitment, the message being sent is that is not the case.

TRUSTEE FISHER stated that he is not persuaded on limiting the recruitment because there are qualified candidates. He continued that he is more persuaded by the argument that an extended recruitment threatens other goals of the Permanent Fund, including an extended period of uncertainty and the risk of losing people during that period and all of those issues.

TRUSTEE RICHARDS stated that he agreed with Trustee Fisher, but thinks that using recruiters can add value in a smart way, and he encouraged that.

TRUSTEE RUTHERFORD asked what the subcommittee will specifically prioritize, focus on what is being looked for and what happens during the period of time that this recruitment occurs. She also asked if it is an option to have the CEO become the CIO during that period of time so there is not this opportunity for someone else being in the position for 12 months and then not getting the permanent position. She asked if that made sense.

CEO RODELL replied that was a definite option that the board can consider while working through the recruitment. She described the recruitment that was used for the executive recruiter before, and fielded a number of questions.

TRUSTEE RICHARDS asked if any of the trustees were against the idea of putting together a subcommittee of the board to work with Ms. Rodell, and try to speed the timeline up and get the board’s input earlier in the process.

> **MOTION:** TRUSTEE RICHARDS made a motion to put together a subcommittee for the purposes of working with CEO Rodell on the hiring of a CIO.
> TRUSTEE RUTHERFORD seconded.
>
> Following a roll call vote THE MOTION WAS APPROVED by the Trustees (BRADY, RUTHERFORD, FISHER, RICHARDS, MACK, MORAN).

CHAIR MORAN stated that this is kind of a committee of the whole and asked who would like to participate.

CEO RODELL strongly encouraged the limit to just two members, otherwise everything will have to be done in an open meeting.

TRUSTEE FISHER stated that this is something that he was just educated on and added that there could be three members on that subcommittee.

CEO RODELL asked the general counsel to confirm.

MR. POAG stated that the Statute 44.62.310 in Subsection (h) defines meeting as: “More than three members or a majority, whichever is less.” He added that the number four triggers the Open Meetings Act.

TRUSTEE RUTHERFORD suggested identifying a chair to be responsible for putting it all together.

VICE CHAIR BRADY stated that he was not opposed to doing this through a couple of meetings. He continued that several significant organizational concepts have been put on the table. He added that at some point the whole board should be considered.

CHAIR MORAN replied that the full board would have a role in the process. The idea is to kind of streamline this process, and full-board meetings do not streamline. He stated that he can appoint three willing and interested people, but he needs a consensus to do this recruitment process through one of these firms.

TRUSTEE RICHARDS stated that he supports that and encouraged CEO Rodell to figure out how to do the process faster.

CHAIR MORAN stated that the procurement issues need to be worked through, and that most of this stuff is available from the last time this was done in terms of the firms that were contacted. He continued that the other consideration is who will have the time to work on this committee. He asked for volunteers.

TRUSTEE RICHARD replied that time is not a problem, and volunteered.

TRUSTEE MACK stated that he would be happy to serve on the committee to get the process going.

TRUSTEE RICHARDS encouraged a third member, and suggested Trustee Brady.

VICE CHAIR BRADY replied that he is not in total agreement, and we should try to get the best person through whatever means necessary. He stated that there are some competent people in the office that could split their duties to take this on. He continued that he would just as soon attend the meetings when this has moved along a bit. He suggested Trustee Rutherford.

TRUSTEE RUTHERFORD stated that she would be happy to assist if that is what the chairman would like.

CHAIR MORAN appointed Trustee Richards as the chair of the subcommittee and asked him to work with Ms. Rodell to get things moving.

TRUSTEE RUTHERFORD asked if the decision was to look at both an Alaskan and an international solicitation.

CHAIR MORAN replied it is Plan C on steroids.

TRUSTEE FISHER stated that he would like to set a goal for this group, which is to find a process that can be done and completed within a defined period of time. He continued, cutting the nine months to four-and-a-half months. He believed that was a critical factor which defines and constrains the group. He added that time is of the essence.

CHAIR MORAN replied that he did not see the need to specify a definite timeframe, but the committee can set one and do it as fast as possible with the best outcome type of deal.

TRUSTEE RICHARDS stated that the first order of the agenda is working with Ms. Rodell on what timeline is practical, and to try to get there quickly.

CEO RODELL stated, given this plan, that she would like the committee to affirm Marcus Frampton as the acting CIO, or herself as the acting CIO during this process.

TRUSTEE FISHER asked to flesh out why it would be harmful to a person to be in the position of Acting CIO and also being a candidate for the final position.

CEO RODELL replied that it gets challenging being in the day-to-day operation and not having the authority to make the initiatives one might make as a CIO; whereas, when competing to be a CIO, they can come to the board and present what they would do if they were the CIO. She continues, as acting CIO, all that can be done is to keep the current plan in place and not make any adjustments.

MR. FRAMPTON stated that he would be happy to do whatever people think is appropriate and is confident that he can act in an interim function. He continued that he would probably apply for the position and, if selected, would be happy to do it. If not selected, he would support whoever was selected.

TRUSTEE RICHARDS added that he personally thinks Mr. Frampton would do just fine, and could support whatever the board wants to do.

CHAIR MORAN stated that in the Board of Trustees' Charter this decision was delegated to the executive director, subject to the board's final approval. He continued that his feeling is to let CEO Rodell make that decision at this stage.

TRUSTEE RUTHERFORD asked CEO Rodell if this is her preferred approach.

CEO RODELL replied that her preferred approach was to discuss candidates within the corporation and promote from within. She stated that she has demonstrated over the last two-and-a-half years her ability to build a team and bring the right people in for the right job at the right time of the corporation. She continued that she will follow the path that the board has chosen and has complete confidence in Mr. Frampton being the Acting CIO.

CHAIR MORAN asked for a motion to adjourn.

MOTION: TRUSTEE RUTHERFORD made a motion to adjourn.
TRUSTEE FISHER seconded.

There being no objection, the meeting was adjourned.

(Special Meeting of the Board of Trustees adjourned at 2:00 p.m.)

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 26, 2018

INFORMATION: _____X______

BY	TASK	CAPTURED	TARGET	COMPLETED
Chair Moran	ECIO Program Recommendation	2/18	5/18	5/18
Rodell / Read	Updates to Asset Allocation: Investment Policy	9/17	5/18	5/18
Read	ESG Education Session	12/17	5/18	5/18
Mack / Richards	Alaska Investment Policy	5/18	9/18	
Richards	Internship Program	5/18	12/18	
Rodell	Incentive Compensation Plan	5/18	12/18	

Trustee Education

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

SUBJECT: Trustee Education ACTION: ____________

DATE: September 26, 2018 INFORMATION: _____X_____

BACKGROUND:

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

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

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

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

TRUSTEE TRAINING OPPORTUNITY	TOPIC	LOCATION	DATES
Pacific Pensions & Investments	Winter Roundtables Summer Roundtables	Los Angeles, CA Chicago, IL	Feb 27 – March 1, 2019 July 10-12, 2019
ARMB Education Conference	Investment Education	New York, NY	October 11-12, 2018
KPMG / NACD	Connecting Geopolitics, Markets, & Strategy TBD	Webinar Webinar	September 27, 2018 January 17, 2019
IFSWF Annual Meeting	TBD	Juneau, AK	September 2019

Disclosure Report

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, 2018

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, 2018.

April 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Andrew Cloward	Trade Operations	Individual Transaction	05/08/2018
Jared Brimberry	Portfolio Manager	Individual Transaction	05/07/2018
Marcus Frampton	Director of Investments	Individual Transaction	05/04/2018
William Moran	Trustee	Individual Transaction	05/04/2018
Chris LaVallee	Accountant	Individual Transaction	05/07/2018
Youlian Ninkov	Strategist Trader	Individual Transaction	05/04/2018
Craig Richards	Trustee	Individual Transaction	05/07/2018

May 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Jared Brimberry	Portfolio Manager	Individual Transaction	06/04/2018
Chris LaVallee	Accountant	Individual Transaction	06/06/2018
William Moran	Trustee	Individual Transaction	06/05/2018
Craig Richards	Trustee	Individual Transaction	06/12/2018

June 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Carl Brady*	Trustee	Individual Transaction	07/27/2018
Jared Brimberry	Portfolio Manager	Individual Transaction	07/05/2018
Chris LaVallee	Accountant	Individual Transaction	07/05/2018
Andrew Cloward	Trade Operations	Individual Transaction	07/05/2018
Steve Moseley	Director of Investments	Individual Transaction	08/24/2018
William Moran	Trustee	Individual Transaction	07/25/2018
Marcus Frampton	Director of Investments	Individual Transaction	07/06/2018

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

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

*Disclosure for all transactions from January – June 2018.

Travel

ALASKA PERMANENT FUND CORPORATION

Subject: Travel Report

Date: September 26, 2018

Background: This report includes APFC Board/staff completed travel for the period May 2, 2018 through August 31, 2018. The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

APFC Trustees and Staff	Travel Purpose	Dates of Travel		Location
Ainsworth	Internship begins - Seattle WA to Juneau AK - Alaska Air	05/25/18	one-way	Juneau
Ainsworth	Intern - return to school	08/19/18	-	Prince Rupert
Andreyka	Greystar Investor Summit	05/04/18	05/11/18	Charleston
Andreyka	Property inspections, advisor, CS Capital, L&B, Lincoln Partner, Midway	05/28/18	06/04/18	SFO, SAN, LAX, IAH
Andreyka	Heitman Investor & Macerich Partnership, & Lincoln meetings	06/11/18	06/15/18	Chicago
Balovich	WWT Video Conference	07/08/18	07/12/18	St. Louis, MO
Balovich	Audit Committee / Budget Work Session / WWT	9/5/18	09/06/18	Anchorage
Brimberry	Monroe Capital Annual meeting	09/11/18	09/14/18	Chicago
Brimberry	Annual BOT Meeting	09/25/18	09/27/18	Anchorage
Brown	Audit Committee & Budget Work Session	09/05/18	09/06/18	Anchorage
Brown	Quarterly Board Meeting	05/22/18	05/27/18	Anchorage
Cloward	CFA Level I Exam	06/22/18	06/23/18	Anchorage
Cummins	AEW Client Conference	05/13/18	05/20/18	Boston
Duran	Investor Meetings and Greystar	05/06/18	05/16/16	Charleston
Duran	Property inspections, advisor, partner meetings w/Greystar and Midway	05/27/18	06/02/18	PHI, RDU, AUS, IAH
Duran	Heitman Investor Meeting and Quarterly Macerich Partnership Meetings	06/11/18	06/18/18	Chicago, Portland
Duran	Attend RCLCO investor summit	08/28/18	08/30/18	Los Angeles
Frampton	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Frampton	CFA - Harvard Investment Management Workshop	06/22/18	06/29/18	SFO, BOS
Frampton	Generate Board Meeting and to see APFC real estate	08/03/18	08/09/18	Santa Monica & San Fransisco
Frampton	APFC real estate	08/17/18	08/21/18	Denver & Houston
Frampton	Visit real estate properties, investment manager meetings	09/09/18	09/13/18	NYC
Frampton	Audit Committee & Budget Work Session	09/05/18	09/06/18	Anchorage
Frampton	Annual BOT Meeting	09/25/18	09/27/18	Anchorage
Graham	Audit Committee Meeting	05/16/18	05/16/18	Anchorage
Graham	Board Meeting	05/22/18	05/24/18	Anchorage
Graham	Audit Committee & Budget Work Session	09/05/18	09/06/18	Anchorage
Graham	Annual BOT Meeting	09/25/18	09/27/18	Anchorage
Hebert	Intern - return to school	08/15/18	-	Pullman
Kim	Due Diligence	06/19/18	06/24/18	San Diego
Kim	Due Diligence	08/02/18	08/12/18	NYC
Martinez	Quarterly Board Meeting	05/22/18	05/28/18	Anchorage
Martinez	CFA Meeting and Manager Meeting	06/22/18	06/26/18	Anchorage, Seattle
Martinez	Manager Meeting and Institutional Fund Peers	06/13/18	06/16/18	Los Angeles

Mason	Quarterly Board Meeting	05/22/18	05/22/18	Anchorage
Mason	Arrangements for CISSP class and meet with WWT	06/06/18	06/06/18	Anchorage
Mason	WWT Video Conference	07/07/18	07/12/18	St. Louis, MO
Mertz	Quarterly Board Meeting	05/17/18	05/24/18	Anchorage
Mertz	Audit Committee Meeting	05/16/18	05/16/18	Anchorage
Mertz	Audit Committee	09/05/18	09/06/18	Anchorage
Mertz	Annual BOT Meeting	09/25/18	09/27/18	Anchorage
Metcalfe	Audit Committee Meeting	05/16/18	05/16/18	Anchorage
Metcalfe	Quarterly Board Meeting	05/21/18	05/24/18	Anchorage
Moran	Quarterly Board Meeting	05/22/18	05/25/18	Anchorage
Moran	Annual BOT Meeting	09/25/18	09/28/18	Anchorage
Moseley	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Moseley	Board Meeting for Centerbridge, Annual Meetings with JMI	05/06/18	05/14/18	New York
Moseley	Indigo Board & ILPA Board meeting, & due diligence	05/26/18	06/08/18	NYC, Philly, Boston, Chicago
Moseley	Due Diligence	06/19/18	06/23/18	San Diego
Moseley	Meeting with Indigo and Capital Constellation	06/29/18	07/12/18	Boston - Toronto
Moseley	Due Diligence	07/06/18	07/06/18	London
Olmsted	High Yield Manager due diligence	06/12/18	06/16/18	Los Angeles
Parise	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Parise	Annual BOT meeting	09/25/18	09/27/18	Anchorage
Poag	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Poag	Robbins Geller	07/19/18	07/19/18	Anchorage
Poag	Audit Committee & Budget Work Session	09/05/18	09/06/18	Anchorage
Razzaque	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Razzaque	NYC Manager Visit	07/03/18	07/14/18	Seattle / NYC
Razzaque	Due Diligence to visit APFC managers	09/08/18	09/14/18	London
Read	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Read	New York City Manager Meetings & Institutional Investor Awards Ceremony	06/27/18	06/30/18	New York
Read	Exit Interview	08/01/18	08/01/18	Anchorage
Robbins	Accountant Interview	05/03/18	05/05/18	Juneau
Rodell	Audit Committee Meeting	05/16/18	05/16/18	Anchorage
Rodell	PPI Summer Roundtable	07/10/18	07/14/18	La Jolla, CA
Rodell	Marrakech - IFSWF / Board Meeting	09/16/18	09/27/18	Marrakesh / Anchorage
Rodell	AMHT/Audit Committee/Budget Work Meeting	09/05/18	09/07/18	Anchorage
Rodell	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Seagren	Audit Committee	09/05/18	09/06/18	Anchorage
Sebastian	Meeting	08/09/18	08/12/18	Juneau
Smith	NRS IACCP Compliance Training & meet with BNYM	08/13/18	08/20/18	Boston - Seattle
Smith, A	Accountant Interview	05/03/18	05/03/18	Juneau
Smith, K	Aladdin, Callan, BNYM	06/22/18	06/27/18	San Francisco, Tacoma
Swanson	Quarterly Board Meeting	05/22/18	05/24/18	Anchorage
Swanson	Marrakech - IFSWF	09/16/18	09/23/18	Marrakesh
Swanson	Audit Committee / Budget Work Session	09/05/18	09/07/18	Anchorage
Swanson	Annual BOT Meeting	09/25/18	09/27/18	Anchorage
Vadakumcherry	Meeting	08/09/18	08/12/18	Juneau
Vice	VMWare Training	05/13/18	05/20/18	Phoenix
Vice	VMworld 2018	08/25/18	08/31/18	Las Vegas, NV

Due Diligence Log

APFC Investment Due Dilligence: April 2018 - June 2018

Manager Due Diligence Log - Asset Allocation Strategies

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

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
4/11/2018	Valeria Martinez	BNY Mellon	Emily Whooley	Client Advisory Board	New York, New York
4/18/2018	Valeria Martinez	Invesco	Danielle Singer, Neil Blundell, Delia Roges	Global Targeted Return	Juneau, Alaska
4/18/2018	Valeria Martinez	JP Morgan	Jeff Shields and Ben Mandel	Client Introduction	Juneau, Alaska
4/18/2018	Valeria Martinez and Samantha LaPierre	Adrian Lee & Partners	Philip Lawson and Daire McNally	Currency Program Review	Juneau, Alaska
4/19/2018	Valeria Martinez and Samantha LaPierre	Goldman Sachs	Rob Patch and Tom Davie	GSAM Monthly Portfolio Review	Juneau, Alaska
4/20/2018	Valeria Martinez	Schroders	Allan Duckett	Multi-Asset Portfolio Discussion	Juneau, Alaska
5/3/2018	Valeria Martinez	NISA	Grant Podolski	Reporting	Juneau, Alaska
5/14/2018	Valeria Martinez and Samantha LaPierre	Goldman Sachs	Rob Patch and Tom Davie	GSAM Monthly Portfolio Review and ESG Diagnostic	Juneau, Alaska
5/21/2018	Valeria Martinez	Morgan Stanley	Greg Best	Global Partners Program	Juneau, Alaska
5/30/2018	Valeria Martinez	Goldman Sachs	Rob Patch and Tom Davie	ESG Diagnostic	Juneau, Alaska
6/21/2018	Valeria Martinez and Samantha LaPierre	Goldman Sachs	Rob Patch and Tom Davie	GSAM Monthly Portfolio Review and ESG Diagnostic	Juneau, Alaska
6/21/2018	Valeria Martinez	Bridgewater	Brian Lawlor	Portfolio Update	Juneau, Alaska

Manager Due Diligence Log - Fixed Income Plus

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

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
4/10/2018	Matthew Olmsted	State Street Global Advisors	Sonya Park	SPDR ETF	Juneau
4/13/2018	Tom O'Day	Bridgewater	Amy Salley, Andrew Mikolasy	FX Trading	Westport CT
4/13/2018	Tom O'Day	AQR	Iwan Djanali, Annie Xiong	FX Trading	Greenwich CT
4/16/2018	Tom O'Day	Allianz	Julian Le Beron, Sam Hogg	FX Trading	New York NY
4/16/2018	Tom O'Day	BNY	Paul Mularz	FX Trading	New York NY
4/17/2018	Tom O'Day	Goldman	David Thomas, Robert Patch	HY Corp and FX Trading	New York NY
4/18/2018	Matthew Olmsted, Jim Parise	BlackRock	Andrew Hartman, Scott Williamson, Pwin Tuntasood	HY ETF	Juneau
4/23/2018	Matthew Olmsted	Capital Group	Michael Bowman	HY Portfolio	Juneau
4/24/2018	Tom O'Day, Jim Parise, Matt Olmsted, Masha Skuratovskaya	Capital Group	Michael Bowman, Harry Phinney	HY and EM	Juneau
4/24/2018	Matthew Olmsted, Jim Parise	BlackRock	Scott Williamson	USHY ETF seed financing program	Juneau
4/25/2018	Tom O'Day, Masha Skuratovskaya	Allianz	Julian Le Beron, Sam Hogg, Amour Maren	Global Rates	Juneau
5/2/2018	Tom O'Day	BNY	Chris Foti	FX Trading	Juneau
5/8/2018	Masha Skuratovskaya	Wells Fargo	Chris Pocino, Boris Ragvinovskij	US Rates and TIPS	Juneau
5/8/2018	Tom O'Day, Jim Parise, Matt Olmsted, Masha Skuratovskaya, Chris Cummins	BlackRock	Andrew Hartman, Scott Williamson, Pwin Tuntasood	Ishares ETFs	Juneau
5/15-5/17/2018	Chris Cummins	AEW Annual Client Conference	AEW Staff and other AEW REIT and Real Estate clients	REIT markets	Boston
5/17-5/18/2018	Masha Skuratovskaya	II Redefining Fixed Income Conference		Rates, Credit and EM	Chicago
5/17-5/18/2018	Masha Skuratovskaya	Matthews Asia	Teresa Kong, Chief Strategist	Emerging Asia	Chicago
5/22/2018	Tom O'Day, Matt Olmsted	Jefferies	Peter Swerz	Corp Bonds	Juneau
6/10/2018	Masha Skuratovskaya	TD	Sophia Tran-Vu, Priya Misra	US Rates, Global Rates	Juneau
6/13/2018	Tom O'Day, Chris Cummins	Cohen & Steers	Erin Berry, Ben Morton	Listed Infrastructure	Juneau
6/13/2018	Matthew Olmsted	Capital Group	Michael Bowman	HY Portfolio due diligence	Los Angeles
6/14/2018	Matthew Olmsted	OakTree	David Rosenburg	HY Portfolio due diligence	Los Angeles
6/19/2018	Masha Skuratovskaya	Virtu	Ellyn Coyne	EM ETFs	Juneau

Manager Due Diligence Log - Public Equities

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

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
4/2/2018	Ninkov	Research Affiliates	Trevor Schuesler	Strategy Review	Juneau, AK
4/4/2018	Ninkov	BCA	Doug Peta	Product Review	New York, NY
4/5/2018	Ninkov	Pavilion Global Markets	Michael Avedesian	Product Review	New York, NY
4/16/2018	Ninkov	SSGA	Sonja Park	Strategy Review	Juneau, AK
4/17/2018	Razzaque, Diouf	Trustbridge	Investment team	Quarterly review	conference call
4/23/2018	Razzaque, Diouf	CDAM	Investment team	Quarterly review	conference call
4/23/2018	Razzaque, Diouf	AQR	Investment team	Quarterly review	conference call
4/24/2018	Razzaque, Diouf	Lyrical	Investment team	Quarterly review	conference call
4/24/2018	Razzaque, Diouf	William Blair	Investment team	Quarterly review	conference call
4/25/2018	Razzaque, Diouf	DSM	Investment team	Quarterly review	conference call
4/25/2018	Razzaque, Diouf	SKBA	Investment team	Quarterly review	conference call
4/26/2018	Razzaque, Diouf	AGI	Investment team	Quarterly review	conference call
4/26/2018	Razzaque, Diouf	Eagle	Investment team	Quarterly review	conference call
4/30/2018	Razzaque, Diouf	DFA	Investment team	Quarterly review	conference call
5/1/2018	Razzaque, Diouf	Acadian	Investment team	Quarterly review	conference call
5/1/2018	Razzaque, Diouf	Johnston	Investment team	Quarterly review	conference call
5/1/2018	Ninkov	Blackrock	Anthony Bassili	ACWI ETF Solution	conference call
5/2/2018	Razzaque, Diouf	Mondrian	Investment team	Quarterly review	conference call
5/2/2018	Razzaque, Diouf	LSV	Investment team	Quarterly review	conference call
5/7/2018	Razzaque, Diouf	Pzena	Investment team	Quarterly review	conference call
5/7/2018	Razzaque, Diouf	McKinley Capital	Investment team	Quarterly review	conference call
5/8/2018	Razzaque, Diouf	JP Morgan International	Investment team	Quarterly review	conference call
5/8/2018	Razzaque, Diouf	WCM	Investment team	Quarterly review	conference call
5/8/2018	Ninkov	Blackrock	Scott Williamson	iShares Equity ETF discussion	Juneau, AK
5/9/2018	Diouf, Ninkov	Wells Capital	Daniel E. Anderson	Strategy Review	Juneau, AK
5/9/2018	Razzaque	Macquarie (ex Delaware)	Investment team	Quarterly review	conference call
5/10/2018	Razzaque, Diouf	T.Rowe	Investment team	Quarterly review	conference call
5/14/2018	Razzaque, Diouf	Schroders	Investment team	Quarterly review	conference call
5/14/2018	Razzaque, Diouf	Arrowstreet	Investment team	Quarterly review	conference call
5/15/2018	Razzaque, Diouf	RBA	Investment team	Quarterly review	conference call
5/15/2018	Razzaque, Diouf	RBC	Investment team	Quarterly review	conference call
5/16/2018	Ninkov	SSGA	Sonya Park, Paul Colona	Strategy Review	Juneau, AK
5/16/2018	Razzaque, Diouf	CastleArk	Investment team	Quarterly review	conference call
5/16/2018	Razzaque, Ninkov	ITG	Ayesha Boulware	Intro and Overview	Juneau, AK
5/17/2018	Razzaque, Diouf	Jennison	Investment team	Quarterly review	conference call
5/17/2018	Razzaque, Diouf	Lazard	Investment team	Quarterly review	conference call
5/21/2018	Razzaque, Diouf	Longview	Investment team	Quarterly review	conference call
5/22/2018	Razzaque, Diouf	JP Morgan EM	Investment team	Quarterly review	conference call
5/24/2018	Ninkov	TCA	Brian Greene	Strategy Review	Juneau, AK
6/5/2018	Ninkov	Pavilion Corp	Michael Avedesian	Strategy Review	conference call
6/7/2018	Ninkov	Wisdomtree	Joe Grogan	EM Multi Factor Discussion	Juneau, AK
6/15/2018	Ninkov	Research Affiliates	Trevor Schuesler	Business Cycle Model	conference call
6/19/2018	Ninkov	Nikko am	Lawrence Ramsted	Strategy Review	Juneau, AK
6/19/2018	Ninkov	Virtu	Ellyn Coyne	Strategy Review	Juneau, AK
6/29/2018	Ninkov, Razzaque	FTSE Russell	Bryce Clark	Strategy Review	Juneau, AK

Manager Due Diligence Log - Private Income, Absolute Return, and

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

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
2-Apr-18	MF	Silver Creek	Bob Ratliffe	Update on Twin Creeks Timber invetment	Telephonic

2-Apr-18	MF, JB	Pavilion Alternatives	Raelan Lambert	Due Diligence Update on Private Credit Opportunity	Telephonic
2-Apr-18	JB	Brightwood Capital	Sengal Selassie, Kristina Matthews	Due Diligence Call on Credit Strategy	Telephonic
3-Apr-18	MF, JB	Morgan Stanley Infrastructure	Markus Hottenrott	Update on Investment in MS Infrastructure	Juneau
3-Apr-18	MF	Corsair Infrastructure	Kelly Ramirez, Hari Rajan	Fund LPAC Meeting	Telephonic
4-Apr-18	MF	Generate	Scott Jacobs	Board of Directors Call re: Financing Transaction	Telephonic
4-Apr-18	MF, JB	American Homes 4 Rent	David Goldberg, Jack Corrigan, Zack Johnson	Discussion of Rental Homes JV	Telephonic
4-Apr-18	MF	Morgan Stanley Infrastructure	Chris Koski	Discuss Infrastructure Co-investment Opportunity	Telephonic
4-Apr-18	MF, JB	Pharo Management	David Crosby	Fund Update Call	Telephonic
4-Apr-18	MF	Mack Real Estate	Richard Mack, Dave Germond	Discussion of Commercial Real Estate Lending	Telephonic
4-Apr-18	MF, JB	Goldman Sachs	Jessica Yueh, Paul Bloom	Discussion of Infra Direct Investment Opportunity	Telephonic
4-Apr-18	MF	ARA	Matt Hershey, Stephen Tang	Discussion of Asia Real Estate Fund	Telephonic
4-Apr-18	JB	Park Hill Group	Robert Kulperger	Discuss Private Markets Opportunities	Telephonic
5-Apr-18	MF, JB	HIG Whitehorse	Asmat Doza, Stuart Aronson	Update on Private Credit investment	Juneau
9-Apr-18	MF, CP	Sheppard Mullin	Jason Jones	Discuss in-process infrastructure investment	Telephonic
9-Apr-18	MF	PAAMCO	Scott Warner	Hedge Fund market discussion	Telephonic
9-Apr-18	JB	Silver Rock	Andrea Bollyky	Due Diligence Call on Credit Strategy	Telephonic
10-Apr-18	MF, JB	Empyrean	Kate Bauman	Due Diligence call on hedge fund strategy	Telephonic
10-Apr-18	MF, JB	Complus	Francois Hora	Due Diligence call on hedge fund strategy	Telephonic
10-Apr-18	JB	Highbridge	John Massad, John Segal, Jason Hempel	Due Diligence Call on Credit Strategy	Telephonic
12-Apr-18	MF	Brooklands	Dan Carroll	Discussion of private markets investments	Telephonic
12-Apr-18	MF, JB	Maltese Capital	Amanda Rice, Terry Maltese	Update on hedge fund investment	Telephonic
12-Apr-18	JB	Crabel Capital	Lisa Martin	Due Diligence call on hedge fund strategy	Telephonic
13-Apr-18	MF	Stepstone	Todd LaPenna	Update on infrastructure market	Telephonic
13-Apr-18	MF	Heitman	John Mancusa	Discussion on Asian Real Estate	Telephonic
13-Apr-18	JB	Cheyne Capital	Anthony Robertson, Kerry Hugh-Jones	Due Diligence Call on Credit Strategy	Telephonic
16-Apr-18	MF	Nezu	Danielle DeMarco	Update on hedge fund strategy	Telephonic
16-Apr-18	MF	Albourne	Lincoln Smith	Discussion of hedge fund market	Telephonic
16-Apr-18	MF, JB	Pathway	Vince Dee	Private Credit Pipeline Discussion	Telephonic
17-Apr-18	MF	Aermont	Camilla Mathews	Update on European Real Estate Strategy	Telephonic
17-Apr-18	JB	Aurelius Capital	Kathleen Riorda	Due Diligence call on hedge fund strategy	Telephonic
17-Apr-18	JB	Credit Suisse	Sprague Von Stroh	Discuss Private Markets Opportunities	Telephonic
17-Apr-18	JB	Partner Fund Management	Maris Stentz, Graham Low	Due Diligence call on hedge fund strategy	Telephonic

18-Apr-18	MF, SM	Riverstone	Ken Ryan, Carl Williams, Patrick Connell	Discussion of power infrastructure market	Juneau
18-Apr-18	MF, JB	Elliott Associates	Shishir Udani	Update on hedge fund strategy	Telephonic
18-Apr-18	MF	UC Regents	Jessica Hans	Reference call on infrastructure investment	Telephonic
18-Apr-18	MF	CBRE	Myles Sanger	Opportunities in European Real Estate	Telephonic
18-Apr-18	JB	Atalaya Capital	Brian Ford, Risa Miller, Sara Marsh	LPAC Session and fund update	Telephonic
18-Apr-18	MF, JB	SEAF	Bert van der Vaart, Thomas Hermsdorfer	Update on infrastructure fund opportunity	Telephonic
18-Apr-18	JB	Bregal Sagemount	Gene Yoon	Due Diligence Call on Credit Strategy	Telephonic
18-Apr-18	JB	Beach Point	Zach Axelrod	Due Diligence Call on Credit Strategy	Telephonic
18-Apr-18	JB	Deerpath	Antonella Napolitano	Due Diligence Call on Credit Strategy	Telephonic
19-Apr-18	MF, SM	Bain Capital Real Estate	Steve Radakovich, Dan Cummings	Introduction to Private Real Estate Strategy	Juneau
19-Apr-18	MF, RD, CP	Harbert Real Estate	Scott O'Donnell, Rich Brereton	Due Diligence meeting on Real Estate fund	Telephonic
19-Apr-18	JB	RoundShield	Driss Benkirane, Therese Mollevinge	Due Diligence Call on Credit Strategy	Telephonic
19-Apr-18	JB	Albourne	Kellie Hata, Lincoln Smith	Discuss Private Credit Markets	Telephonic
20-Apr-18	MF, RD, TA	RCLCO	Taylor Mammon, Gadi Kaufman, Ben Maslan	Engagement kick-off call	Telephonic
20-Apr-18	JB	Stenham Advisors	Ashkay Krishnan	Reference Call on Hedge Fund Investment	Telephonic
20-Apr-18	JB	Generate Capital	Scott Jacobs	Investor update call	Telephonic
23-Apr-18	MF, JB, CP	Sheppard Mullin	Tom Devaney	Legal Discussion of In-Process Infra Investment	Telephonic
24-Apr-18	MF	Deloitte	Kevin Kalayjian	Audit Committee Call for Infrastructure Investment	Telephonic
24-Apr-18	MF	Brookfield	Brian Kingston, Chris Harris	Real Estate Due Diligence	New York
24-Apr-18	MF	Alphadyne	Katie Carroll	Due Diligence on Hedge Fund Strategy	New York
24-Apr-18	JB	Bain Capital	Kyle Betty	Due Diligence on Credit Strategy	Telephonic
25-Apr-18	MF	Elliott Associates	Paul Singer, Shishir Udani	Update Session on Hedge Fund Investment	New York
25-Apr-18	MF	Echo Street	Andrew Bilzin	Update Session on Hedge Fund Investment	New York
27-Apr-18	JB	Pathway	Vince Dee	Private Credit Co-investment Discussion	Telephonic
30-Apr-18	MF	GIP	Jim Jenkins, Jennifer Powers	Due Diligence on Credit Strategy	Juneau
1-May-18	MF, JB	Lansdowne	Julian Colville, Jonathan Regis	Update Session on Hedge Fund Investment	Telephonic
1-May-18	MF, JB	Crestline	Doug Bratton, Keith Williams, Caroline Cooley	Update Session on Credit and HF Investments	Telephonic
1-May-18	JB	Golub Capital	Richard Jacobson, Ross Van der Linden, and Others	Due Diligence on Credit Strategy	New York
1-May-18	JB	MGG Investment Group	Greg Racz, Kevin Griffin	Due Diligence on Credit Strategy	New York
1-May-18	JB	King Street	Paul Goldschmid, John Purcell, Eric Jacobs, and Others	Due Diligence on Credit Strategy	New York
2-May-18	MF	Proterra	Rich Gammill, Matt Swanson	Intro to Agricultural Lending Strategy	Telephonic

2-May-18	MF	Barclays	Angus Whelchel	Discussion of Private Market Opportunities	Telephonic
2-May-18	MF	Pantheon	Kathryn Leaf	Discussion of Infrastructure Market	Telephonic
2-May-18	MF, JB	Albourne	Richard Johnston, Lincoln Smith	Due Diligence on in-process hedge fund investment	Telephonic
2-May-18	JB	Anchorage Capital	Kevin Ulrich, John Estes	Due Diligence on Credit Strategy	New York
2-May-18	JB	Solus	Chris Pucillo, CJ Lanktree, and Others	Due Diligence on Credit Strategy	New York
2-May-18	JB	Atalaya Capital	Ivan Zinn and Others	Fund annual meeting and update	New York
3-May-18	MF	GMR Group	Sushil Modi	Review India Infrastructure Direct Investment	Telephonic
3-May-18	MF	Generate	Scott Jacobs	Update on Portfolio Company Performance	Telephonic
3-May-18	JB	Varagon Capital	Brett Shapira, Deborah Reich, and Others	Due Diligence on Credit Strategy	New York
3-May-18	JB	Solar Capital	Michael Gross and Bruce Spohler	Due Diligence on Credit Strategy	New York
3-May-18	JB	GoldenTree Asset Management	Joe Naggar, Steve Tananbaum, and Others	Due Diligence on Credit Strategy	New York
3-May-18	JB	Aurelius Capital	Mark Brodsky, Dan Gropper, and Others	Due Diligence on Credit Strategy	New York
4-May-18	MF, JB	Pathway	Jason Jenkins and Others	Infrastructure Pipeline Discussion	Telephonic
7-May-18	MF	Related Companies	Justin Metz	Discussion of Real Estate Development Market	Telephonic
8-May-18	MF	Activate Capital	Raj Atlaru	Due Diligence on Infrastructure Opportunity	San Francisco
8-May-18	JB	TSSP	Alan Waxman, Mike McGinn, Bo Stanley, and Others	Fund annual meeting and due diligence	San Francisco
9-May-18	MF	Generate	Scott Jacobs and Others	Quarterly Board of Directors Meeting	San Francisco
9-May-18	JB	Partner Fund Management	Brian Grossman and David Swift	Update on hedge fund investment	San Francisco
10-May-18	MF	Alphadyne	Katie Carroll	Due Diligence call on hedge fund strategy	Telephonic
10-May-18	MF	GIP	Raj Rao	Update Call on Infrastructure Direct Investment	Telephonic
10-May-18	MF, CP	Cox Castle	Amy Wells	Legal Discussion of Real Estate Investment	Telephonic
10-May-18	MF	Campbell Lutyens	Greg Weiner	Discussion of Infrastructure Market	Telephonic
10-May-18	MF	CIM	Avi Shemesh, Mike Hoverman	Update on Infrastructure fund investment	Juneau
10-May-18	MF	Generate	Allen Waldrop	Discussion of portfolio company investment	Telephonic
10-May-18	JB	Farallon	Phillipp Strepp, Ed Callaway, and Others	Due Diligence on Credit Strategy	San Francisco
11-May-18	JB	Albourne	Lincoln Smith, Rola Elamin	Discuss Private Markets Opportunities	Telephonic
14-May-18	MF	Morgan Stanley Infrastructure	Shyamsundar Gurumoorthy	Due Diligence on Infrastructure Opportunity	New York
14-May-18	MF	Morgan Stanley Infrastructure	Markus Hottenrott	LPAC Session and fund update	New York
14-May-18	JB	Silver Rock	Carl Meyer, Vinay Kumar, and Others	Due Diligence on Credit Strategy	Los Angeles
15-May-18	MF	GIP	Bayo Ogunlesi, Matt Harris	LPAC Session and fund update	New York
15-May-18	JB	Empyrean	Amos Meron, Marty Meekins, and Kate Baumann	Due Diligence on Hedge Fund Strategy	Los Angeles
15-May-18	JB	Beach Point	Scott Klein, Ben Hunsaker, Zach Axelrod	Due Diligence on Credit Strategy	Los Angeles
16-May-18	JB	Pathway	Vince Dee and Others	Private Credit Markets Discussion	Los Angeles
16-May-18	JB	Clearlake Capital	Behdad Eghbali, Jose Feliciano, and Others	Fund annual meeting and update	Los Angeles
17-May-18	MF	Maltese Capital	Amanda Rice, Terry Maltese	Update on hedge fund investment	New York
17-May-18	MF, CP	Cox Castle	Amy Wells	Legal discussion on in process Real Estate investment	Telephonic

21-May-18	MF	Maltese Capital	Amanda Rice	Follow-up review on hedge fund investment	Telephonic
21-May-18	JB	Albourne	Frank Moens, Lincoln Smith, and Rola Elamin	Private Credit Markets Discussion	Telephonic
22-May-18	MF	Brookfield	Chris Harris	Due Diligence call on Real Estate investment	Telephonic
22-May-18	MF, JB	Pavilion Alternatives	Raelan Lambert	Due Diligence Update on Private Credit Opportunity	Telephonic
22-May-18	JB	Pathway	Vince Dee and Others	Due Diligence Update on Private Credit Opportunity	Telephonic
22-May-18	JB	Brevet Capital	Brian Lippey and Matthew Lucas	Due Diligence on Credit Strategy	Telephonic
22-May-18	JB	Varde	Eric Perry	Due Diligence on Credit Strategy	Telephonic
22-May-18	JB	Capstone	Igor Vishnevetsky	Due Diligence on Hedge Fund Strategy	Telephonic
29-May-18	MF	Silver Creek	Bob Ratliffe	Due Diligence on Potential Real Assets Investment	Seattle
29-May-18	JB	MC Credit	Michael Zimmerman and Will Ziglar	Due Diligence on Credit Strategy	Telephonic
30-May-18	MF	Silver Creek	Bob Ratliffe and Others	Twin Creeks Timber Annual Meeting	Seattle
4-Jun-18	MF	Blue Scale	Greg Lindsey, Neil Desai	Intro call on Tech hedge fund	Telephonic
4-Jun-18	MF, SM	Lee Equity	Caitlyn McDonald, Jin Kim Yoo	Discussion of Real Assets Opportunity	Telephonic
4-Jun-18	MF	DE Shaw	Letitia Yang	Update Call on Hedge Fund Investment	Telephonic
4-Jun-18	JB	Probitas Partners	Michael Hoffman	Discuss Private Markets Opportunities	Telephonic
4-Jun-18	JB	TSSP	Brian D'Arcy	Private credit fund update	Telephonic
4-Jun-18	JB	Nine Masts	Ron Schachter and Emmie Jiang	Due Diligence on Hedge Fund Strategy	Telephonic
5-Jun-18	MF	Noble Street	Jim Hibbert	Discussion of Real Estate Reporting	Telephonic
5-Jun-18	MF	Generate	Scott Jacobs and Others	Board of Directors Call	Telephonic
5-Jun-18	JB	Silver Rock	Andrea Bollyky	Due Diligence on Credit Strategy	Telephonic
6-Jun-18	MF	Brookfield	Chris Harris, Juan Jimenez	Due Diligence call on Real Estate investment	Telephonic
6-Jun-18	MF	Morrison Foerster	Susan MacCormac	Discussion of Infrastructure Market	Telephonic
6-Jun-18	MF	Cox Castle	Amy Wells	Legal Discussion of Real Estate Investment	Telephonic
6-Jun-18	MF	Asperion Group	Debra Pipines	Discussion of Asia Hedge Fund Opportunity	Telephonic
6-Jun-18	MF	Activate Capital	Raj Atlaru	Due Diligence Call on Infrastructure Opportunity	Telephonic
6-Jun-18	MF	Parametric	Julianne Williams	Introduction to Hedge Fund Strategy	Telephonic
6-Jun-18	JB	Centerbridge	Sam Riter	Due Diligence on Credit Strategy	Telephonic
6-Jun-18	JB, CP	Sheppard Mullin	Tom Devaney	Legal Discussion of Credit Investment	Telephonic
7-Jun-18	MF	Field Street	Aaron Gillespie	Update on hedge fund investment	Telephonic
7-Jun-18	MF, JB	GIP	Michael McGhee	Update on Co-investment	Telephonic
7-Jun-18	MF	Singerman Real Estate	Seth Singerman	Introduction to Real Estate Strategy	Telephonic
7-Jun-18	MF, JB	Albourne	Chris Meinke, Rola Elamin	Discussion of Hedge Fund Strategy	Telephonic
7-Jun-18	JB	Silver Point	Even Teich, Elizabeth Parker	Due Diligence on Credit Strategy	Telephonic
11-Jun-18	MF, JB	CS Capital	Mike McHargue	Portfolio Update (Real Estate)	Telephonic
11-Jun-18	JB	Crestline	Frank Jordan	Due Diligence on Credit Strategy	Telephonic
11-Jun-18	JB	Lending Ark	Greg Park	Due Diligence on Credit Strategy	Juneau

12-Jun-18	MF, JB	ICG	Chris Hawkins	Private Credit Discussion	Juneau
15-Jun-18	MF	TIFF	Jay Willoughby	Discussion of Investment Landscape	Telephonic
15-Jun-18	JB	Pathway	Derrek Ransford and Others	Private Credit Co-investment Discussion	Telephonic
15-Jun-18	JB	Pathway	Vince Dee	Private Credit Pipeline Discussion	Telephonic
18-Jun-18	MF	50 South Capital	Greg Jones	Reference Call on Hedge Fund Investment	Telephonic
26-Jun-18	JB	Owl Rock	James Clarke	Due Diligence on Credit Strategy	Juneau
26-Jun-18	JB	Varde	Eric Perry	Due Diligence on Credit Strategy	Telephonic
28-Jun-18	JB	Nine Masts	Emmie Jiang	Due Diligence on Hedge Fund Strategy	Telephonic
28-Jun-18	MF, JB	Allegiant	Randy Reiff, Simon Breedon	Due Diligence on Real Estate Lending Opportunity	Telephonic
28-Jun-18	JB	Pharo Management	David Crosby	Hedge fund update	Telephonic
29-Jun-18	JB	Barclays	Mary Levett	Due Diligence on Credit Strategy	Telephonic
29-Jun-18	JB	Anchorage Capital	John Estes	Due Diligence on Credit Strategy	Telephonic

Manager Due Diligence Log - Private Equity and Special

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

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
4/3/2018	SM	Wafra	Adamson et al.	various	conf. call
4/3/2018	SM	L Catterton	senior management	portfolio and prospects	Austin, TX
4/4/2018	SM	Greenhill	deal team	project Alyeska	conf. call
4/5/2018	SM	Rapid Partners	senior management	Senvion	conf. call
4/6/2018	SM	HOOPS	Steve Smith	permanent capital	Austin, TX
4/9/2018	SM	Envoy Capital	Jay Schiff	REIT deal	conf. call
4/9/2018	SM	UBS	Feraz Shere	direct investments	conf. call
4/9/2018	SM	Crestline Investors	senior management	direct investments	conf. call
4/10/2018	SM	Kelso & Co.	Phil Berney	various	conf. call
4/10/2018	SM	Pathway Capital Management	various	pipeline	conf. call
4/11/2018	SM	Summit	Darren Black	HC services deal	conf. call
4/12/2018	SM	Crestline Investors	Doug Bratton	strategic asset	conf. call
4/12/2018	SM	JMI Equity	senior management	portfolio update and new fund	conf. call
4/12/2018	SM	Brooklands	senior management	various	conf. call
4/13/2018	SM	Rohatyn Group	Jen Tunney	LatAm deal	conf. call
4/16/2018	SM	Lexington Partners	Cullen Schannep	co-investment	conf. call
4/17/2018	SM	US LBM	senior management	strategic	conf. call
4/17/2018	SM	L Catterton	Ravi Thakran	Asia opps	Juneau
4/18/2018	SM	Whitehorse	Yann Robard et al.	project Badger	conf. call
4/18/2018	SM	Riverstone LLC	senior management	various	Juneau
4/18/2018	SM	Roark Capital	Neal Aronson	catch up	conf. call
4/18/2018	SM	PT Capital	Hugh Short	Funding, portfolio update	conf. call
4/19/2018	SM	Jordan Company	senior management	portfolio review	conf. call
4/20/2018	SM	Bain Capital	Radakovich, Cummings	real estate opps	conf. call
4/23/2018	SM	Premia Re	senior management	board meeting	Bermuda
4/24/2018	SM	Citi	Neil Shah	varous directs	conf. call
4/25/2018	SM	Wafra	senior management	Capital Constellation	NYC
4/26/2018	SM	Warburg Pincus	various	co-investment	conf. call
4/27/2018	SM	CC Capital	Chinh Chu	investment opp	conf. call
5/1/2018	SM	IIR/FIRCAP	senior management	deals, strategy	conf. call
5/3/2018	SM	Crestview	Barry Volpert	catch up	Juneau
5/3/2018	SM	Kelso & Co.	Chris Collins	board meeting recap	conf. call
5/4/2018	SM	Pavilion	senior management	project Wolf	conf. call

5/8/2018	SM	H.I.G.	senior management	Advantage Fund, Growth Fund	NYC
5/8/2018	SM	Cranemere	senior management	capital raising, portfolio update	NYC
5/8/2018	SM	Dyal	senior management	secondary	NYC
5/8/2018	SM	Whitehorse	deal team	secondary	NYC
5/9/2018	SM	Lee Equity	senior management	fund review	NYC
5/9/2018	SM	Centerbridge	senior management	LPAC, catch up	NYC
5/10/2018	SM	JMI Equity	senior management	AGM, portfolio, fundraising	NYC
5/11/2018	SM	Indigo Ag	senior management	board strategy call	conf. call
5/15/2018	SM	Wafra	senior management	Capital Constellation	conf. call
5/15/2018	SM	Chart Capital	David Collier	catch up	conf. call
5/15/2018	SM	Whitehorse	senior management	project Wolf	conf. call
5/16/2018	SM	Cranemere Africa	Karim Shariff	catch up	conf. call
5/16/2018	SM	NGP	senior management	catch up	Juneau
5/16/2018	SM	Gossamer Bio	senior management	intro	conf. call
5/17/2018	SM	Indigo Ag	David Perry	catch up	conf. call
5/17/2018	SM	Credit Suisse	Sprague von Stroh	catch up	conf. call
5/17/2018	SM	Pavilion	D. Fuller et al.	project Wolf	conf. call
5/18/2018	SM	Vista	senior management	Perennial structural update	Juneau
5/21/2018	SM	Lee Equity	Caitlyn Macdonald	catch up	conf. call
5/21/2018	SM	Crestview	Lindsey King	catch up	conf. call
5/21/2018	SM	Probitas Partners	Mike Hoffman	catch up	Juneau
5/22/2018	SM	Kelso & Co.	Frank Lovero	deal opp	conf. call
5/22/2018	SM	Onex	Emma Thompson	catch up	conf. call
5/22/2018	SM	Ridgemont Equity	senior management	LPAC	conf. call
5/25/2018	SM	Cranemere	senior management	catch up	conf. call
5/29/2018	SM	Astra Partners	Mark Johnson	deal opp	conf. call
5/29/2018	SM	Flagship	Noubar Afeyan	VC opps	Boston
5/29/2018	SM	Indigo Ag	senior management	Investor day and related activity	Boston
5/29/2018	SM	Catalyst	senior management	LPAC	conf. call
6/1/2018	SM	Hamilton Lane	Tara Blackburn	various topics	conf. call
6/4/2018	SM	Lee Equity	senior management	co-invest opp	conf. call
6/4/2018	SM	Wafra	senior management	Capital Constellation	conf. call
6/6/2018	SM	Onex	senior management	LPAC	conf. call
6/7/2018	SM	Providence	senior management	co-investment opp	conf. call
6/11/2018	AR, SM	GraphiteOne	Huston, McGroarty	investment opp	conf. call
6/12/2018	SM	ICG	Chris Hawkins	funds, strategy	Juneau
6/12/2018	SM	Barclays Capital	Susana Mendoza	investment opp	conf. call
6/14/2018	SM	Blackstone	Blitzer, Sothiros	TacOpps	Juneau
6/15/2018	SM	S & Co.	Nat Jeppson	biotech opps	conf. call
6/15/2018	AR, SM	Denali Therapeutics	senior management	pipeline, strategy update	Juneau
6/18/2018	SM	Crestline Investors	senior management	various	conf. call
6/18/2018	CP, SM	project Wolf	Tom Devaney	project Wolf	conf. call
6/19/2018	SM	Dyal	Ward, Sauer	Fund III + IV	Juneau
6/19/2018	SM	GCM Grosvenor	Levin, Hatch	various	Juneau
6/19/2018	SM	Pathway Capital Management	senior management	pipeline	conf. call
6/20/2018	SM, YK	StepStone Group	senior management	various	San Diego
6/20/2018	SM, YK	Anacap	senior management	various	San Diego
6/21/2018	SM, YK	Hamilton Lane	senior management	various	San Diego
6/21/2018	SM, YK	Gossamer Bio	senior management	pipeline, management	San Diego
6/21/2018	SM, YK	JMI Equity	senior management	Fund	San Diego
6/21/2018	SM	Providence	senior management	direct investment	conf. call
6/25/2018	SM	Flagship	Doug Cole	various	conf. call
6/25/2018	SM	Canaan Ventures	Brent Ahrens	various	Juneau
6/25/2018	SM	Pathway Capital Management	senior management	various	conf. call

6/25/2018	SM	RCP	Mike Rice	various	conf. call
6/25/2018	SM	StepStone Group	Monte Brem	various	conf. call
6/26/2018	SM	Wafra	senior management	various	conf. call
6/26/2018	SM	Gossamer Bio	Bryan Giraudo	funding	conf. call
6/27/2018	SM	Catalyst	Rich, Wolfson	funding	conf. call
6/28/2018	SM	Pathway Capital Management	Wayne Smith	fund	conf. call
6/28/2018	SM	Whitehorse	Yann Robard et al.	deal	conf. call
6/28/2018	SM	InvestIndustrial	Carl Mauckof	fund	conf. call

Staff Education & Training

ALASKA PERMANENT FUND CORPORATION

	EMPLOYEE	DEPT	TRAINING TYPE*	VENDOR	COURSE TITLE	CLASS HOURS	CITY	ST
	Chad Brown	HR	CS	BambooHR	2018 BambooHR Summit	24.0	Salt Lake City	UT
	Anthony Shaw	IT	OL	Lynda.com	5 ways to control your time	1.5	Juneau	AK
	Anthony Shaw	IT	LT	Cisco	210-060 Training	80.0	Juneau	AK
	Anthony Shaw	IT	LT	Cisco	210-060 Exam Certification	1.0	Juneau	AK
	Valeria Martinez	INV	CS	ISRP	ISRP Annual Conference	N/A	Miami	FL
	Charlie Vice	IT	OTT	Global Knowledge	Vmware vSphere: Install, Configure, Manage	40.0	Phoenix	AZ
	John Seagren	FIN	OL	NASACT	Blockchain Basics for Government Finance and Audit Professionals	2.0	Juneau	AK
	John Seagren	FIN	OL	KPMG	Data & analytics & intelligent automation in finance	1.0	Juneau	AK
	Danielle Graham	Exec	OL	Lynda.com	Social Media Marketing: Social CRM	1.0	Juneau	AK
	Danielle Graham	Exec	OL	Lynda.com	Marketing on Twitter	2.0	Juneau	AK

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

Communications

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

SUBJECT: Communications ACTION: ___________

DATE: September 26, 2018 INFORMATION: ____X_____

Brand Awareness

It has been just over a year since the successful and comprehensive implementation of APFC's re-branding strategy to address these 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. This revitalization of APFC's corporate identity has been well received by our fellow Alaskans and global partners. The APFC logo serves as a foundation for our communications elements: graphic standards, presentations, email-signatures, stationary, business cards, and reports. Staff is now working to develop a social media strategy that will have updated images and a timely approach to posting of content.

The launch of the redesigned APFC website in November of 2017 is also an integral part of our brand identity and is fundamental to our process of being transparent and accountable to our stakeholders. Based on analytics data, APFC's website is currently averaging per month –

~20,200 Pageviews
- The total number of times a page on the website has been viewed.

~8,000 Sessions
- A group of interactions that occur on the site during a given time span.

Top 5 Pages
- Home Page ~ 7,500 views
- Board Meetings ~3,000 views
- Fund News ~1,400 views
- Financial and Performance Reports ~1,000 views
- Report Archive ~1,000 views

Top Countries – Locations based on a Visitor's IP Address
- United States ~ 13,700 views
- Brazil ~750 views
- China ~670 views
- France ~400 views
- UK ~400 views

Mobile 86% vs Non-Mobile 14%

Annual Report

The 2018 Annual Report has been published in accordance with –

> *Alaska Statutes, Section 37.13.170. Reports and publications.*
> *By September 30 of each year, the board shall publish a report of the fund for distribution to the governor and the public. The board shall notify the legislature that the report is available. The report shall be written in easily understandable language. The report must include financial statements audited by independent outside auditors, a statement of the amount of money received by the fund from each investment during the period covered, a statement of investments of the fund including an appraisal at market value, a description of fund investment activity during the period covered by the report, a comparison of the fund performance with the intended goals contained in AS 37.13.020, an examination of the effect of the investment criteria of this chapter on the fund portfolio with recommendations of any needed changes, and any other information the board believes would be of interest to the governor, the legislature, and the public. …*

500 copies of the report have been printed for distribution to the Governor, the Alaska State Legislature, and the public. The report is also available on our website at apfc.org. The 2017 Annual Report has been downloaded more the 5,000 times from the website since it was posted over a year ago.

Presentations – Discussions - Interviews

Angela Rodell, Chief Executive Officer, offered presentations on the history, governance, investment structure, and performance of the APFC and the Fund during the following:

July 2018
- Presentation: Juneau Chamber of Commerce
- Interview: James Brooks with The Juneau Empire

August 2018
- Presentation: Juneau Rotary Club
- Interview: The Economist Intelligence Unit, commissioned by Northern Trust, on how data optimization can help asset owners that manage some investments in-house.

September 2018
- Presentation: Alaska Mental Health Trust Authority
- Presentation: Commonwealth North

Financials

APFC ALASKA PERMANENT FUND CORPORATION

Financial Report
June 30, 2018

Fiscal Year 2018 Net Assets

Balances through June 30, 2018 *(in millions)*

Total assets	$65,659.6
Less liabilities	($765.2)
Net assets	$64,894.4
Fund Balances:	
Nonspendable	
Permanent Fund corpus—contributions and appropriations	$40,167.4
Not in spendable form—unrealized appreciation on invested assets	$5,862.6
Total nonspendable fund balance	$46,030.0
Committed	
General Fund Commitment	$2,722.7
Current FY inflation proofing	$ -
Current FY AK Capital Income Fund	$ -
Committed fund balance	$2,722.7
Assigned for future appropriations	
Realized earnings	$13,739.0
Unrealized appreciation on invested assets	$2,402.7
Total assigned fund balance	$16,141.7
Total fund balances	$64,894.4

Fiscal Year 2018 Income

For the twelve months ending June 30, 2018 *(in millions)*

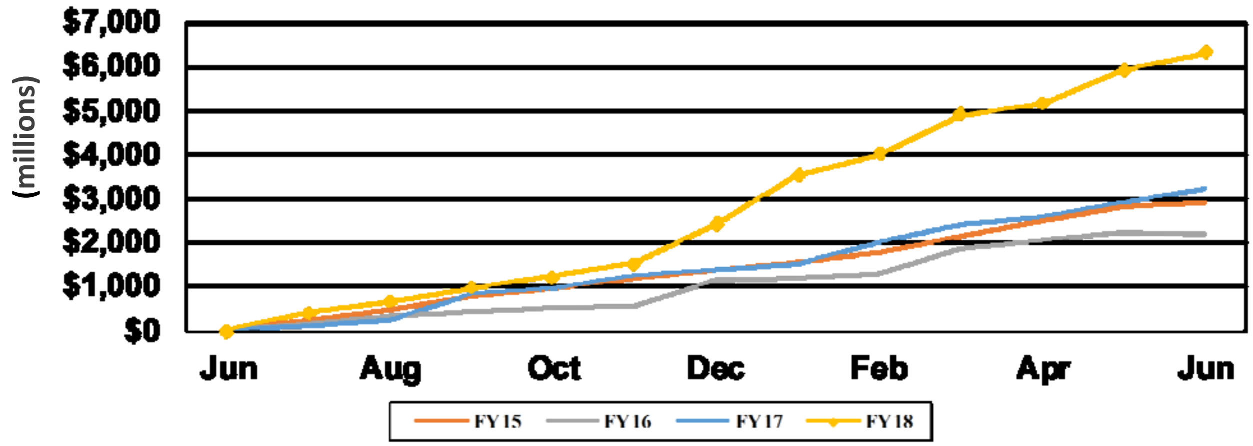
Statutory (Realized) Net Income

Interest, dividends, real estate, and other income	$1,580.5
Realized gains on the sale of invested assets	$4,933.3
Less operating expenses/legislative appropriations	($146.0)
Alaska Capital Income Fund committed realized earnings	($43.4)
Statutory net income	$6,324.4

GAAP (Accounting) Net Income

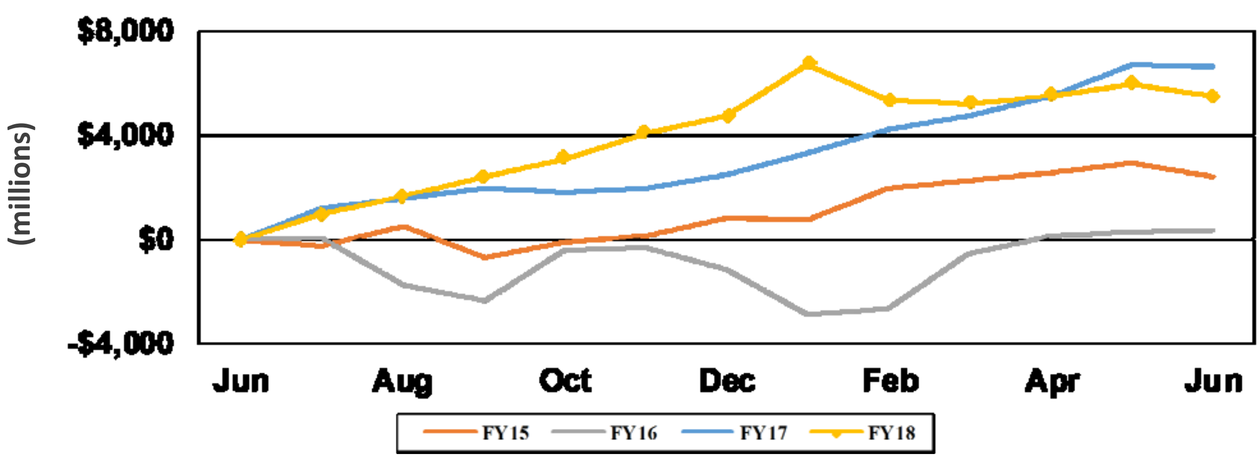
Statutory net income	$6,324.4
Unrealized losses on invested assets	($842.3)
Alaska Capital Income Fund committed realized earnings	$43.4
Accounting net income	$5,525.5

Statutory Net Income, Fiscal Years 2015 - 2018



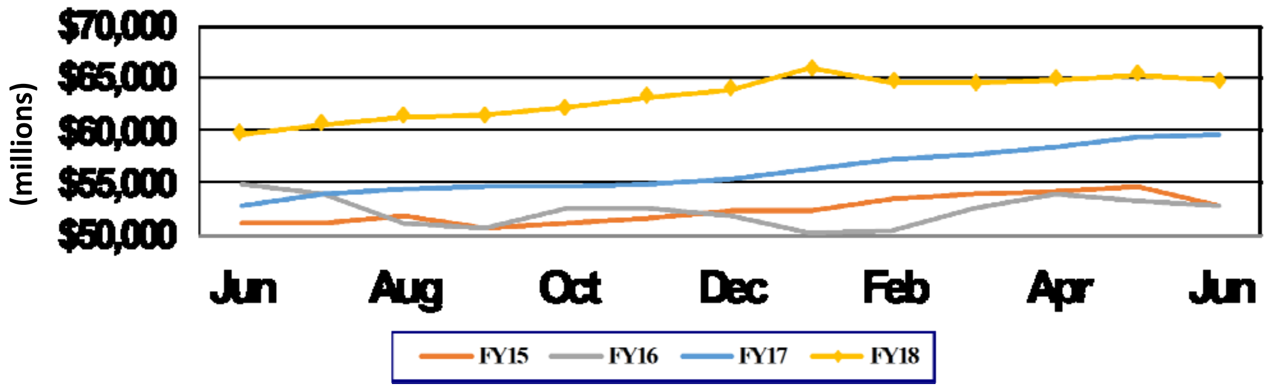
- Comprised of receipts from interest on fixed income, real estate rentals, stock dividends, and all realized gains and losses on the sales of invested assets, less AK Capital Income Fund committed amounts and operating expenses.
- FY15 statutory net income was $2,907.3 million.
- FY16 statutory net income was $2,198.2 million.
- FY17 statutory net income was $3,214.27 million.
- FY18 statutory net income was $6,324.4 million.

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



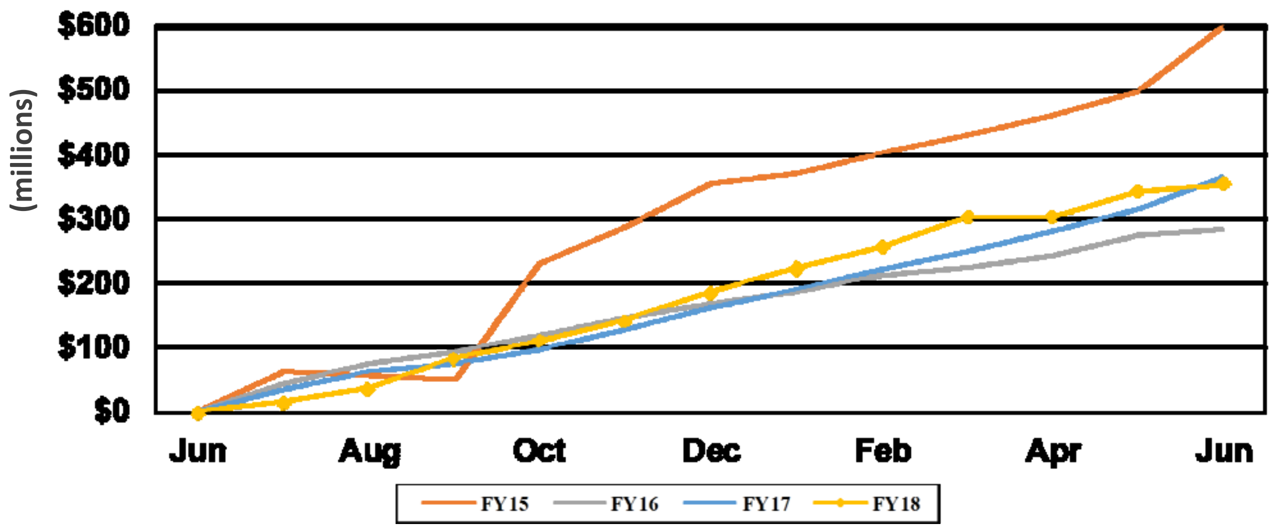
- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY15 was $2.4 billion.
- Accounting net income for FY16 was $398.5 million.
- Accounting net income for FY17 was $6.7 billion.
- Accounting net income for FY18 was $5,525.5 million.

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



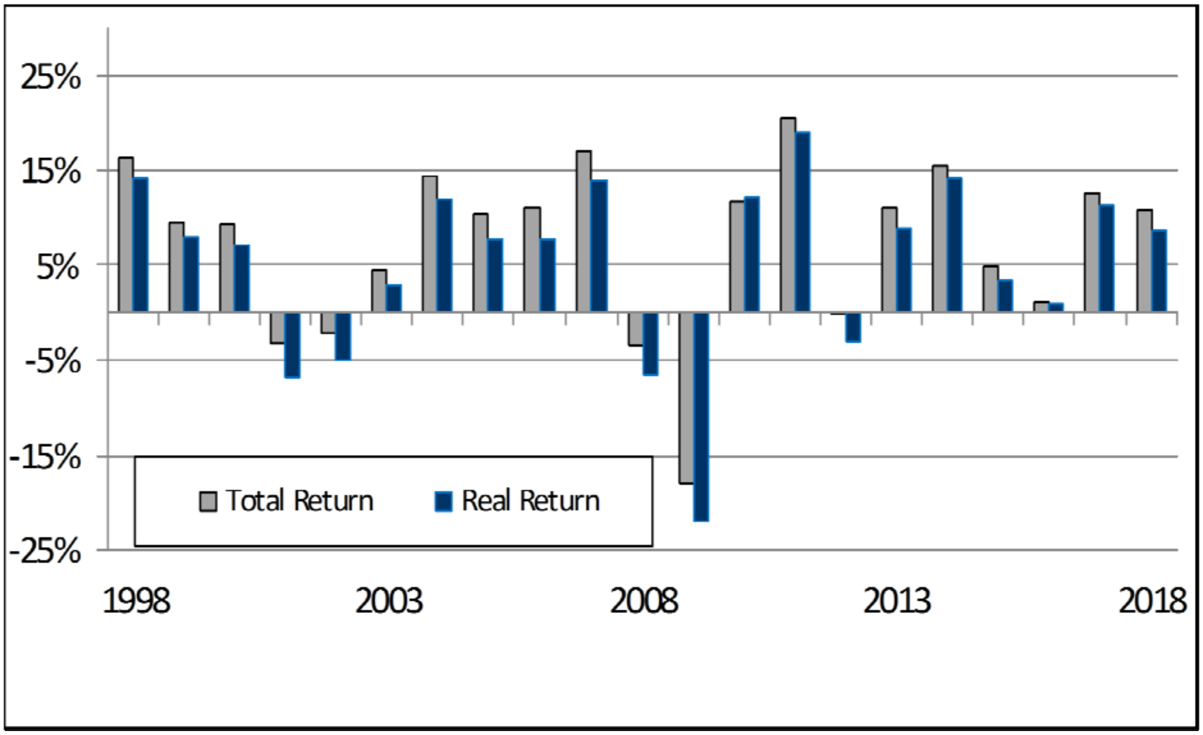
- FY15 Fund net assets as of June 2015 were $52.8 billion, an increase of $1.6 billion over the FY14 ending balance.
- FY16 Fund net assets as of June 2016 were $52.8 billion, basically unchanged from the FY15 ending balance.
- FY17 net assets as of June 2017 were $59.8 billion, an increase of $7.0 billion over the FY16 ending balance.
- FY18 nets assets as of June 2018 were $64.9 billion, an increase of $5.1 billion over the FY17 ending balance.

Dedicated Mineral Revenues, Fiscal Years 2015 - 2018



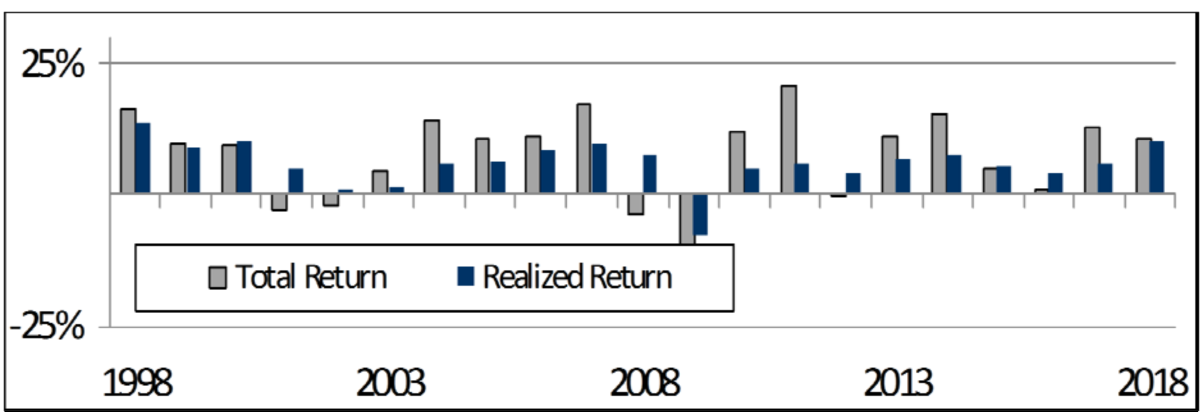
- FY15 mineral revenue was $600 million.
- FY16 mineral revenue was $284.5 million.
- FY17 mineral revenue was $364.9 million.
- FY18 mineral revenue was $353.1 million.

Alaska Permanent Fund Historical Returns, Fiscal Year 1998-2018
Total return minus inflation equals real return



Total return annualized over 34 years is 8.95%
Real return annualized over 34 years is 6.735%

Alaska Permanent Fund Historical Returns, Fiscal Year 1998-2018
Total return minus unrealized gains/losses equals realized return



Total return annualized over 34 years is 8.95%
Realized return annualized over 34 years is 10.04%

Balance Sheets

Unaudited (millions of dollars)		June 30, 2018	June 30, 2017
Assets			
Cash and temporary investments	$	**4,906.1**	2,653.5
Receivables, prepaid expenses and other assets		**664.1**	544.8
Investments:			
Marketable debt securities		**11,546.6**	10,114.6
Preferred and common stock		**26,248.8**	25,354.4
Real estate		**5,460.9**	6,886.8
Absolute return		**5,288.1**	4,567.0
Public-private credit		**1,311.4**	1,111.8
Private equity		**7,198.3**	6,818.1
Infrastructure		**3,035.3**	2,458.3
Total investments		**60,089.4**	57,311.0
TOTAL ASSETS	$	**65,659.6**	60,509.3
Liabilities			
Accounts payable	$	**721.8**	699.1
Income distributable to the State of Alaska		**43.4**	25.1
TOTAL LIABILITIES		**765.2**	724.2
Fund Balances			
Nonspendable:			
Permanent Fund corpus - contributions and appropriations		**40,167.4**	39,814.3
Not in spendable form - unrealized appreciation on invested assets		**5,862.6**	7,155.3
Total nonspendable		**46,030.0**	46,969.6
Committed:			
General Fund Commitment		**2,722.7**	0.0
Current FY inflation proofing		**0.0**	0.0
Current FY AK Capital Income Fund		**0.0**	0.0
Total committed		**2,722.7**	0.0
Assigned for future appropriations:			
Realized earnings		**13,739.0**	10,863.2
Unrealized appreciation on invested assets		**2,402.7**	1,952.3
Total assigned		**16,141.7**	12,815.5
TOTAL FUND BALANCES		**64,894.4**	**59,785.1**
TOTAL LIABILITIES AND FUND BALANCES	$	**65,659.6**	**60,509.3**

Statements of Revenues, Expenditures and Changes in Fund Balances

Unaudited (millions of dollars)		Month ended June 30, 2018	Twelve months ended June 30, 2018	Fiscal year-end audited June 30, 2017
Revenues				
Interest	$	42.0	459.4	310.8
Dividends		69.9	640.6	563.0
Real estate and other income		45.0	480.5	380.3
Total interest, dividends, real estate and other income		156.9	1,580.5	1,254.1
Net increase (decrease) in the fair value of investments:				
Marketable debt securities		(79.0)	(424.6)	(62.5)
Preferred and common stock		(358.3)	2,362.8	4,125.6
Real estate		(113.6)	65.6	102.6
Absolute return		(35.2)	221.7	351.8
Public-private credit		4.4	62.5	85.3
Private equity		(68.0)	1,599.8	1,056.6
Infrastructure		53.1	337.4	259.2
Derivative Instruments		(12.6)	(19.5)	69.1
Currency		(16.6)	(114.7)	(436.4)
Total net increase (decrease) in investments		(625.8)	4,091.0	5,551.3
TOTAL REVENUES		(468.9)	5,671.5	6,805.4
Expenditures				
Operating expenditures		(12.0)	(138.8)	(121.2)
Other legislative appropriations		1.4	(7.2)	(8.6)
TOTAL EXPENDITURES		(10.6)	(146.0)	(129.8)
Excess (deficiency) of revenue over expenditures	$	(479.5)	5,525.5	6,675.6
Other Financing Sources (Uses)				
Transfers in		10.7	353.1	364.9
Transfers out		(43.4)	(769.3)	(25.1)
NET CHANGE IN FUND BALANCES		(512.2)	5,109.3	7,015.4
Fund Balances				
Beginning of period		65,406.6	59,785.1	52,769.7
End of period	$	64,894.4	64,894.4	59,785.1

Statutory Income Calculation

Excess (deficiency) of revenues over (under) expenditures		(479.5)	5,525.5	6,675.6
Adjustments to bring net income to statutory net income:				
Unrealized (gains) losses		866.8	842.3	(3,436.3)
Alaska Capital Income Fund realized income		(46.0)	(43.4)	(25.1)
STATUTORY NET INCOME	$	341.3	6,324.4	3,214.2

ALASKA PERMANENT FUND
FUND FINANCIAL HISTORY & PROJECTIONS
as of June 30, 2018

APFC ALASKA PERMANENT FUND CORPORATION

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-[1] priations	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	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
77-08	0	7,039	10,536	11,574	29,149	2,064	2,064	31,213	37,724	37,556	16,652	15,314	421	4,969	352	352	1,189	5,321	77-08	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 [4]	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 [4]	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 [4]	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	0	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	25	10,863	1,031	1,952	4,245	12,815	17	59,785
18	39,814	0	353	0	40,167	(1,293)	5,863	46,030	5,526	6,324	726	0	43	16,461	451	2,403	6,049	18,864	18	64,894
19	40,167	0	416	913	41,496	6	5,868	47,364	4,098	4,090	1,908	913	28	17,730	2	2,405	1,271	20,135	19	67,499
20	41,496	0	402	943	42,840	5	5,873	48,714	4,263	4,256	1,967	943	28	19,076	2	2,408	1,348	21,484	20	70,198
21	42,840	0	405	973	44,218	5	5,878	50,096	4,435	4,428	2,109	973	28	20,423	2	2,410	1,348	22,832	21	72,928
22	44,218	0	400	1,004	45,622	4	5,882	51,504	4,608	4,603	2,343	1,004	28	21,678	2	2,411	1,257	24,090	22	75,594
23	45,622	0	403	1,036	47,061	3	5,885	52,946	4,778	4,773	2,489	1,036	28	22,926	2	2,413	1,250	25,339	23	78,285
24	47,061	0	413	1,068	48,542	3	5,888	54,430	4,949	4,944	2,326	1,068	28	24,477	1	2,414	1,552	26,891	24	81,321
25	48,542	0	433	1,102	50,077	2	5,890	55,967	5,142	5,139	2,415	1,102	28	26,099	1	2,416	1,623	28,514	25	84,481
26	50,077	0	454	1,137	51,668	1	5,892	57,559	5,344	5,342	2,508	1,137	28	27,795	1	2,416	1,697	30,212	26	87,771
27	51,668	0	463	1,173	53,304	1	5,892	59,196	5,553	5,552	2,604	1,173	28	29,570	0	2,417	1,776	31,987	27	91,183
28	53,304	0	479	1,210	54,993	0	5,893	60,885	5,780	5,780	2,704	1,210	28	31,436	0	2,417	1,866	33,853	28	94,739
Cumulative Totals Proj. for 2019-2028		0	4,268	10,558		30			48,951	48,906	23,373	10,558	277		14		14,989			

Preliminary Return Calculations for FY 2018

Assumptions:	Total Return	- Inflation	= Total Real Return	Statutory Return
FY 2018	10.74%	2.13%	8.61%	10.23%
FY 2019-2027	6.50%	2.25%	4.25%	6.53% [6]

Unaudited Income as of June 30, 2018

FY18 Statutory net income		
Interest, dividends, real estate & other income	$	1,580.5
Realized gains on the sale of invested assets		4,933.3
Less operating exp / Legis. appropriations		(146.0)
Less AK Capital Income Fund realized earnings		(43.4)
Statutory net income	$	6,324.4

FY18 Accounting (GAAP) net income		
Statutory net income	$	6,324.4
Unrealized gains on invested assets		(842.3)
AK Capital Income Fund committed realized earnings		43.4
GAAP (accounting) net income	$	5,525.5

Notes related to financial history and projections FY1977 - FY2028:

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

[2] Dedicated State Revenues in future fiscal years are based on the Spring 2018 Department of Revenue forecast.

[3] Accounting net income is based on United States Generally Accepted Accounting Principles (GAAP). Statutory net income is accounting net income, excluding any unrealized gains and losses on investments, 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 opintion, 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] FY18 and earlier values are actual. Future amounts are based on 2017 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, FY17 and FY18 inflation proofing was not appropriated.

Cash Flow

ALASKA PERMANENT FUND CORPORATION

Board of Trustees - APFC Cash Transfers - April 1 to June 30, 2018

Type of Transfer	April	May	June	Total
ADMINISTRATIVE TOTAL	(9,922,543)	3,979,637	31,583,196	25,640,291
PUBLIC EQUITIES TOTAL	(98,847,951)	2,001,994	2,492,460	(94,353,497)
FIXED INCOME PLUS TOTAL	43,311	1,672,213	871,071	2,586,594
PRIVATE EQUITY & GROWTH OPPORTUNITIES TOTAL	1,245,621,268	(27,961,256)	(89,002,976)	1,128,657,036
REAL ESTATE TOTAL	9,288,573	3,504,127	9,107,024	21,899,723
INFRA. & INCOME OPPORTUNITIES TOTAL	(579,806,651)	(8,717,417)	(32,809,321)	(621,333,389)
ABSOLUTE RETURN TOTAL	(26,006,563)	9,286,289	(145,000,000)	(161,720,274)
ASSET ALLOCATION TOTAL	100,574,997	-	215,000,000	315,574,997
Total value of cash/stock transfers	**640,944,441**	**(16,234,413)**	**(7,758,546)**	**616,951,482**

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

APFC Cash Transfers - April 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**(9,922,543)**		
4/3/2018	Transfer in - AIM STIF Interest	**2,292,097**	Bank of NY Mellon	APF Internal Cash Account
4/20/2018	Transfer in - Commission Recapture proceeds	**18,003**	Bank of NY Mellon	APF Internal Cash Account
4/13/2018	Transfer in - Securities Lending Income	**110,616**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**29,987**	Class action proceeds	APF Internal Cash Account
Various	Transfer out - Corporate Expenses	**(12,373,246)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**(98,847,951)**		
	INTERNATIONAL EQUITIES			
4/23/2018	**MEASA Fund account increase**	**(100,575,000)**	APF Internal Cash Account	MEASA Fund Account
	APF PUBLIC EQUITY CASH			
4/13/2018	**Public Equity Sec Lending account decrease**	**1,727,049**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**43,311**		
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account increase**	**(875,272)**	APF Internal Cash Account	APF Fixed Income - Aggregate Account
	REITS			
4/4/2018	**American Homes 4 Rent account decrease**	**83,595**	American Homes 4 Rent Account	APF Internal Cash Account
	FIXED INCOME PLUS CASH			
4/13/2018	**Fixed Income Sec Lending account decrease**	**834,988**	Fixed Income Sec Lending Account	APF Internal Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**1,245,621,268**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**1,155,995,683**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(41,598,557)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**170,343,231**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(39,119,088)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**9,288,573**		
Various	**Real Estate distributions**	**9,288,573**	Real Estate	APF Internal Cash Account
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**(579,806,651)**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**15,391,581**	Infrastructure	APF Internal Cash Account
Various	**Infrastructure capital calls**	**(88,891,841)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**10,496,363**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(15,491,034)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities capital calls**	**(501,311,719)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**(26,006,563)**		
Various	**Absolute Return distributions**	**48,993,437**	Absolute Return	APF Internal Cash Account
Various	**Absolute Return capital calls**	**(75,000,000)**	APF Internal Cash Account	Absolute Return
	ASSET ALLOCATION SUBTOTAL	**100,574,997**		
	APF ASSET ALLOCATION CASH			
4/23/2018	**APF Asset Allocation Cash account decrease**	**575,000**	APF Asset Allocation Cash	APF Internal Cash Account
	APF FI LIQUIDITY			
4/20/2018	**APF FI Liquidity account decrease**	**100,000,000**	APF FI Liquidity	APF Internal Cash Account
	Total value of cash/stock transfers	**640,944,441**		

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

APFC Cash Transfers - May 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**3,979,637**		
Various	Transfer in - Mineral revenue	**18,403,149**	Department of Natural Resources	APF Internal Cash Account
Various	Transfer in - AIM STIF Interest	**2,715,853**	Bank of NY Mellon	APF Internal Cash Account
5/21/2018	Transfer in - Commission Recapture proceeds	**40,481**	Bank of NY Mellon	APF Internal Cash Account
5/14/2018	Transfer in - Securities Lending Income	**190,205**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**13,586**	Class action proceeds	APF Internal Cash Account
Various	Transfer out - Corporate Expenses	**(17,383,637)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**2,001,994**		
	INTERNATIONAL EQUITIES			
5/7/2018	**Macquarie Emerging Markets account decrease**	**50,295,464**	Macquarie Emerging Markets Account	APF Internal Cash Account
5/7/2018	**JP Morgan Emerging Markets account decrease**	**144,515,075**	JP Morgan Emerging Markets Account	APF Internal Cash Account
5/7/2018	**Lee Munder Emerging Markets account decrease**	**98,537,312**	Lee Munder Emerging Markets Account	APF Internal Cash Account
5/7/2018	**Mondrian Investment Partners account decrease**	**48,832,980**	Mondrian Investment Partners Account	APF Internal Cash Account
5/7/2018	**SSgA MSCI Emerging Markets account decrease**	**125,725,549**	SSgA MSCI Emerging Markets Account	APF Internal Cash Account
5/7/2018	**William Blair Emerging Markets account decrease**	**149,567,853**	William Blair Emerging Markets Account	APF Internal Cash Account
5/7/2018	**DFA Emerging Markets Value account decrease**	**99,359,526**	DFA Emerging Markets Value Account	APF Internal Cash Account
5/7/2018	**DFA Emerging Markets Small Cap account decrease**	**49,591,748**	DFA Emerging Markets Small Cap Account	APF Internal Cash Account
5/8/2018	**Trustbridge Emerging Markets account increase**	**(101,660,356)**	APF Internal Cash Account	Trustbridge Emerging Markets Account
Various	**Wells Capital account increase**	**(101,965,641)**	APF Internal Cash Account	Wells Capital Account
5/7/2018	**Mellon MSCI World ex-USA account decrease**	**824,803,950**	Mellon MSCI World ex-USA Account	APF Internal Cash Account
5/7/2018	**DFA International Large Cap account decrease**	**378,424,222**	DFA International Large Cap Account	APF Internal Cash Account
	GLOBAL EQUITIES			
5/7/2018	**Lazard Asset Management account decrease**	**148,704,174**	Lazard Asset Management Account	APF Internal Cash Account
5/7/2018	**McKinley Capital Management account decrease**	**151,587,142**	McKinley Capital Management Account	APF Internal Cash Account
5/23/2018	**CDAM Global Equity account increase**	**(149,976,344)**	APF Internal Cash Account	CDAM Global Equity Account
5/23/2018	**Longview Global Equity account increase**	**(405,604,318)**	APF Internal Cash Account	Longview Global Equity Account
5/23/2018	**Arrowstreet Global Equity account increase**	**(202,723,760)**	APF Internal Cash Account	Arrowstreet Global Equity Account
5/23/2018	**WCM Global Equity account increase**	**(202,530,693)**	APF Internal Cash Account	WCM Global Equity Account
5/23/2018	**RBA Global Equity account increase**	**(101,174,815)**	APF Internal Cash Account	RBA Global Equity Account
	DOMESTIC EQUITIES			
5/23/2018	**Mellon S&P 500 account increase**	**(669,052,411)**	APF Internal Cash Account	Mellon S&P 500 Account
5/23/2018	**Mellon FTSE RAFI US Large Cap account increase**	**(203,376,607)**	APF Internal Cash Account	Mellon FTSE RAFI US Large Cap Account
5/23/2018	**DSM - Large Cap account increase**	**(202,573,024)**	APF Internal Cash Account	DSM - Large Cap Account
5/23/2018	**Jennison Associates LLC account increase**	**(101,273,465)**	APF Internal Cash Account	Jennison Associates LLC Account
	APF PUBLIC EQUITY CASH			
5/14/2018	**Public Equity Sec Lending account decrease**	**1,809,607**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**1,672,213**		
	VARIOUS SUB-ASSET CLASSES			
Various	**APF Fixed Income - Aggregate account decrease**	**875,446**	APF Fixed Income - Aggregate Account	APF Internal Cash Account
5/30/2018	**APF Global Government Bonds account increase**	**(300,000,000)**	APF Internal Cash Account	APF Global Government Bonds Account
Various	**APF TIPS account decrease**	**500,000,000**	APF TIPS Account	APF Internal Cash Account
5/14/2018	**Fixed Income Sec Lending account decrease**	**796,766**	Fixed Income Sec Lending Account	APF Internal Cash Account
Various	**APF Fixed Income Plus Cash account increase**	**(200,000,000)**	APF Internal Cash Account	APF Fixed Income Plus Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**(27,961,256)**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**35,322,626**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(70,538,503)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**32,069,224**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(24,814,604)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**3,504,127**		
Various	**Real Estate distributions**	**8,079,981**	Real Estate	APF Internal Cash Account
Various	**Real Estate capital calls**	**(4,575,854)**	APF Internal Cash Account	Real Estate
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**(8,717,417)**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**71,340,259**	Infrastructure	APF Internal Cash Account
Various	**Infrastructure capital calls**	**(96,457,845)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**27,909,360**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(12,361,551)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities distributions**	**1,192,135**	Income Opportunities	APF Internal Cash Account
Various	**Income Opportunities capital calls**	**(339,775)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**9,286,289**		
Various	**Absolute Return distributions**	**59,286,289**	Absolute Return	APF Internal Cash Account
Various	**Absolute Return capital calls**	**(50,000,000)**	APF Internal Cash Account	Absolute Return
	Total value of cash/stock transfers	**(16,234,413)**		

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

APFC Cash Transfers - June 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**31,583,196**		
Various	Transfer in - Mineral revenue	**34,706,088**	Department of Natural Resources	APF Internal Cash Account
6/4/2018	Transfer in - AIM STIF Interest	**2,530,014**	Bank of NY Mellon	APF Internal Cash Account
6/22/2018	Transfer in - Commission Recapture proceeds	**24,765**	Bank of NY Mellon	APF Internal Cash Account
6/14/2018	Transfer in - Securities Lending Income	**352,332**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**95**	Class action proceeds	APF Internal Cash Account
6/29/2018	Transfer out - FY18 Appropriation to Dept. of Revenue	**(94,100)**	APF Internal Cash Account	Dept. of Revenue
Various	Transfer out - Corporate Expenses	**(5,935,997)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**2,492,460**		
	INTERNATIONAL EQUITIES			
Various	**Lee Munder Emerging Markets account decrease**	**7,611**	Lee Munder Emerging Markets Account	APF Internal Cash Account
	DOMESTIC EQUITIES			
6/14/2018	**Mellon S&P 500 account increase**	**(3,500,000)**	APF Internal Cash Account	Mellon S&P 500 Account
	APF PUBLIC EQUITY CASH			
6/14/2018	**Public Equity Sec Lending account decrease**	**1,705,774**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**871,071**		
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account decrease**	**20,513**	APF Fixed Income - Aggregate Account	APF Internal Cash Account
	NON US FIXED INCOME			
6/5/2018	**APF Global Government Bonds account increase**	**(40,000,000)**	APF Internal Cash Account	APF Global Government Bonds Account
	EMERGING MARKET DEBT			
6/19/2018	**APF Emerging Market Debt account increase**	**(100,000,000)**	APF Internal Cash Account	APF Emerging Market Debt Account
	FIXED INCOME PLUS CASH			
6/14/2018	**Fixed Income Sec Lending account decrease**	**840,504**	Fixed Income Sec Lending Account	APF Internal Cash Account
Various	**APF Fixed Income Plus Cash account decrease**	**140,000,000**	APF Fixed Income Plus Cash Account	APF Internal Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**(89,002,976)**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**89,176,359**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(87,781,809)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**5,478,831**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(95,876,356)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**9,107,024**		
Various	**Real Estate distributions**	**9,778,476**	Real Estate	APF Internal Cash Account
Various	**Real Estate capital calls**	**(671,452)**	APF Internal Cash Account	Real Estate
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**(32,809,321)**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**34,359,657**	Infrastructure	APF Internal Cash Account
Various	**Infrastructure capital calls**	**(1,341,079)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**8,697,816**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(28,582,096)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities capital calls**	**(45,943,619)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**(145,000,000)**		
Various	**Absolute Return capital calls**	**(145,000,000)**	APF Internal Cash Account	Absolute Return
	ASSET ALLOCATION SUBTOTAL	**215,000,000**		
	APF ASSET ALLOCATION CASH			
	APF Asset Allocation Cash account decrease	**15,000,000**	APF Asset Allocation Cash	APF Internal Cash Account
	APF FI LIQUIDITY			
6/27/2018	**APF FI Liquidity account decrease**	**200,000,000**	APF FI Liquidity	APF Internal Cash Account
	Total value of cash/stock transfers	**(7,758,546)**		

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, 2018

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

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		Market Values as of 6/30/2018*	Returns as of 6/30/2018						
			1 Month	3 Months	CYTD (6 Months)	FYTD (12 Months)	1 Year (12 Months)	3 Years (36 Months)	5 Years (60 months)
1	**TOTAL FUND ●**	**65,421,430,989**	**-0.08%**	**1.68%**	**2.14%**	**10.74%**	**10.74%**	**7.96%**	**8.91%**
2	**TOTAL FUND without FX Overlay ●**		**-0.08%**	**1.67%**	**2.15%**	**10.76%**	**10.76%**	**7.96%**	**8.92%**
3	Passive Index Benchmark[1] ●		-0.18%	0.57%	-0.23%	7.83%	**7.83%**	6.49%	6.81%
4	Performance Benchmark[2] ●		0.01%	0.78%	0.94%	8.20%	8.20%	**7.08%**	7.55%
5	Total Fund Return Objective[3]		0.56%	2.17%	4.63%	7.87%	7.87%	6.83%	**6.54%**
6	**PUBLIC EQUITIES with FX Overlay**	**26,909,303,260**	**-1.16%**	**0.29%**	**-0.18%**	**11.67%**	**11.67%**	**8.49%**	**9.52%**
7	**PUBLIC EQUITIES**	**26,904,713,335**	**-1.16%**	**0.26%**	**-0.16%**	**11.72%**	**11.72%**	**8.50%**	**9.52%**
8	MSCI ACWI IMI		-0.60%	0.72%	-0.18%	11.14%	11.14%	8.34%	9.60%
9	**INTERNATIONAL EQUITIES**	**7,773,238,730**	**-3.13%**	**-3.95%**	**-4.15%**	**8.39%**	**8.39%**	**6.38%**	**6.53%**
10	MSCI ACWI IMI EX-US		-2.00%	-2.61%	-3.65%	7.75%	7.75%	5.46%	6.39%
11	**GLOBAL EQUITIES**	**10,778,695,218**	**-0.81%**	**1.30%**	**0.63%**	**11.51%**	**11.51%**	**8.33%**	**9.97%**
12	MSCI ACWI IMI		-0.60%	0.72%	-0.18%	11.14%	11.14%	8.34%	9.60%
13	**DOMESTIC EQUITIES**	**8,352,354,698**	**0.25%**	**3.20%**	**2.79%**	**14.79%**	**14.79%**	**11.26%**	**13.38%**
14	RUSSELL 3000 INDEX		0.65%	3.89%	3.22%	14.78%	14.78%	11.58%	13.29%
15	**FIXED INCOME PLUS ◊†‡**	**13,974,019,513**	**0.14%**	**0.12%**	**-1.62%**	**0.99%**	**0.99%**		
16	PUBLIC INCOME BENCHMARK[4]		0.16%	0.27%	-1.45%	0.86%	0.86%		
17	**US FIXED INCOME AGGREGATE**	**3,752,209,750**	**-0.16%**	**-0.26%**	**-1.81%**	**-0.41%**	**-0.41%**	**1.92%**	**2.46%**
18	BB AGGREGATE		-0.12%	-0.16%	-1.62%	-0.40%	-0.40%	1.72%	2.27%
19	**US INVESTMENT GRADE CORPORATE**	**3,624,305,959**	**-0.56%**	**-1.13%**	**-3.54%**	**-0.72%**	**-0.72%**	**3.50%**	**4.14%**
20	BB CORPORATE		-0.58%	-0.98%	-3.27%	-0.83%	-0.83%	3.07%	3.51%
21	**NON US FIXED INCOME**	**1,325,296,399**	**0.42%**	**0.23%**	**1.34%**	**2.81%**	**2.81%**	**3.40%**	**3.87%**
22	BB GLOBAL TREASURY EX-US		0.47%	0.37%	1.61%	3.34%	3.34%	3.71%	4.12%
23	**GLOBAL HIGH YIELD**	**1,452,444,996**	**0.35%**	**1.10%**	**0.24%**	**2.67%**	**2.67%**	**4.87%**	**5.05%**
24	BB US HIGH YIELD 2% ISSUER CAP		0.40%	1.03%	0.16%	2.62%	2.62%	5.54%	5.52%
25	**EMERGING MARKET DEBT**	**917,807,490**	**-2.01%**	**-7.63%**	**-5.83%**	**-1.49%**	**-1.49%**	**3.48%**	**2.19%**
26	EMD BENCHMARK[5]		-2.02%	-7.01%	-5.78%	-1.89%	-1.89%	3.37%	1.89%
27	**TIPS**	**254,145,460**	**0.33%**	**0.71%**	**-0.03%**	**1.98%**	**1.98%**	**1.76%**	**1.49%**
28	BB US TIPS		0.40%	0.77%	-0.02%	2.11%	2.11%	1.93%	1.68%
29	**REITS †‡**	**1,386,844,684**	**2.75%**	**6.56%**	**0.86%**	**5.84%**	**5.84%**	**10.37%**	**7.43%**
30	S&P GLOBAL REIT		2.29%	6.05%	-0.09%	4.05%	4.05%	5.80%	6.31%
31	**LISTED INFRASTRUCTURE ◊**	**656,840,591**	**2.08%**	**4.22%**	**-1.09%**	**4.28%**	**4.28%**	**9.07%**	
32	S&P GLOBAL LISTED INFRASTRUCTURE		1.88%	2.30%	-3.54%	0.91%	0.91%	5.04%	
33	**FIXED INCOME PLUS CASH**	**604,088,825**	**0.17%**	**0.46%**	**0.82%**	**1.26%**	**1.26%**		
34	90 DAY T-BILLS		0.17%	0.45%	0.81%	1.36%	1.36%		
35	**PRIVATE EQUITY & GROWTH OPPORTUNITIES ●**	**7,304,409,212**	**N/A**	**11.39%**	**16.82%**	**32.70%**	**32.70%**	**14.56%**	**23.84%**
36	**PRIVATE EQUITY ●**	**4,481,658,904**	**N/A**	**8.27%**	**13.64%**	**27.87%**	**27.87%**	**20.32%**	**20.17%**
37	PRIVATE EQUITY CUSTOM BENCHMARK[6] ●		N/A	3.03%	8.14%	18.27%	18.27%	8.35%	10.42%
38	**GROWTH OPPORTUNITIES ●**	**2,822,750,307**	**N/A**	**16.04%**	**21.56%**	**40.13%**	**40.13%**	**6.88%**	
39	CAMBRIDGE PRIVATE EQUITY ●		N/A	3.03%	8.14%	18.27%	18.27%	12.66%	
40	**REAL ESTATE ● †‡**	**3,975,135,845**	**N/A**	**1.89%**	**3.81%**	**6.99%**	**6.99%**	**9.20%**	**9.99%**
41	NCREIF TOTAL INDEX ●		N/A	1.70%	3.53%	7.12%	7.12%	8.72%	10.00%
42	**INFRA. & INCOME OPPORTUNITIES ● ◊‡**	**4,415,625,942**	**N/A**	**2.20%**	**6.59%**	**16.68%**	**16.68%**	**13.81%**	**12.02%**
43	INFRA. & INCOME OPPORTUNITIES[7] ●		N/A	-2.67%	-1.32%	4.49%	4.49%	5.20%	6.65%
44	**INFRASTRUCTURE ● ◊**	**2,418,452,685**	**N/A**	**3.01%**	**9.67%**	**22.87%**	**22.87%**	**21.49%**	**16.35%**
45	**PUBLIC/PRIVATE CREDIT ●**	**1,196,393,544**	**N/A**	**0.97%**	**3.11%**	**8.79%**	**8.79%**	**6.47%**	**7.20%**
46	**INCOME OPPORTUNITIES ● ‡**	**800,779,712**	**N/A**	**0.20%**	**-4.39%**	**1.90%**	**1.90%**	**7.88%**	
47	**ABSOLUTE RETURN**	**2,823,649,568**	**N/A**	**0.21%**	**1.46%**	**5.95%**	**5.95%**	**3.28%**	**3.39%**
48	ABSOLUTE RETURN BENCHMARK[8]		N/A	0.84%	0.79%	5.67%	5.67%	5.73%	5.91%
49	**ASSET ALLOCATION**	**6,020,002,935**	**-0.52%**	**-0.42%**	**-1.23%**	**2.58%**	**2.58%**	**2.25%**	**2.94%**
50	**APF FI LIQUIDITY**	**337,178,789**	**0.06%**	**0.13%**	**-1.16%**	**-0.86%**	**-0.86%**		
51	**APF ASSET ALLOCATION CASH**	**951,235,739**	**0.14%**	**0.41%**	**0.71%**	**1.28%**	**1.28%**	**0.61%**	**0.37%**
52	90 DAY T-BILLS		0.17%	0.45%	0.81%	1.36%	1.36%	0.68%	0.42%
53	**ASSET ALLOCATION CASH OVERLAY**	**2,225,698,694**	**-0.49%**	**-0.05%**					
54	**MULTI-STRATEGY**	**2,505,889,713**	**-0.91%**	**-1.14%**	**-1.55%**	**4.45%**	**4.45%**	**4.29%**	**5.49%**
55	Performance Benchmark ●		0.01%	0.78%	0.94%	8.20%	8.20%	7.08%	7.55%

[1] Passive Benchmark is a blended benchmark (60% MSCI All-Country World Index IMI; 20% BB 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 (38% MSCI ACWI IMI; 11% NCREIF Total Index (1Q Lagged); 12% Cambridge Private Equity (1Q Lagged); 6% BB US Corporate; 6% BB Aggregate; 5% HFRI Total HFOF Universe; 2% BB US High Yield 2% Issuer Cap; 2% BB US High Yield 2% Issuer Cap (1Q Lagged); 3% 90 Day T-Bills; 4% FTSE Developed Core Infrastructure TRI (1Q Lagged); 2% S&P Global REIT; 2% BB Global Agg ex-US; 1% S&P Global Listed Infrastructure; 0.5% JPM EMBI Global Div; 0.5% JPM GBI-EM Global Div TRI; 1% BC US TIPS) from 6/30/2017 to date. Prior periods are described in Investment Policy.

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

[4] Public Income Plus Benchmark is a blended benchmark (25% BB Aggregate; 25% BB US Corporate; 10% S&P Global REIT; 10% BB US High Yield 2% Issuer Cap; 10% BB Global Agg ex-US; 5% S&P Global Listed Infrastructure; 2.5% JPM EMBI Global Div; 2.5% JPM GBI-EM Global Div TRI; 5% BB US TIPS; 5% 90 Day T-Bills) from 9/30/2016

[5] EMD Benchmark is 50% JPM EMBI Global Diversified and 50% JPM GBI-EM Global Diversified.

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

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

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

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

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

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

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

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

#		Market Values as of 6/30/2018*	(A) 1 Month	(B) 3 Months	(C) CYTD	(D) FYTD	(E) 1 Year	(F) 3 Years	(G) 5 Years
			Returns as of 6/30/2018						
56	PUBLIC EQUITIES with FX Overlay	26,909,303,260	-1.16%	0.29%	-0.18%	11.67%	11.67%	8.49%	9.52%
57	PUBLIC EQUITIES	26,904,713,335	-1.16%	0.26%	-0.16%	11.72%	11.72%	8.50%	9.52%
58	MSCI ACWI IMI		-0.60%	0.72%	-0.18%	11.14%	11.14%	8.34%	9.60%
59	INTERNATIONAL EQUITIES	7,773,238,730	-3.13%	-3.95%	-4.15%	8.39%	8.39%	6.38%	6.53%
60	MSCI ACWI IMI EX-US		-2.00%	-2.61%	-3.65%	7.75%	7.75%	5.46%	6.39%
61	Macquarie Emerging Markets	187,506,209	-2.29%	-6.24%	-4.66%	11.06%	11.06%	8.74%	
62	JP Morgan Emerging Markets	387,846,792	-2.83%	-6.00%	-5.14%	10.79%	10.79%	9.97%	
63	Lee Munder Emerging Markets	3,045	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
64	Mondrian Investment Partners	519,809,509	-4.53%	-9.35%	-9.23%	-0.02%	-0.02%	2.98%	1.60%
65	SSGA MSCI Emerging Markets	113,948,944	-4.15%	-7.98%	-6.60%	7.54%	7.54%	5.48%	5.06%
66	William Blair Emerging Markets	391,457,600	-3.10%	-7.31%	-6.42%	11.08%	11.08%	5.99%	
67	MEASA Fund	93,633,589	-4.86%						
68	MSCI Emerging Markets Index		-4.15%	-7.96%	-6.66%	8.20%	8.20%	5.60%	5.01%
69	DFA Emerging Markets Value	466,345,084	-5.54%	-8.11%	-6.22%	7.18%	7.18%		
70	MSCI Emerging Markets Value Index		-5.17%	-8.94%	-7.47%	4.28%	4.28%		
71	DFA Emerging Markets Small Cap	147,910,373	-6.75%	-9.41%	-8.90%	5.70%	5.70%		
72	MSCI Emerging Markets Small Cap Index		-6.56%	-8.60%	-8.45%	5.64%	5.64%		
73	Trustbridge Emerging Markets	273,221,053	-6.08%	-0.95%	4.47%	38.30%	38.30%		
74	MSCI All China Net Total Return Index		-8.03%	-10.75%	-10.91%	2.98%	2.98%		
75	Wells Capital	167,052,041	-6.96%	-5.00%	-1.84%	20.14%	20.14%		
76	MSCI All China Net Total Return Index		-8.03%	-10.75%	-10.91%	2.98%	2.98%		
77	Mellon MSCI World ex-USA	558,636,634	-1.13%	-0.60%	-2.53%	7.30%	7.30%	5.18%	6.53%
78	DFA International Large Cap	548,719,006	-1.74%	-1.44%	-3.07%	8.61%	8.61%	5.71%	6.90%
79	Int'l Passive/Quasi-Passive Custom [1]		-1.10%	-0.75%	-2.77%	7.04%	7.04%	4.87%	6.23%
80	DFA International Small Cap Value	418,079,352	-2.52%	-3.15%	-5.44%	6.21%	6.21%	8.18%	10.73%
81	MSCI World ex-USA Small Cap Value Index		-1.98%	-2.18%	-3.91%	8.13%	8.13%	7.86%	8.96%
82	DFA International Small Company	427,582,529	-1.89%	-1.52%	-2.16%	10.19%	10.19%	10.01%	10.83%
83	SSGA International Developed Small Cap	421,102,196	-1.71%	-0.80%	-1.23%	12.02%	12.02%	9.70%	10.58%
84	MSCI World ex-USA Small Cap Index		-1.73%	-0.94%	-1.44%	11.87%	11.87%	9.45%	10.28%
85	Acadian Asset Mgmt	517,396,988	-3.41%	-3.55%	-2.44%	10.26%	10.26%	9.15%	8.02%
86	MSCI Custom Benchmark[2]		-1.14%	-2.05%	-4.53%	4.80%	4.80%	4.66%	6.10%
87	LSV International Large Cap	553,828,959	-3.39%	-4.55%	-5.32%	5.98%	5.98%	4.73%	
88	Schroders International Large Cap	601,473,184	-2.73%	-3.48%	-3.89%	5.32%	5.32%	6.62%	
89	MSCI All Country World ex-USA Value Index		-2.17%	-3.84%	-5.28%	4.64%	4.64%	3.51%	
90	Johnston International Large Cap	400,256,195	-3.90%	-0.14%	1.33%	15.51%	15.51%	11.31%	
91	JP Morgan International Large Cap	577,116,460	-1.18%	-0.38%	-1.54%	9.56%	9.56%	7.64%	
92	MSCI World ex-USA Growth Index		-1.06%	0.52%	-1.05%	9.26%	9.26%	5.95%	
93	GLOBAL EQUITIES	10,778,695,218	-0.81%	1.30%	0.63%	11.51%	11.51%	8.33%	9.97%
94	MSCI ACWI IMI		-0.60%	0.72%	-0.18%	11.14%	11.14%	8.34%	9.60%
95	AQR Global Equity	1,541,182,873	-2.17%	-0.53%	-1.06%	11.69%	11.69%	9.87%	10.98%
96	SSGA MSCI World	182,042,901	-0.07%	1.77%	0.58%	11.43%	11.43%	8.95%	
97	CDAM Global Equity	294,005,224	-0.36%	0.63%	-4.72%				
98	MSCI World Index		-0.05%	1.73%	0.43%	11.09%	11.09%	8.48%	9.94%
99	SSGA Russell Fundamental Developed Lrg Co	1,617,607,972	-0.34%	1.45%	-0.75%	11.04%	11.04%	8.39%	9.80%
100	Russell Fundamental Dvlpd Lrg Co Index		-0.29%	1.59%	-0.69%	11.22%	11.22%	8.55%	9.96%
101	Lazard Asset Management[4]	1,190,525,370	-1.01%	-0.87%	-0.61%	9.57%	9.57%	6.98%	9.61%
102	McKinley Capital Management	588,392,706	-1.49%	-0.17%	1.16%	13.40%	13.40%	8.27%	11.00%
103	RBA Global Equity	304,535,915	-1.23%	-0.75%	0.56%				
104	WCM Global Equity	415,231,974	0.43%	3.62%	4.40%				
105	MSCI All-Country World Index		-0.54%	0.53%	-0.43%	10.73%	10.73%	8.19%	9.41%
106	APF Tactical Tilts	2,782,243,016	-0.76%	0.52%	0.10%	9.60%	9.60%	4.90%	
107	SSGA MSCI ACWI IMI	166,937,538	-0.54%	0.81%	-0.04%	11.33%	11.33%		
108	APF Global Equities	102,040,867	-0.71%	0.11%	-0.40%				
109	Arrowstreet Global Equity	800,926,112	-0.68%	0.20%	0.55%				
110	Longview Global Equity	793,005,438	0.51%						
111	MSCI All-Country World IMI		-0.60%	0.72%	-0.18%	11.14%	11.14%	8.34%	
112	DOMESTIC EQUITIES	8,352,354,698	0.25%	3.20%	2.79%	14.79%	14.79%	11.26%	13.38%
113	RUSSELL 3000 INDEX		0.65%	3.89%	3.22%	14.78%	14.78%	11.58%	13.29%
114	Mellon S&P 500	968,085,129	0.61%	3.43%	2.65%	14.43%	14.43%	11.86%	13.38%
115	S&P 500 Index		0.62%	3.43%	2.65%	14.37%	14.37%	11.93%	13.42%
116	Mellon FTSE RAFI US Large Cap	643,872,356	0.49%	2.86%	0.37%	11.60%	11.60%	10.18%	11.90%
117	FTSE RAFI US 1000 Index		0.48%	2.86%	0.36%	11.56%	11.56%	10.28%	11.95%
118	AGI - Large Cap	914,561,037	0.05%	4.03%	5.76%	20.41%	20.41%	13.48%	16.20%
119	SSGA Large Cap	231,967,050	1.36%	4.73%	6.10%	17.52%	17.52%	12.71%	15.68%
120	DSM - Large Cap	715,102,318	-0.61%	4.50%	6.84%	21.70%	21.70%	14.27%	17.15%
121	CastleArk - Large Cap	344,914,153	-0.70%	6.39%	11.21%	29.34%	29.34%	16.00%	15.83%
122	APF SPDR Yield	403,984,007	1.82%	5.51%	2.63%	12.87%	12.87%		
123	APF SPDR Momentum	413,605,999	-0.01%	1.04%	1.08%	13.86%	13.86%		
124	APF SPDR Low Vol	414,241,040	1.83%	2.52%	1.64%	11.02%	11.02%		
125	Russell 1000 Growth Index		0.96%	5.76%	7.25%	22.51%	22.51%	14.98%	16.36%
126	Russell 1000 Index		0.65%	3.57%	2.85%	14.54%	14.54%	11.64%	13.37%
127	Lyrical - Large Cap	650,263,790	-0.82%	-4.14%	-7.24%	1.28%	1.28%	5.81%	12.17%
128	SKBA - Large Cap	363,426,491	0.14%	1.71%	0.50%	15.98%	15.98%	11.89%	11.55%
129	LSV - Large Cap Value	873,829,688	-1.25%	-0.06%	-2.06%	10.83%	10.83%		
130	Russell 1000 Value Index		0.25%	1.18%	-1.69%	6.77%	6.77%	8.26%	10.34%
131	Mellon S&P 400	180,715,351	0.42%	4.28%	3.47%	13.49%	13.49%	10.91%	12.70%
132	S&P 400 Index		0.42%	4.29%	3.49%	13.50%	13.50%	10.89%	12.69%
133	Jennison Associates LLC	301,998,813	1.27%	7.77%	9.76%	20.38%	20.38%	10.27%	13.68%
134	Russell 2000 Index		0.72%	7.75%	7.66%	17.57%	17.57%	10.96%	12.46%
135	RBC Asset Mgmt	178,192,993	1.82%	9.43%	12.08%	20.36%	20.36%	12.01%	12.76%
136	Eagle Asset Mgmt	206,821,787	2.25%	8.88%	12.01%	24.37%	24.37%	13.28%	14.52%
137	Russell 2000 Growth Index		0.78%	7.23%	9.70%	21.86%	21.86%	10.60%	13.65%
138	Russell 2000 Index		0.72%	7.75%	7.66%	17.57%	17.57%	10.96%	12.46%
139	T Rowe Price	188,799,991	0.92%	6.27%	4.05%	14.92%	14.92%	13.66%	12.28%
140	Pzena Investment Mgmt	203,920,156	0.65%	11.35%	10.43%	18.75%	18.75%	13.56%	15.00%
141	Russell 2000 Value Index		0.61%	8.30%	5.44%	13.10%	13.10%	11.22%	11.18%
142	Russell 2000 Index		0.72%	7.75%	7.66%	17.57%	17.57%	10.96%	12.46%
143	AGI Structured Alpha	154,052,552	0.87%	4.96%	2.72%	15.68%	15.68%		
144	S&P 500 Index		0.62%	3.43%	2.65%	14.37%	14.37%		

[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 2/28/13 then MSCI World ex-USA TRI thereafter.

[4] Lazard global equity accounts' annual fees do not include fees paid on imbedded mutual fund positions.

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

			(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 6/30/2018*	Returns as of 6/30/2018							
			1 Month	3 Months	CYTD	FYTD	1 Year	3 Years	5 Years	
145	**FIXED INCOME PLUS ◊ † ‡**	**13,974,019,513**	**0.14%**	**0.12%**	**-1.62%**	**0.99%**	**0.99%**			
146	PUBLIC INCOME BENCHMARK[1]		0.16%	0.27%	-1.45%	0.86%	0.86%			
147	**US FIXED INCOME AGGREGATE**	**3,752,209,750**	**-0.16%**	**-0.26%**	**-1.81%**	**-0.41%**	**-0.41%**	**1.92%**	**2.46%**	
148	BB AGGREGATE		-0.12%	-0.16%	-1.62%	-0.40%	-0.40%	1.72%	2.27%	
149	**APF Fixed Income - Aggregate**	**3,752,209,750**	**-0.16%**	**-0.26%**	**-1.81%**	**-0.41%**	**-0.41%**	**1.92%**	**2.46%**	
150	**US INVESTMENT GRADE CORPORATE**	**3,624,305,959**	**-0.56%**	**-1.13%**	**-3.54%**	**-0.72%**	**-0.72%**	**3.50%**	**4.14%**	
151	BB CORPORATE		-0.58%	-0.98%	-3.27%	-0.83%	-0.83%	3.07%	3.51%	
152	**APF Corporate Bonds**	**3,624,305,959**	**-0.56%**	**-1.13%**	**-3.54%**	**-0.72%**	**-0.72%**	**3.50%**	**4.14%**	
153	**NON US FIXED INCOME**	**1,325,296,399**	**0.42%**	**0.23%**	**1.34%**	**2.81%**	**2.81%**	**3.40%**	**3.87%**	
154	BB GLOBAL TREASURY EX-US		0.47%	0.37%	1.61%	3.34%	3.34%	3.71%	4.12%	
155	**Rogge Global Partners**	**352,026,631**	**0.42%**	**0.25%**	**1.41%**	**3.22%**	**3.22%**	**3.62%**	**3.96%**	
156	**APF Global Government Bonds**	**973,269,767**	**0.43%**	**0.36%**	**1.42%**	**3.06%**	**3.06%**	**3.35%**	**3.86%**	
157	**GLOBAL HIGH YIELD**	**1,452,444,996**	**0.35%**	**1.10%**	**0.24%**	**2.67%**	**2.67%**	**4.87%**	**5.05%**	
158	BB US HIGH YIELD 2% ISSUER CAP		0.40%	1.03%	0.16%	2.62%	2.62%	5.54%	5.52%	
159	**Oaktree High Yield**	**582,223,414**	**0.26%**	**0.78%**	**-0.32%**	**1.70%**	**1.70%**	**4.17%**	**4.44%**	
159	**Capital Guardian High Yield**	**407,888,615**	**0.78%**	**2.21%**	**1.56%**	**5.00%**	**5.00%**	**6.89%**	**6.73%**	
160	**APF High Yield**	**462,332,968**	**0.09%**	**0.52%**	**-0.28%**	**1.71%**	**1.71%**			
161	BB US High Yield 2% Issuer Cap Index		0.40%	1.03%	0.16%	2.62%	2.62%	5.54%	5.52%	
162	HY Fixed Income Custom Blend[1]		0.40%	1.03%	0.16%	2.62%	2.62%	5.67%	5.78%	
166	**EMERGING MARKET DEBT**	**917,807,490**	**-2.01%**	**-7.63%**	**-5.83%**	**-1.49%**	**-1.49%**	**3.48%**	**2.19%**	
167	EMD BENCHMARK[2]		-2.02%	-7.01%	-5.78%	-1.89%	-1.89%	3.37%	1.89%	
168	**Capital Guardian HY EM Gov't**	**627,749,384**	**-2.04%**	**-7.56%**	**-5.56%**	**-1.14%**	**-1.14%**	**3.60%**	**2.26%**	
169	HY Emerging Markets Benchmark[3]		-2.02%	-7.01%	-5.78%	-1.89%	-1.89%	3.40%	1.64%	
170	**APF Emerging Market Debt**	**290,058,107**	**-2.50%**	**-8.41%**	**-7.34%**					
171	BB EMD Hard Currency AGG		-0.64%	-2.88%	-3.89%					
172	**TIPS**	**254,145,460**	**0.33%**	**0.71%**	**-0.03%**	**1.98%**	**1.98%**	**1.76%**	**1.49%**	
173	BB US TIPS		0.40%	0.77%	-0.02%	2.11%	2.11%	1.93%	1.68%	
174	**APF TIPS**	**126,787,681**	**0.41%**	**0.82%**	**0.00%**	**2.14%**	**2.14%**	**2.04%**	**1.72%**	
175	BB U.S. TIPS		0.40%	0.77%	-0.02%	2.11%	2.11%	1.93%	1.68%	
176	**Alaska Permanent Capital Mgmt**	**127,357,778**	**0.26%**	**0.60%**	**0.27%**	**1.49%**	**1.49%**	**1.47%**	**1.26%**	
177	BB U.S. TIPS 1-10 Year Index		0.28%	0.61%	0.21%	1.45%	1.45%	1.50%	1.21%	
178	**REITS † ‡**	**1,386,844,684**	**2.75%**	**6.56%**	**0.86%**	**5.84%**	**5.84%**	**10.37%**	**7.43%**	
179	S&P GLOBAL REIT		2.29%	6.05%	-0.09%	4.05%	4.05%	5.80%	6.31%	
180	**AEW Global RE Securities**	**535,758,887**	**2.71%**	**6.68%**	**1.42%**	**7.55%**	**7.55%**	**8.15%**	**8.46%**	
181	**American Homes 4 Rent †**	**37,166,204**	**11.60%**	**10.71%**	**2.05%**	**-0.79%**	**-0.79%**	**10.55%**	**6.49%**	**Net**
182	MSCI US REIT Index		4.42%	10.10%	1.19%	3.57%	3.57%	8.06%	8.26%	
183	REIT Benchmark[4]		2.34%	6.34%	0.94%	6.31%	6.31%	7.38%	7.75%	
184	**SSGA REITS**	**813,919,594**	**2.40%**	**6.29%**	**0.45%**	**5.05%**	**5.05%**			
185	S&P GLOBAL REIT		2.29%	6.05%	-0.09%	4.05%	4.05%			
186	**LISTED INFRASTRUCTURE ◊**	**656,840,591**	**2.08%**	**4.22%**	**-1.09%**	**4.28%**	**4.28%**	**9.07%**		
187	S&P GLOBAL LISTED INFRASTRUCTURE		1.88%	2.30%	-3.54%	0.91%	0.91%	5.04%		
188	**Lazard Listed Infrastructure**	**193,414,184**	**3.10%**	**6.99%**	**0.84%**	**6.28%**	**6.28%**	**13.69%**		
189	FTSE Core Developed Infrastructure (Hedged)		2.59%	6.87%	2.44%	6.24%	6.24%	8.56%		
190	**Cohen & Steers Listed Infrastructure**	**142,636,030**	**1.00%**	**4.29%**	**0.96%**	**7.34%**	**7.34%**	**7.67%**		
191	FTSE Core Developed Infrastructure Custom		0.99%	3.65%	-0.29%	4.62%	4.62%	7.71%		
192	**SSGA Listed Infrastructure**	**320,779,575**	**1.96%**	**2.59%**	**-3.08%**	**1.70%**	**1.70%**			
193	S&P Global Listed Infrastructure		1.88%	2.30%	-3.54%	0.91%	0.91%			
163	**FIXED INCOME PLUS CASH**	**604,088,825**	**0.17%**	**0.46%**	**0.82%**	**1.26%**	**1.26%**			
164	90 DAY T-BILLS		0.17%	0.45%	0.81%	1.36%	1.36%			
165	**APF Fixed Income Plus Cash**	**604,088,825**	**0.17%**	**0.46%**	**0.82%**	**1.26%**	**1.26%**			
194	**ABSOLUTE RETURN**	**2,823,649,568**	**N/A**	**0.21%**	**1.46%**	**5.95%**	**5.95%**	**3.28%**	**3.39%**	**Net**
195	ABSOLUTE RETURN BENCHMARK		N/A	0.84%	0.79%	5.67%	5.67%	5.73%	5.91%	
196	**ASSET ALLOCATION**	**6,020,002,935**	**-0.52%**	**-0.42%**	**-1.23%**	**2.58%**	**2.58%**	**2.25%**	**2.94%**	
197	**APF FI LIQUIDITY**	**337,178,789**	**0.06%**	**0.13%**	**-1.16%**	**-0.86%**				
198	**APF ASSET ALLOCATION CASH**	**951,235,739**	**0.14%**	**0.41%**	**0.71%**	**1.28%**	**1.28%**	**0.61%**	**0.37%**	
199	90 DAY T-BILLS		0.17%	0.45%	0.81%	1.36%	1.36%	0.68%	0.42%	
200	**ASSET ALLOCATION CASH OVERLAY**	**2,225,698,694**	**-0.49%**	**-0.05%**						
201	**MULTI-STRATEGY**	**2,505,889,713**	**-0.91%**	**-1.14%**	**-1.55%**	**4.45%**	**4.45%**	**4.29%**	**5.49%**	
202	Performance Benchmark ●		0.01%	0.78%	0.94%	8.20%	8.20%	7.08%	7.55%	
203	**Bridgewater**	**858,737,426**	**0.54%**	**1.88%**	**1.93%**	**7.99%**	**7.99%**	**4.38%**	**6.48%**	
204	**AQR**	**831,798,572**	**-2.73%**	**-4.50%**	**-4.44%**	**1.68%**	**1.68%**	**5.75%**	**6.79%**	
205	**Goldman Sachs**	**815,353,716**	**-0.53%**	**-0.68%**	**-2.05%**	**3.74%**	**3.74%**	**2.80%**	**4.78%**	
206	CPI + 5%		0.56%	2.17%	4.63%	7.87%	7.87%	6.83%	6.54%	

[1] HY Fixed Income Custom Blend is BB Global High Yield Corporate Index through 7/31/2016 then BB US High Yield 2% Issuer Cap Index thereafter.
[2] EMD Benchmark is 50% JPM EMBI Global Diversified and 50% JPM GBI-EM Global Diversified.
[3] HY Emerging Markets Benchmark is 50% JP Morgan Emerging Markets Bond Index Global and 50% JP Morgan Government Bond Index-Emerging Markets Global Diversified.
[4] REIT Benchmark is UBS Global Real Estate Investors Index through 12/31/2014 then FTSE EPRA/NAREIT Developed Rental Index thereafter.

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

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

			(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 6/30/2018*		Returns as of 6/30/2018						
				3 Months	CYTD	FYTD	1 Year	3 Years	5 Years	
207	**PRIVATE EQUITY & GROWTH OPPORTUNITIES ●**	**7,304,409,212**		**11.25%**	**16.50%**	**31.74%**	**31.74%**	**13.86%**	**23.03%**	
208	CAMBRIDGE PRIVATE EQUITY ●			3.03%	8.14%	18.27%	18.27%	12.66%	13.81%	
209	**PRIVATE EQUITY ●**	**4,481,658,904**		**8.04%**	**13.11%**	**26.64%**	**26.64%**	**19.23%**	**19.05%**	
210	PRIVATE EQUITY CUSTOM BENCHMARK ●			3.03%	8.14%	18.27%	18.27%	8.35%	10.42%	
211	**Pathway Capital Mgmt - Direct PE**	**952,592,898**		**10.78%**	**18.32%**	**40.02%**	**40.02%**	**23.38%**	**20.38%**	**Various**
212	**Rapid Partners LP**	**77,332,472**		**1.74%**	**-8.95%**	**-8.23%**	**-8.23%**			**Net**
213	**Kelso Hammer LP**	**31,308,563**		**0.62%**	**5.89%**	**13.25%**	**13.25%**			**Gross**
214	**HarbourVest Legacy**	**1,094,394,870**		**8.90%**	**15.19%**	**31.82%**	**31.82%**	**23.17%**	**20.09%**	**Net**
215	**Pathway Capital Mgmt - PE**	**2,125,104,975**		**7.31%**	**11.70%**	**22.02%**	**22.02%**	**16.18%**	**17.53%**	**Net**
216	**BlackRock Co-investment Funds**	**200,925,126**		**4.71%**	**8.95%**	**30.56%**	**30.56%**	**6.51%**		**Net**
217	**GROWTH OPPORTUNITIES ●**	**2,822,750,307**		**16.04%**	**21.56%**	**39.63%**	**39.63%**	**6.75%**		**Net**
218	CAMBRIDGE PRIVATE EQUITY ●			3.03%	8.14%	18.27%	18.27%	12.66%		
219	**REAL ESTATE ● † ‡**	**3,975,135,845**		**1.78%**	**3.61%**	**6.60%**	**6.60%**	**8.83%**	**9.75%**	
220	NCREIF TOTAL INDEX ●			1.70%	3.53%	7.12%	7.12%	8.72%	10.00%	
221	**L&B Realty Advisors**	**2,102,683,466**		**0.68%**	**1.78%**	**4.62%**	**4.62%**	**9.80%**	**11.27%**	**Net**
222	**Sentinel Real Estate**	**922,318,497**		**2.52%**	**3.93%**	**1.31%**	**1.31%**	**6.85%**	**8.25%**	**Net**
223	**LaSalle Investment Mgmt-United Kingdom**	**237,455,602**		**2.91%**	**8.24%**	**23.73%**	**23.73%**	**-9.99%**		**Net**
224	**Lincoln Industrial**	**96,237,490**		**2.60%**	**9.78%**	**19.83%**	**19.83%**	**15.15%**		**Net**
225	**CB Richard Ellis - Europe**	**173,429,122**		**4.69%**	**9.27%**	**24.86%**	**24.86%**	**26.41%**		**Net**
226	**CS Capital**	**443,011,669**		**1.43%**	**6.59%**	**12.20%**	**12.20%**			**Net**
227	**INFRA. & INCOME OPPORTUNITIES ● ◊ ‡**	**4,415,625,942**		**2.20%**	**6.59%**	**16.67%**	**16.67%**	**13.80%**	**12.02%**	
228	INFRA. & INCOME OPPORTUNITIES ●			-2.67%	-1.32%	4.49%	4.49%	5.20%	6.65%	
229	**INFRASTRUCTURE ● ◊**	**2,418,452,685**		**3.01%**	**9.67%**	**22.87%**	**22.87%**	**21.49%**	**16.35%**	**Net**
230	FTSE DEVELOPED CORE INFRA. TRI ●			-3.91%	-2.01%	4.85%	4.85%	5.08%	7.63%	
231	**GIP**	**186,719,594**		**0.62%**	**4.59%**	**44.67%**	**44.67%**	**42.49%**	**35.09%**	**Net**
232	**GIP II**	**380,352,889**		**2.92%**	**6.69%**	**16.67%**	**16.67%**	**16.96%**	**20.78%**	**Net**
233	**Gateway IFR**	**290,757,945**		**2.09%**	**7.27%**	**19.28%**	**19.28%**	**12.49%**	**0.62%**	**Net**
234	**G Sachs**	**388,347,542**		**8.69%**	**25.84%**	**41.00%**	**41.00%**	**26.13%**	**21.31%**	**Net**
235	**EQT II**	**35,691,333**		**1.77%**	**6.52%**	**30.07%**	**30.07%**	**34.52%**		**Net**
236	**GIP II Co-Invest 2**	**92,914,816**		**5.05%**	**10.38%**	**19.42%**	**19.42%**	**26.04%**		**Net**
237	**ACTIS Energy 3**	**47,851,237**		**-1.28%**	**2.65%**	**8.91%**	**8.91%**	**35.74%**		**Net**
238	**LS Power III**	**140,217,127**		**0.63%**	**6.18%**	**28.23%**	**28.23%**	**21.52%**		**Net**
239	**North Haven**	**146,915,715**		**1.82%**	**4.49%**	**31.24%**	**31.24%**	**13.54%**		**Net**
240	**Twin Creeks Timber**	**89,173,093**		**-0.77%**	**-0.04%**	**-5.83%**	**-5.83%**			**Net**
241	**GIP III**	**257,490,589**		**-0.28%**	**1.03%**	**-9.84%**	**-9.84%**			**Net**
242	**GIP III Canary**	**106,410,199**		**3.49%**	**9.21%**	**12.06%**	**12.06%**			**Net**
243	**CIM Fund II**	**66,622,298**		**0.31%**	**-0.41%**	**0.54%**	**0.54%**			**Net**
244	**IFR ACTIS Energy 4**	**21,306,913**		**3.58%**	**0.30%**	**N/A**	**N/A**			**Net**
245	**IFR Meridiam III**	**376,455**		**N/A**	**N/A**					**Net**
246	**IFR GIP III Zenith**	**100,538,658**								**Net**
247	**IFR ENCAP FM IV**	**830,569**								**Net**
248	**IFR INFRARED V**	**16,135,715**								**Net**
249	**IFR NHIP II Bison**	**49,800,000**								**Net**
250	FTSE Core Developed Infrastructure TRI			-3.91%	-2.01%	4.85%	4.85%	5.08%	7.63%	
251	**PUBLIC/PRIVATE CREDIT ●**	**1,196,393,544**		**0.97%**	**3.11%**	**8.79%**	**8.79%**	**6.47%**	**7.20%**	**Net**
252	BB US HIGH YIELD 2% ISSUER CAP ●			-0.86%	-0.39%	3.78%	3.78%	5.18%	5.00%	
253	**INCOME OPPORTUNITIES ● ‡**	**800,779,712**		**0.16%**	**-4.46%**	**1.73%**	**1.73%**	**7.67%**		**Net**
254	**American Homes 4 Rent II**	**162,871,206**		**0.50%**	**-5.49%**	**0.93%**	**0.93%**	**7.39%**		**Net**
255	**Athyrium III**	**7,295,338**		**1.26%**	**1.67%**					**Net**
256	**Generate Capital**	**84,792,718**		**-0.11%**	**-0.55%**					**Net**
257	**Broadriver III**	**3,359,321**								**Net**
257	**APF ADAC**	**527,461,129**								**Net**
258	**Generate Capital II**	**15,000,000**								**Net**

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Strategic and Tactical Moves

APFC ALASKA PERMANENT FUND CORPORATION
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Board Report on Tactical and Strategic Manager Actions
4/01/2018 through 6/30/2018

Private Equity and Special Opportunities

Tactical Changes Implemented:

Fund Commitments closed in Fiscal Q4*:

$48 million to Advantech/Redview II
$29 million to Bain Europe V
$49 million to Index Ventures IX/Growth IV
$200 million to Sequoia Capital Global Growth Fund III

$326 million total fund commitments

Direct Investments/Co-investments closed in Fiscal Q4:

$25 million invested in Dental Corp. of Canada
$40 million invested in Sound Inpatient Physicians

$65 million total direct investments

Realizations/distributions in Fiscal Q4:

$704 million from sale of secondary assets (Project Alyeska)
$24 million from direct investment portfolio
$288 million from fund portfolio

$1,016 million total distributions

* Includes commitments of $56.9mm which closed July 1st by Pathway on behalf of APFC.

Strategic Changes Implemented:

None

Private Income and Absolute Return

Tactical Changes Implemented:

Private Income

Fund Commitments closed in Fiscal Q4:

$75.0 million to North Haven India Infrastructure
$123.3 million to ICG Europe VII

$198.03 million total fund commitments

Direct Investments/Co-Investments closed in Q4:

$50.0 million Infrastructure Co-Investment with North Haven Infrastructure into Brazos Midstream

$50 million total fund co-investments

Absolute Return

$120 million to Discretionary Global Macro Manager
$100 million to Market Neutral Equity Manger
$50 million to Hedged Event Driven Manager

$270 million total fund investments

Strategic Changes Implemented:

$1 billion Alaska Direct Alternative Credit initiative established, including $500 million funded in Liquid Portfolio and $500 million unfunded co-investment partnership announced with Pathway Capital Management.

Public Equity

Tactical Changes Implemented:

May 9 -18: Rebalanced $2.4 billion across Public Equities with the objective to remove the underweight to US Equities, mitigate the overweight to emerging markets, and underweight Non US Developed Markets. The rebalancing was implemented using Blackrock as Transition Manager. The details are as follows:

Redemptions:

MCM World Ex-US	$900 million
DFA INTL LC	$400 million
William Blair EM	$150 million
JP Morgan EM	$150 million
SSGA EM	$150 million
MCkinley Global	$150 million
Lazard Global	$150 million
DFA EM Value	$100 million
Lee Munder EM	$100 million
DFA EM SC	$50 million
Mondrian EM	$50 million
Macquarie EM	$50 million

$2,400 million total redemptions

Contributions $2,400 million

MCM S&P 500	$650 million
Longview Global	$400 million
Arrowstreet Global	$200 million
WCM Global	$200 million
DSM US LC	$200 million
MCM FTSE RAFI	$200 million
CDAM Global	$150 million
Wells Capital China	$100 million
Trustbridge China	$100 million
RBA Global	$100 million
Jennison US SC	$100 million

$2,400 million total contributions

Strategic Changes Implemented:

None

Asset Allocation

Tactical Changes Implemented:

None

Strategic Changes Implemented:

Sold $100,000,000 of FI Liquidity on April 20, 2018 and held this as Internal Cash.
Sold $200,000,000 of FI Liquidity on June 27, 2018 and held this as Internal Cash.
Increased liquid derivatives from private assets sales and distributions to fund APFC obligations.

Fixed Income Plus

Tactical Changes Implemented:

Reduced TIPs from 5% to 1% of FI Plus
Increased Non US Fixed Income from 7% to 10% of FI Plus

Strategic Changes Implemented:

None

Investment Management Fee Report

ALASKA PERMANENT FUND CORPORATION

Quarterly Investment Management Fees

	Quarter Ended 6/30/2018	BPS	3/31/2018	BPS	12/31/2017	BPS	9/30/2017	BPS	YTD FY2018	BPS
Transition Management [a]	1,467,000		-		562,000		-		2,029,000	
Non-Domestic Equity & FI Managers	423,000		670,000		735,000		597,000		2,425,000	
Real Estate Advisors:										
Real Estate Advisors [b][d]	9,938,000		7,761,000		8,311,000		6,281,000		32,291,000	
Abs. Return, Mezz. & Distressed Debt [c]	5,094,000		4,440,000		4,793,000		4,337,000		18,664,000	
Infrastructure	5,186,000		6,546,000		5,851,000		4,779,000		22,362,000	
Public Equity	76,000		-		793,000		493,000		1,362,000	
Private Equity [d]	39,621,000		51,890,000		51,674,000		54,081,000		197,266,000	
Fees Funded by Investments	**61,805,000**	**9**	**71,307,000**	**11**	**72,719,000**	**11**	**70,568,000**	**11**	**276,399,043**	**42**
Fees Funded by Appropriation	**27,788,000**	**4**	**39,831,000**	**6**	**25,202,000**	**4**	**26,127,000**	**4**	**118,948,018**	**18**
APFC Corporate Expenses	**6,662,000**	**1**	**7,627,000**	**1**	**4,909,000**	**1**	**4,391,000**	**1**	**23,589,004**	**4**
TOTAL Investment Management Fees	**96,255,000**		**118,765,000**		**102,830,000**		**101,086,000**		**418,936,065**	
Assets Under Management	**65,404,093,000**		**65,118,515,000**		**64,527,103,000**		**62,043,958,000**		**65,404,093,000**	
Total Fees (Basis Points)	**15**		**18**		**16**		**16**		**64**	

	Quarter Ended 6/30/2017	BPS	3/31/2017	BPS	12/31/2016	BPS	9/30/2016	BPS	YTD FY2017	BPS
Transition Management [a]	-		-		-		-		-	
Non-Domestic Equity & FI Managers	546,000		564,000		540,000		744,000		2,394,000	
Real Estate Advisors:										
Real Estate Advisors [b][d]	10,433,000		5,580,000		4,723,000		3,282,000		24,018,000	
Abs. Return, Mezz. & Distressed Debt [c]	5,018,000		5,339,000		8,117,000		7,105,000		25,579,000	
Infrastructure	6,425,000		5,610,000		7,899,000		6,506,000		26,440,000	
Public Equity	685,000		163,000		366,000		257,000		1,471,000	
Private Equity [d]	39,326,000		7,688,000		12,098,000		9,313,000		68,425,000	
Fees Funded by Investments	**62,433,000**	**10**	**24,944,000**	**4**	**33,743,000**	**6**	**27,207,000**	**5**	**148,327,026**	**25**
Fees Funded by Appropriation	**24,467,000**	**4**	**32,815,000**	**6**	**22,825,000**	**4**	**22,756,000**	**4**	**102,863,018**	**17**
APFC Corporate Expenses	**6,465,000**	**1**	**4,568,000**	**1**	**4,154,000**	**1**	**4,229,000**	**1**	**19,416,003**	**3**
TOTAL Investment Management Fees	**93,365,000**		**62,327,000**		**60,722,000**		**54,192,000**		**270,606,047**	
Assets Under Management	**60,286,353,000**		**58,245,649,000**		**55,859,408,000**		**55,239,923,000**		**60,286,353,000**	
Total Fees (Basis Points)	**15**		**11**		**11**		**10**		**45**	

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

FY19 Budget Report

ALASKA PERMANENT FUND CORPORATION

Budget-to-Actual report: June 1st through August 31st, 2018

Corporate Operations Budget Allocation	**Board-authorized Budget**	**Expenditures**	**Remaining Budget**
Personal Services	$ 11,861,201	$ 1,104,704	$ 10,756,497
Staff	11,833,661	1,104,704	10,728,957
Board: Honorarium	27,540	-	27,540
Travel	1,203,200	30,991	1,172,209
Staff	946,077	30,536	915,541
Trustees	45,623	-	45,623
Moving/Non-Employee	211,500	455	211,045
Contractual Services	4,174,899	421,401	3,753,498
Audit, Legal, Consulting	435,683	39,333	396,350
Public Communications	146,500	464	146,036
Board Support and Meetings	56,350	209	56,141
Information Technology	2,361,564	40,988	2,320,576
HR and Recruitment	62,824	-	62,824
Training/Education	186,620	9,519	177,101
Office Support	925,358	330,887	594,471
Commodities	435,300	6,328	428,972
Equipment	400,000	-	400,000
Corporate Operations Total	**$ 18,074,600**	**$ 1,563,424**	**$ 16,511,176**
Investment Management Budget Allocation			
Investment Systems	3,800,415	661,912	3,138,503
Investment Due Diligence	8,678,200	138,396	8,539,804
Custody Fees	1,500,000	96,242	1,403,758
Investment Manager Fees	136,520,085	8,371,977	128,148,108
Public Equities	82,493,617	4,346,107	78,147,510
Fixed Income	13,116,245	879,269	12,236,976
Alternative Assets	40,910,223	3,146,601	37,763,622
Investment Management Total	**$ 150,498,700**	**$ 9,268,527**	**$ 141,230,173**
Capital Project: Renovation	**$ 4,050,000**	**$ 512,975**	**$ 3,537,025**
Total Appropriation	**$ 172,623,300**	**$ 11,344,926**	**$ 161,278,374**

Capital Project Appropriations Report

MEMORANDUM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
PUBLIC FACILITIES BRANCH

MONTHLY PROJECT STATUS REPORT - DOT&PF

TO: Angela Rodell
APFC Director

DATE: 27-Aug-18
FILE NO.: 32

FROM: J. Travis Miller, Architect
Project Manager

PROJECT NO.: 2501000034/2502000200
PROJECT NAME: **Alaska Permanent Fund Corporation Offices Renovation**
CONSULTANT: **RIM Design**
Contractor: **Dawson Construction**

SCOPE: Design and costruction for renovation of APFC's third floor offices and the Hugh Malone Board Room in the Michael J Burns Building

SCHEDULE SUMMARY

TASK	Scheduled Start	Schedule End	Actual End		Comments
35% Design RFP			9/1/2016	Complete	Done under a separate contract without DOT's involvement
Capital & Operating Appropriations	1/1/2017	7/1/2017	9/1/2017	Complete	
Capital & Operating RSAs Finalised	7/1/2017	9/1/2017	11/16/2017	Complete	
PSA with RIM Design	9/1/2017	11/1/2017	11/17/2017	Complete	
Review 35% Design	11/6/2017	11/24/2017	11/27/2017	Complete	
65% Design & FF&E Review	11/27/2017	2/12/2018	2/12/2018	Complete	
95% Design & FF&E Review/Construction Docs	2/12/2018	3/21/2018	3/29/2018	Complete	
Best Value Contract Award	3/22/2018	6/29/2018	6/22/2018	Complete	
Construction	7/5/2018	2/15/2018	PENDING	25%	
Contract Closeout	2/15/2018	4/1/2018	PENDING		
Project Closeout	4/1/2018	5/15/2018	PENDING		

COMMENTS: Construction contract and FF&E contract have been awarded. Construction is 50% complete for Phase I and 25% for total project. Change Order 01 deleted the glass art wall @ HM Board Room for ($40,000). Change Order 02 for extending contract 30 days was awarded for $48,321.

BUDGET SUMMARY

TASK	Anticipated Budget TBD	Capital FY18 Appropriation	Operating FY18 Appropriation	Total Budget Appropriated/ RSA Agreements	Funding in PSA/Construction Contract	Revised Funding	Total Expenses	Contract Encumbrance	Balance of Current Funding
Design Phase	6/22/2017	8/1/2017	9/1/2017	11/1/2017	6/18/2018	8/27/2018	8/27/2018	8/27/2018	27-Aug-18
RIM Design (Tasks)				$ -	$ -				
65% Design Development	$ 130,000	$ 130,000		$ 124,500	$ 124,338	$ -	$ 124,338.00	$ -	$ -
95% Construction Documents	$ 60,000	$ 60,000		$ 51,000	$ 50,944	$ -	$ 50,944.00	$ -	$ -
100% Bid Package/FF&E	$ 50,500	$ 50,500		$ 36,000	$ 36,222	$ -	$ 36,222.00	$ -	$ -
Bidding Phase	$ 15,500	$ 15,500		$ 8,000	$ 7,817	$ -	$ 7,817.00	$ -	$ -
Permit Phase	$ -	$ -		$ 2,500	$ 2,673	$ -	$ 2,405.70	$ 267	$ -
Consultant Firm Design subtotal	$ 256,000	$ 256,000		$ 222,000	$ 221,994	$ -	$ 221,726.70	$ 267	$ (0)
DOT&PF Admin & Using Agency Exp	$ 60,000	$ 60,000		$ 55,000	$ 55,000	$ -	$ 42,064.26		$ 12,936
DOT&PF Contracts/Review	$ 2,500	$ 3,000		$ 3,000	$ 3,000	$ -	$ -		$ 3,000
Local Reviews - CBJ	$ 7,500	$ 7,500		$ 14,100	$ 6,074	$ -	$ 6,074.00	$ -	$ -
DOT&PF Advertise and Award	$ 7,500	$ 9,000		$ 10,000	$ 10,000	$ -	$ 8,805.56	$ -	$ 1,194
Design Phase Contingency	$ 16,675	$ 16,775		$ 25,848	$ 14,780	$ -			$ 14,780
ICAP Design Phase	$ 3,400	$ 3,425		$ 912	$ 912	$ -	$ 318.44		$ 594
Design Phase Subtotal	$ 353,575	$ 355,700	$ -	$ 330,860	$ 311,760	$ -	$ 278,988.96	$ 267	$ 32,504
Construction Phase									
Construction Estimate/Contract	$ 2,856,151	$ 2,856,151		$ 2,896,151	$ 2,690,000	$ 2,698,231	$ 285,955.40	$ 2,412,276	$ (8,231)
Building Owner Provided Material	$ -	$ -		$ -	$ (343,436)				
Change Order Reserve @ 10%	$ 285,615	$ 285,615		$ 328,457	$ 269,000	$ -	$ 48,231.00	$ 220,769	$ -
Change Order Credits					$ (40,000)				
RIM Design CA Services	$ 93,000	$ 93,000		$ 49,787	$ 49,787	$ -	$ 24,550.45	$ 25,237	$ -
DOTPF CA Services	$ 70,000	$ 70,000		$ 80,000	$ 125,000	$ -	$ 19,369.54		$ 105,630
FF&E	$ 755,775		$ 755,775	$ 755,775	$ 1,170,557	$ -	$ -		
1% for Art	$ 31,418	$ 31,418		$ 32,246	$ 26,156	$ -	$ -		
Closeout	$ 10,000	$ 10,000		$ 10,000	$ 10,000	$ -	$ -		
ICAP Construction Phase	$ 41,840	$ 41,840		$ 12,457	$ 24,138	$ -	$ 90.64		
Construction Phase Contingency	$ 205,098	$ 205,098		$ 207,621	$ 174,586	$ -	$ -	$ 174,586	
Construction Phase Subtotal	$ 4,348,897	$ 3,593,122	$ 755,775	$ 4,372,494	$ 4,155,788	$ -	$ 378,197.03	$ 2,832,867	$ 97,399
Totals:	$ 4,702,472	$ 3,948,822	$ 755,775	$ 4,703,354	$ 4,467,548	$ -	$ 657,185.99	$ 2,833,134	$ 129,903
Appropriation	$ 4,050,000	$ 4,050,000	$ 665,000	$ 4,715,000	$ 4,715,000		$ 4,715,000.00		
Surplus (Estimate)	$ (652,472)	$ 101,178	$ (90,775)	$ 11,646	$ 279,956				

Comments: Construction contract is under budget. APFC's goal is to return any unused funds. Surplus represents an estimate, however the exact amount will be determined by Owner Requested Changes, Errors & Ommissions, Design Unknowns, & Construction Unknowns.

cc: Mark Davis, Director, DOT&PF Shared Services
Robin Mason, APFC COO

Chief Investment Officer's Report

CIO Report for the September 26, 2018 APFC Board Meeting

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

At our last Board of Trustees meeting in May, a new Investment Policy was reviewed, which included a discussion of expected asset class returns. As you may recall, the asset-weighted expected return offered by Callan resulted in a projected CPI + 4.8% total return for the Fund, implying the need for Staff to deliver alpha beyond projected market returns. In the debate that should ensue about an assumption of persistent alpha generation, APFC's investment performance for the fiscal year ending June 30, 2018 stands out as clear data point that this team can, in fact, deliver this kind of outperformance. For this last fiscal year, APFC earned a 10.74% return, which compares favorably to an 8.2% return on our performance benchmark and an average return of 9.1% on public plans that had reported June 30 results at the time of APFC's release (please see Exhibit A).

The two most common methods of interpreting public fund performance, in my experience, tend to be (a) "We outperformed these other plans on headline return, so look how good we are doing" or (b) "Well, the stock market went up so that's why you did well". These responses are overly simplistic, however, and miss the nuance of asset allocation and performance evaluation versus a benchmark. I believe that a deeper look at our numbers show an even more impressive year than the superficial approaches do. Our Private Equity & Special Opportunities program, led by Steve Moseley, delivered a 32.7% return for the year compared to a 18.3% industry return (as measured by Cambridge) and compared to a 15.0% average return for the two largest California public plans. Our Infrastructure program delivered a 22.9% return for the year compared to a 4.9% return for global Listed Infrastructure stocks. On the liquid side, the Public Equities program managed by Fawad Razzaque outperformed its benchmark by 58 basis points on its way to an 11.7% return and the Fixed Income Plus portfolio managed by Jim Parise earned 99 basis points beating its benchmark by 13 basis points. This type of across-the-board alpha generation is difficult to achieve and speaks to the skill-set and dedication of the APFC Investment Team and the support we receive from our colleagues in Finance, Legal and IT.

Relative to our peers in Exhibit A, I think it is important to note that APFC has lower than average exposure to "equities" as well as lower exposure to risk assets (which I define by adding Real Assets and Private Credit to Equities). APFC's 10.7% return really does represent alpha as opposed to an asset allocation tilt that worked well in this time period. It is worth emphasizing in this year where APFC outperformed its performance benchmark by 254 basis points, and has outperformed by 136 basis points over the trailing five years, that each 100 basis points of outperformance on a $65 billion plan represents $650 million of added value per year.

While recent historical performance has been strong for financial markets, the returns going forward are what matter most to our stakeholders who are relying on our performance to achieve their goals. Unfortunately, several indicators point to an investing environment in the near future that may be more challenging then the past several years have been. The arithmetic of investing (at least for equity securities) is simply that one's return can be decomposed into (i) earnings growth, (ii) changes to valuation multiples and (iii) yield. Earnings growth may be more difficult to achieve if we enter a weaker economic environment (as many economists are projecting for 2019-2020), today's cyclically-adjusted P/E multiple on the market is only exceeded by historical extremes in valuations, and yields on almost all public securities are low by historical standards. Similarly, valuations implied by private infrastructure and venture capital transactions, cap rates on private real estate, and multiples on leverage buyouts are at or near historical extremes, all of which encourage caution going forward. Additionally, the flattening yield curve that is emerging in treasury markets has historically represented an ominous signal for the economy overall. A thoughtful approach to asset allocation and prudent risk management will likely be more important in the coming several years than perhaps any recent market environment.

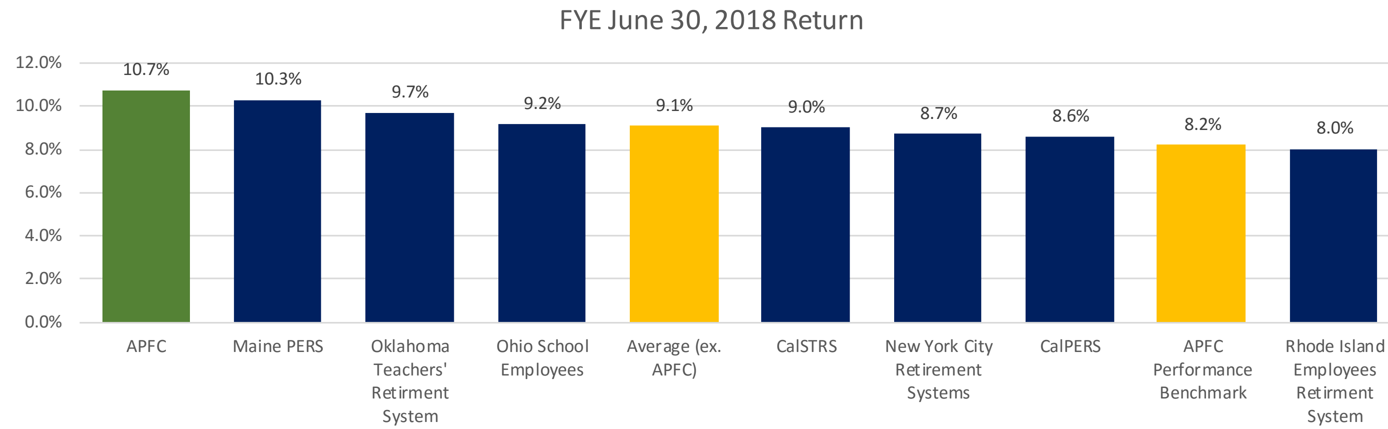
The investment team at APFC spends significant time reviewing relative value and risk / return trade-offs in the financial markets, adjusting exposures, on the margin, based on our collective views. In each of our portfolios today we are seeking downside protection and pockets of value in an expensive world. I encourage all the Trustees to ask each of the asset class directors about their views on these topics as they present updates on their portfolios today. I suspect that as the next year progresses, we may recommend moving toward a more cautious tilt on our asset allocations. Asset allocation decisions will be the subject of extensive debate on the team and guidance from our Trustees and advisors, but I would argue for (i) considering an overweight to our Absolute Return asset class (vs. our historical and current underweight), (ii) maintaining at least an equal-weight to Fixed Income Plus, and (iii) within our Asset Allocation portfolio, moving away from our overweight to risk assets (Risk Parity and Overlay Programs) and addressing our recent underweight to pure cash (vs. our 40% target weight for cash in the sub-portfolio's benchmark). I also strongly believe that the large and growing commitment we are making to our Private Equity and Private Income capabilities can continue to deliver the return premium that was achieved in this past fiscal year in spite of an expensive overall market for the average investor.

In past CIO remarks, Russell Read has highlighted various industry awards and accolades that the APFC has received. First, I'd like to emphasize that every day we go to work to drive value and performance for all Alaskans on a financial basis, not to win awards, but with that said I would like to continue this practice as awards are public recognition from peers and industry observers about our success at adding value. Dr. Read previously shared that in the past twelve months, the APFC's Private Equity program was recognized by *PEI Magazine* as the North American Private Equity Investment Plan of the Year. More recently, in June, *Institutional Investor* magazine recognized APFC as the Sovereign Wealth Fund Hedge Fund Allocator of the Year. Finally, our Real Estate portfolio has won many awards for environmental stewardship and sustainability. APFC was the first investor on the West Coast to receive the LEED Gold EB designation as far back as 2009 and continues to garner attention worldwide.

Our most recent award was on our Golden Square property in the U.K. In January this year, this property was recognized at the Green World Environmental Awards for a number of environmental savings including achieving "zero waste to landfill".

We have a full agenda for the next two days. Thank you in advance for your consideration, questions, and recommendations.

Exhibit A – APFC Performance and Asset Weightings vs. Peers at 6/30/18



Asset Allocation										
Public Equities	41.1%	33.3%	NA	47.4%	46.9%	53.7%	50.0%	50.0%	NA	NA
Private Equity	11.2%	13.2%	NA	9.5%	9.0%	8.2%	6.2%	8.0%	NA	NA
Real Assets/Private Credit	12.8%	25.4%	NA	16.1%	16.7%	14.7%	14.3%	13.0%	NA	NA
Hedge Funds/Alts	4.3%	8.1%	NA	8.3%	5.5%	9.7%	1.4%	0.0%	NA	NA
Fixed Income	21.4%	19.5%	NA	14.0%	20.3%	12.3%	27.6%	28.0%	NA	NA
Other & Cash	9.2%	0.5%	NA	4.7%	1.6%	1.4%	0.5%	1.0%	NA	NA
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
"Risk Assets" (Rows 1-3) [(1)]	68.2%	71.9%	NA	73.0%	72.6%	76.6%	70.5%	71.0%	NA	NA
"Equities" (Row 1-2) [(1)]	55.4%	46.5%	NA	56.9%	55.9%	61.9%	56.2%	58.0%	NA	NA

Notes:

-Source: Webpages of individual plans and press releases (as readily available via web searches). Prepared by APFC Investment Staff.

-1. ~14.5% of APFC "Fixed Income Plus" that is invested in REIT's and Listed Infrastructure moved to "Risk Assets" and "Equities" for purposes of this analysis.

-Maine PERS Natural Resources allocation included in Real Assets/Private Credit. Risk Diversification included in Hedge Funds/Alts.

-Ohio School Employees Tactical / Opportunistic allocation included in Real Assets/Private Credit (due to inclusion of direct lending as core strategy).

-CalSTRS Inflation Sensitive allocation included in Real Assets/Private Credit (due to inclusion of infrastructure as core strategy). Risk Mitigating and Innovative Strategies included in Hedge Funds/Alts.

-CalPERS asset weighting represent target weighting vs. actual weighting for APFC and peers (due to challenges in reconciling 6/30/18 actual exposures to asset definitions).

-Okahoma asset weightings marked NA due to lack of readily accessible disclosure; Rhode Island marked NA due to unique asset class definitions that represent a challenge to map to traditional asset classes.

Report of Annual Audit Memo

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

SUBJECT:	Report of Annual Audit	ACTION:	X
DATE:	September 26, 2018	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 2018 was completed by KPMG with a report date of September 7th. The results of the audit and a recap of the year-end financial statements were presented to the Audit Committee on September 6th.

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.

Presentation: KPMG Annual Audit

KPMG

Alaska Permanent Fund Corporation

Audit results

Financial statements as of and for the year ended June 30, 2018

September 26, 2018

Introduction

To the Board of Trustees of the Alaska Permanent Fund Corporation

We are pleased to have the opportunity to meet with you September 26, 2018 to discuss the results of our audit of the financial statements of the Alaska Permanent Fund (the Fund) as of and for the year ended June 30, 2018. Our audit was conducted in accordance with the terms established in the audit engagement letter dated March 1, 2015.

We are providing this document in advance of our meeting to enable you to consider our findings and hence enhance the quality of our discussions. This document should be read in conjunction with our audit plan, presented on May 16, 2018. We will be pleased to elaborate on the matters covered in this document when we meet.

Our audit is complete. We issued an unmodified audit opinion on the Fund's financial statements dated September 7, 2018.

Content

Auditors' Report

Our report reflects an unmodified opinion on the financial statements.

Our report includes the following modifications from the standard report, both of which are consistent with previous years:

Emphasis of matter paragraph

> As discussed in note 1, the financial statements present only the Alaska Permanent Fund and do not purport to, and do not, present fairly the financial position of the State of Alaska as of June 30, 2018 and 2017, or changes in its financial position for the years then ended in conformity with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

Other matter paragraph

> U.S. generally accepted accounting principles require that the management's discussion and analysis on pages X-X be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operation, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Significant accounting policies

Description of significant accounting policies	Audit findings
	Qualitative aspects
— The Fund's policies are disclosed in Note 2 to the financial statements and are consistent with prior years.	— We did not identify indication of significant elements of management bias when reviewing these policies.
— Governmental Accounting Standards (specifically GASB Statement No. 54) provides guidance on the classification of Fund Balance. While there has been no change in the Standard or Corporation policy, fund balance classification appears different in FY18's financial statements.	— The budget appropriation for the FY19 general fund draw was passed by the Legislature and signed by the Governor in May 2018. The budget takes effect on July 1, 2018 and appropriates $2.7 billion to the state of Alaska general fund. — The FY19 appropriation commits that portion of the Permanent Fund Earnings Reserve to a specific purpose at the time it was signed by the Governor (prior to June 30, 2018). — The FY19 appropriation becomes a liability of the Permanent Fund when it becomes a "present obligation" (July 1, 2018). — Management believes, and we agree, that the amount appropriated in the budget is "committed" fund balance.

Significant risks

Our audit response and findings

Significant risks	Our audit response and findings
Management override of 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. • Assessed the appropriateness of changes compared to the prior year to the methods and underlying assumptions used to prepare accounting estimates • Made inquiries of Alaska Permanent Fund Corporation 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
Valuation of alternative investments	• See detailed audit response on next slide • No exceptions were identified in our testing, and we did not identify management bias or a shift from previous years. • The effect of the reporting lag for investments are included as an uncorrected misstatement.

Significant accounting estimate

Significant accounting estimate	**Balance** ($m)	**PY balance** ($m)	**Year over year change** ($m)
Valuation of private investments	$16,833,119	$14,955,268	$1,877,851

Our conclusions regarding the reasonableness of the significant accounting estimate were based on the following audit response:

- Assessed management's design and implementation of internal controls over the valuation of alternative investments
- We performed substantive audit procedures over the inputs used to prepare these estimates, including:
    - Confirmation of selected investments with fund managers and agreed the recorded investment market value to capital statements provided by external fund managers.
    - Obtained audited financial statements of the selected investments:
        - 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.
- We performed benchmarking analysis comparing year to date returns to market performance.

Management's process to develop the significant accounting estimate	**Change(s) to the process**	**Reasons for the change(s)**	**Effect(s) of the change(s)**
Management receives periodic capital statements from external fund managers. Management uses these capital statements as a starting point to estimate fair value of each private investment by: • starting with net asset value provided by the external fund manager • adjusting for any contributions or distributions made during the quarter • adjusting for any other factors management believes impact fair value	None	N/A	N/A

Significant assumptions with high degree of subjectivity	**Change(s) to significant assumptions?**	**Reasons for the change(s)**	**Effect(s) of the change(s)**
None			

Significant accounting estimate

Significant accounting estimate	Balance ($m)	PY balance ($m)	Year over year change ($m)
Valuation of directly owned real estate investments	$3,945,204	$5,513,870	$(1,568,666)

Our conclusions regarding the reasonableness of the significant accounting estimate were based on the following audit response:

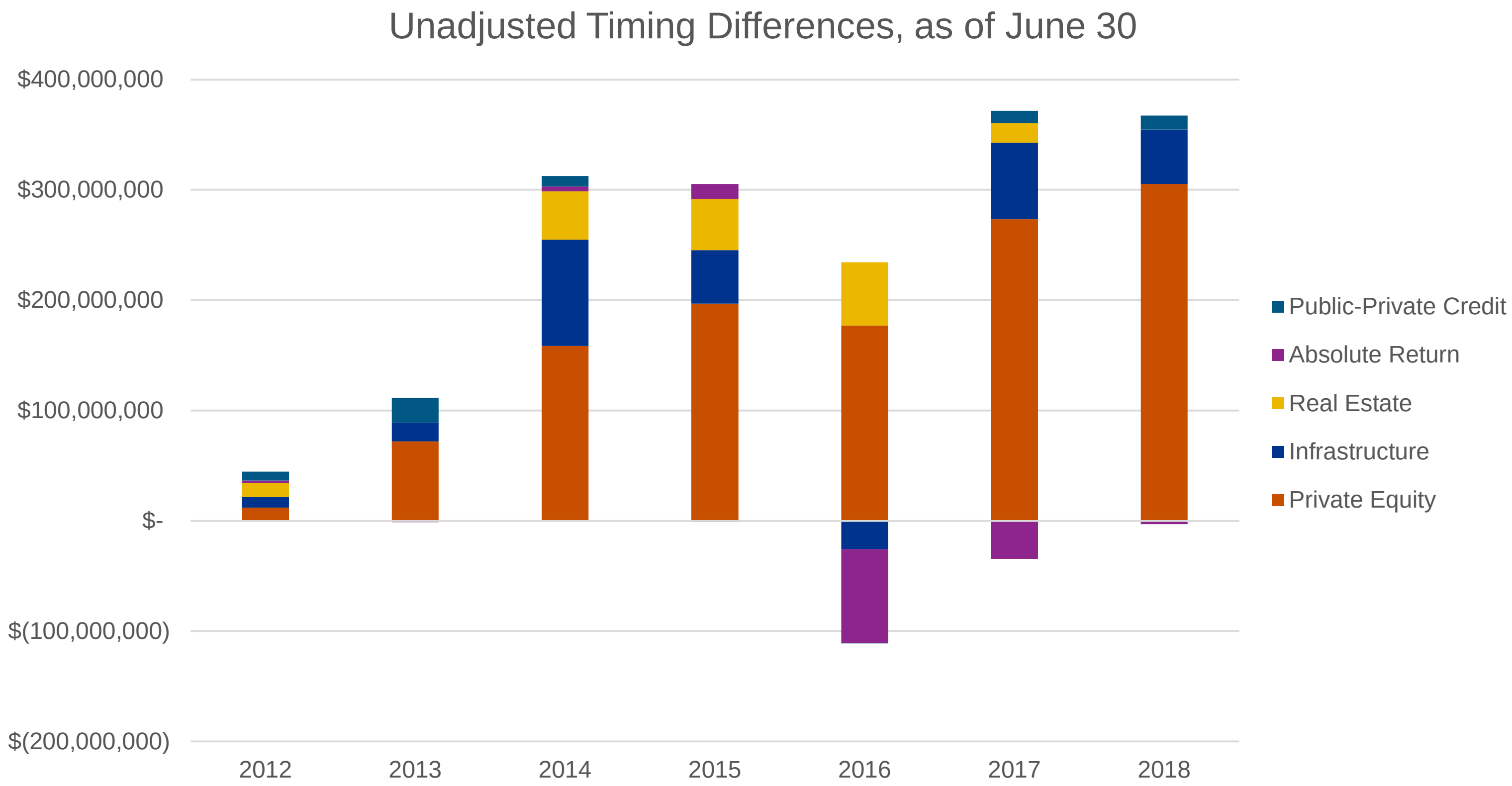
- We performed substantive testing over acquisitions and sales of real estate during FY18.
- We reviewed the Corporation's policy on evaluating real estate properties for impairment and performed an impairment analysis of the holdings using that policy.
- We obtained independent appraisal reports and involved KPMG specialists to assist in the review of the inputs to these appraisals.
- No exceptions were identified in our testing.

Management's process to develop the significant accounting estimate	Change(s) to the process	Reasons for the change(s)	Effect(s) of the change(s)
Management receives quarterly discounted cash flow analyses and annual independent appraisals for each directly owned property. When valuations are received from the third party advisors, management reviews the assumptions used within the valuation for reasonableness. Management uses the annual appraisals as a starting point to estimate fair value of each real estate holding by: • starting with value provided by the external advisor • adjusting for any contributions or distributions made since that time • adjusting for any other factors management believes impact fair value, including the quarterly discounted cash flow analyses.	None	N/A	N/A

Significant assumptions with high degree of subjectivity	Change(s) to significant assumptions?	Reasons for the change(s)	Effect(s) of the change(s)
None			

Audit misstatements

Uncorrected audit misstatements



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

Internal control related matters

KPMG responsibilities

- The purpose of our audit was to express an opinion on the financial statements
- Our audit included consideration of internal control over financial reporting in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of internal control.
- We are not expressing an opinion on the effectiveness of internal control
- Our consideration of internal control was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies, and therefore, material weaknesses or significant deficiencies may exist that were not identified.

Material weakness

A deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A reasonably possibility exists when the likelihood of an event occurring is either reasonably possible or probably. Reasonably possible is defined as the chance of the future event or events occurring is more than remote but less than likely. Probable is defined as the future event or events are likely to occur.

Significant deficiency

A deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Significant deficiencies and material weaknesses in internal control

Material weaknesses

Description	Potential effects	Status
None identified		

Significant deficiencies

Description	Potential effects	Status
None identified		

Required communications and other matters

Type	Response
Related parties	No significant findings and issues arising during the audit in connection with the entity's related parties.
Fraud	No actual or suspected fraud involving management, employees with significant roles internal control, or others were identified during the audit.
Noncompliance with laws and regulations	No matters to report.
Subsequent events	No matters to report.
Other Information	We have reviewed the annual report for consistency with the audited financial statements, when available.

Type	Response
Significant difficulties, if any, encountered during the audit	No matters to report.
Disagreements with management, if any	No matters to report.
Significant findings or issues discussed, or the subject of correspondence, with management	No matters to report.
Management's consultation with other accountants	No matters to report.
Other findings or issues	No matters to report.
Written representations	Management representation letter, including summary of uncorrected misstatements.

Independence

Relationships that may reasonably be thought to bear on independence include:

Relationship	Description of relationship/service	Fees (for services)
None noted		

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

KPMG

Questions?

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For additional information and Director resources, including a Quarterly webcast series and thought leadership through a board lens, please visit KPMG's Board Leadership Center at www.kpmg.com/BLC .

Callan APFC Performance Review Memo

SUBJECT: Callan Associates, Inc.
APFC Performance Review

ACTION: ___________

DATE: September 26, 2018

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.

Presentation: Callan APFC Performance

Callan

APFC

September 26, 2018

Alaska Permanent Fund Corporation

2nd Quarter 2018 Performance Review

Greg Allen
CEO and Chief Research Officer

Steven Center, CFA
Senior Vice President

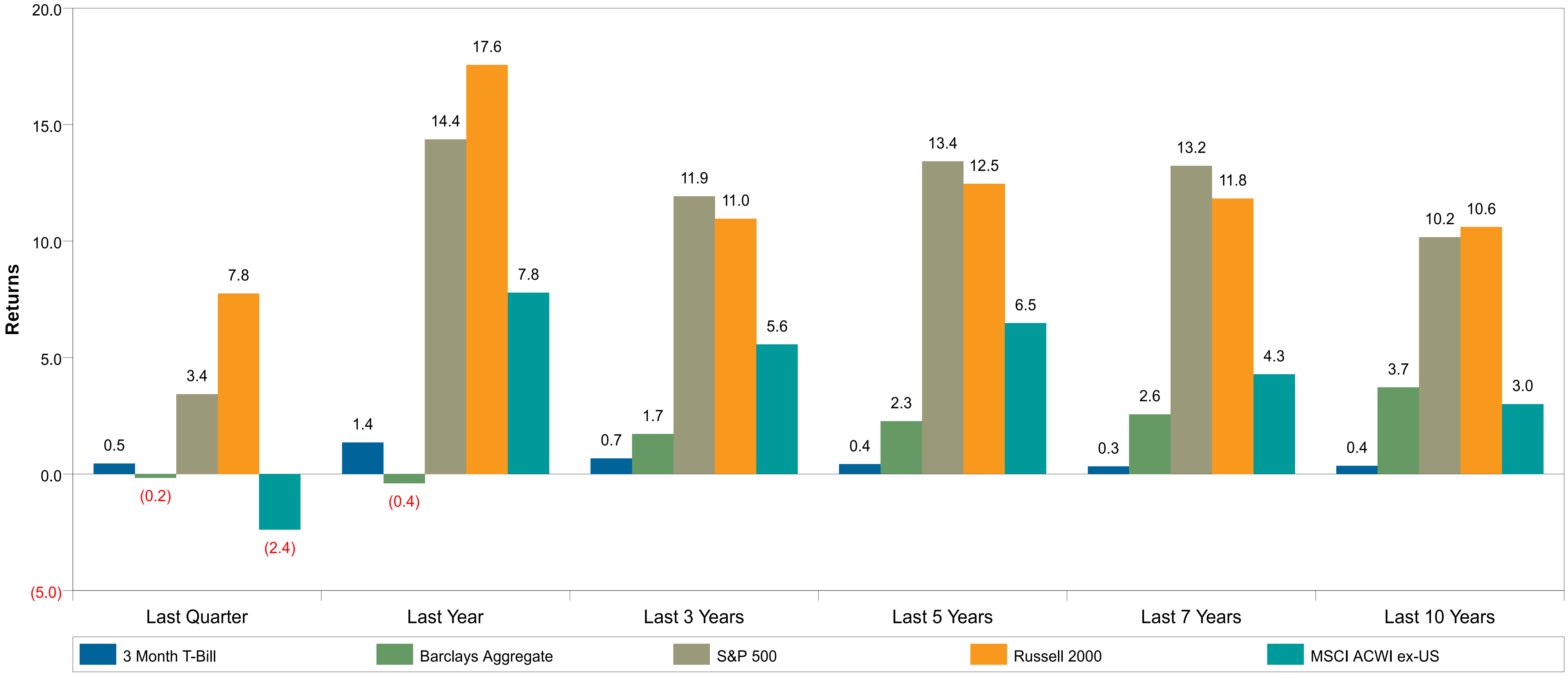
Alina Vartanyan, CFA
Assistant Vice President

Agenda

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

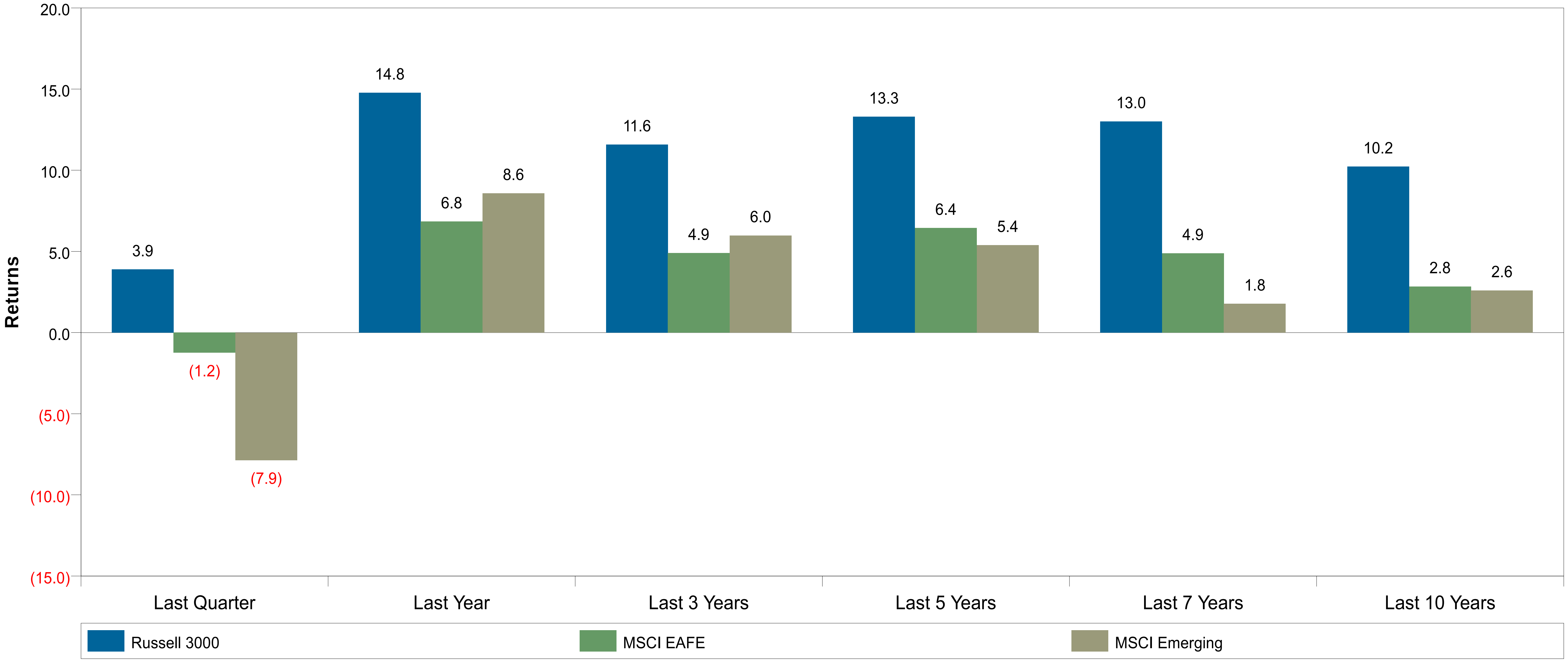
Broad Capital Market Performance

Periods Ended June 30, 2018



Public Equity Capital Market Performance

Periods Ended June 30, 2018



Callan Periodic Table of Investment Returns

Returns for Key Indices

2009	2010	2011	2012	2013	2014	2015	2016	2017	2 Qtrs. 2018
MSCI Emerging Markets **78.51%**	MSCI ACWI ex USA SC **25.20%**	Bloomberg Barclays Aggregate **7.84%**	MSCI ACWI ex USA SC **18.52%**	Russell 1000 **33.11%**	S&P 500 **13.69%**	MSCI ACWI ex USA SC **2.60%**	Bloomberg Barclays Corp High Yield **17.13%**	MSCI Emerging Markets **37.28%**	Russell 1000 **2.85%**
MSCI ACWI ex USA SC **62.91%**	MSCI Emerging Markets **18.88%**	Bloomberg Barclays Corp High Yield **4.98%**	MSCI Emerging Markets **18.23%**	S&P 500 **32.39%**	Russell 1000 **13.24%**	S&P 500 **1.38%**	Russell 1000 **12.05%**	MSCI ACWI ex USA SC **31.65%**	S&P 500 **2.65%**
Bloomberg Barclays Corp High Yield **58.21%**	Russell 1000 **16.10%**	Bloomberg Barclays Global Agg ex US **4.36%**	Russell 1000 **16.42%**	MSCI World ex USA **21.02%**	Bloomberg Barclays Aggregate **5.97%**	Russell 1000 **0.92%**	S&P 500 **11.96%**	MSCI World ex USA **24.21%**	Bloomberg Barclays Corp High Yield **0.16%**
MSCI World ex USA **33.67%**	Bloomberg Barclays Corp High Yield **15.12%**	S&P 500 **2.11%**	MSCI World ex USA **16.41%**	MSCI ACWI ex USA SC **19.73%**	Bloomberg Barclays Corp High Yield **2.45%**	Bloomberg Barclays Aggregate **0.55%**	MSCI Emerging Markets **11.19%**	S&P 500 **21.83%**	Bloomberg Barclays Global Agg ex US **-1.31%**
Russell 1000 **28.43%**	S&P 500 **15.06%**	Russell 1000 **1.50%**	S&P 500 **16.00%**	Bloomberg Barclays Corp High Yield **7.44%**	MSCI Emerging Markets **-2.19%**	MSCI World ex USA **-3.04%**	MSCI ACWI ex USA SC **3.91%**	Russell 1000 **21.69%**	Bloomberg Barclays Aggregate **-1.62%**
S&P 500 **26.47%**	MSCI World ex USA **8.95%**	MSCI World ex USA **-12.21%**	Bloomberg Barclays Corp High Yield **15.81%**	Bloomberg Barclays Aggregate **-2.02%**	Bloomberg Barclays Global Agg ex US **-3.09%**	Bloomberg Barclays Corp High Yield **-4.47%**	MSCI World ex USA **2.75%**	Bloomberg Barclays Global Agg ex US **10.51%**	MSCI World ex USA **-2.77%**
Bloomberg Barclays Global Agg ex US **7.53%**	Bloomberg Barclays Aggregate **6.54%**	MSCI Emerging Markets **-18.42%**	Bloomberg Barclays Aggregate **4.21%**	MSCI Emerging Markets **-2.60%**	MSCI ACWI ex USA SC **-4.03%**	Bloomberg Barclays Global Agg ex US **-6.02%**	Bloomberg Barclays Aggregate **2.65%**	Bloomberg Barclays Corp High Yield **7.50%**	MSCI ACWI ex USA SC **-2.94%**
Bloomberg Barclays Aggregate **5.93%**	Bloomberg Barclays Global Agg ex US **4.95%**	MSCI ACWI ex USA SC **-18.50%**	Bloomberg Barclays Global Agg ex US **4.09%**	Bloomberg Barclays Global Agg ex US **-3.08%**	MSCI World ex USA **-4.32%**	MSCI Emerging Markets **-14.92%**	Bloomberg Barclays Global Agg ex US **1.49%**	Bloomberg Barclays Aggregate **3.54%**	MSCI Emerging Markets **-6.66%**

Source: Bloomberg Barclays, FTSE Russell, MSCI, Standard & Poor's

U.S. Economy Overview

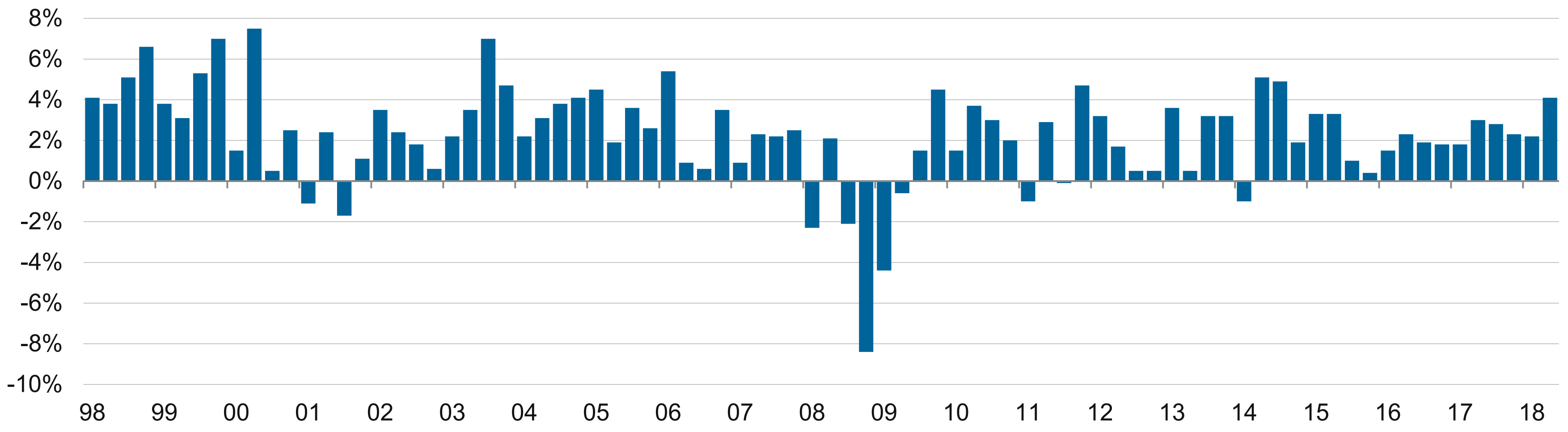
Gross Domestic Product (GDP) and Inflation (CPI, PPI)

The U.S. economy remained on strong footing in the second quarter. The unemployment rate dropped to 3.8% in May, the lowest since 2000, and wages inched up. Consumer spending was robust and consumer and business confidence remained elevated. While real U.S. GDP growth in the first quarter was a mere 2.0% (annualized), expectations for second quarter growth are sharply higher. Overseas, signs of deceleration emerged, especially in Europe, Japan, and China.

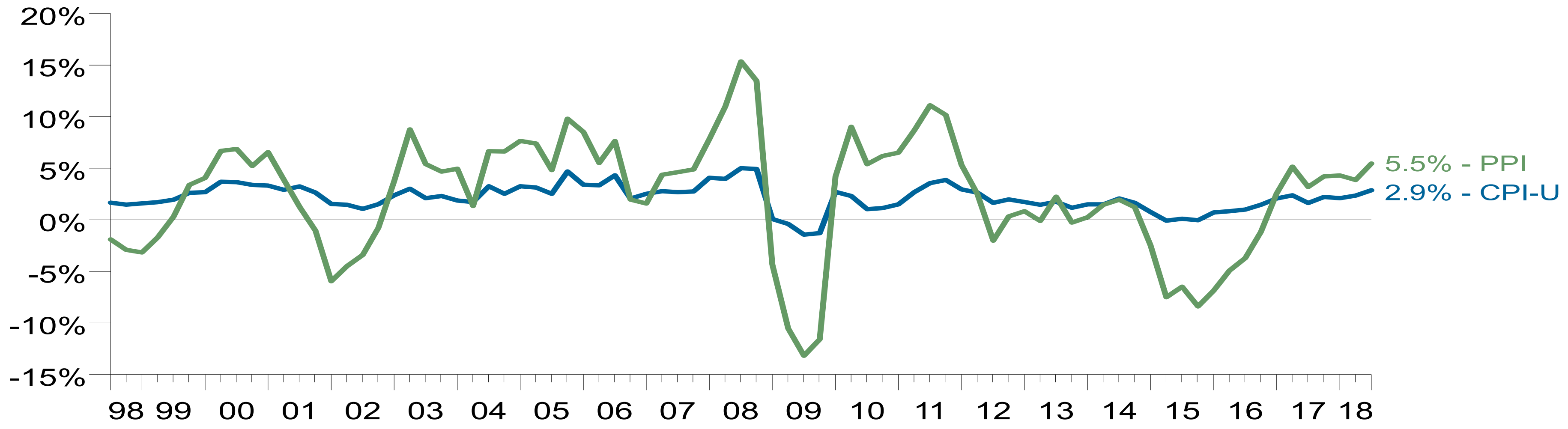
Inflation continues to inch upward, with both Headline and Core CPI coming in well above the Fed's 2.0% target. PPI jumped 0.5% in May.

Housing starts climbed to an eleven-year high, and the University of Michigan Consumer Sentiment Survey remained elevated. Retail sales beat forecasts, up 6% y-o-y.

Quarterly Real GDP Growth (20 Years)



Rolling One-Year Returns for 20 Years ended June 30, 2018

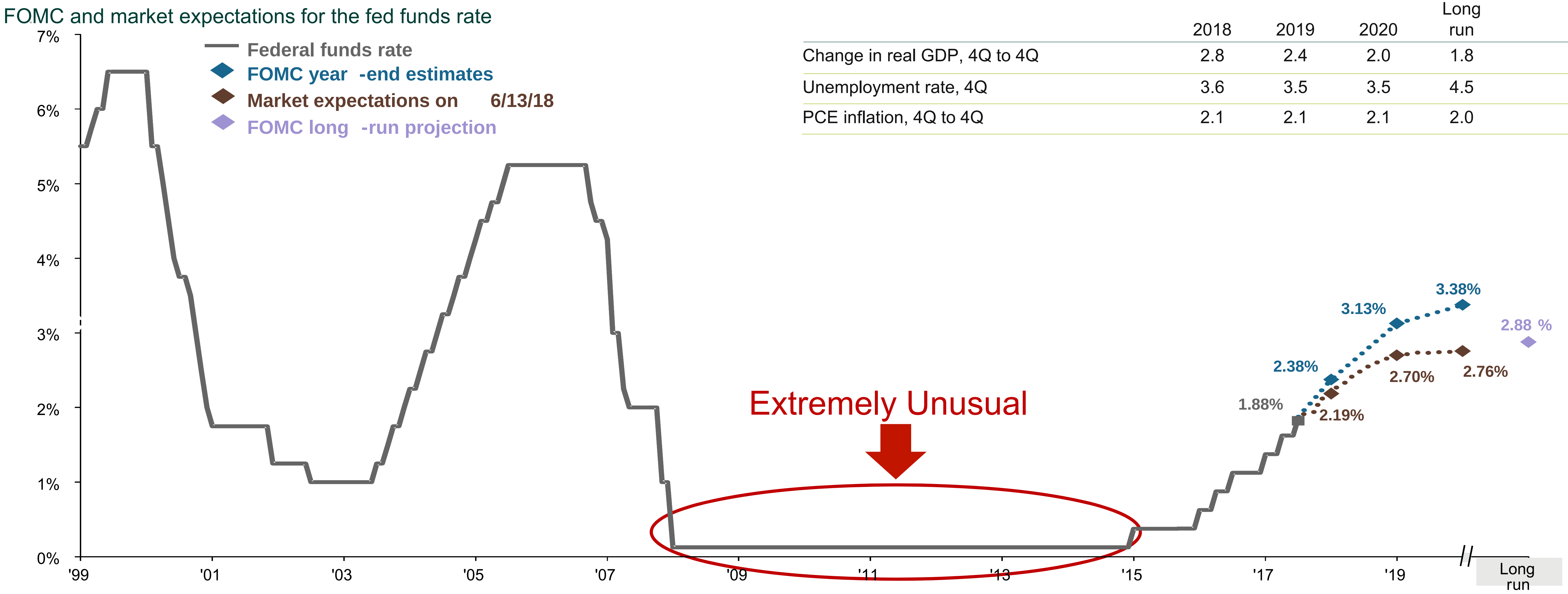


Sources: Bureau of Economic Analysis and Bureau of Labor Statistics

Unprecedented Policy Response Is Finally Over

Fed moves toward normalization with four rate hikes expected in 2018

Federal funds rate expectations



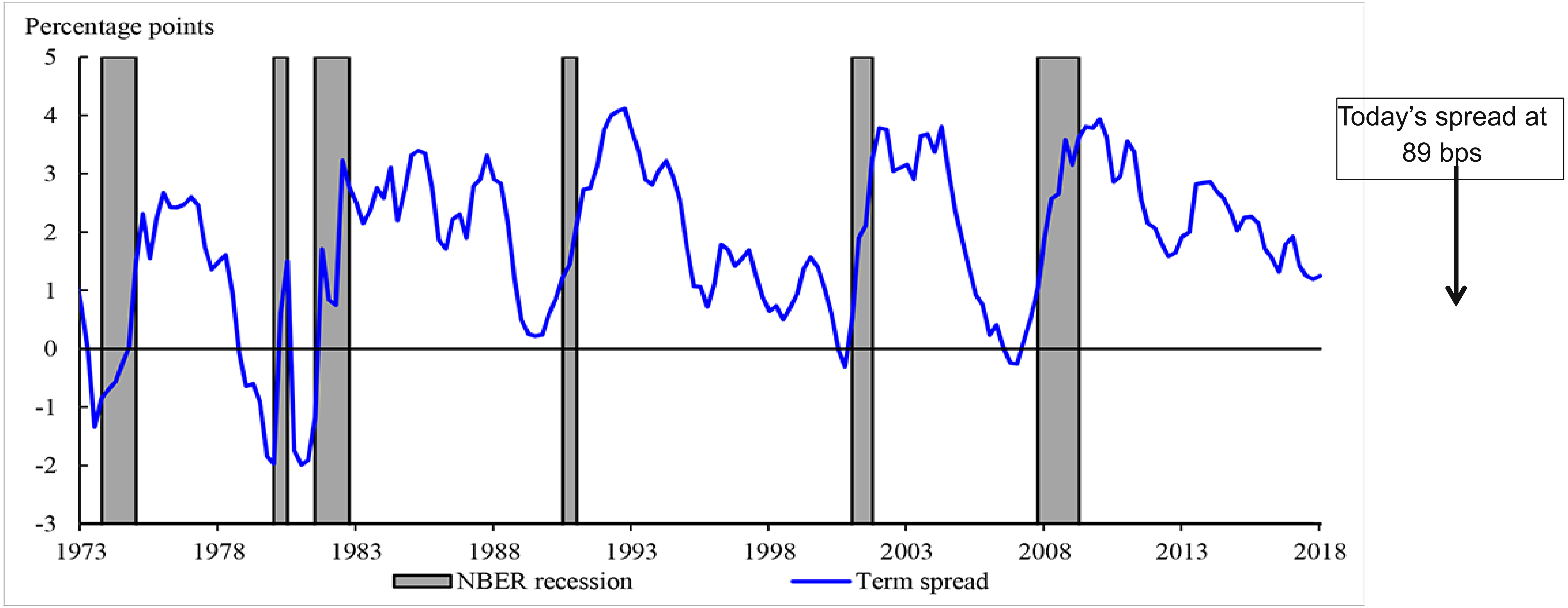
Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are the federal funds rates priced into the fed futures market as of the date of the June 2018 FOMC meeting.
Guide to the Markets – U.S. Data are as of June 30, 2018.

FOMC June 2018 forecasts (percent)

	2018	2019	2020	Long run
Change in real GDP, 4Q to 4Q	2.8	2.4	2.0	1.8
Unemployment rate, 4Q	3.6	3.5	3.5	4.5
PCE inflation, 4Q to 4Q	2.1	2.1	2.1	2.0

Source: J.P. Morgan Asset Management.

Ten Year Treasury minus Three-month Term Spread and NBER-dated Recessions



Note: The term spread is the ten-year minus the three-month yield. The figure shows quarterly average values of the spread (the value for 2018Q1 is the average to February 26, 2018). The gray shaded areas indicate quarters in which there was an NBER-dated recession at any point in the quarter. A negative yield curve has predicted a recession in advance of 5 out of the last 6 recessions within a 6 to 24 months period.

Sources: Board of Governors of the Federal Reserve System, Federal Reserve Bank of New York, NBER, and Board staff calculations.

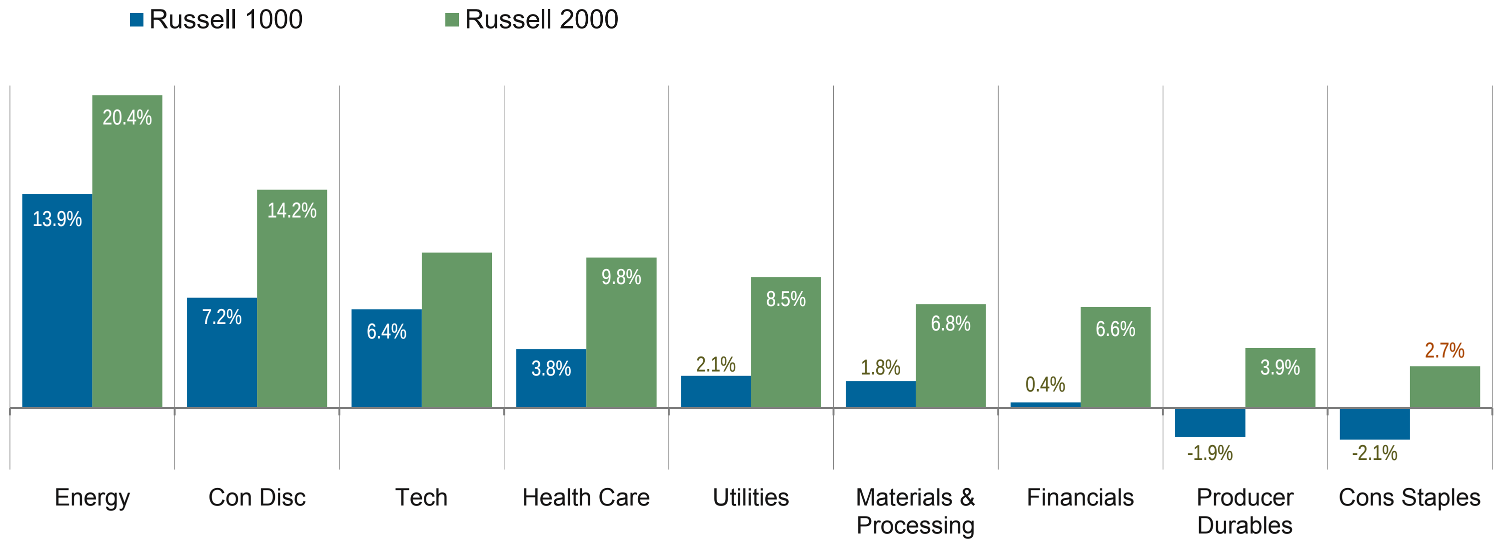
U.S. Equity Market

- U.S. equities (S&P 500 +3.4%) rose on a strong earnings season and positive economic data.
  - *Energy was the best-performing sector (+13.5%) as oil prices trended higher after U.S. withdrew from Iran nuclear accord.*
- Small cap (+7.8%) outperformed large cap (+3.6%) on trade war fears. Large cap companies derive big portion of revenues from foreign markets (S&P 500 aggregate is ~40%) and are more negatively impacted compared to their domestically focused small cap peers.
- Growth (+5.8%) continued to outperform Value (+1.2%) due to strong results in Tech (+7.1%) and Consumer Discretionary (+8.2%).
- Concentration of returns within broad indexes remains a concern. Excluding FAANG stock performance, S&P 500 performance was negative.

For Periods ended June 30, 2018

Large Cap Equity	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Russell 1000 Growth	5.76	22.51	14.98	16.36	11.83	10.30
Russell 1000 Value	1.18	6.77	8.26	10.34	8.49	8.63
Mid Cap Equity						
Russell Midcap Growth	3.16	18.52	10.73	13.37	10.45	11.07
Russell Midcap Value	2.41	7.60	8.80	11.27	10.06	11.04
Small Cap Equity						
Russell 2000 Growth	7.23	21.86	10.60	13.65	11.24	10.95
Russell 2000 Value	8.30	13.10	11.22	11.18	9.88	9.93

Economic Sector Quarter Performance as of June 30, 2018



Source: Callan, Russell Investment Group

FAANG: Facebook, Apple, Amazon, Netflix, Google/Alphabet

Concentration Risk within U.S. Equities

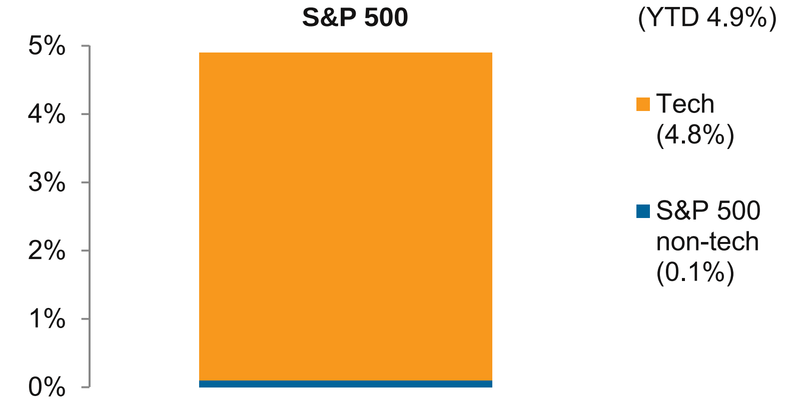
Concentration Risk

- FAANG stocks (Facebook, Apple, Amazon, Netflix, Google/Alphabet and to some extent Microsoft) continue to drive outsized proportion of returns within equity indices.
- Concentrated portfolio holders should be mindful of attribution coming from a small handful of names and potential for downside exposure should a correction ensue.
- Biotech represents half the Health Care weight of RUS2G (12% vs. 25%) and many small growth managers have struggled in selecting biotech names given the binary outcomes and depth of resources needed to do it well.

Amazon Effect Continues

- Amazon (+17% 2Q18) increased in size by over 69% since last year's Russell reconstitution with continued market share expansion in the retailing space (including food) and now into Health Care.
- In January 2018, Amazon, Berkshire Hathaway and JPMorgan announced plans to form a non-profit company with the goal of lowering health-care costs for their employees, thereby devastating Healthcare stocks. In June, Amazon announced its acquisition of online pharmacy start-up PillPack, further jarring stocks such as Walgreens, CVS, and Rite-Aid.

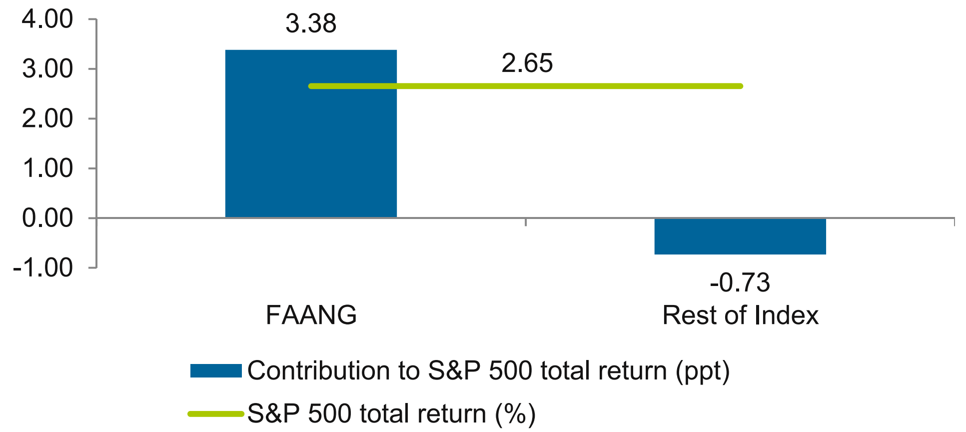
S&P 500 Year to Date Sector* Attribution



*weights as of 03/31/2018; performance as of 06/14/2018

Source: Syntax LLC

Excluding FAANG stocks, index returns would have been negative



Note: FAANG = FB, AAPL, AMZN, NFLX, GOOG/GOOGL

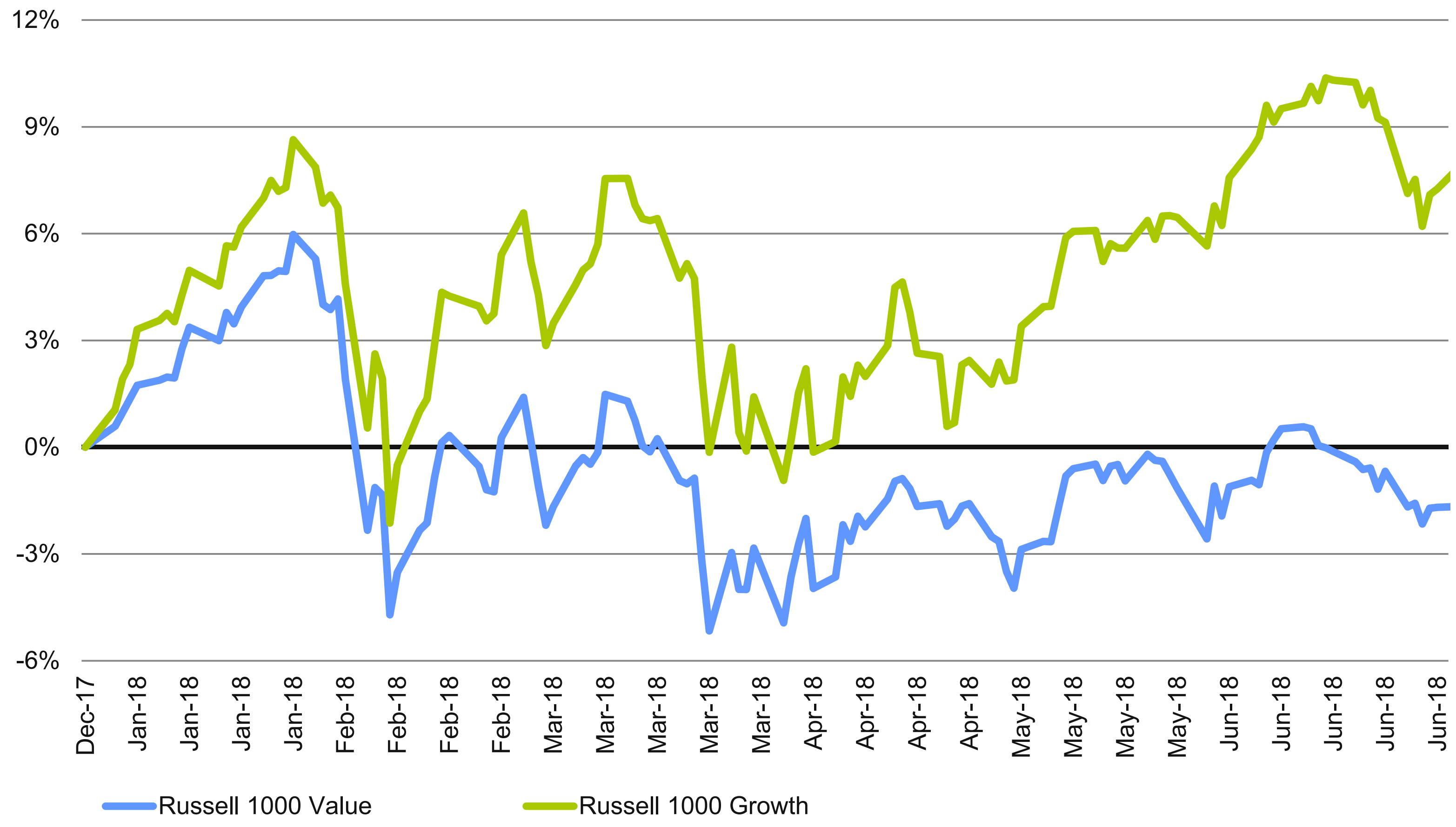
Source: S&P, BofA Merrill Lynch US Equity & US Quant Strategy

Time to Rebalance into Value Equity?

– Large value trailed large growth by nearly 900 bps in the first half of 2018 (-1.7% vs. +7.3%) driven by ongoing outperformance of the Tech sector and Tech-exposed Consumer Discretionary companies.

– Performance gap further impacted by the type of value manager employed as statistical value (reliant upon traditional measures of low P/B, low P/E) lagging relative value (companies trading at a discount to intrinsic value).

– Be mindful of value manager rotation into Apple, Microsoft, and Alphabet—the very drivers of growth outperformance—which we have seen with several large value managers.



Non-U.S. Equity Market

- Non-U.S. markets ended in the red as trade war talk moved into action. Although initial tariffs levied by the U.S. were targeted, retaliatory actions and supply chain disruptions broadened their effects.
  - *Growth outpaced value—although no factor category showed significant strength.*
  - *Cyclical sectors were hurt later in the quarter as the prospect of slower growth led to reduced expectations.*
  - *The U.S. dollar was up, hurting non-U.S. returns. The euro and British pound were hit especially hard with the rise of populism and Brexit turmoil.*
- Emerging markets sold off significantly led by China and Latin America.
  - *Fears of increasing debt burdens and trade war effects impacted China.*
  - *Brazil affected by slower global growth, and falling sentiment hit energy and financials hard.*
- Frontier markets impacted by Argentina (-42%) on continuing political unrest, severe drought, and a devaluing currency.

For Periods ended June 30, 2018

Non-U.S. Equity	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
MSCI ACWI ex USA	-2.61	7.28	5.07	5.99	2.54	7.74
MSCI ACWI ex USA Growth	-1.42	9.90	6.56	7.18	3.01	7.91
MSCI ACWI ex USA Value	-3.84	4.64	3.51	4.75	2.03	7.50
MSCI EAFE	-1.24	6.84	4.90	6.44	2.84	7.26
MSCI EAFE (local)	3.47	6.12	5.18	8.93	4.98	7.01
Regional Equity						
MSCI Europe	-1.27	5.28	4.22	6.21	2.36	7.07
MSCI Europe (local)	4.08	4.30	5.69	8.71	5.42	7.23
MSCI Japan	-2.84	10.51	6.25	7.37	3.54	6.62
MSCI Japan (local)	1.20	8.94	2.78	9.73	4.00	6.05
MSCI Pacific ex Japan	1.77	8.68	6.57	6.04	4.64	10.42
MSCI Pacific ex Japan (loc)	4.50	11.15	7.51	9.05	6.30	9.59

Emerging/Frontier Markets	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
MSCI Emerging Markets	-7.96	8.20	5.60	5.01	2.26	10.70
MSCI Emerging Markets (loc)	-3.51	10.47	7.48	8.45	5.23	11.57
MSCI Frontier Markets	-15.19	1.69	2.15	4.55	-2.52	6.70
Non-U.S. Small Cap Equity						
MSCI EAFE Small Cap	-1.57	12.45	10.09	11.32	6.81	10.69
MSCI Em Mkts Small Cap	-8.60	5.64	2.55	4.32	4.44	11.30

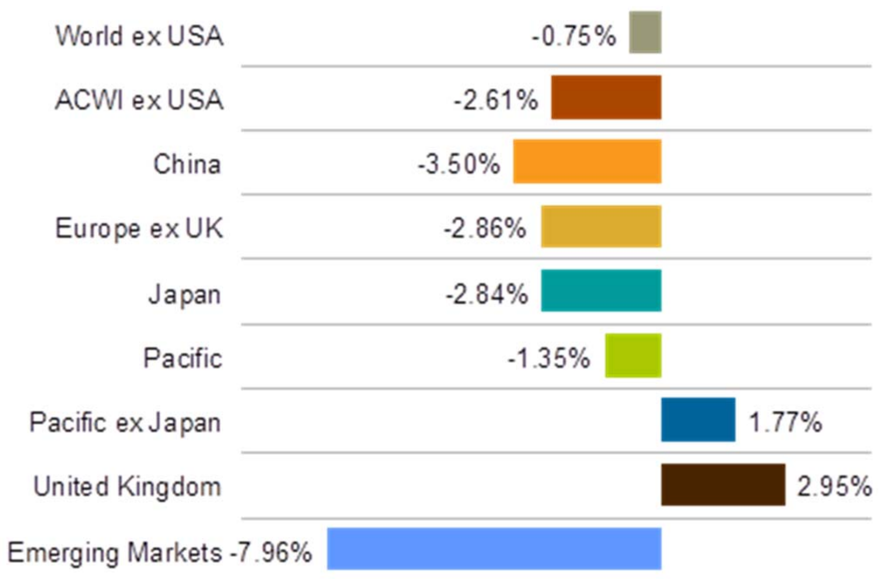
Sources: Callan, MSCI

Non-U.S. Equity Market

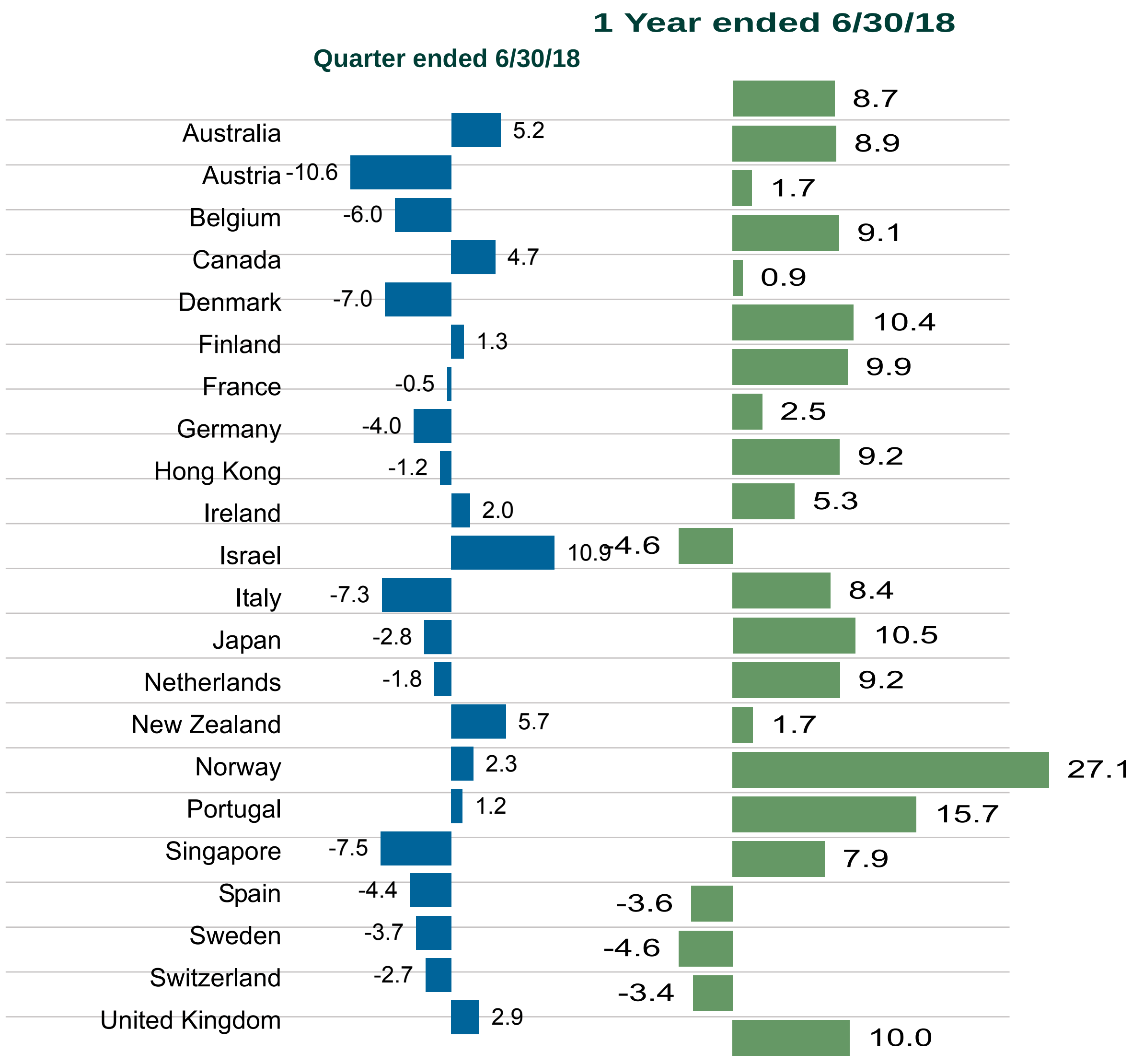
– Emerging markets were among the hardest hit with Latin America taking the brunt of the sell-off. In May, Brazil's central bank unexpectedly left rates unchanged, while a trucking strike and growing concern about October elections weighed on markets. The Brazilian real fell 14% in the quarter versus the U.S. dollar.

– China reversed a five-quarter rally on concerns surrounding growing debt burdens, slower growth, and trade uncertainty.

Non-U.S. Quarterly Performance (U.S. Dollar) as of June 30, 2018



Developed Country Returns



Sources: Callan, MSCI

Fixed Income Market

- Fixed Income markets grappled with multiple issues. resulting in continued volatility.
  - *Trade conflicts due to imposition of tariffs, EM elections, and rising U.S. dollar contributed to the unstable environment.*
- U.S. rates rose in the second quarter and the yield curve continued its flattening trend.
  - The spread between the 2-year and 10-year ended at its lowest level (33 bps) in more than 10 years.
- Investment grade corporates faced increased headwinds during the quarter, dragging returns lower.
  - Concerns over potential trade wars and rising rates increasingly weighed on IG credit despite rising earnings and revenues.
- High yield corporates rebounded in Q2 pushing year-to-date returns into positive territory.
  - CCC-rated credits continued to outperform higher-rated credits within high yield.
  - Earnings growth remains strong and defaults remain benign amid positive economic outlook.

For Periods ended June 30, 2018

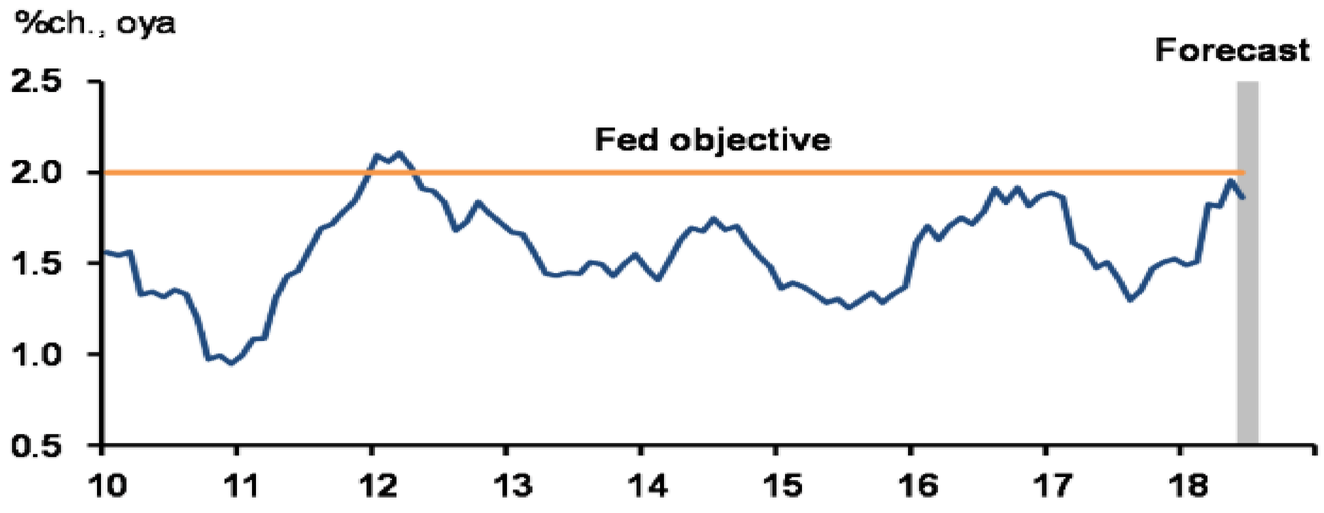
Broad Fixed Income	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
BB Barclays Aggregate	-0.16	-0.40	1.72	2.27	3.72	3.77
BB Barclays Gov/Credit	-0.33	-0.63	1.83	2.29	3.78	3.71
BB Barclays Government	0.10	-0.63	1.02	1.48	2.91	3.20
BB Barclays Credit	-0.88	-0.65	2.86	3.37	5.15	4.52
BB Barclays Corporate High Yld	1.03	2.62	5.53	5.51	8.19	7.77
Long-Term						
BB Barclays Long Gov/Credit	-1.45	-0.78	4.34	5.10	6.79	5.84
BB Barclays Long Government	0.26	-0.13	3.40	4.56	6.02	5.57
BB Barclays Long Credit	-2.65	-1.30	4.95	5.48	7.30	5.99
Intermediate-Term						
BB Barclays Interm Aggregate	0.09	-0.32	1.27	1.83	3.29	3.47
BB Barclays Interm Gov/Credit	0.01	-0.58	1.16	1.60	3.08	3.21
Short-Term						
Money Market Funds (net)	0.38	1.06	0.44	0.27	0.23	1.11
ML Treasury 1-3 Year	0.22	0.08	0.42	0.58	1.24	1.92
90-Day Treasury Bills	0.45	1.36	0.68	0.42	0.35	1.29

Source: Callan, Bloomberg

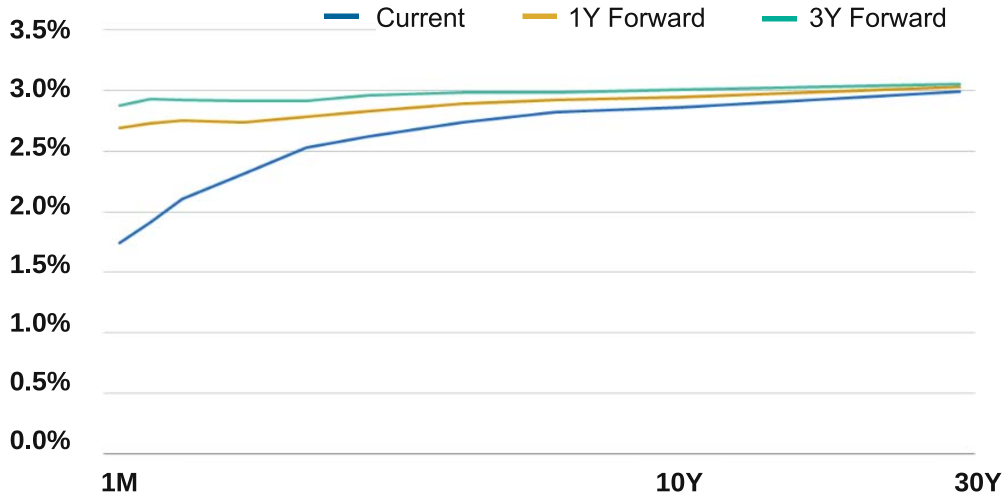
U.S. Temps Not the Only Thing Heating Up—Inflation and Rates

- The Fed's preferred measure of inflation (PCE) is on the precipice of its 2% target.
  - *Impact of increased tariffs and fiscal policy may lead to even higher future prints.*
  - *Only the recent strength of the USD and a drop in energy prices have curtailed the dramatic rise over the past year.*
- The spread between the 2- and 10-year U.S. Treasury yields has reached its lowest point since 2007 (33 bps).
  - *With two more hikes forecasted for this year and three more next year, the curve is inching closer to inversion.*
  - *While not an immediate cause of recession, an inverted curve has been a reliable signal of recession in the past.*

Core PCE inflation, including June forecast



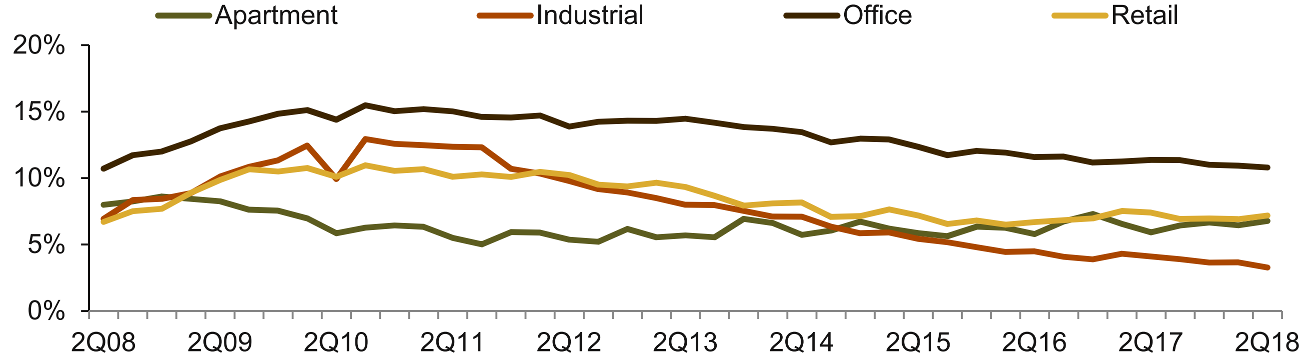
U.S. Treasury Yield Curve Forwards



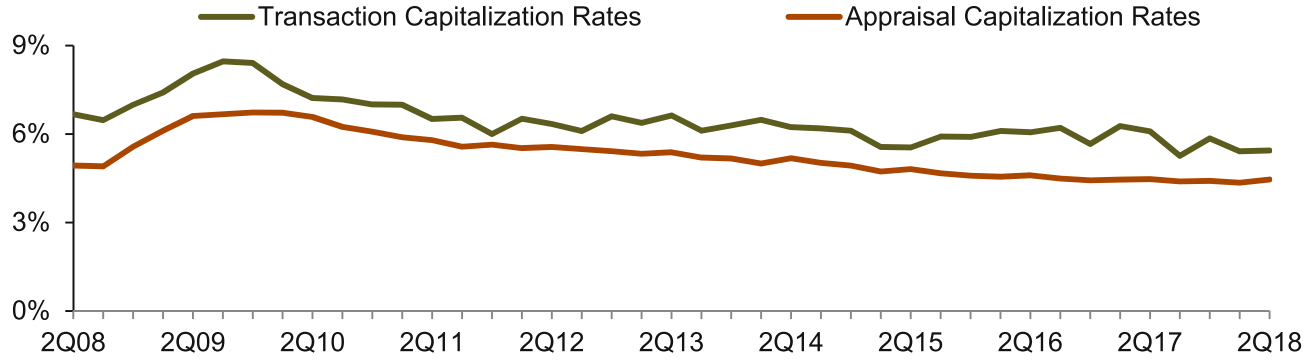
Sources: JPMorgan, BEA, PIMCO

Real Estate Market

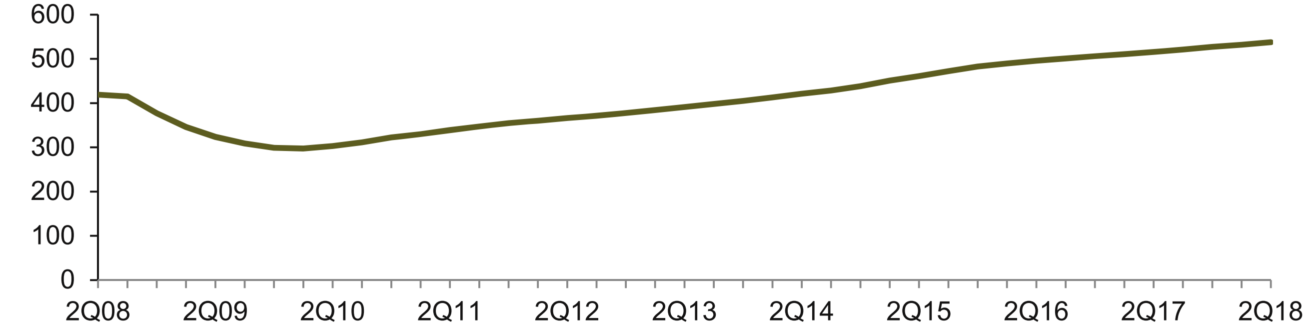
Vacancy by Property Type



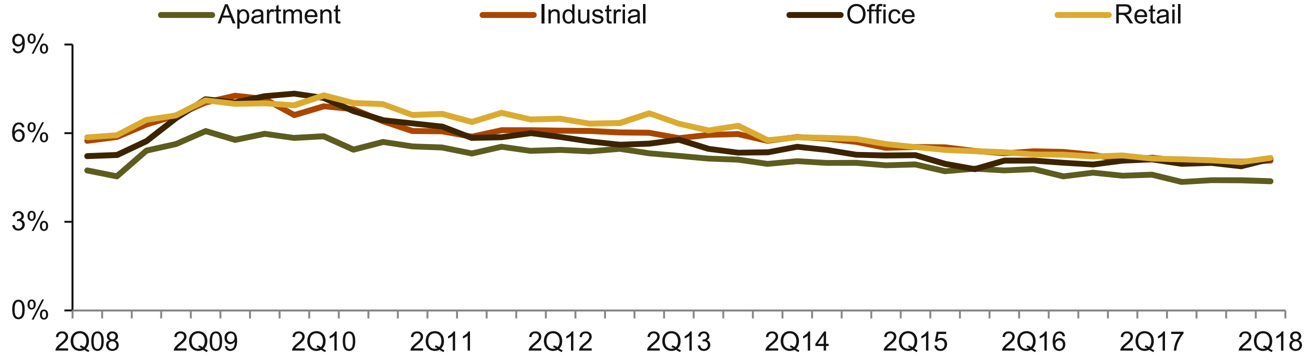
Current Value vs Transaction Cap Rates



Price Index



Current Value Cap Rates by Property Type



- Supply and demand fundamentals are balanced but peaking. Supply is in check and aided by strict commercial real estate lending standards. Demand continues on the back of synchronized domestic growth. Transaction volumes have begun to take a step back in recent quarters from current cycle peak levels but have yet to substantially affect pricing, as property remains expensive.
- The industrial sector is performing the strongest, benefitting as structural shifts in the economy, property markets, and consumer habits continue to dampen demand for traditional retail space. Office is performing as expected late in the cycle and tenant improvements and other capital expenditures are increasingly eroding cash flow. Multifamily remains strong due to positive demographic trends, except for the Class A luxury segment in prime markets such as New York.

Source: NCREIF. Note: Transaction capitalization rate is equal-weighted.

Real Estate Trends Led by Europe, Asia, and Infrastructure

European real estate markets (ex-U.K.) gaining momentum due to strong fundamentals in major European cities and despite continued political noise across region.

– *Value-add and opportunistic real estate owners and operators continue to see significant opportunity to create and sell core product to a robust market of buyers. Paris, Berlin, Frankfurt, Amsterdam, Stockholm, and Madrid continue to see increased levels of investment activity.*

Asian real estate products are seeing strong fundraising momentum, with existing managers reaching target fund sizes and an increase in Asia-focused open-end funds.

– *Chinese government is implementing policies to increase domestic growth and consumption, including support for the development of multi-family rental property, a relatively new concept in China. Over the summer, the Chinese renminbi has weakened against the dollar, due to monetary easing in China and global trade tensions, and more stringent capital controls have increased the amount of capital looking to invest within the country; investment activity remains steady in China.*

– *Other major markets such as Japan, Australia, South Korea, and India continue to see investment activity across multiple sectors.*

Infrastructure strategies are raising significant capital.

– *Open-end infrastructure managers have secured substantial new commitments this year. Infrastructure managers have reported mixed impact to their portfolios following the implementation of the latest tax law changes. The variety of closed-end infrastructure products continues to increase with new offerings in debt and emerging markets-focused strategies.*

Hedge Funds and Multi-Asset Class

– Given trade war threats and other geopolitical events, hedge funds across most strategies struggled for traction.

– Strong M&A activity provided support to event-driven strategies, but regulatory risk remains notably uncertain in deal approvals.

– Credit opportunities are limited in a still-durable economy, leaving FOFs and event-driven funds at low end of target allocations.

– Momentum, or trend, lost more ground last quarter with markets flip-flopping, adding to the prior quarter's sting from February's market reversal.

– As the FAANG stocks continued to gain popularity last quarter, the value risk premia was left more unappreciated. Flashback of memories from the late 90s?

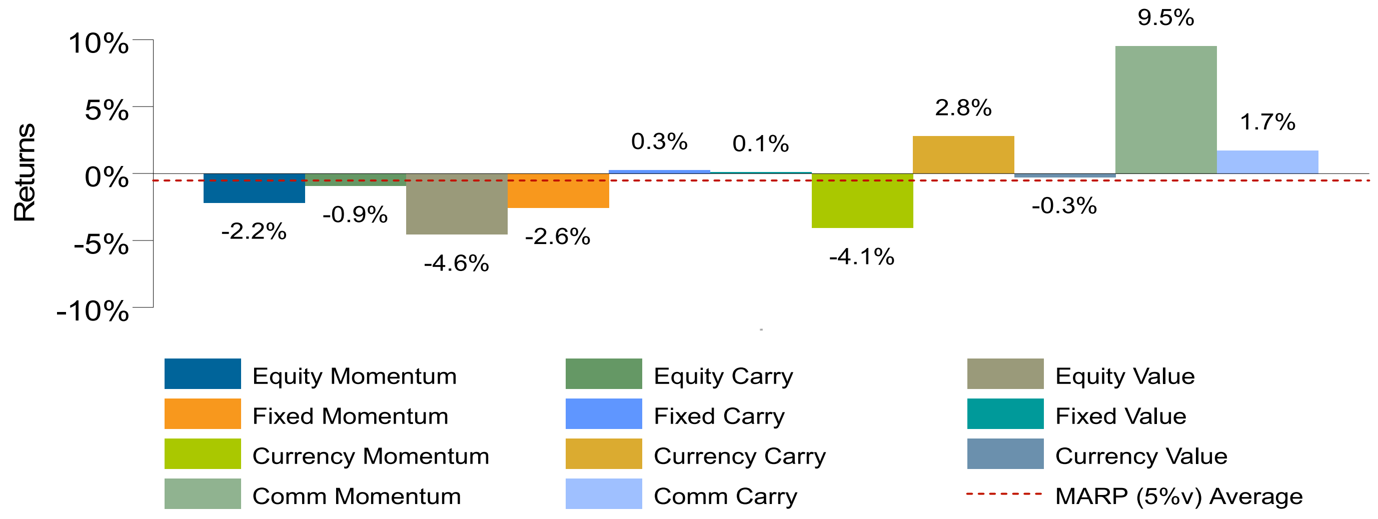
– Both large and small hedge funds yielded similar middling results, on average. FOFs earned their fees last quarter with performance matching that of the underlying indexes.

Returns for Periods ended June 30, 2018

Hedge Fund Universe	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
HFRI Asset Wtd Composite	0.87	5.31	2.68	4.17	3.52	--
HFRI Fund Weighted Index	0.84	5.67	3.63	4.44	3.45	5.57
.HFRI Equity Hedge	0.85	8.22	4.85	5.84	3.69	5.66
.HFRI Event-Driven	2.15	5.79	4.63	4.80	4.67	6.57
.HFRI Macro	-0.16	1.17	0.17	1.23	1.13	3.88
.HFRI Relative Value	1.12	3.91	3.74	4.38	5.11	5.76
3 Month T-Bill	0.45	1.36	0.68	0.42	0.35	1.29
Liquid Alternatives Universe						
S&P 500	3.43	14.37	11.93	13.42	10.17	9.30
Bloomberg Barclays Aggregate	-0.16	-0.40	1.72	2.27	3.72	3.77
60% S&P 500/40% BC Aggr	1.99	8.34	7.88	8.97	7.84	7.30
CS NB MARP Index (5%v)	-0.51	-1.03	2.79	2.99	6.31	--
SG Trend Index	-1.34	2.90	-2.27	2.11	1.16	3.34

* Gross of fees

Alternative Risk Factor Breakdown—Last Quarter ended June 30, 2018

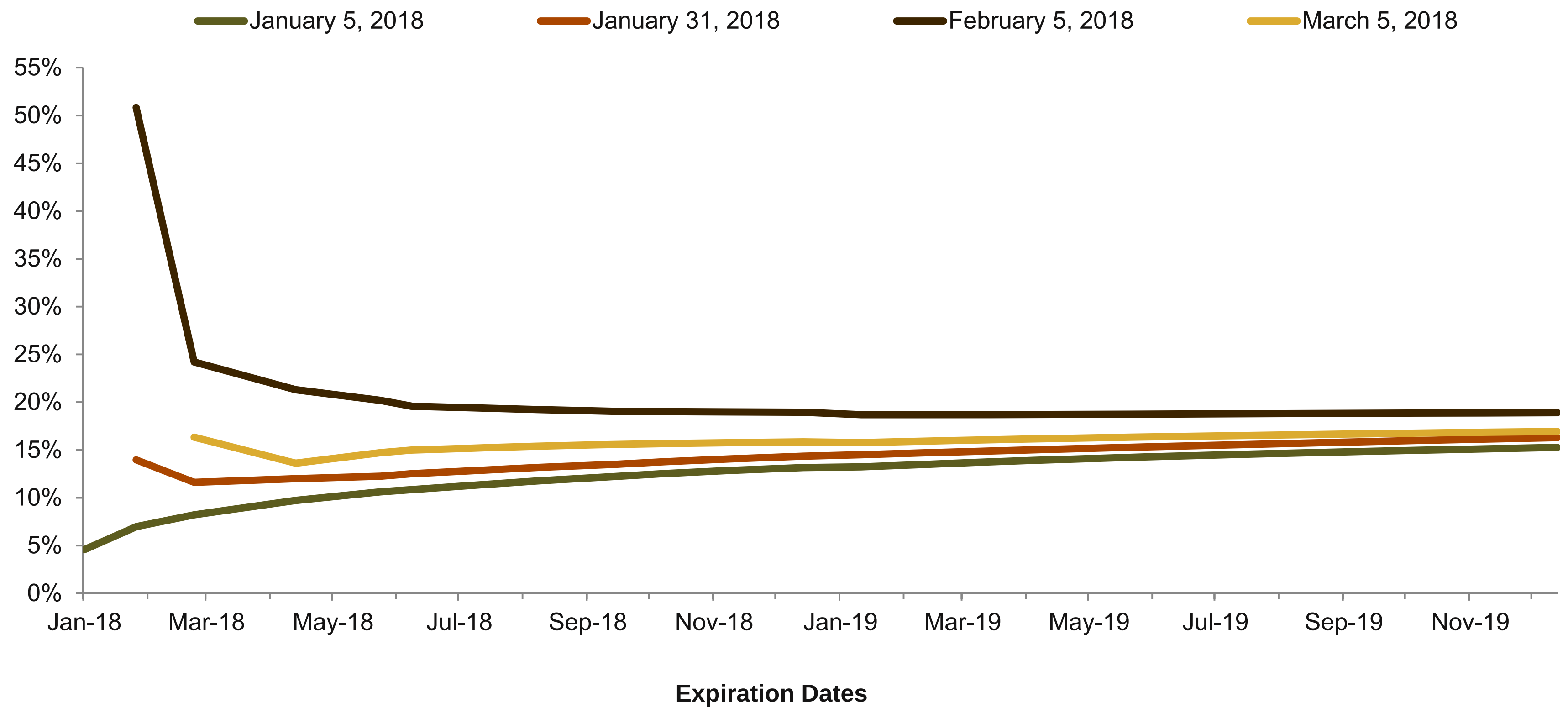


Source: Credit Suisse Neuberger Berman Multi-Asset Risk Premia Index

Ready to Rumble with Rising Volatility?

– Vol shows w/o warning: see adjacent chart
– Higher rates likely to translate into bigger market moves that create more profitable opportunities for hedged traders
– Hedge funds are not oversubscribed, so a greater supply of opportunities will likely reward discretionary capital in hedge funds.
– Realized alpha is still modest, but the potential is better with today's tightening liquidity and less synchronized markets.

Term Structure of Implied Volatility—S&P 500 Index Options



Source: LongTail Alpha, LLC, Callan LLC (estimated)

Private Equity Market

Funds Closed January 1 through June 30, 2018

Strategy	# of Funds	$ Amt (mil)	%
Venture Capital	273	24,612	16%
Acquisition/Buyouts	193	108,047	69%
Private Debt	39	8,457	5%
Secondary and Other	23	8,537	5%
Fund-of-funds	43	7,140	5%
Totals	**571**	**156,793**	**100%**

Source: Private Equity Analyst

Private Equity Performance Database—Pooled Horizon IRRs

Through December 31, 2017 – Returns are net of fees

Strategy	3 Mos	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 yrs	20 Yrs
All Venture	3.7%	13.0%	9.2%	16.2%	9.5%	9.7%	17.9%
Growth Equity	5.8%	20.1%	12.2%	13.6%	10.0%	13.0%	13.5%
All Buyouts	5.4%	22.6%	13.7%	14.4%	8.8%	14.6%	12.4%
Mezzanine	3.2%	14.7%	9.7%	10.2%	8.8%	9.7%	8.7%
Distressed	2.5%	11.0%	6.7%	9.5%	9.5%	10.8%	10.3%
All Private Equity	3.6%	15.3%	10.1%	10.8%	9.3%	11.5%	11.2%
S&P 500	**4.8%**	**19.1%**	**11.9%**	**14.0%**	**9.1%**	**13.0%**	**12.8%**

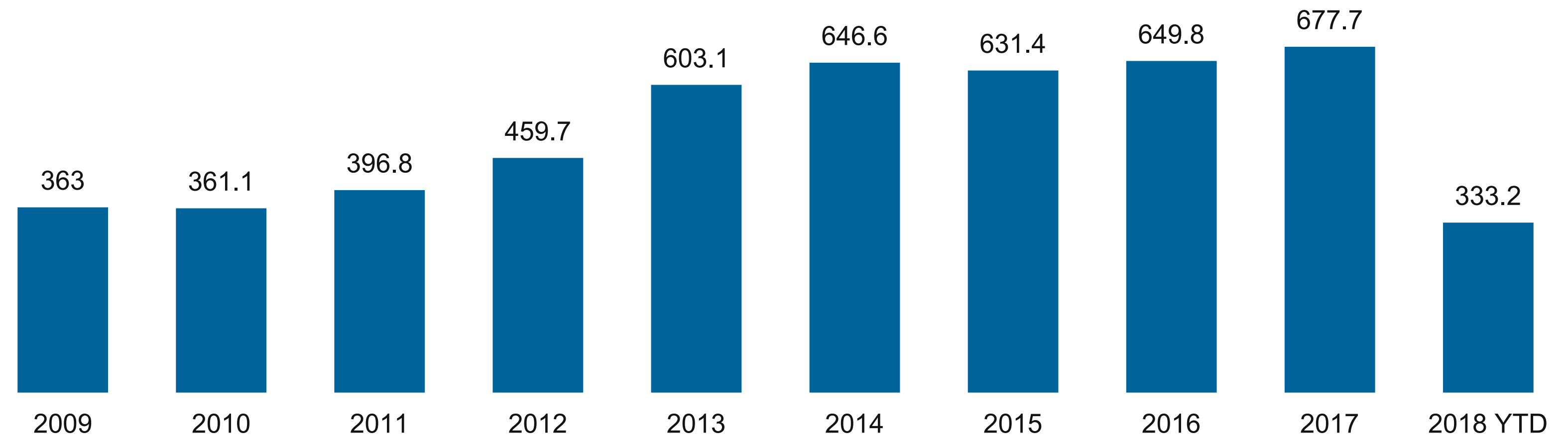
Source: Thomson Reuters/Cambridge

- With the public market zig-zagging sideways, private equity activity slowed modestly. Fundraising picked-up in 2Q but is slightly behind last year's first half. Company investments and exits trended slightly down.
- 2Q private equity partnership commitments totaled $90.3 billion, with 329 new partnerships formed. The dollar volumes and number of funds both rose 36% from 1Q. (Source: *Private Equity Analyst*)
- Funds closed 443 investments with $36.0 billion in disclosed deal value, representing a 26% dip in count and a 47% decline in value from 1Q. (Source: *Buyouts*)
- New investments in venture capital companies totaled 1,895 rounds of financing with $27.3 billion of announced value. Investments were down 10% from 1Q, and value fell 13%. (Source: National Venture Capital Association)
- There were 132 private M&A exits of buyout-backed companies with disclosed values totaling $24.5 billion. Both the count and dollar volume were down from 1Q. Six buyout-backed IPOs raised an aggregate $2.5 billion, down from 11 totaling $3.9 billion previously. Venture-backed M&A exits totaled 173 transactions with disclosed value of $8.8 billion, compared to 203 sales with values of $13.6 billion in 1Q. There were 28 VC-backed IPOs in 2Q with a combined float of $1.9 billion. 1Q had 15 IPOs and total issuance of $2.2 billion. (Source: *Buyouts*)

Private Equity Landscape

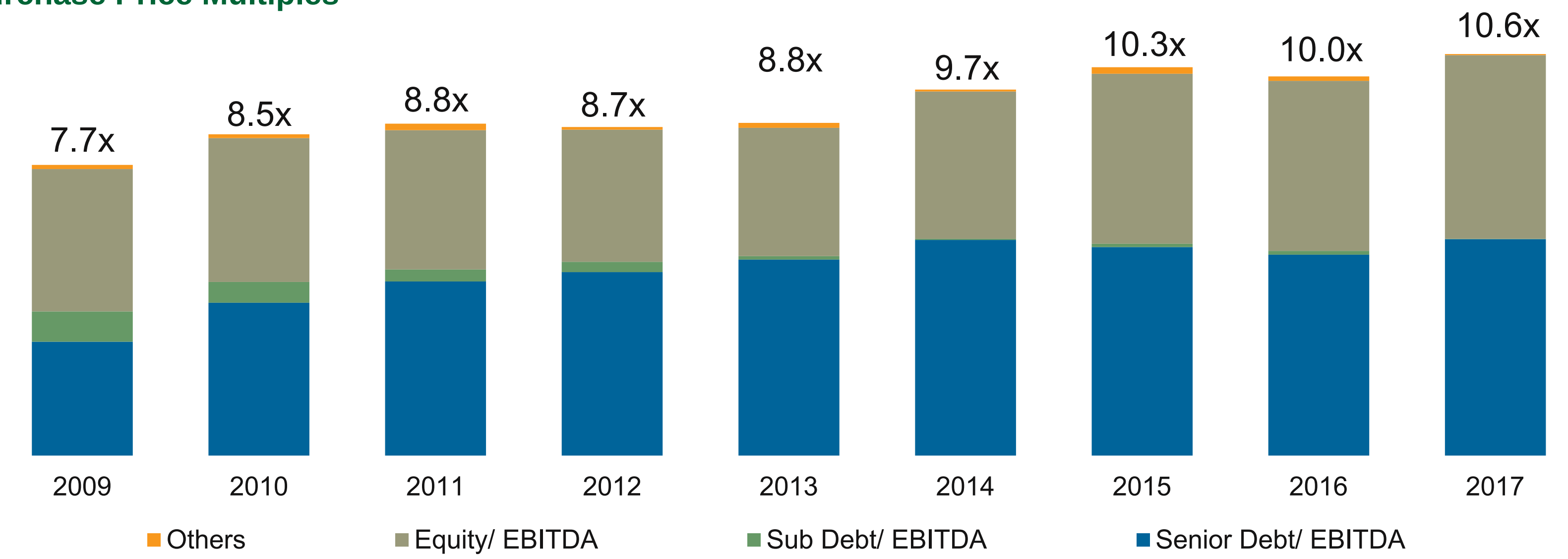
- **Speed and Magnitude of Fundraising**
  - Ever greater investor appetite for private equity
  - Funds are coming back to market very quickly (often 2–3 years) and raising large amounts (many GPs are doubling in fund size)
  - Fundraising timelines are condensed, shortening the time frame for investor due diligence
- **Company Valuations and Leverage**
  - Due to the competitive private equity environment, general partners are forced to pay up in order to outbid their peers
  - As valuations have risen, so has the use of leverage, which has surpassed pre-GFC levels
  - Borrowing standards continue to loosen under a less regulatory administration

Capital Raised ($billions)



Source: Pitchbook

Purchase Price Multiples



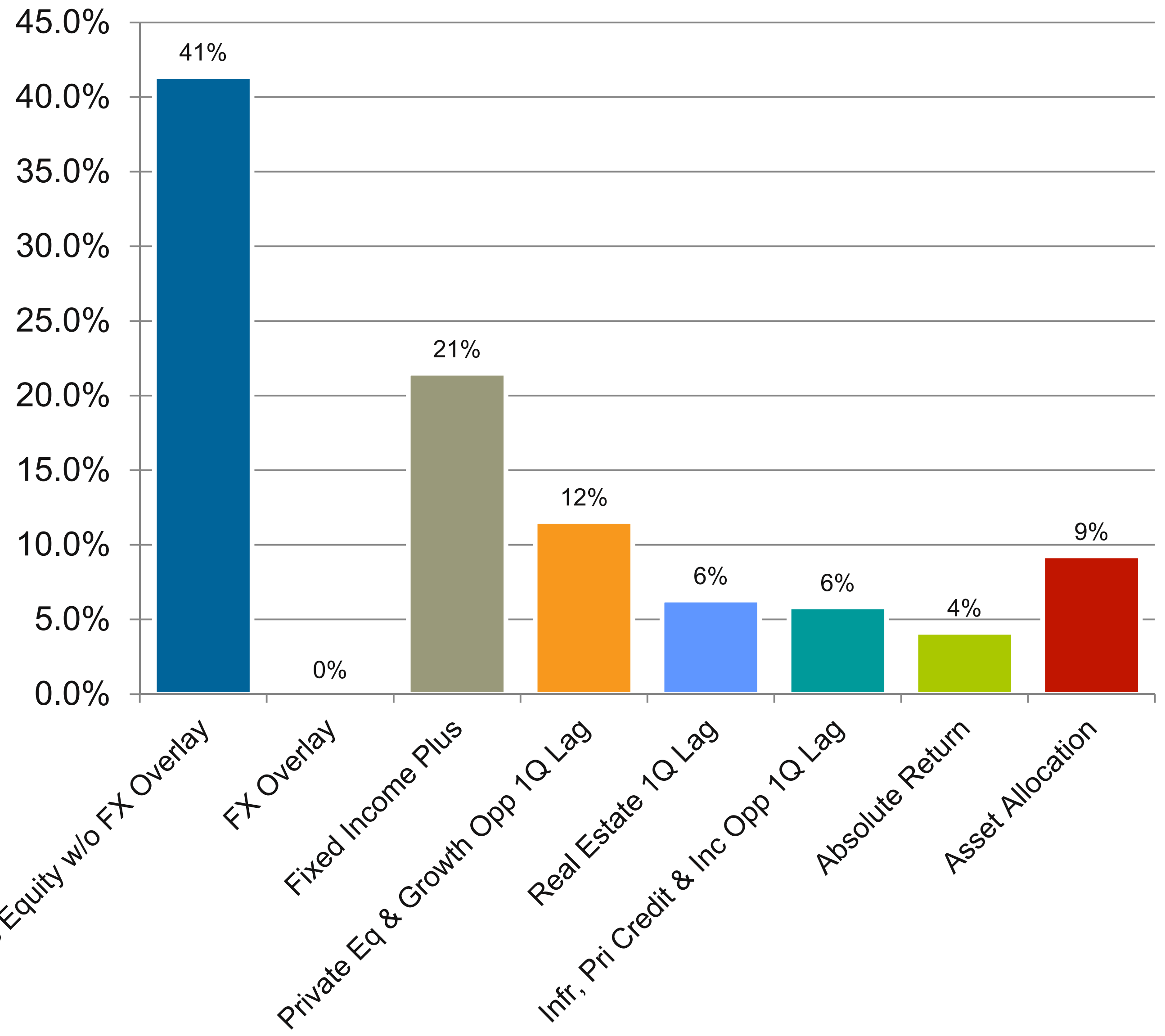
Source: S&P LCD

Total Fund
Asset Allocation and Performance

Total Fund Asset Allocation

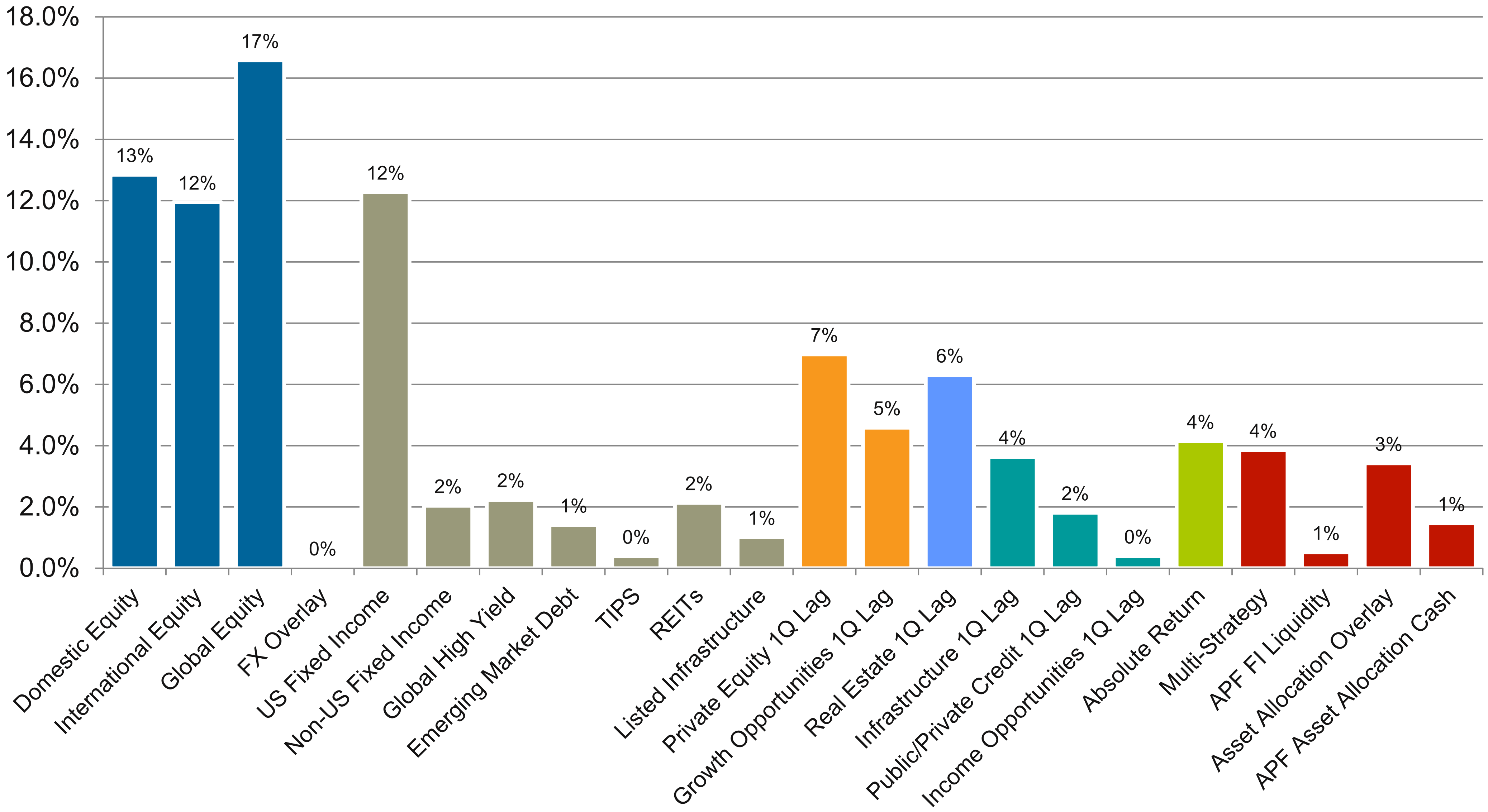
As of June 30, 2018

- APFC portfolio is well diversified across all major asset classes employed by institutional investors.
- Using institutional standard asset class definitions, the portfolio is currently allocated 41% to public equity, 21% to fixed income, and 37% to alternative investments.
- Compared to allocations in the 1st quarter, this reflects a 1% increase in public equity and a corresponding decrease in alternative investments. Fixed income allocation remained unchanged.
- Alternatives include private equity, growth opportunities, real estate, private infrastructure, private credit, income opportunities, absolute return, and asset allocation.
- Private Equity & Growth Opportunities, Real Estate, and Infrastructure/Private Credit/Income Opportunities are reported on a one-quarter lag.



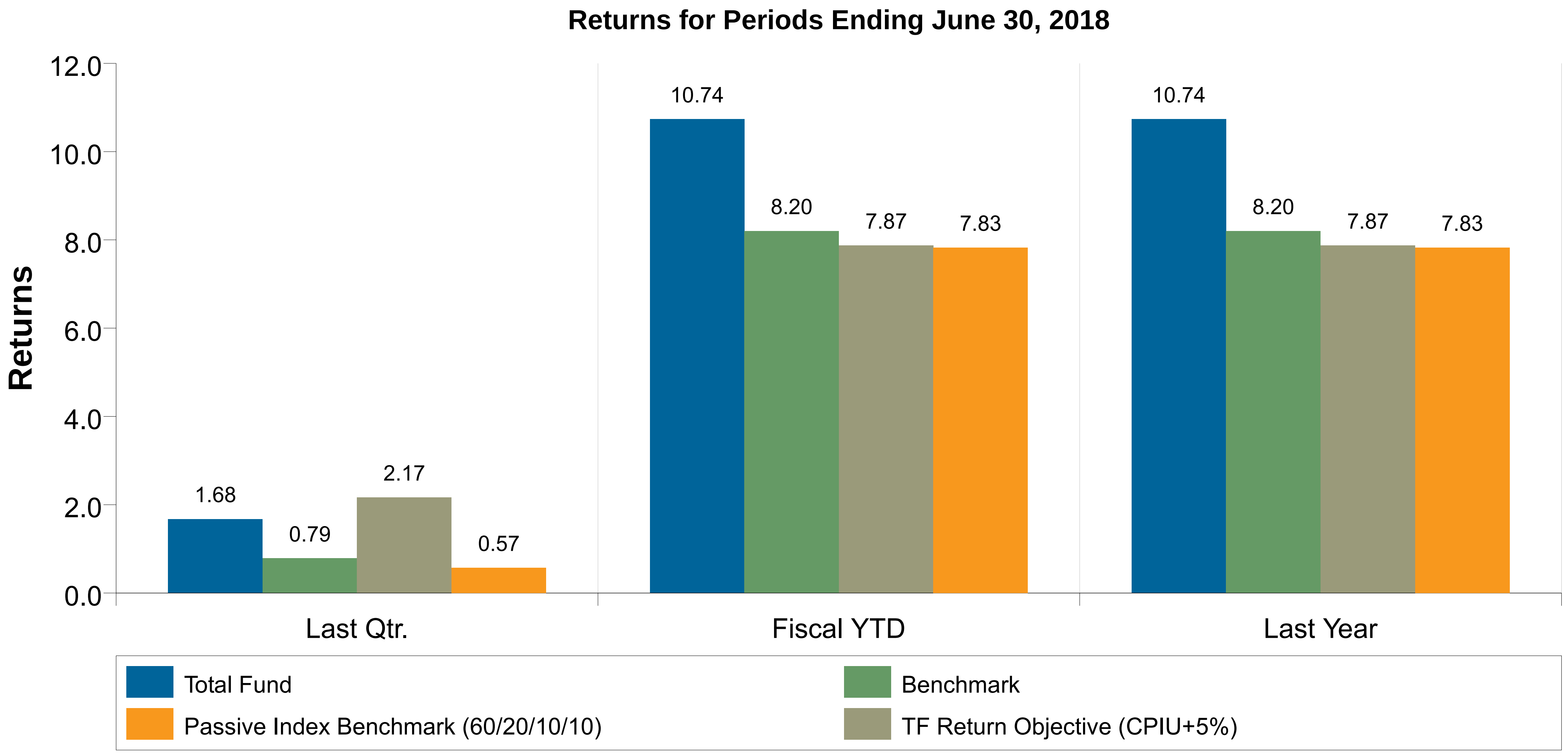
Total Fund Asset Allocation

As of June 30, 2018



APFC Total Fund Cumulative Returns

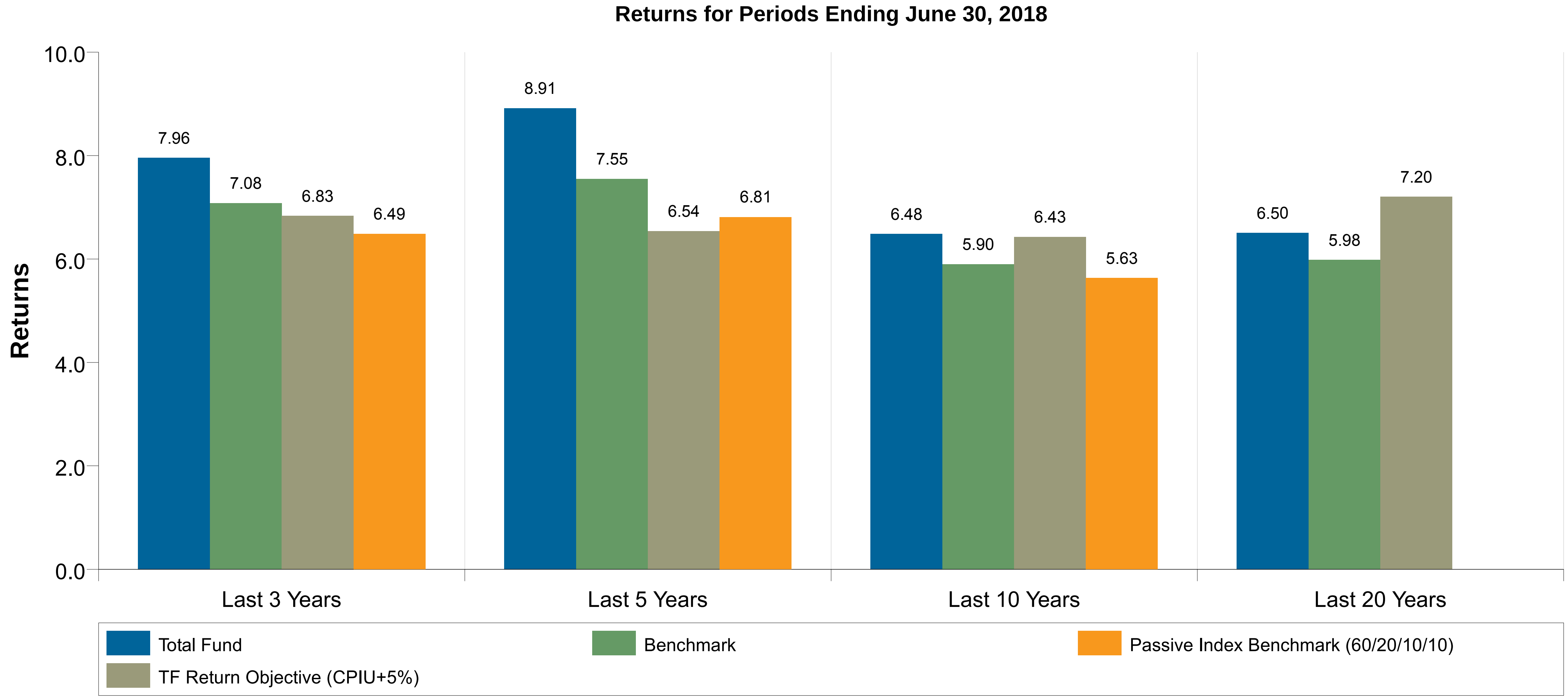
Total Fund versus Total Fund Targets



- Current Total Fund Benchmark = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.5% BB Agg, 5.5% BB Credit, 2.2% BB Global Treasury ex-US Hedged, 0.55% JPM EMBI Global Diversified, 0.55% JPM GBI-EM Global Diversified TR, 2.2% BB US High Yield 2% Issuer Cap 2.2% S&P Global REIT, 1.1% S&P Global Listed Infrastructure, 11% Cambridge PE (lagged), 11% NCREIF Total Index (lagged), 3.6% FTSE Developed Core Infrastructure (lagged), 2.4% BB US High Yield 2% Issuer Cap (lagged), 5% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, and 4% Performance Benchmark (rounded to nearest tenth).

APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets



- Current Total Fund Benchmark = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.5% BB Agg, 5.5% BB Credit, 2.2% BB Global Treasury ex-US Hedged, 0.55% JPM EMBI Global Diversified, 0.55% JPM GBI-EM Global Diversified TR, 2.2% BB US High Yield 2% Issuer Cap 2.2% S&P Global REIT, 1.1% S&P Global Listed Infrastructure, 11% Cambridge PE (lagged), 11% NCREIF Total Index (lagged), 3.6% FTSE Developed Core Infrastructure (lagged), 2.4% BB US High Yield 2% Issuer Cap (lagged), 5% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, and 4% Performance Benchmark (rounded to nearest tenth).

APFC Total Fund Attribution

For One Quarter Ended June 30, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equity	41%	39%	0.29%	0.72%	(0.18%)	(0.00%)	(0.18%)
Fixed Income Plus	21%	22%	0.12%	0.27%	(0.03%)	0.00%	(0.03%)
Real Estate	7%	11%	1.89%	1.70%	0.01%	(0.03%)	(0.02%)
Priv Credit/Infra/Inc Opp	6%	6%	2.20%	(2.67%)	0.28%	0.01%	0.29%
Absolute Return	4%	5%	0.21%	0.84%	(0.03%)	0.00%	(0.02%)
Private Eq & Growth Opp	12%	11%	11.39%	3.03%	0.95%	0.02%	0.97%
Asset Allocation	9%	6%	(0.42%)	0.67%	(0.10%)	(0.00%)	(0.11%)

Total **1.68% = 0.78% + 0.90% + (0.01%)** **0.89%**

- The Total Fund outperformed the Performance Benchmark by 0.9% during the quarter.
- Manager performance within Private Equity & Growth Opportunities and Infrastructure/ Private Credit/ Income Opportunities was beneficial and offset manager performance within Public Equity and Asset Allocation, which detracted.
- In aggregate, active management added 90 basis points to the relative performance, while deviations from the Policy Target were neutral.

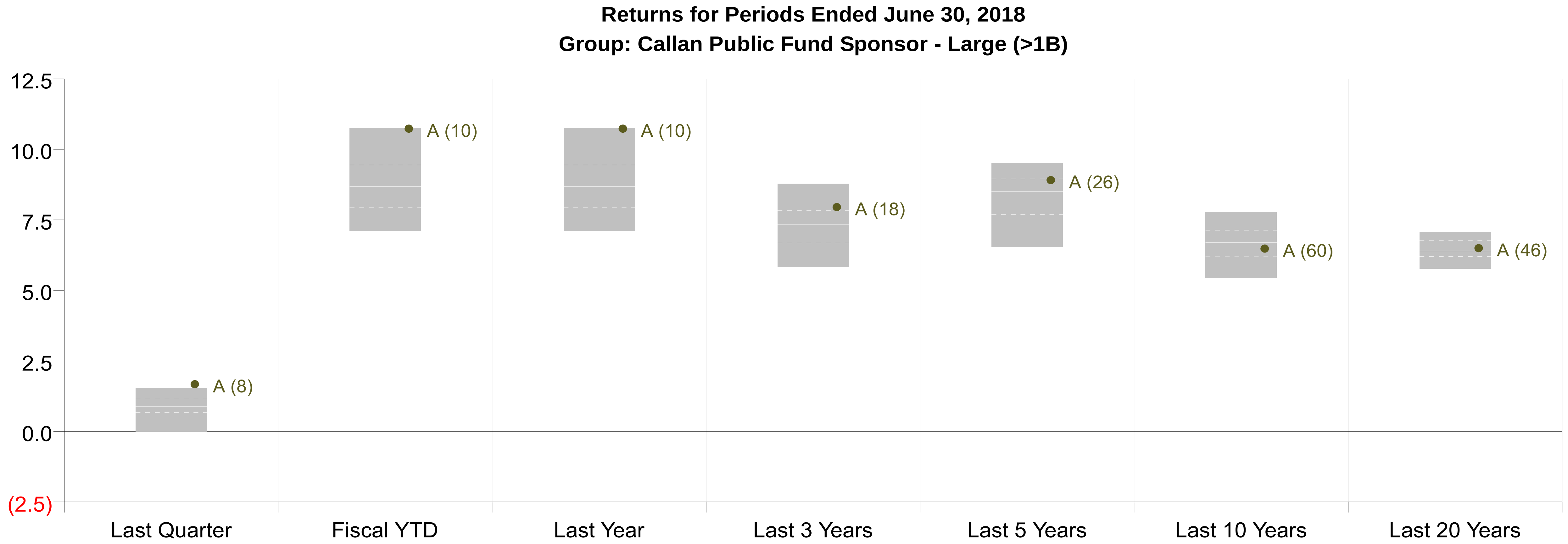
APFC Total Fund Attribution

For Fiscal Year Ended June 30, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equity	43%	39%	11.67%	11.14%	0.23%	0.25%	0.48%
Fixed Income Plus	21%	22%	0.99%	0.86%	0.03%	0.11%	0.13%
Real Estate	8%	11%	6.99%	7.12%	(0.02%)	(0.01%)	(0.03%)
Priv Credit/Infra/Inc Opp	5%	6%	16.68%	4.49%	0.66%	(0.00%)	0.66%
Absolute Return	4%	5%	5.95%	5.67%	0.01%	0.04%	0.05%
Private Eq & Growth Opp	11%	11%	32.70%	18.27%	1.47%	0.04%	1.51%
Asset Allocation	8%	6%	2.58%	5.89%	(0.27%)	0.00%	(0.27%)
Total			**10.74% =**	**8.20% +**	**2.11% +**	**0.42%**	**2.54%**

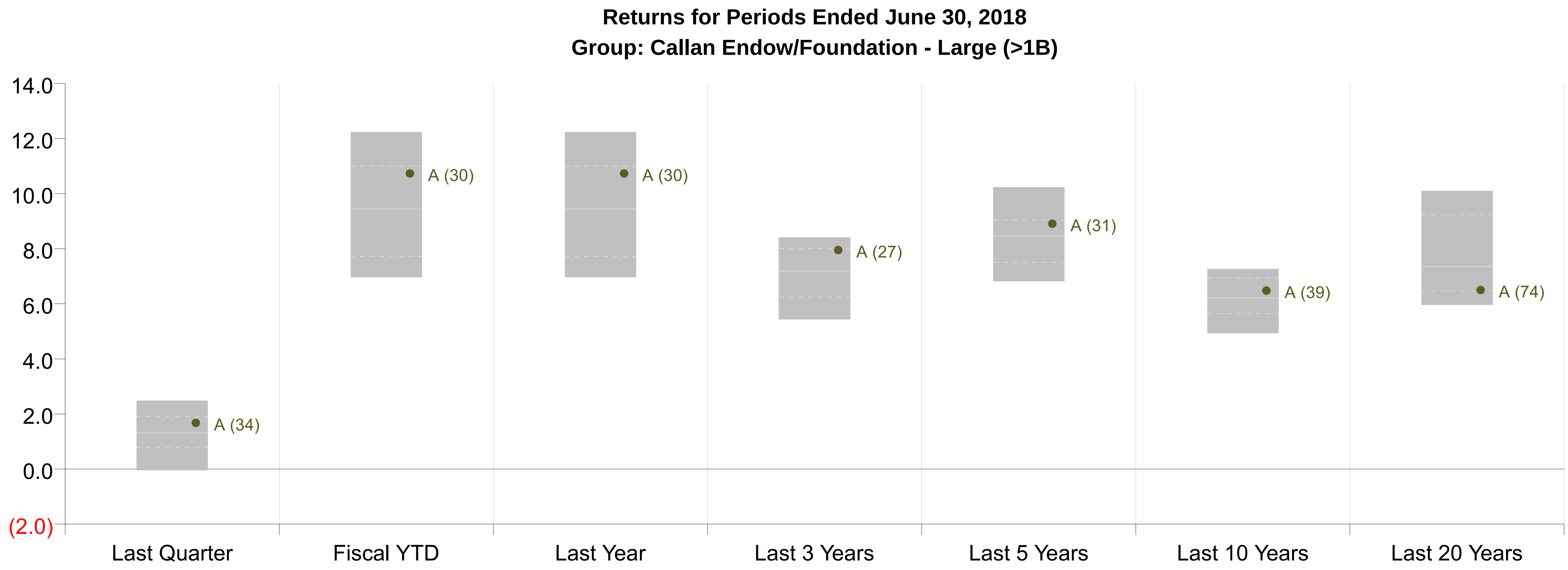
- The Total Fund outperformed the Performance Benchmark by 2.5% during Fiscal Year 2018.
- Manager performance within Private Equity & Growth Opportunities, Private Credit/ Infrastructure/ Income Opportunities, and Public Equity was beneficial, and offset manager performance within Asset Allocation, which detracted.
- In aggregate, active management added 211 basis points to the relative performance, while deviations from the Policy Target contributed 42 basis points (primarily due to a slight underweight to Fixed Income Plus and an overweight to Public Equity).

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	1.53	10.76	10.76	8.79	9.52	7.78	7.08
25th Percentile	1.15	9.45	9.45	7.84	8.95	7.13	6.78
Median	0.89	8.68	8.68	7.33	8.51	6.70	6.40
75th Percentile	0.68	7.93	7.93	6.68	7.69	6.20	6.20
90th Percentile	0.00	7.11	7.11	5.84	6.54	5.44	5.77
Member Count	71	70	70	70	68	65	53
Total Fund ● A	1.68	10.74	10.74	7.96	8.91	6.48	6.50

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

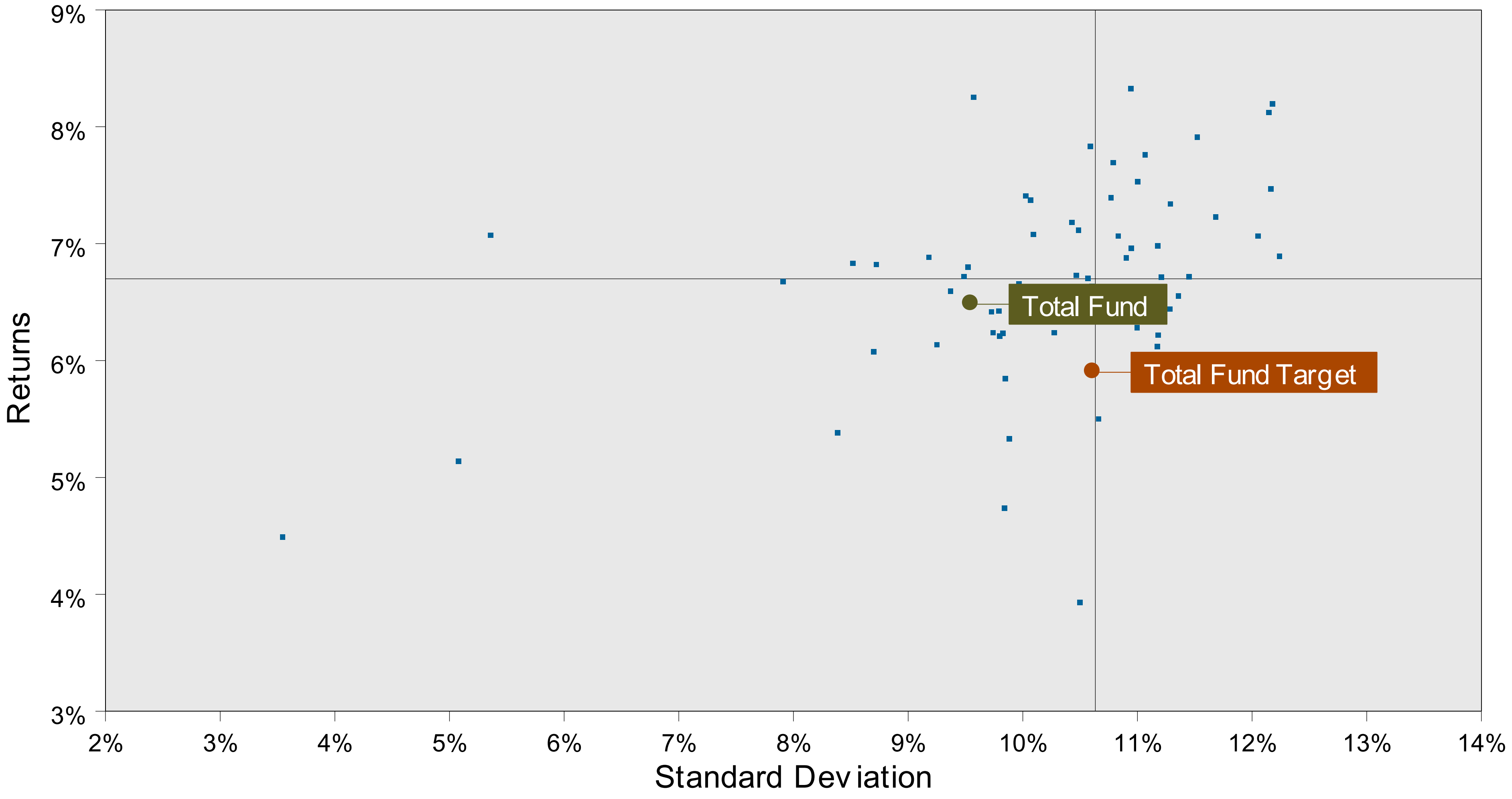


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	2.49	12.24	12.24	8.41	10.24	7.27	10.10
25th Percentile	1.91	11.01	11.01	8.01	9.04	6.94	9.24
Median	1.31	9.44	9.44	7.19	8.47	6.22	7.36
75th Percentile	0.79	7.73	7.73	6.25	7.50	5.65	6.47
90th Percentile	(0.05)	6.97	6.97	5.44	6.83	4.94	5.96
Member Count	36	34	34	34	34	33	21
Total Fund ● A	1.68	10.74	10.74	7.96	8.91	6.48	6.50

APFC Total Fund Return versus Standard Deviation

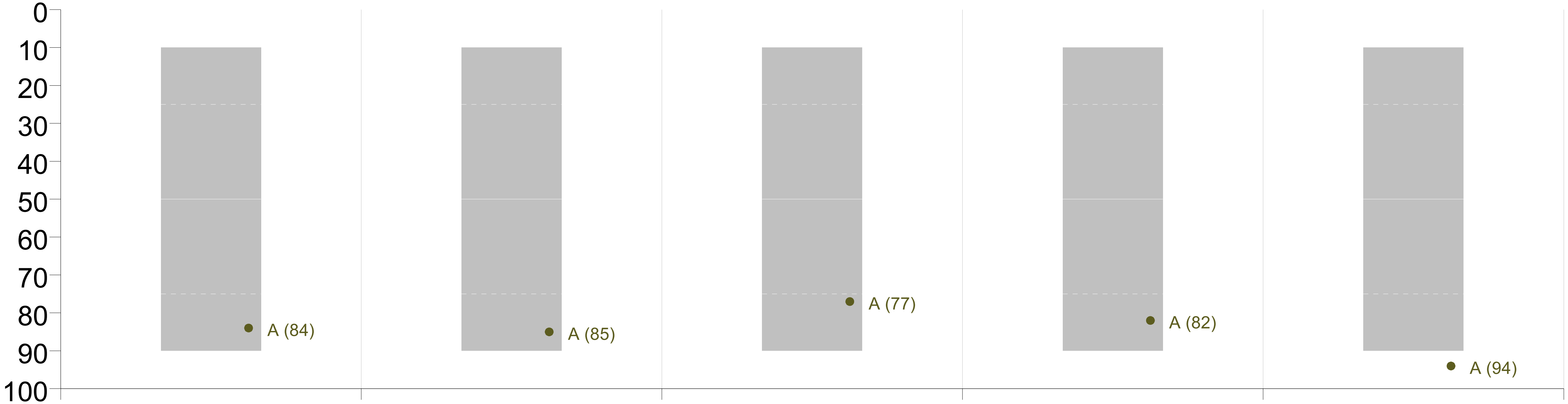
Relative to Callan's Large Public Fund Database

Ten Year Annualized Risk vs Return



Squares represent membership of the Callan Public Fund Sponsor - Large (>1B)

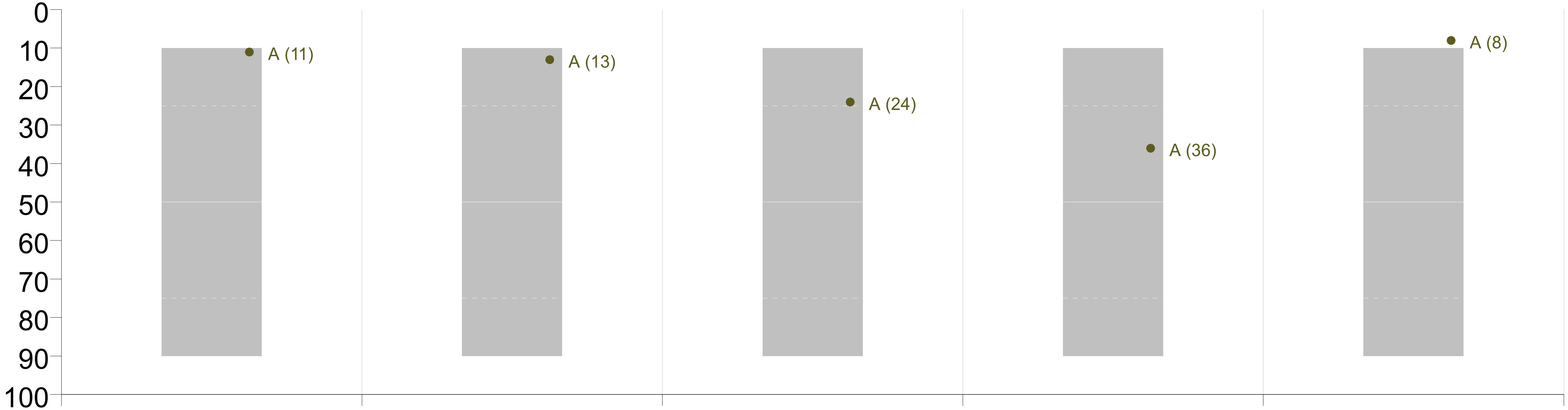
APFC Total Fund Standard Deviation Relative to Callan's Large Public Fund Database



	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	6.24	5.86	8.29	11.91	11.18
25th Percentile	5.93	5.33	7.52	11.26	10.95
Median	5.29	4.97	6.84	10.63	10.49
75th Percentile	4.97	4.66	6.26	9.85	9.97
90th Percentile	4.37	4.18	5.43	8.71	9.14
Member Count	70	68	65	65	53
Total Fund ● A	4.59	4.42	6.16	9.55	8.99

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

Sharpe Ratio for Periods Ended June 30, 2018
Group: Callan Public Fund Sponsor - Large (>1B)



	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	1.60	1.96	1.29	0.74	0.49
25th Percentile	1.39	1.77	1.20	0.66	0.46
Median	1.24	1.60	1.08	0.60	0.43
75th Percentile	1.09	1.39	0.99	0.55	0.41
90th Percentile	0.96	1.26	0.93	0.49	0.38
Member Count	70	68	65	65	53
Total Fund ● A	1.58	1.92	1.22	0.64	0.50

APFC Total Fund Performance Scorecard

As of June 30, 2018

Time Horizon	Objective	APFC	Benchmark	Percentile [1]
Short-Term (1-year Return)	Outperform 50/50 Blend of Performance and Passive Indexes	10.7%	8.0%	9%
Medium Term (3-year Return)	Outperform Peers	8.0%	7.3%	18%
Long-Term (5-year Return and Sharpe Ratio)	Outperform CPI + 5%	8.9%	6.5%	12%
	Sharpe Ratio > 0.5	1.9	0.5	1%
			Average Long-Term Percentile	7%
			Average Percentile Ranking Among the Three Objectives	11%

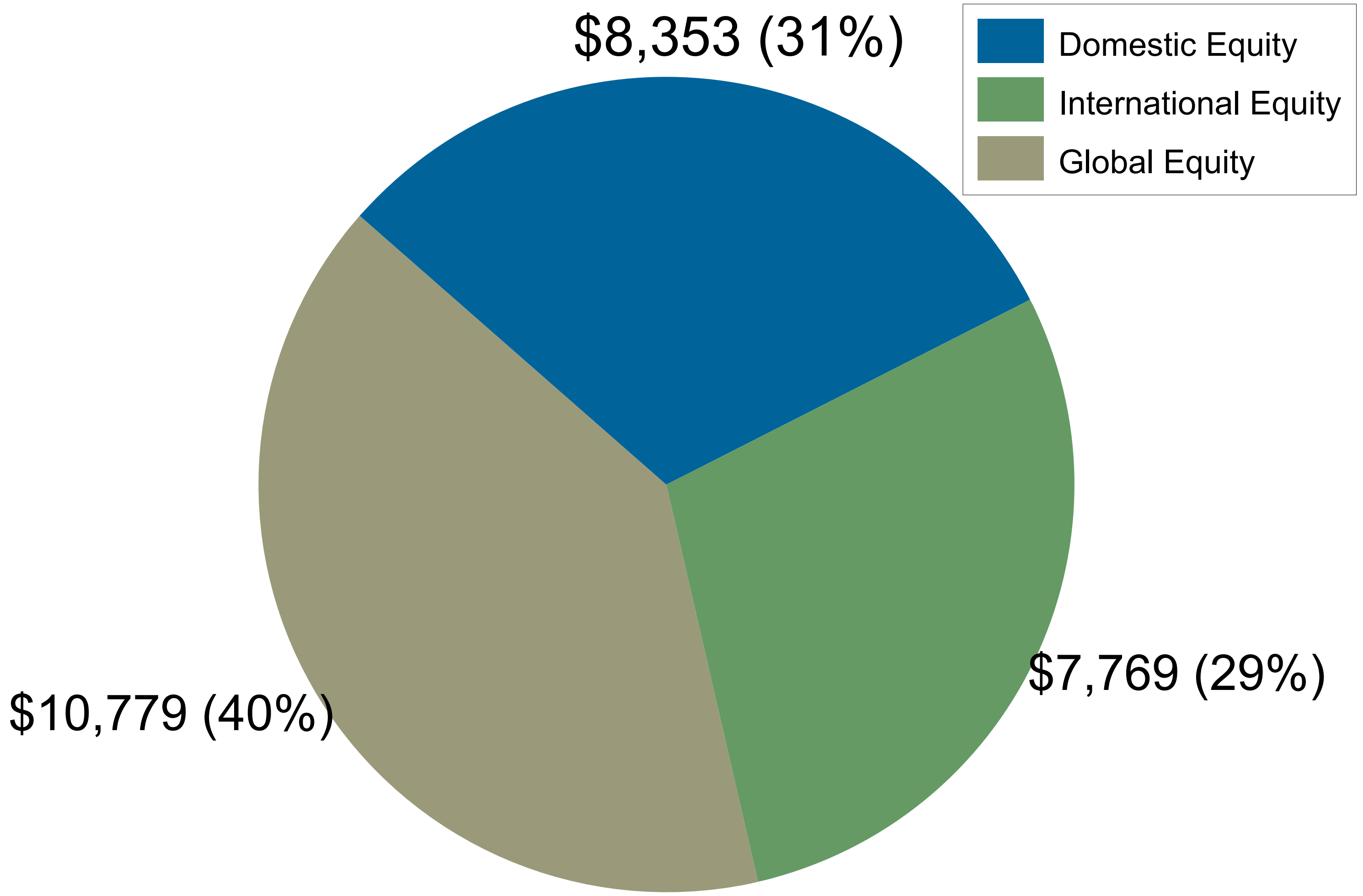
1 Callan's Large Public Fund Peer Group is used for percentile rank purposes for Medium term. Shor and Long-term percentiles are implied per guidelines

Asset Classes
Structure and Performance

APFC Public Equity w/o FX Overlay Structure

As of June 30, 2018

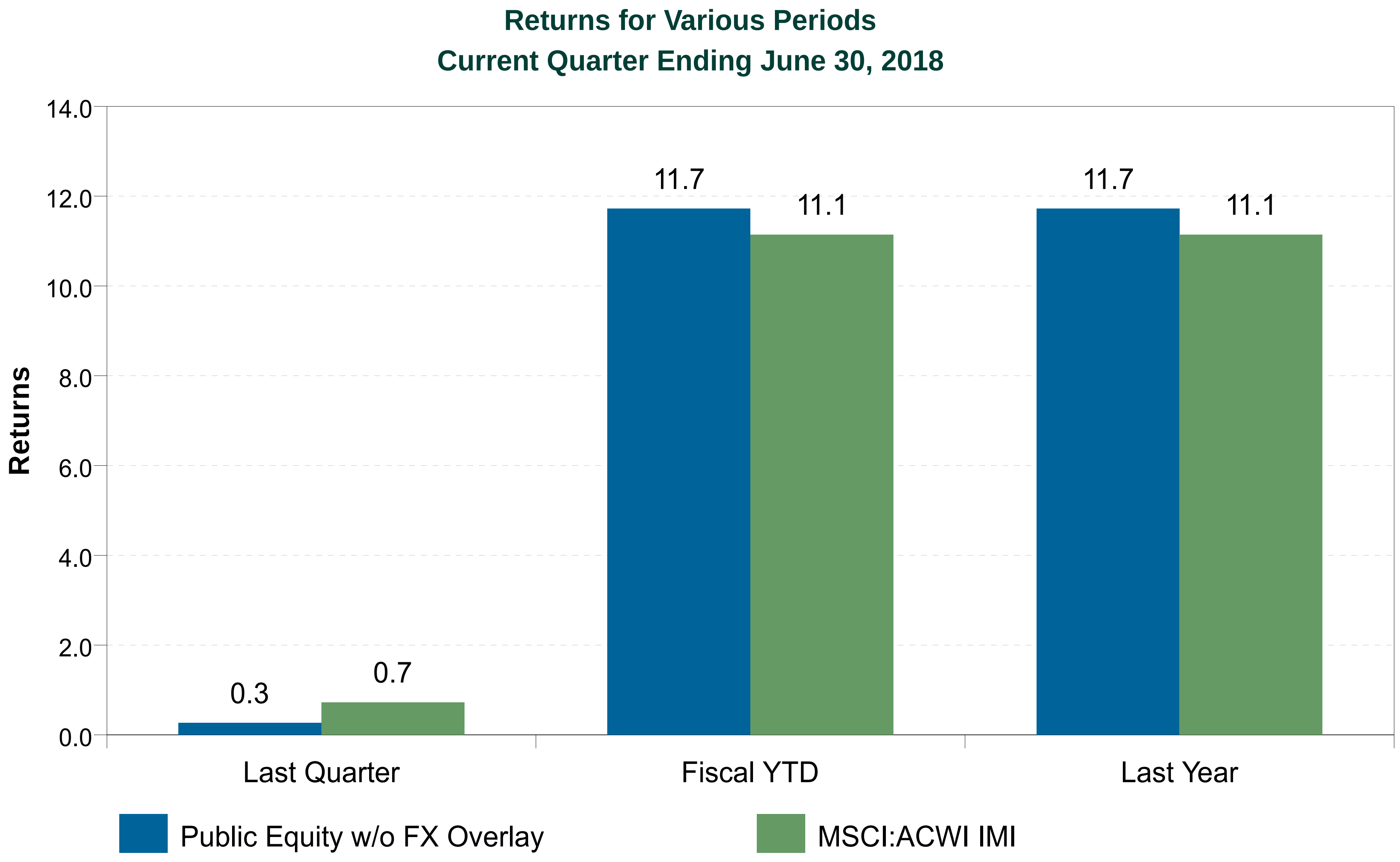
- APFC Public Equity w/o FX Overlay portfolio has a weighting of roughly 53% in US equity, and 47% in non-US equity.
- The MSCI ACWI IMI benchmark has a weighting of roughly 53% in US equity, and 47% in non-US equity.
- The median allocation to US equity across public equity portfolios in Callan's Large Public Fund Sponsor database is roughly 60%.



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

Periods Ended June 30, 2018

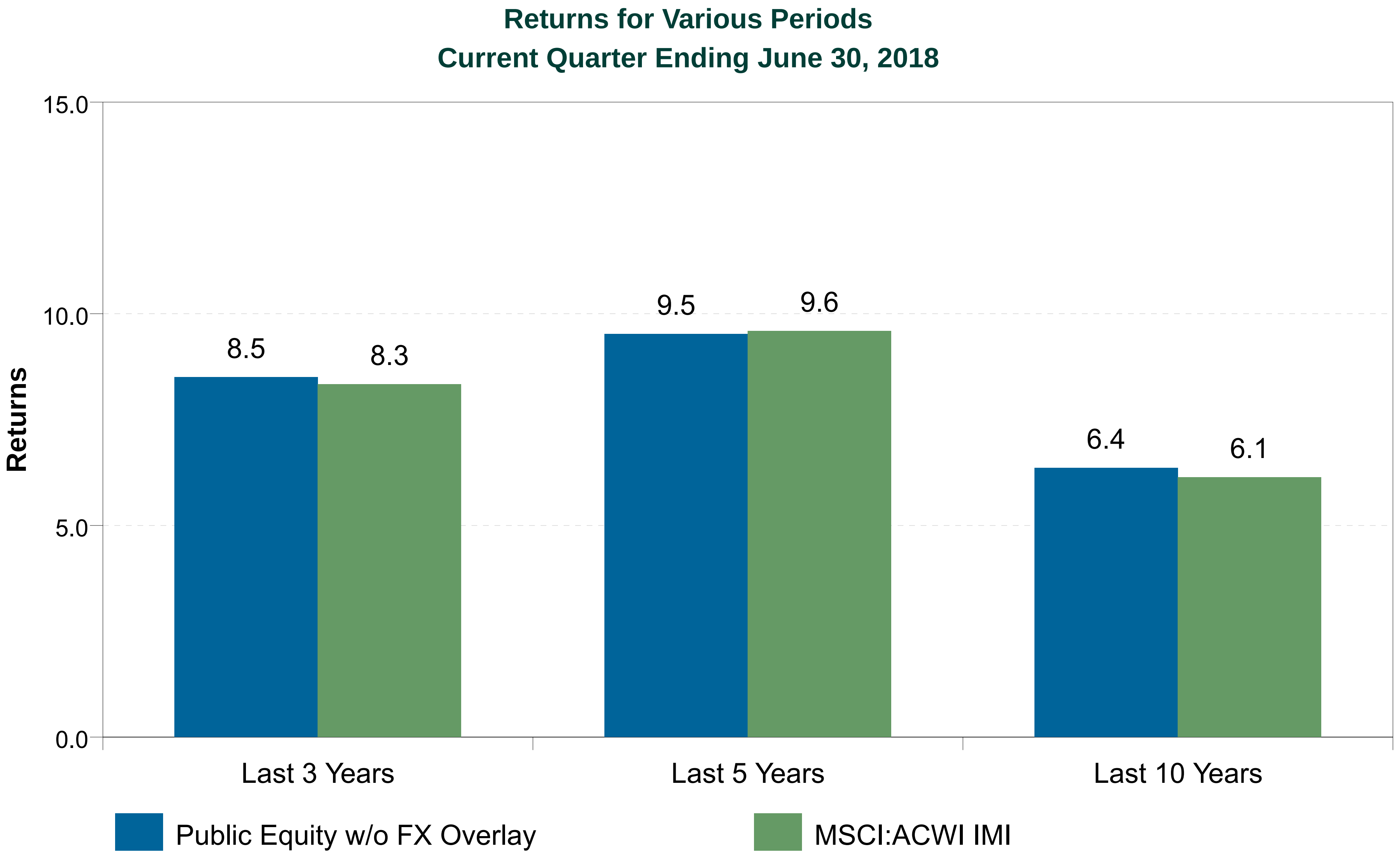
- APFC Public Equity w/o FX Overlay portfolio slightly trailed the MSCI ACWI IMI index in the second quarter.
- The portfolio was ahead of the benchmark during Fiscal Year 2018.
- Underperformance is attributable to relative performance from most equity managers, particularly from Developed and Emerging managers.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended June 30, 2018

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

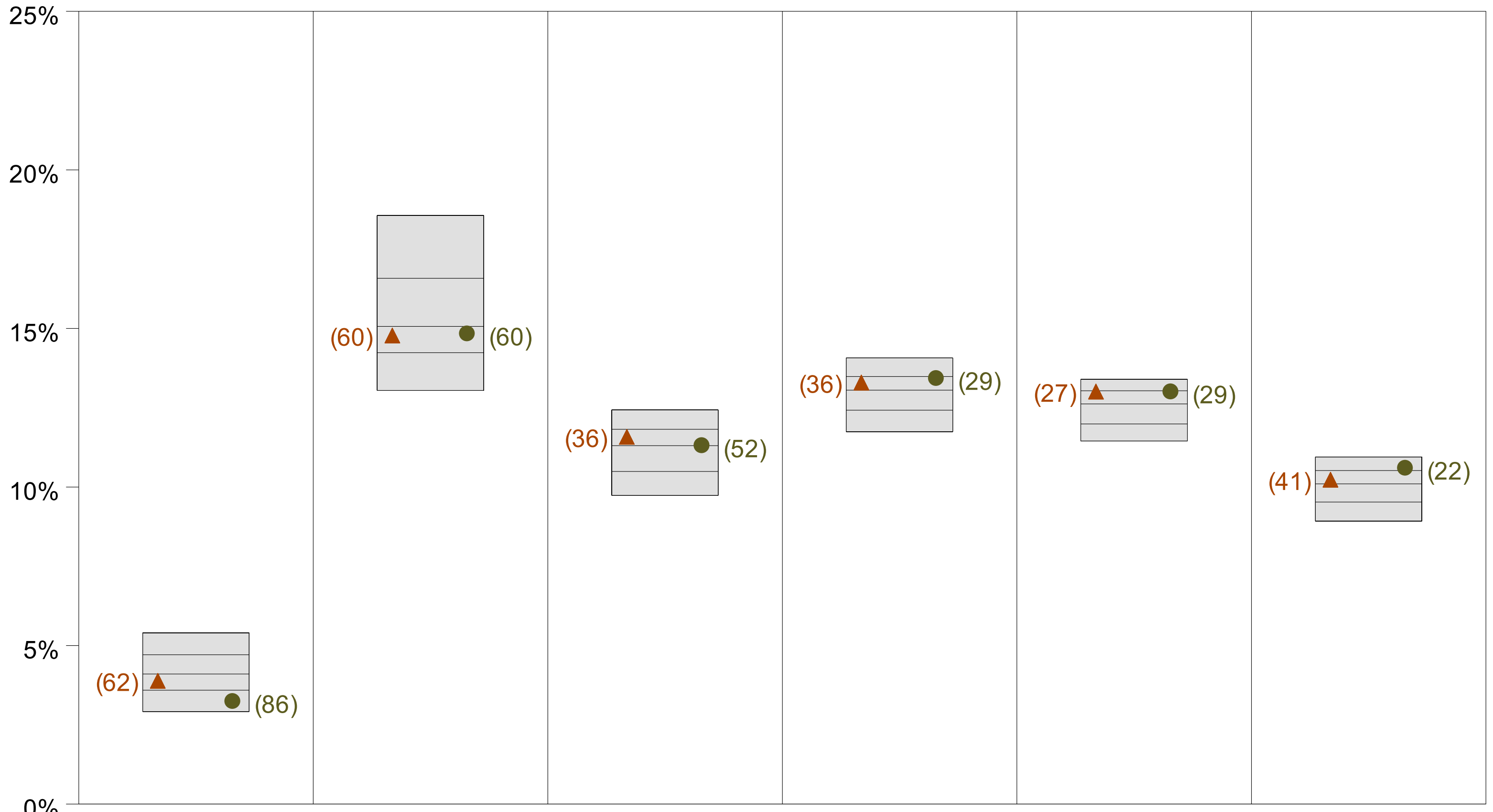


APFC US Equity Performance vs. Fund Sponsor US Equity

Periods Ended June 30, 2018

- Universe is comprised of total domestic equity portfolios of large institutional investors in Callan's Fund Sponsor Database.
- APFC US Equity portfolio returned +3.2% in the 2nd quarter of 2018.
- Longer-term performance either exceeds or closely tracks the benchmark.
- When compared to US Equity portfolios of other large institutional investors, APFC's US Equity composite ranks below median in the short-term, but ranks favorably over intermediate and longer time periods shown.

Performance vs Fund Spnsor - Domestic Equity (Gross)



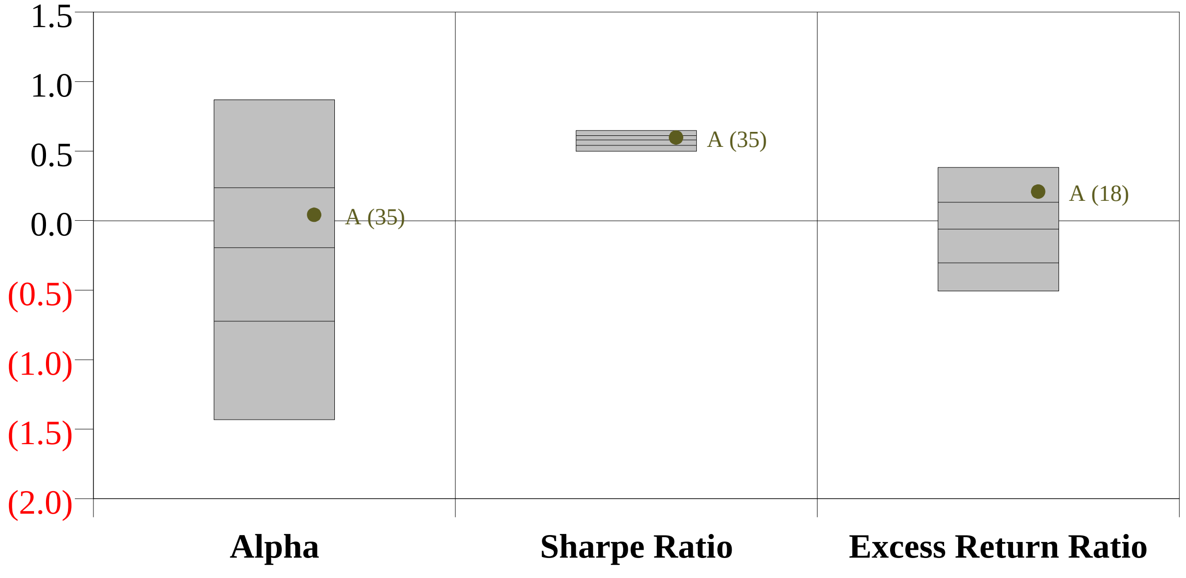
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	5.40	18.56	12.43	14.07	13.40	10.94
25th Percentile	4.71	16.58	11.82	13.48	13.04	10.52
Median	4.10	15.06	11.31	13.05	12.62	10.10
75th Percentile	3.59	14.24	10.49	12.42	11.99	9.53
90th Percentile	2.92	13.04	9.73	11.75	11.45	8.92
Domestic Equity ●	3.20	14.79	11.26	13.38	12.96	10.56
Russell 3000 Index ▲	3.89	14.78	11.58	13.29	13.01	10.23

APFC US Equity Portfolio Risk Adjusted Return Rankings

Ten Years Ended June 30, 2018

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

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



	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.87	0.65	0.38
25th Percentile	0.24	0.61	0.13
Median	(0.19)	0.58	(0.06)
75th Percentile	(0.72)	0.54	(0.30)
90th Percentile	(1.43)	0.50	(0.51)
Domestic Equity ● A	0.04	0.60	0.21

Capitalization and Style Allocation: US Equity

As of June 30, 2018

- Highlighted cells indicate largest biases relative to the Russell 3000 index.
- The overweight to value detracted during the quarter, as growth stocks continued to dominate over value stocks driven by ongoing outperformance of the Tech sector and tech-exposed Consumer Discretionary companies.
- During the most recent quarter, small companies performed the best, while mid sized companies trailed. As a result, the negative impact from the overweight to mid caps offset the benefits from overweighting small caps.
- Small and mid cap overweighs relative to the index are common in actively managed US equity portfolios.

Style Exposure Matrix
Holdings as of June 30, 2018

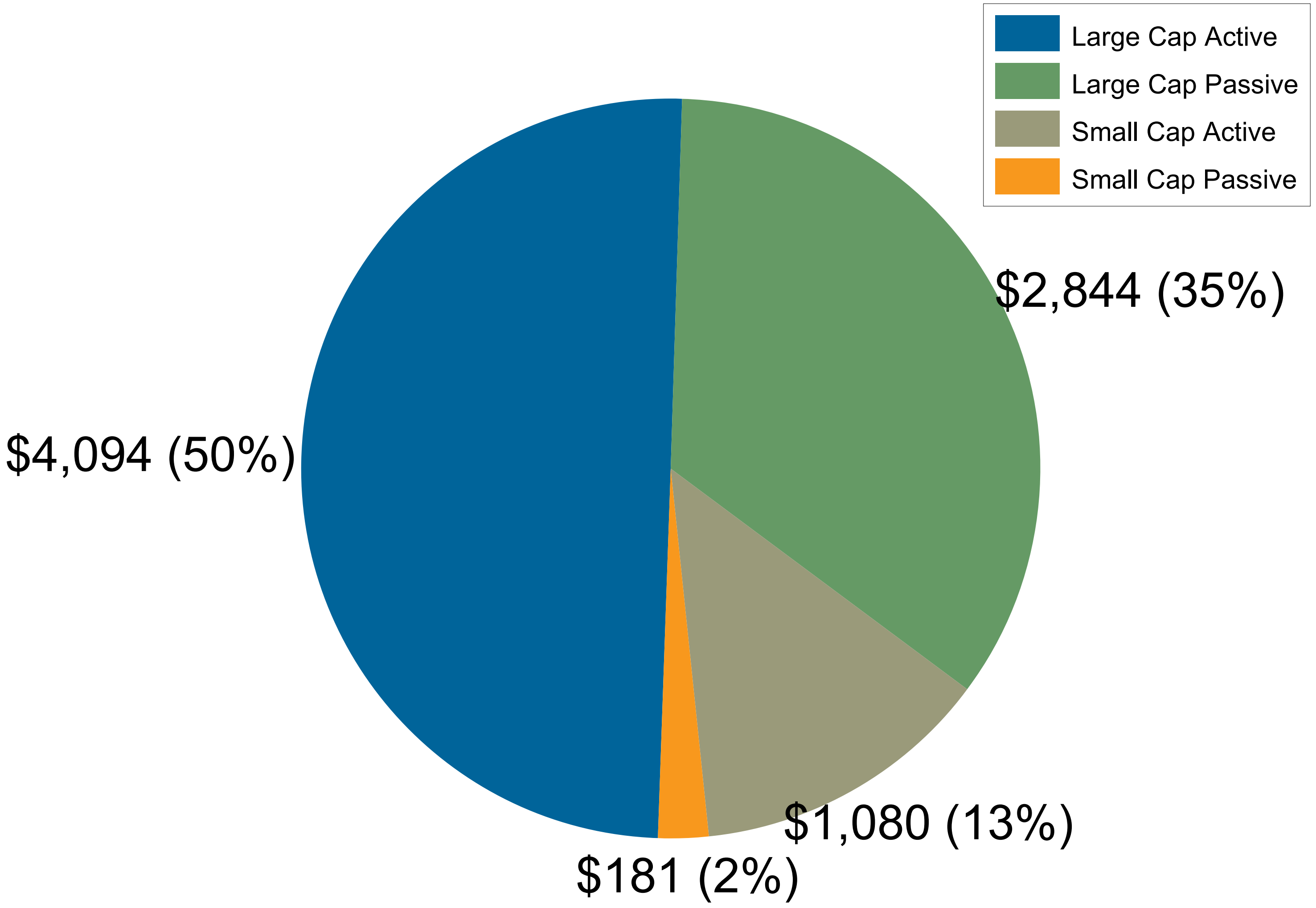
	Value	Core	Growth	Total
Large	21.2% (112) 27.3% (110)	14.4% (106) 20.3% (99)	22.1% (95) 26.6% (89)	57.8% (313) 74.2% (298)
Mid	10.3% (180) 4.8% (177)	9.5% (213) 6.5% (215)	8.3% (197) 5.9% (205)	28.2% (590) 17.3% (597)
Small	3.7% (202) 2.3% (340)	5.5% (229) 2.9% (481)	4.2% (156) 2.4% (374)	13.4% (587) 7.5% (1195)
Micro	0.3% (18) 0.3% (273)	0.3% (40) 0.4% (392)	0.1% (12) 0.3% (230)	0.7% (70) 1.0% (895)
Total	35.5% (512) 34.7% (900)	29.7% (588) 30.2% (1187)	34.8% (460) 35.1% (898)	100.0% (1560) 100.0% (2985)

APFC Portfolio   Russell 3000 Index

APFC US Equity Structure

As of June 30, 2018

- US equity portfolio is roughly 63% actively managed and 37% passive (or quasi-passive).
- Structure has a slight overweight to small cap with 15% of portfolio allocated to dedicated small cap strategies.
- Roughly 59% of the large cap allocation is actively managed while 87% of the small cap allocation is actively managed.

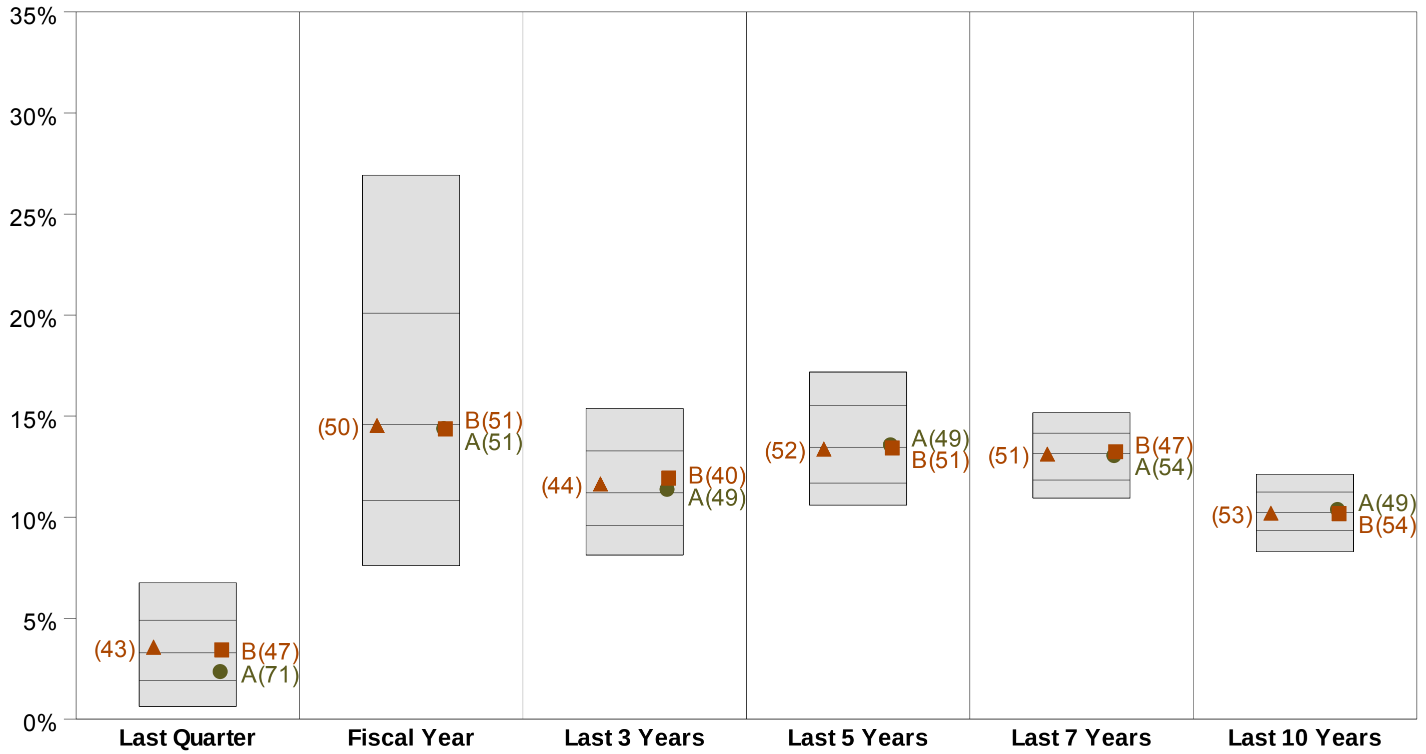


APFC Large Cap Equity Relative to Large Cap Universe

Periods Ended June 30, 2018

- APFC's Large Cap portfolio ranks around median within the large cap universe over all time periods shown, with the exception of the most recent quarter.
- Large cap portfolio has a small/mid cap size bias relative to the index.
- In the 2nd quarter, Large Cap Equity Composite trailed its Index. Exposure to mid cap stocks detracted from results, as mid cap trailed small cap by 75 basis points, and trailed large cap by almost 5%.
- For periods of one year and greater, Large Cap portfolio performs roughly in-line with its benchmark.

Performance vs Callan Large Capitalization (Gross)



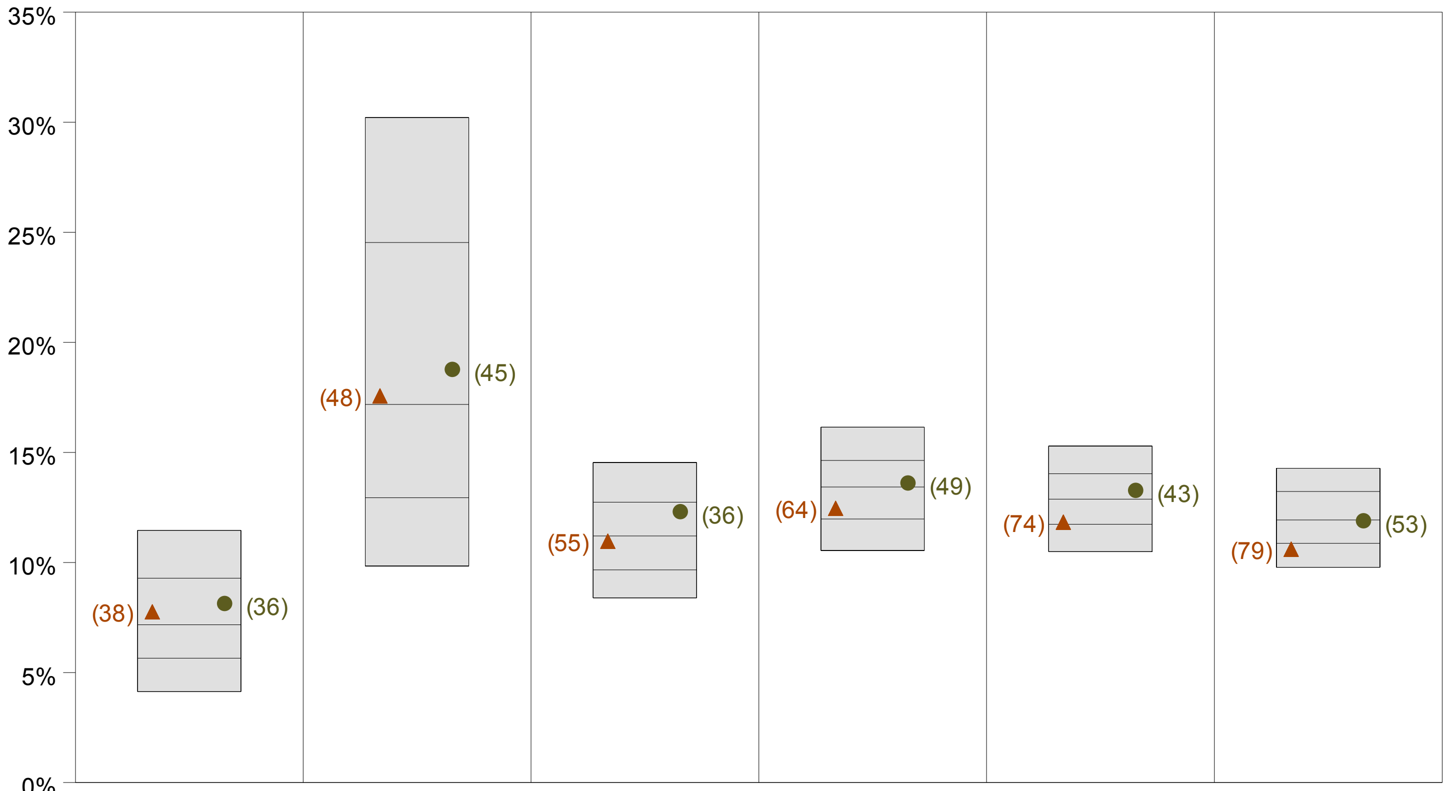
		Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile		6.76	26.92	15.38	17.18	15.16	12.12
25th Percentile		4.89	20.10	13.28	15.53	14.15	11.25
Median		3.29	14.59	11.20	13.46	13.15	10.23
75th Percentile		1.91	10.83	9.58	11.68	11.83	9.34
90th Percentile		0.63	7.60	8.13	10.60	10.95	8.29
Large Cap Equity	● A	2.29	14.32	11.29	13.49	12.97	10.30
Standard & Poor's 500	■ B	3.43	14.37	11.93	13.42	13.23	10.17
Russell 1000 Index	▲	3.57	14.54	11.64	13.37	13.12	10.20

APFC Small Cap Equity Relative to Small Cap Universe

Periods Ended June 30, 2018

- APFC small cap portfolio ranks ahead or near the small cap universe median over all time periods.
- 2nd quarter results led the index. Performance for all other time periods shown in the chart is also ahead of the benchmark.
- APFC small cap investments are relatively mature and successful products. Due to higher AUM levels, such products tend to maintain a mid cap bias.
- Portfolio's growth tilt contributed to returns, as well as exposure to micro caps.

Performance vs Callan Small Capitalization (Gross)

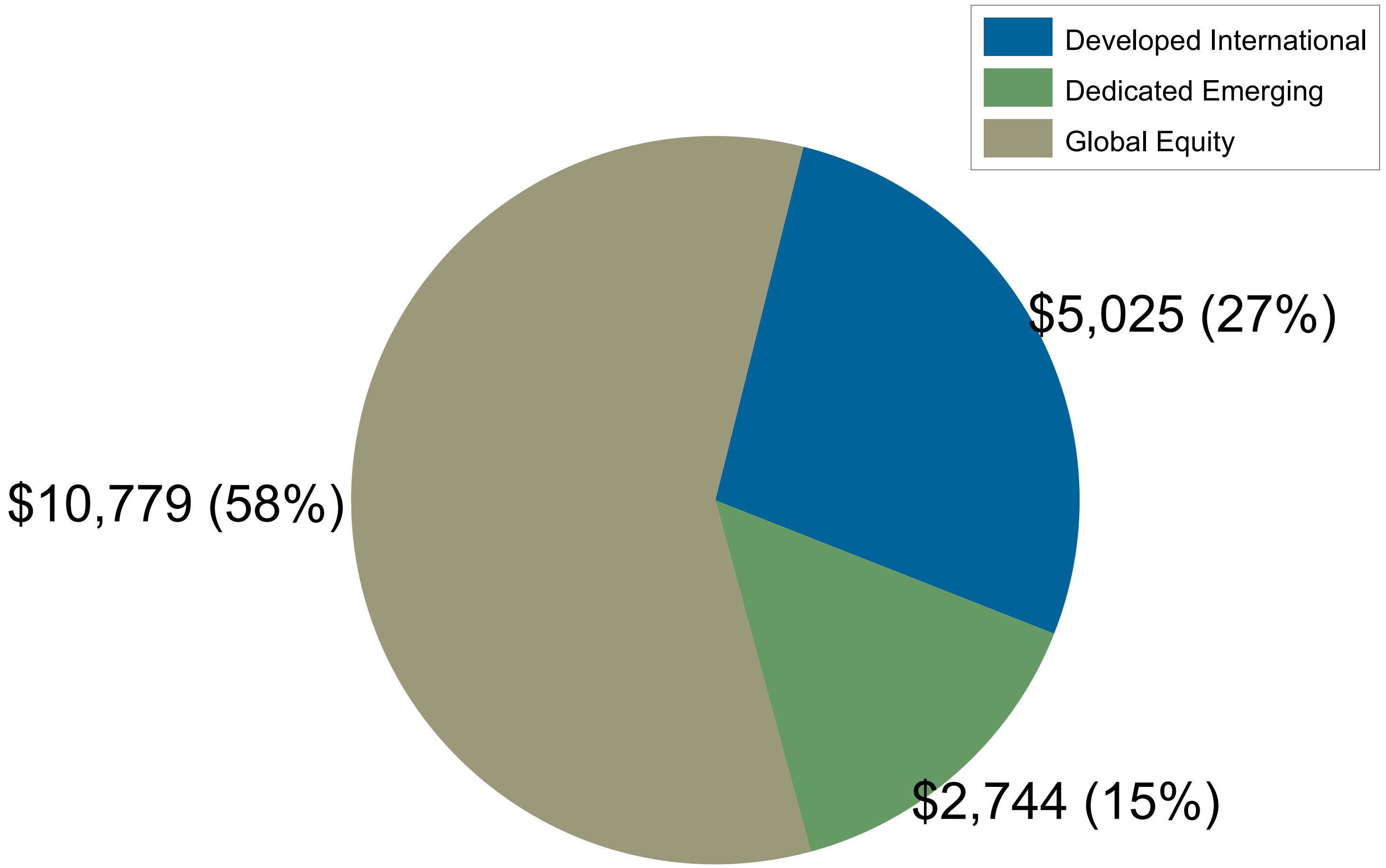


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	11.46	30.21	14.54	16.15	15.29	14.27
25th Percentile	9.29	24.53	12.74	14.63	14.03	13.22
Median	7.17	17.18	11.20	13.43	12.87	11.93
75th Percentile	5.65	12.94	9.66	11.97	11.73	10.87
90th Percentile	4.12	9.83	8.39	10.54	10.49	9.78
Small Cap Equity ●	8.07	18.70	12.23	13.54	13.20	11.82
Russell 2000 Index ▲	7.75	17.57	10.96	12.46	11.83	10.60

APFC Non-US Equity Structure

As of June 30, 2018

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

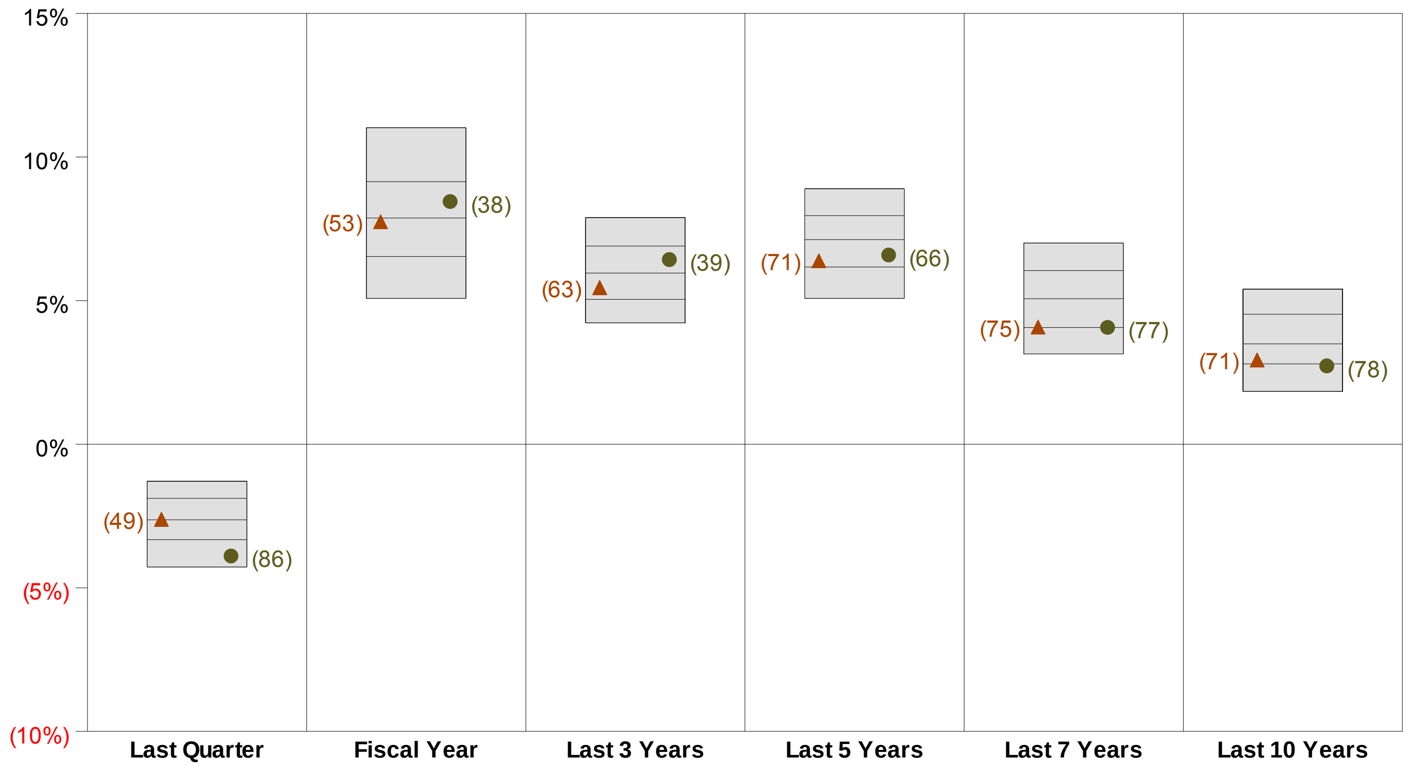


APFC International Equity Relative to Fund Sponsor Universe

Periods Ended June 30, 2018

- During the quarter, Non-US markets ended in the red, impacted by strong US dollar and Emerging Markets sell off, driven by trade war fears.
- As a result, APFC international equity portfolio suffered losses. Nonetheless, longer-term returns are either ahead or about in-line with the index.
- Relative to other fund sponsor international equity portfolios, performance sits above median in the short-term (except current quarter) and below median over longer time periods.
- In the longer-term developed markets have outperformed emerging markets. However, emerging equities have had a better run over the last few years.
- This has had a positive impact on portfolio's shorter-term returns, but weighs down portfolio's longer-term returns.

Performance vs Fund Spnsor - International Equity (Gross)



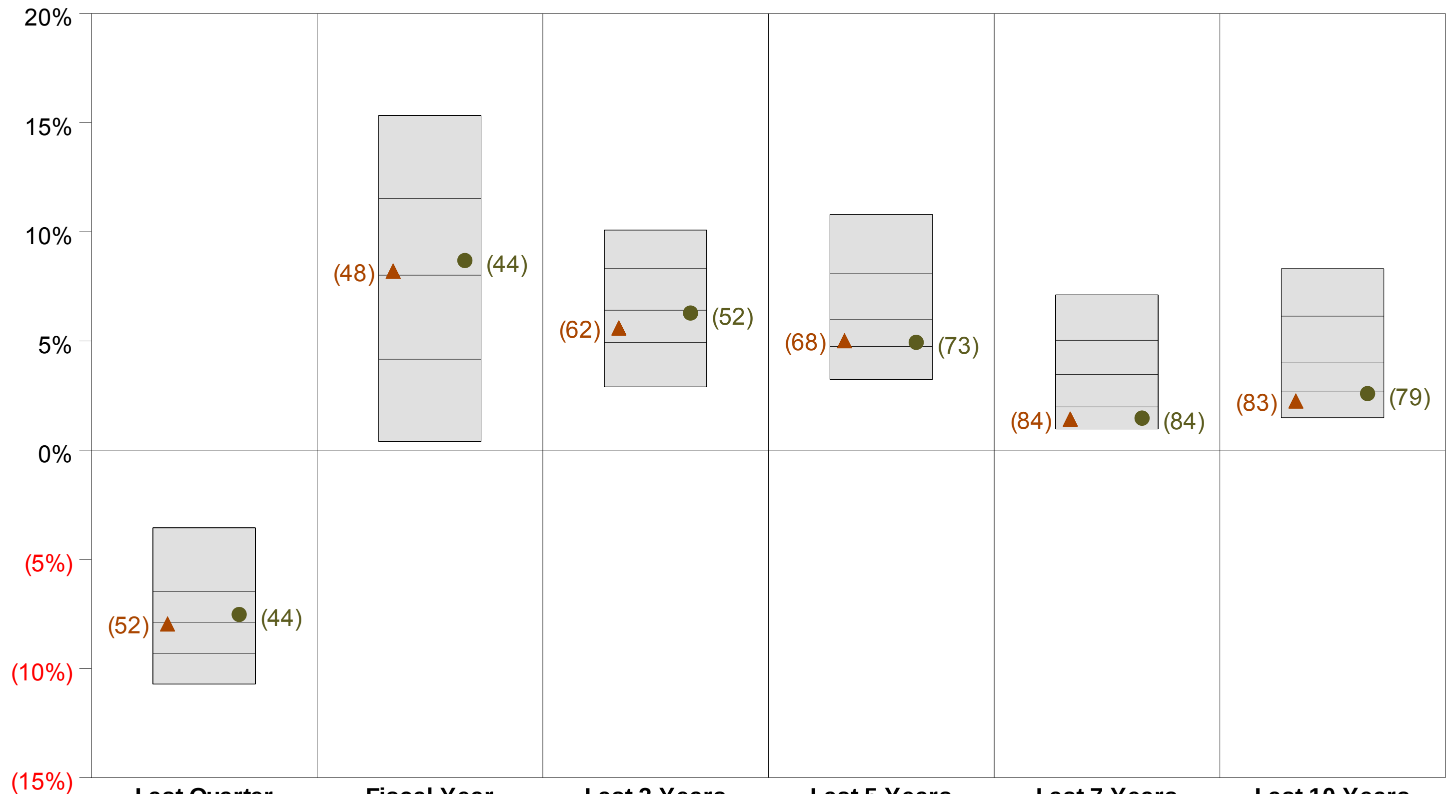
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	(1.29)	11.02	7.90	8.90	7.01	5.41
25th Percentile	(1.89)	9.15	6.90	7.96	6.05	4.53
Median	(2.63)	7.88	5.96	7.13	5.07	3.50
75th Percentile	(3.32)	6.54	5.04	6.17	4.07	2.80
90th Percentile	(4.28)	5.07	4.22	5.08	3.14	1.84
International Equity ●	(3.95)	8.39	6.38	6.53	4.01	2.67
MSCI ACWI ex US IMI ▲	(2.61)	7.75	5.46	6.39	4.08	2.93

APFC Emerging Markets Equity Relative to EM Universe

Periods June 30, 2018

- APFC Emerging Markets Equity portfolio 2nd quarter performance was down but roughly in-line with the benchmark.
- The portfolio tracks the median actively managed portfolio in the short run, but underperforms in the long run.
- Recent strength in the asset class has resulted in near-term performance improvement for APFC's Emerging Markets Equity portfolio and APFC's overall public equity portfolio.

Performance vs Emerging Markets Equity DB (Gross)



	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	(3.56)	15.33	10.08	10.79	7.11	8.31
25th Percentile	(6.47)	11.53	8.31	8.08	5.03	6.14
Median	(7.88)	8.01	6.41	5.98	3.46	4.00
75th Percentile	(9.30)	4.17	4.93	4.75	1.98	2.71
90th Percentile	(10.72)	0.40	2.90	3.24	0.96	1.48
Emerging Markets ●	(7.60)	8.61	6.20	4.86	1.39	2.51
MSCI EM ▲	(7.96)	8.20	5.60	5.01	1.43	2.26

APFC Global Equity Relative to Global Universe

Periods Ended June 30, 2018

- APFC Global Equity portfolio ranks near the median when compared to other global equity managers over all time periods.
- Simultaneously, performance exceeds the benchmark for all time periods shown on the chart, with the exception of trailing 3-years, when results are on par.

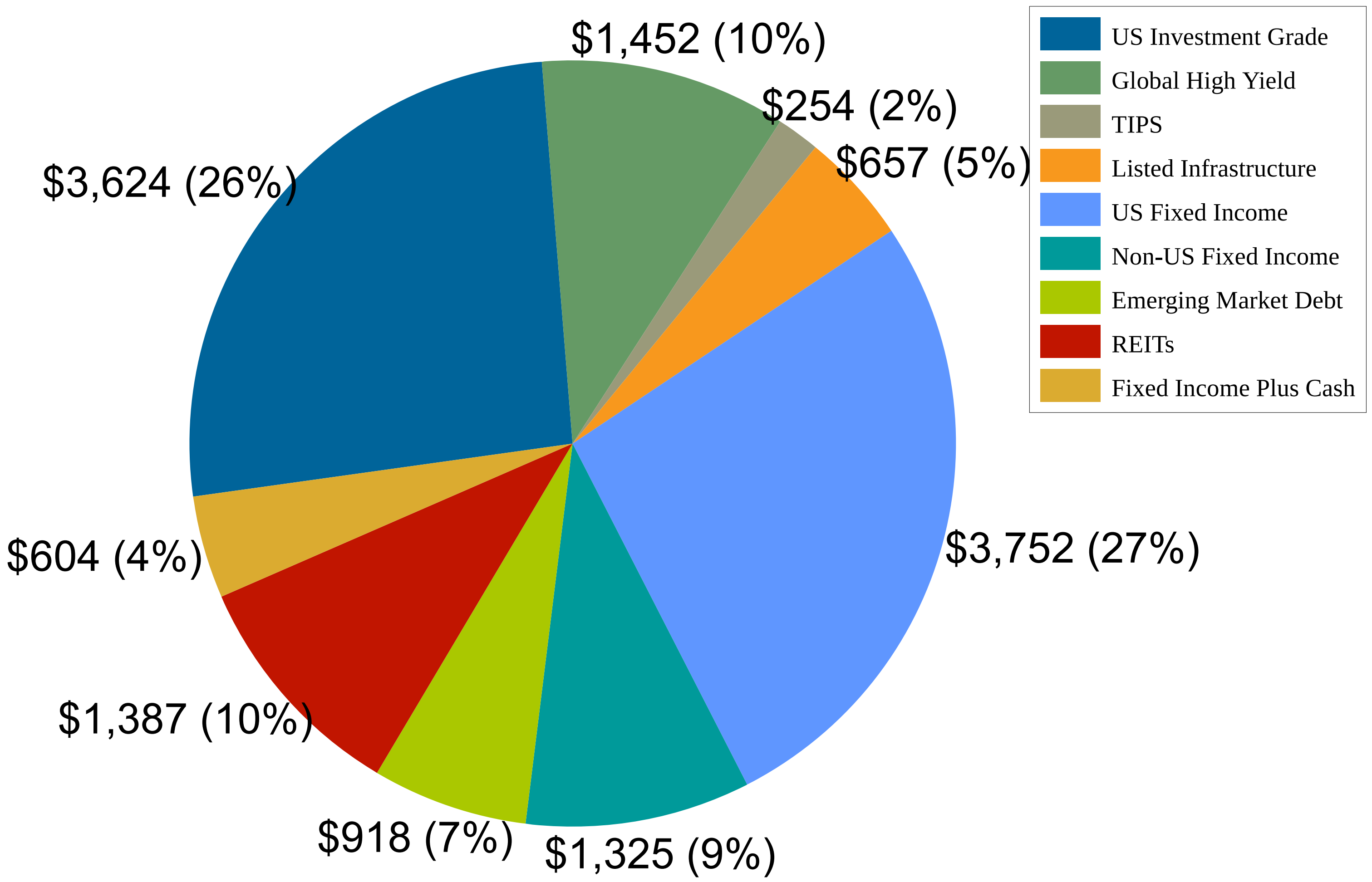
Performance vs Global Equity Database (Gross)

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	3.78	19.85	13.03	13.56	12.36	10.44
25th Percentile	2.30	14.72	10.53	11.95	10.62	8.48
Median	0.85	11.09	8.59	10.24	9.35	7.08
75th Percentile	(0.60)	7.74	7.06	8.58	7.96	5.89
90th Percentile	(2.21)	5.07	5.33	6.74	6.20	4.23
Global Equity ●	1.30	11.51	8.33	9.97	9.06	6.33
MSCI ACWI IMI ▲	0.72	11.14	8.34	9.60	8.09	6.14

APFC Fixed Income Plus Structure

As of June 30, 2018

- 65% 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.

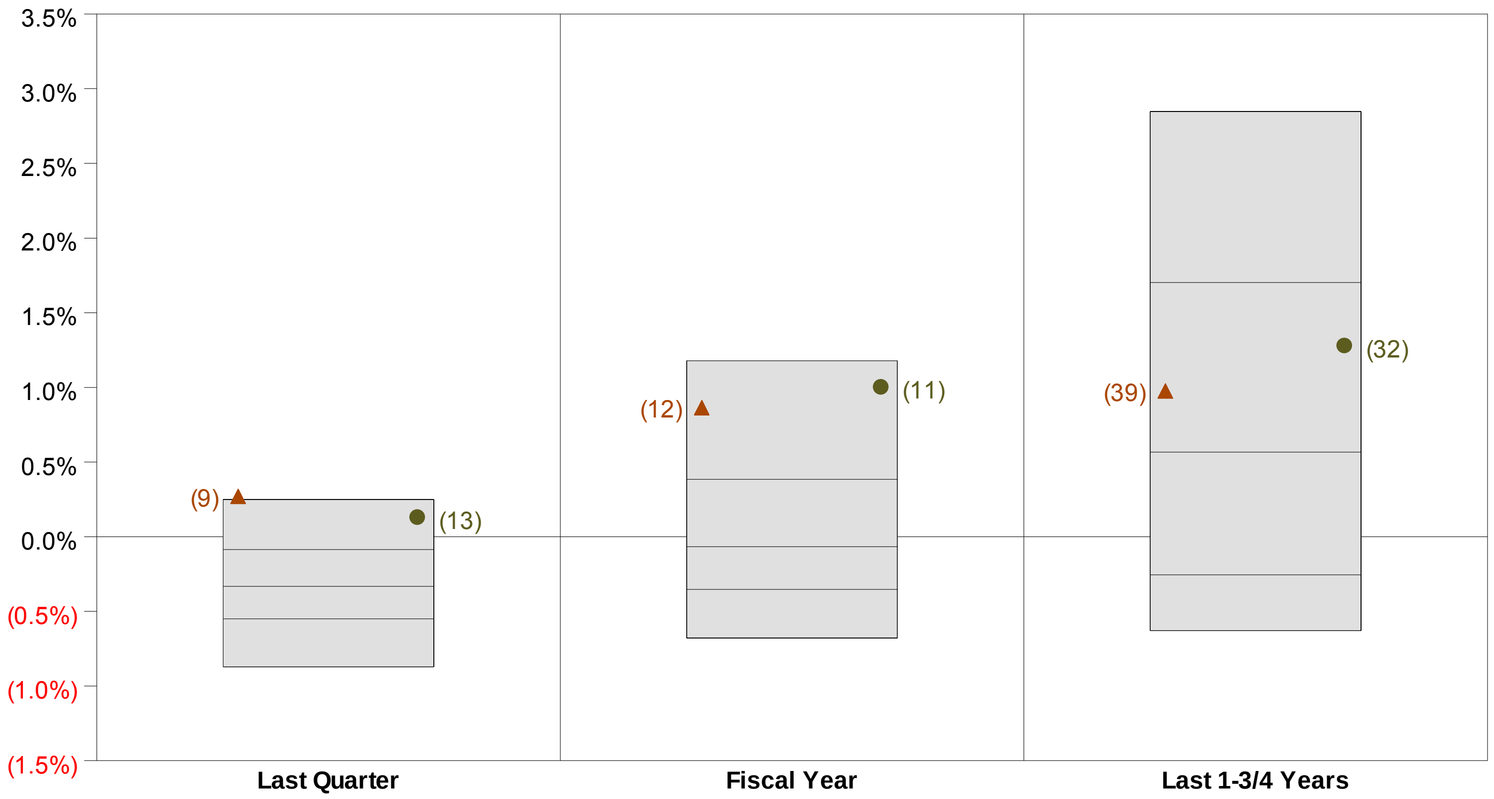


Fixed Income Plus Relative to Public Fixed Income Funds

Periods Ended June 30, 2018

- The APFC Fixed Income Plus portfolio ended 2nd quarter slightly short of its benchmark. However, the portfolio is ahead for Fiscal Year 2018 and Since Inception.
- When compared to its peers, the portfolio maintains a solid lead over the median manager over all time periods shown on the chart.
- US Investment Grade and Emerging Market Debt, both down during the quarter, offset the solid performance from REITs and Listed Infrastructure.

Performance vs Public Fund - Domestic Fixed (Gross)



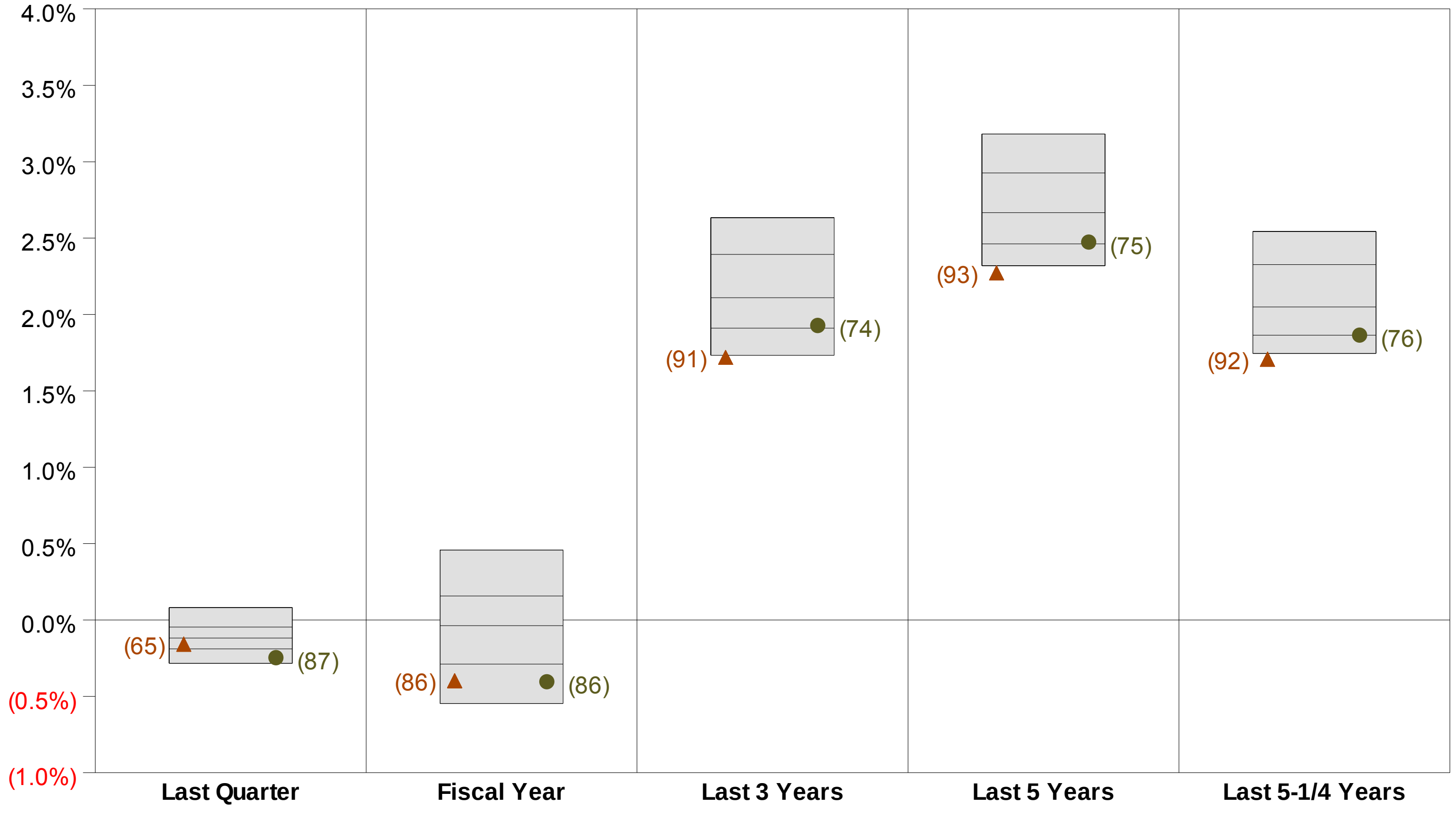
	Last Quarter	Fiscal Year	Last 1-3/4 Years
10th Percentile	0.25	1.18	2.85
25th Percentile	(0.09)	0.39	1.70
Median	(0.33)	(0.07)	0.57
75th Percentile	(0.55)	(0.35)	(0.26)
90th Percentile	(0.87)	(0.68)	(0.63)
Fixed Income Plus ●	0.12	0.99	1.27
Fixed Income Plus Benchmark ▲	0.27	0.86	0.98

US Fixed Income Relative to Core Bond Funds

Periods Ended June 30, 2018

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

Performance vs Callan Core Bond Fixed Income (Gross)

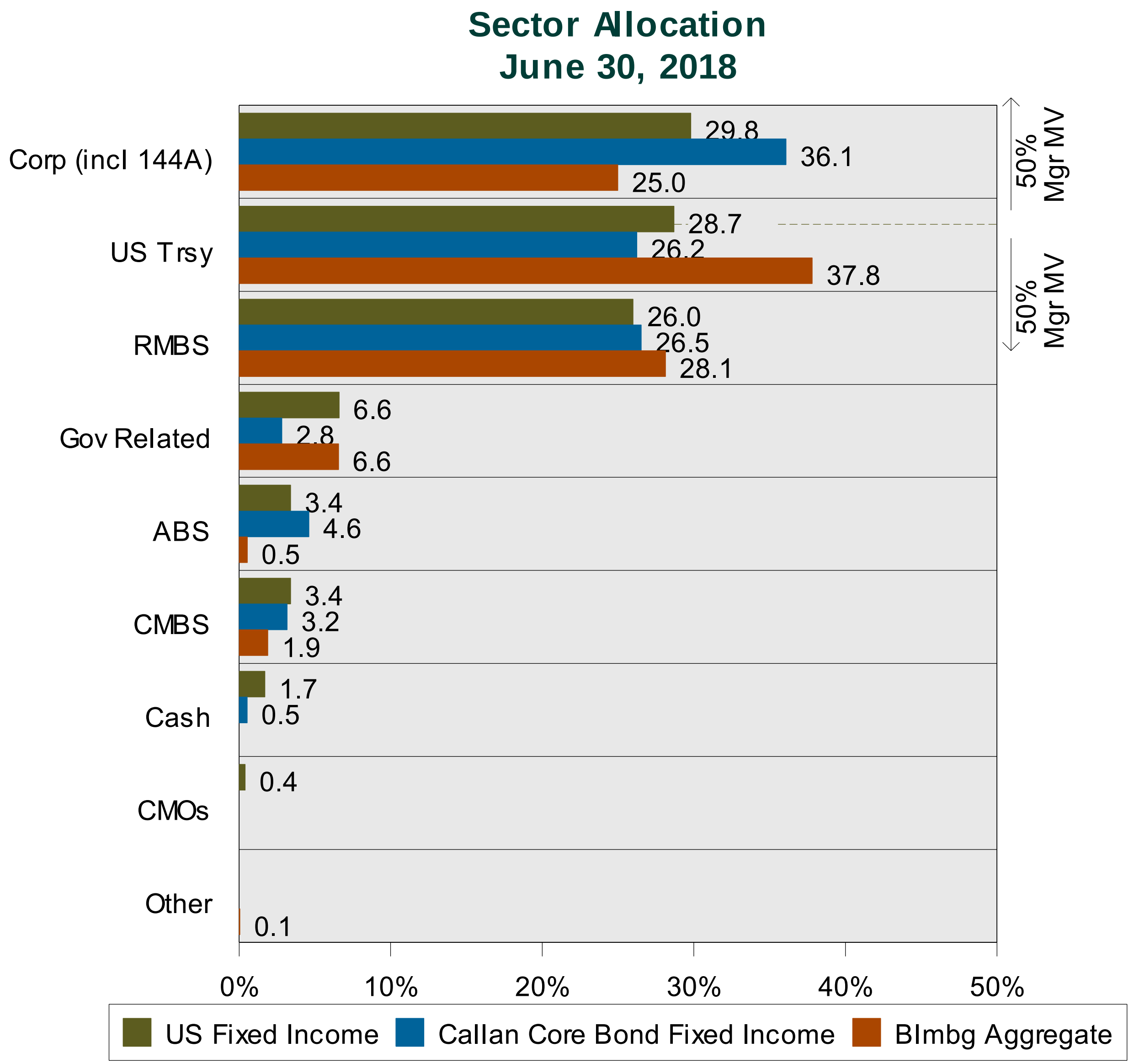


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 5-1/4 Years
10th Percentile	0.08	0.46	2.63	3.18	2.54
25th Percentile	(0.05)	0.16	2.39	2.93	2.33
Median	(0.12)	(0.04)	2.11	2.67	2.05
75th Percentile	(0.19)	(0.29)	1.91	2.46	1.86
90th Percentile	(0.28)	(0.55)	1.73	2.32	1.74
US Fixed Income ●	(0.26)	(0.41)	1.92	2.46	1.86
Blmbg Aggregate ▲	(0.16)	(0.40)	1.72	2.27	1.71

US Fixed Income Sector Allocation

As Of June 30, 2018

- The primary driver of performance for the US Fixed Income portfolio relative to peers has been its lower than average allocation to corporate bonds and higher than average allocation to U.S. Treasuries and Government-related debt.
- Additionally, the US Fixed Income portfolio has a higher quality bias, and thus a lower yield, than its Core Fixed Income peers.

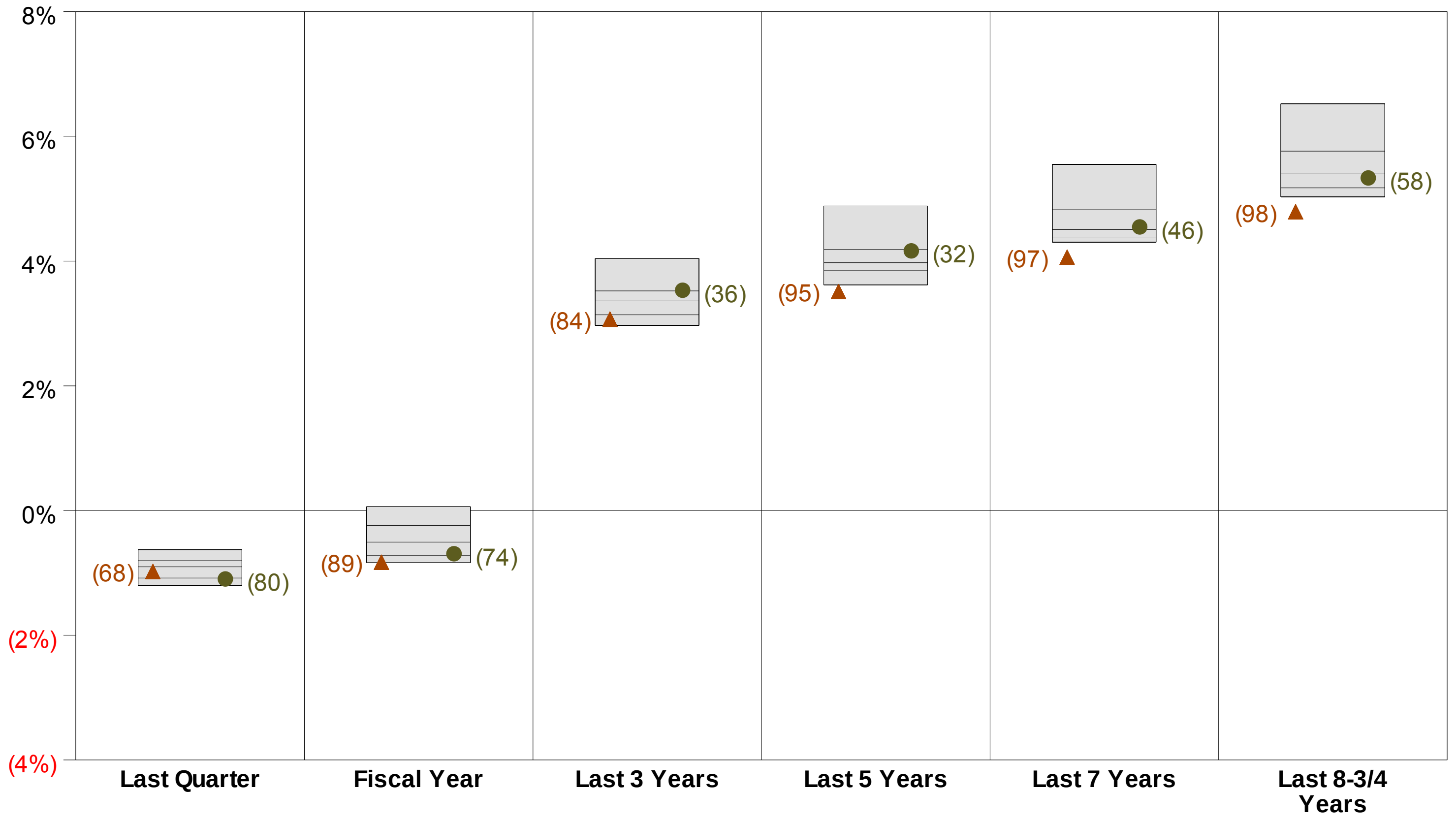


US Investment Grade Relative to Investment Grade Funds

Periods Ended June 30, 2018

- During the recent quarter, APFC US Investment Grade was just shy of its index.
- The portfolio has a comfortable lead over the benchmark for all other time periods shown.
- The Investment Grade composite is below median in the short-term and Since Inception, and above peer median over the other remaining time periods.
- Underperformance relative to peers is primarily driven by APFC's higher quality bias.

Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



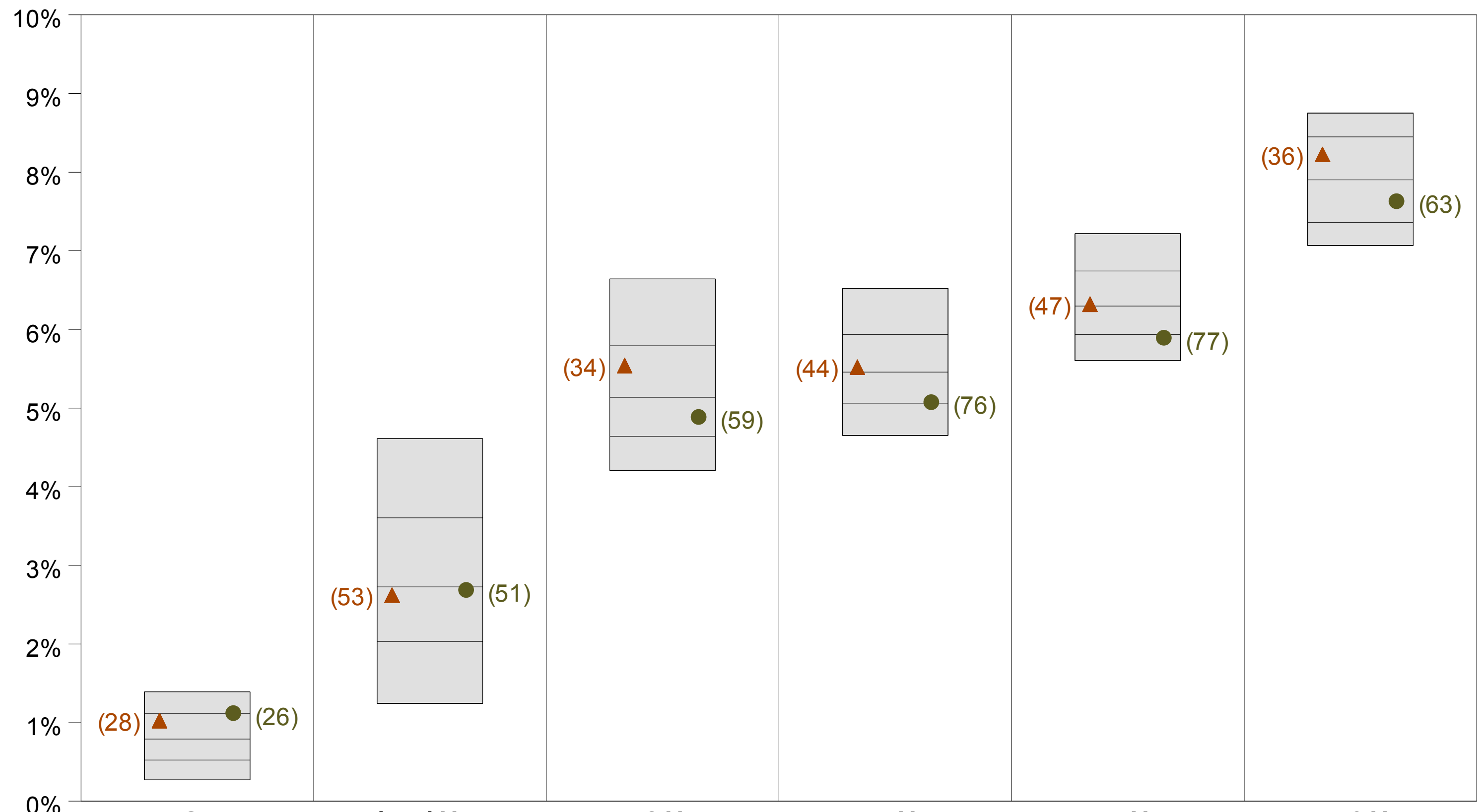
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 8-3/4 Years
10th Percentile	(0.63)	0.06	4.04	4.88	5.55	6.52
25th Percentile	(0.81)	(0.24)	3.52	4.19	4.82	5.76
Median	(0.90)	(0.51)	3.36	3.97	4.51	5.41
75th Percentile	(1.08)	(0.72)	3.14	3.84	4.38	5.17
90th Percentile	(1.21)	(0.84)	2.97	3.62	4.30	5.03
US Investment Grade ●	(1.13)	(0.72)	3.50	4.14	4.52	5.31
Blmbg Corporate ▲	(0.98)	(0.83)	3.07	3.51	4.06	4.79

Global High Yield Relative to High Yield Funds

Periods Ended June 30, 2018

- The APFC Global High Yield portfolio performed in-line with its index during the quarter and Fiscal Year 2018, but trails for the remainder of time periods shown.
- When compared to peers, the portfolio exceeded the median manager for the quarter, kept up during Fiscal Year 2018, and falls behind during all other time periods measured.
- This composite includes allocations to Oaktree, Capital Guardian, and an iShares ETF.

Performance vs Callan High Yield Fixed Income (Gross)



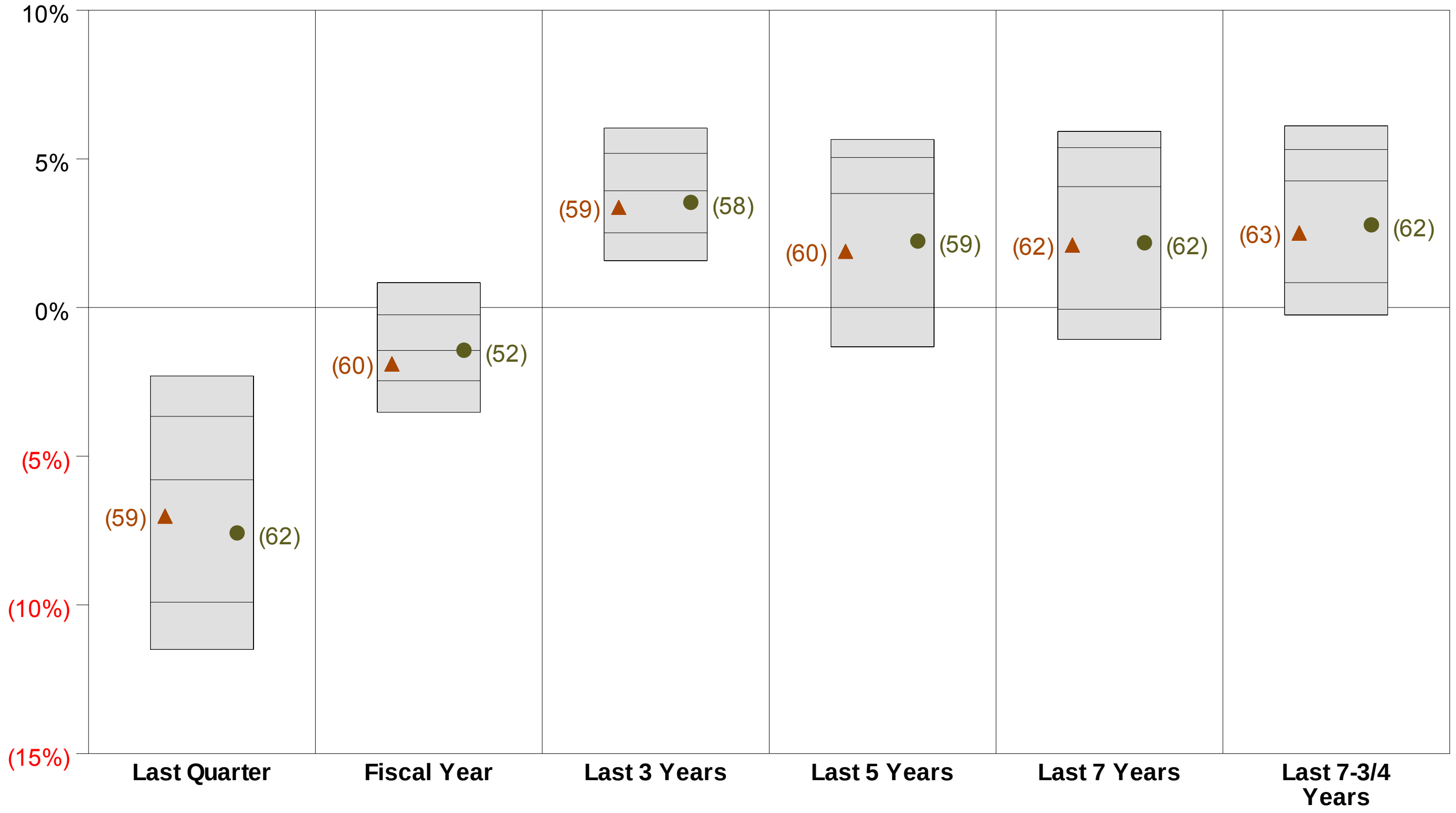
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	1.39	4.61	6.64	6.52	7.22	8.75
25th Percentile	1.12	3.60	5.79	5.94	6.74	8.45
Median	0.79	2.73	5.14	5.46	6.30	7.90
75th Percentile	0.52	2.03	4.64	5.06	5.94	7.36
90th Percentile	0.27	1.25	4.21	4.65	5.60	7.06
Global High Yield ●	1.10	2.67	4.87	5.05	5.87	7.61
Blmbg HY 2% Iss Cap ▲	1.03	2.62	5.54	5.52	6.32	8.23

Emerging Market Debt Relative to EMD Funds

Periods Ended June 30, 2018

- Trade conflicts, emerging market elections, and strong US$ send returns tumbling in the 2nd quarter.
- APFC Emerging Market Debt portfolio declined in value and trailed its target.
- On a positive note, results over all other time periods have a slight lead over the index.
- Relative to peers, the composite consistently hovers around 60th percentile in Callan's EMD database.

Performance vs Emerging Debt Database (Gross)



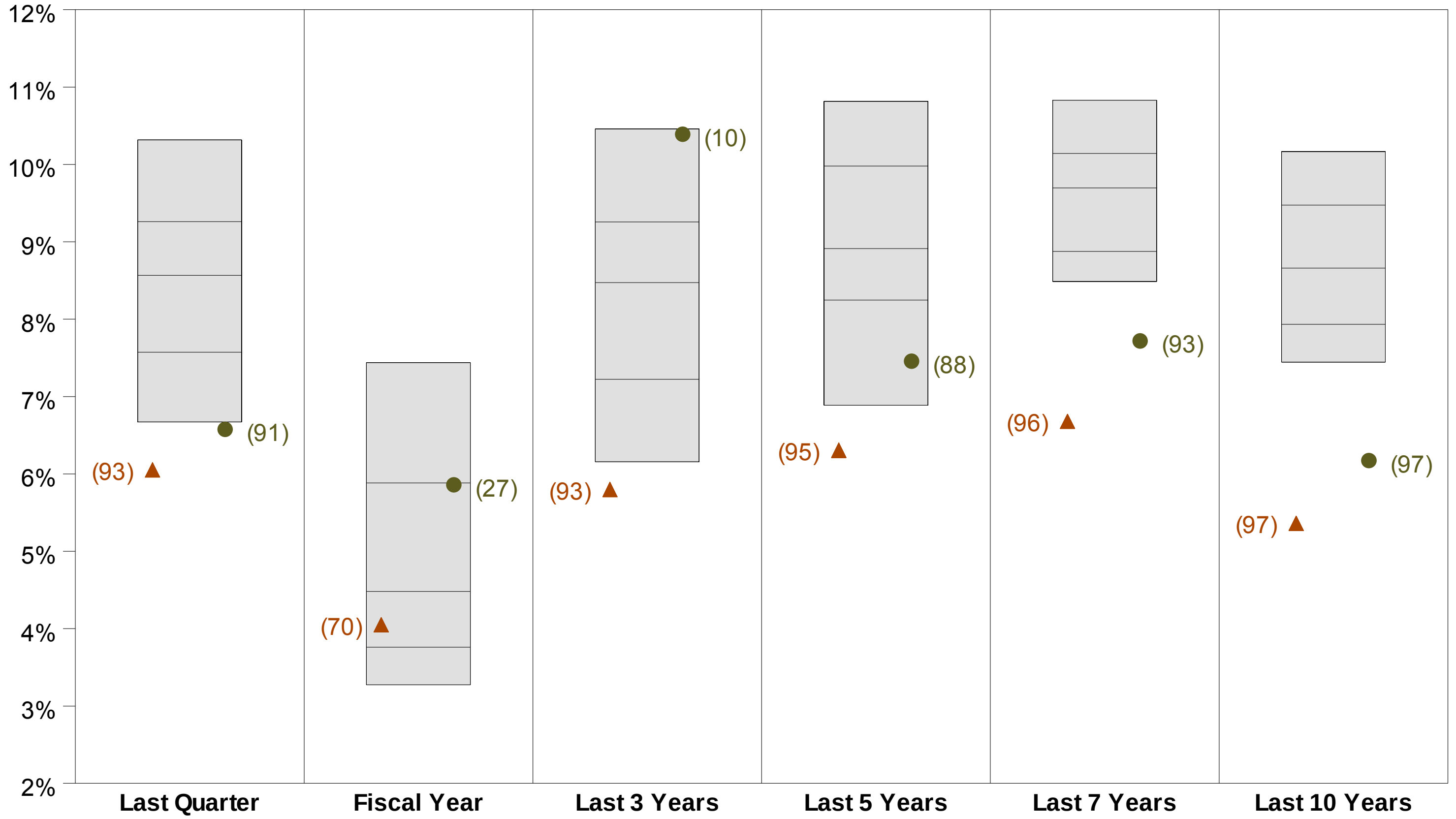
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 7-3/4 Years
10th Percentile	(2.30)	0.84	6.03	5.65	5.92	6.11
25th Percentile	(3.66)	(0.24)	5.19	5.04	5.38	5.31
Median	(5.79)	(1.44)	3.93	3.84	4.06	4.26
75th Percentile	(9.91)	(2.46)	2.51	0.00	(0.05)	0.84
90th Percentile	(11.50)	(3.52)	1.58	(1.32)	(1.07)	(0.25)
Emerging Market Debt ●	(7.63)	(1.49)	3.48	2.19	2.13	2.73
EMD Benchmark ▲	(7.01)	(1.89)	3.37	1.89	2.10	2.51

REITs Performance Relative to Callan's REITs database

Periods Ended June 30, 2018

- APFC REITs portfolio has done well versus its benchmark over all time periods shown.
- REITs composite ranks favorably versus the median REIT manager for Fiscal Year 2018 and trailing 3-years, but is in the bottom quartile for the rest of the time periods presented on the chart.
- REITs allocation includes AEW Global, SSGA, and American Homes 4 Rent.

Performance vs Callan Real Estate REIT (Gross)



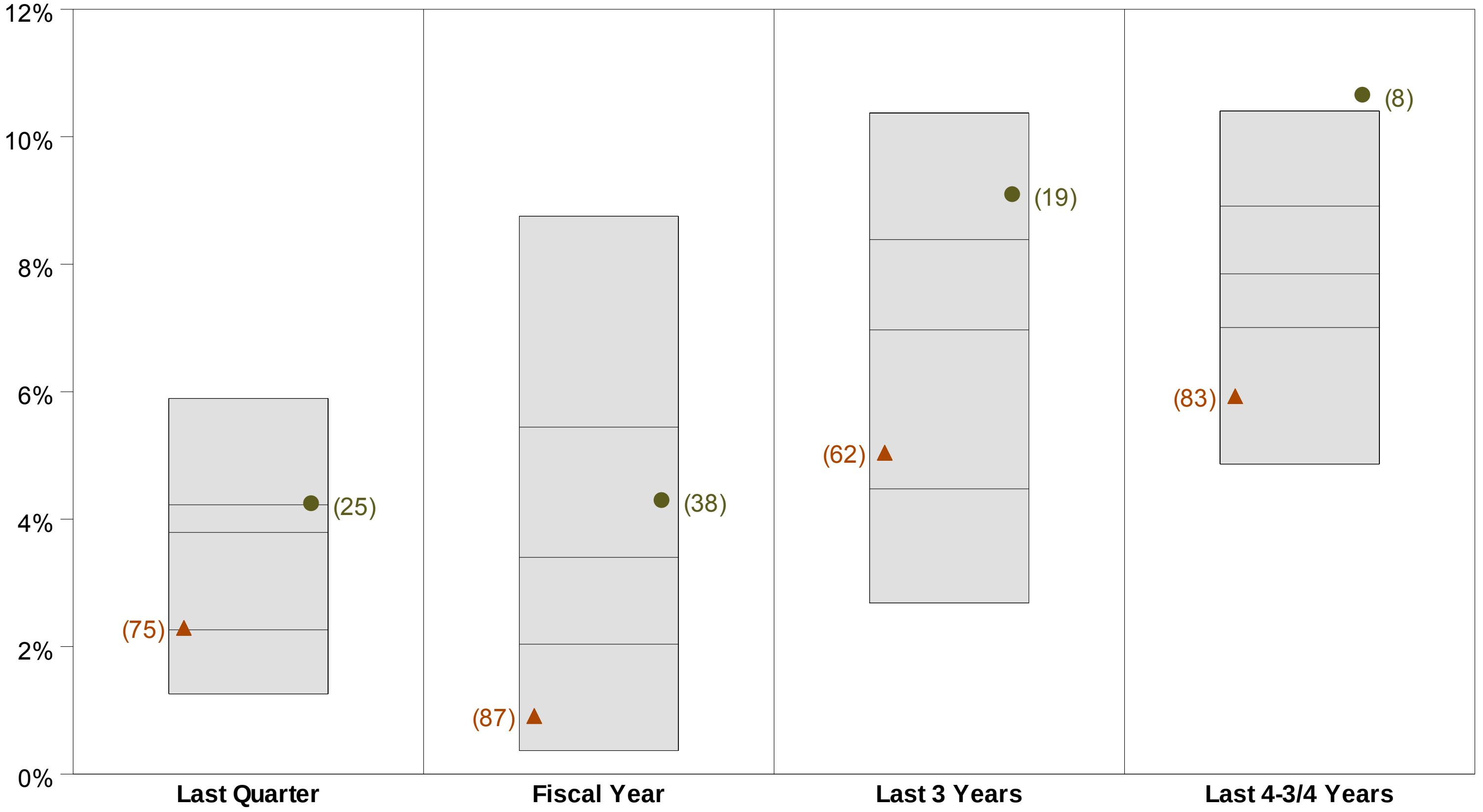
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	10.32	7.44	10.46	10.82	10.83	10.17
25th Percentile	9.26	5.88	9.26	9.98	10.14	9.47
Median	8.57	4.48	8.47	8.91	9.70	8.66
75th Percentile	7.57	3.76	7.22	8.25	8.88	7.93
90th Percentile	6.67	3.28	6.16	6.89	8.49	7.44
REITs ●	6.56	5.84	10.37	7.43	7.70	6.15
S&P Global REIT ▲	6.05	4.05	5.80	6.31	6.68	5.36

Listed Infrastructure Relative to Listed Infrastructure Funds

Periods Ended June 30, 2018

- APFC listed infrastructure portfolio has performed notably well in absolute and relative terms versus both its index and the Publicly Listed Infrastructure peer group over all time periods.
- Since Inception, the portfolio has almost doubled the return of its benchmark, whilst placing in the top decile in its peer universe.
- Listed Infrastructure composite includes Lazard, Cohen & Steers, and SSGA.

Performance vs Callan Publicly Listed Infrastructure (Gross)

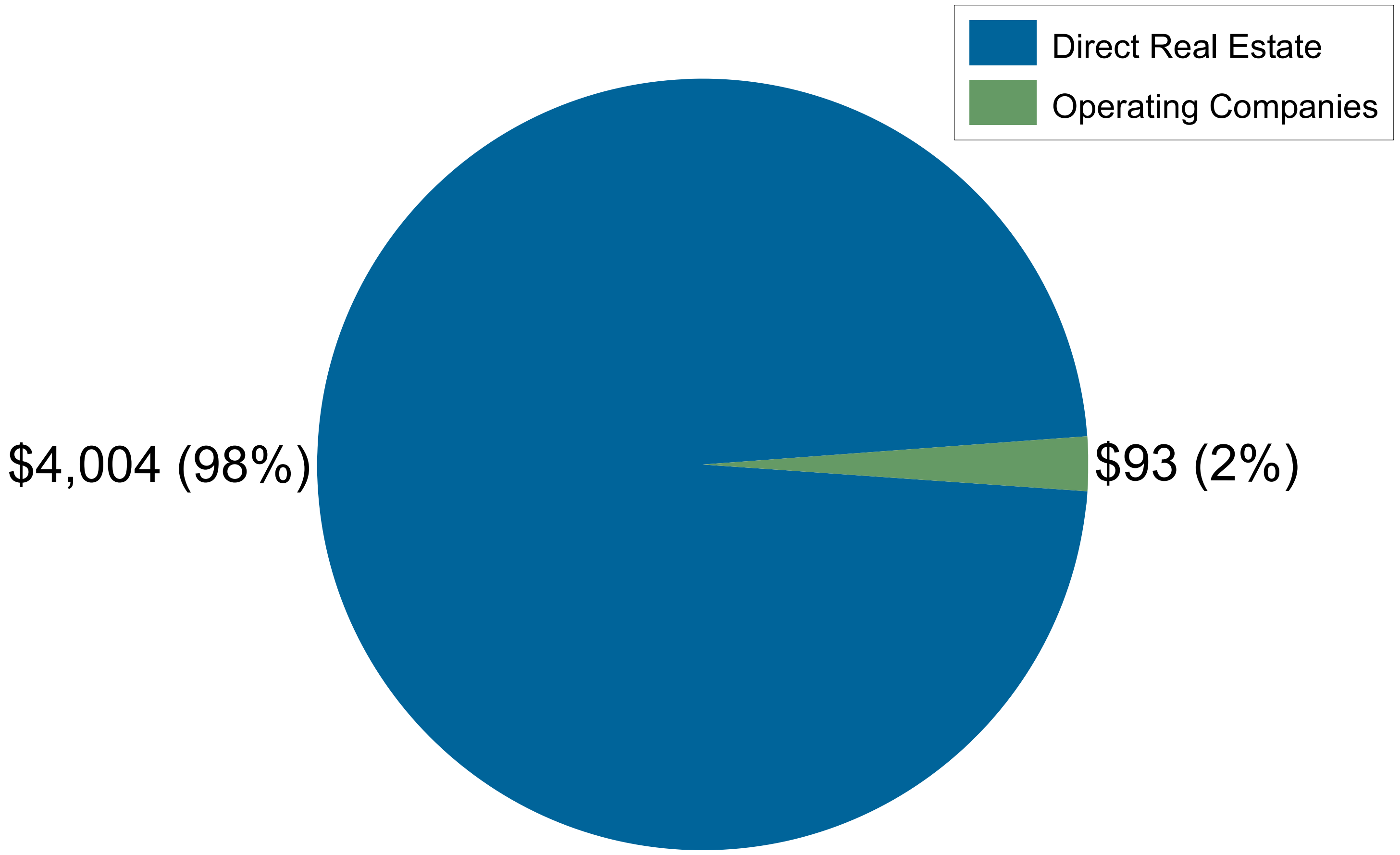


	Last Quarter	Fiscal Year	Last 3 Years	Last 4-3/4 Years
10th Percentile	5.89	8.75	10.37	10.40
25th Percentile	4.23	5.44	8.39	8.91
Median	3.79	3.40	6.97	7.85
75th Percentile	2.26	2.04	4.48	7.01
90th Percentile	1.26	0.37	2.69	4.86
Listed Infrastructure ●	4.22	4.28	9.07	10.63
S&P Global Infrastructure ▲	2.30	0.91	5.04	5.93

APFC Real Estate Structure *(1Q LAG)*

As of June 30, 2018

- 98% of the structure is invested in direct real estate portfolio. 11% of this allocation is invested internationally (CBRE Europe and LaSalle UK).
- 2% of the structure is invested in real estate operating companies (Lincoln; Simpson – liquidated during the quarter).

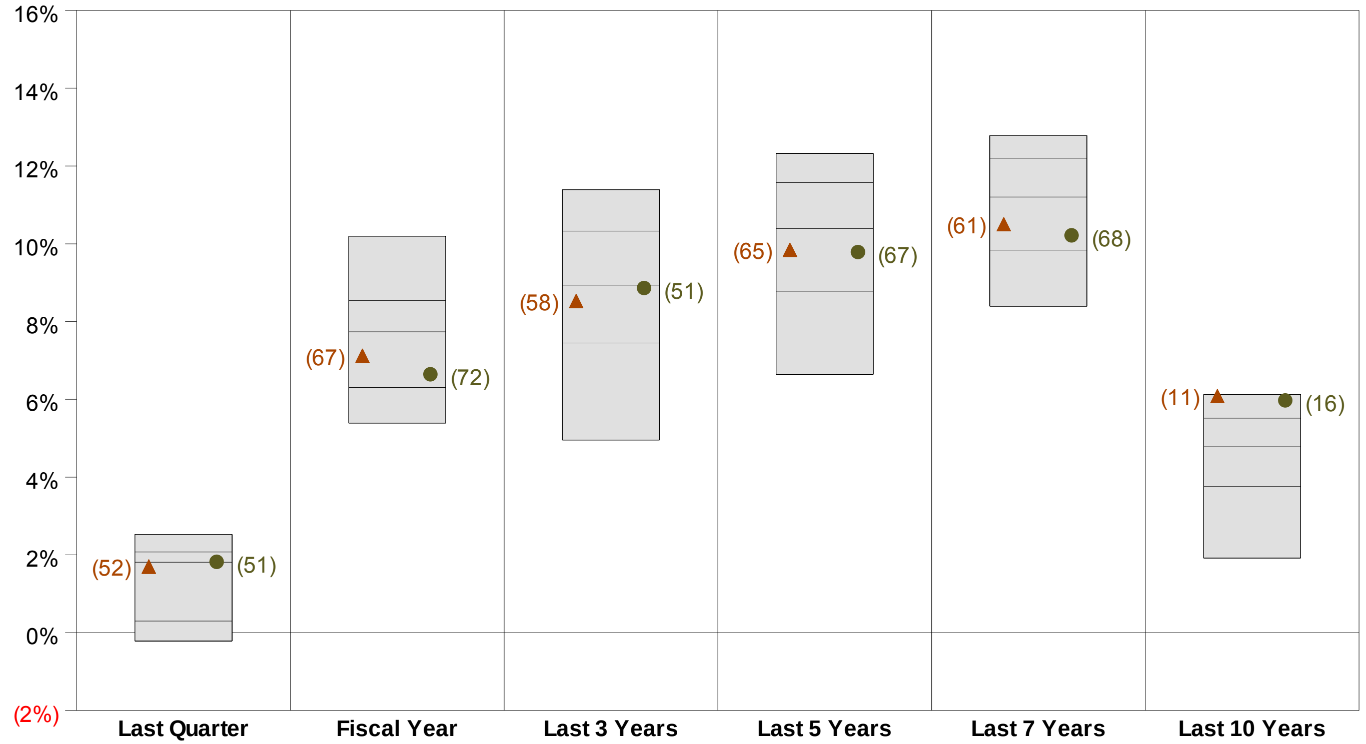


Real Estate Relative to Callan’s Total Real Estate Database *(1Q LAG)*

Periods Ended June 30, 2018

- APFC Real Estate portfolio performance is shown net of fees for all investments.
- Performance relative to target is mixed: the portfolio is in-line for the quarter, ahead for trailing 3-years, and lags for all other time periods measured on the chart.
- Relative to the peer group, the portfolio ranks favorably in the very long run, but falls at or below median otherwise.

Performance vs Public Fund - Real Estate (Gross)

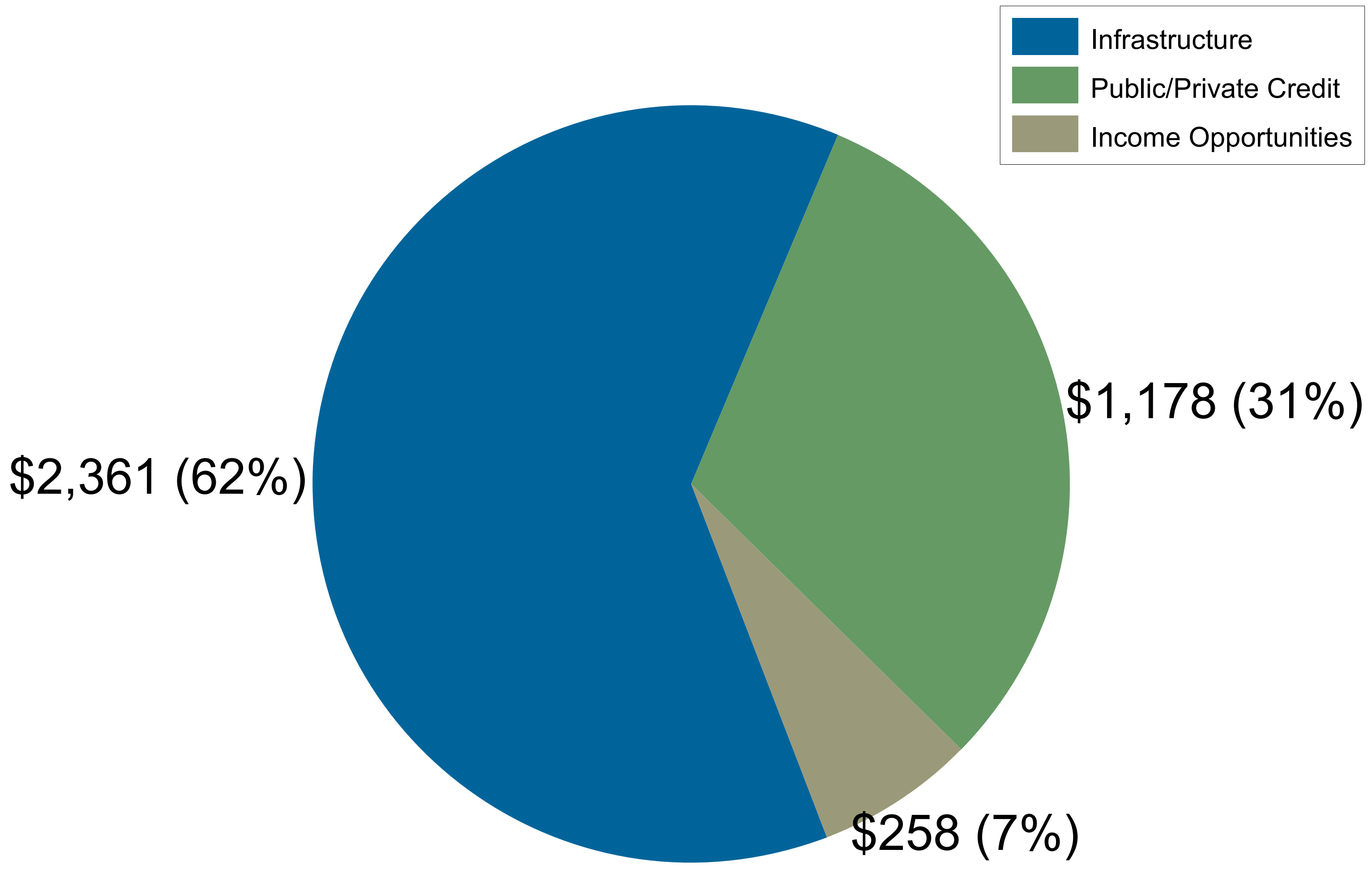


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	2.53	10.20	11.39	12.33	12.78	6.12
25th Percentile	2.08	8.54	10.33	11.57	12.20	5.51
Median	1.81	7.74	8.94	10.39	11.20	4.78
75th Percentile	0.30	6.31	7.45	8.78	9.84	3.76
90th Percentile	(0.22)	5.39	4.95	6.64	8.40	1.92
APFC Real Estate (NOF) ●	1.78	6.60	8.83	9.75	10.18	5.94
APFC Target ▲	1.70	7.12	8.53	9.85	10.50	6.09

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

As of June 30, 2018

- 62% of the structure is invested in infrastructure funds, which includes a diversified portfolio of infrastructure, timber, energy, and power assets.
- 31% of the structure is invested in public/private credit mandates including mezzanine debt, opportunistic credit, and direct lending strategies.
- 7% of the structure is invested in income opportunities, which currently includes the American Homes 4 Rent II fund.



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

As of June 30, 2018

	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years
Infrastructure, Private Credit, Income Opp	2.20	16.68	16.68	13.81	12.02
60% FTSE Dev Core Infr / 40% BC US Corp HY 2%	-2.67	4.49	4.49	5.20	6.65

- APFC's Infrastructure, Private Credit, and Income Opportunities composite is ahead of its custom benchmark (60% FTSE Developed Core Infrastructure and 40% BC US Corp HY 2%) for all time periods shown.
- Quarterly outperformance is attributable to Infrastructure, which added 3% for the quarter, with notable performance from the Goldman Sachs (+9%) portfolio.

Absolute Return Portfolio Relative to HFOF Universe

Periods Ended June 30, 2018

- The portfolio sits behind its custom benchmark for all time periods, with the exception of Fiscal Year 2018.
- Absolute Return composite ranks in the top third relative to peers for Fiscal Year 2018 and trailing three-years, and in the bottom third for recent quarter and longer time periods shown.

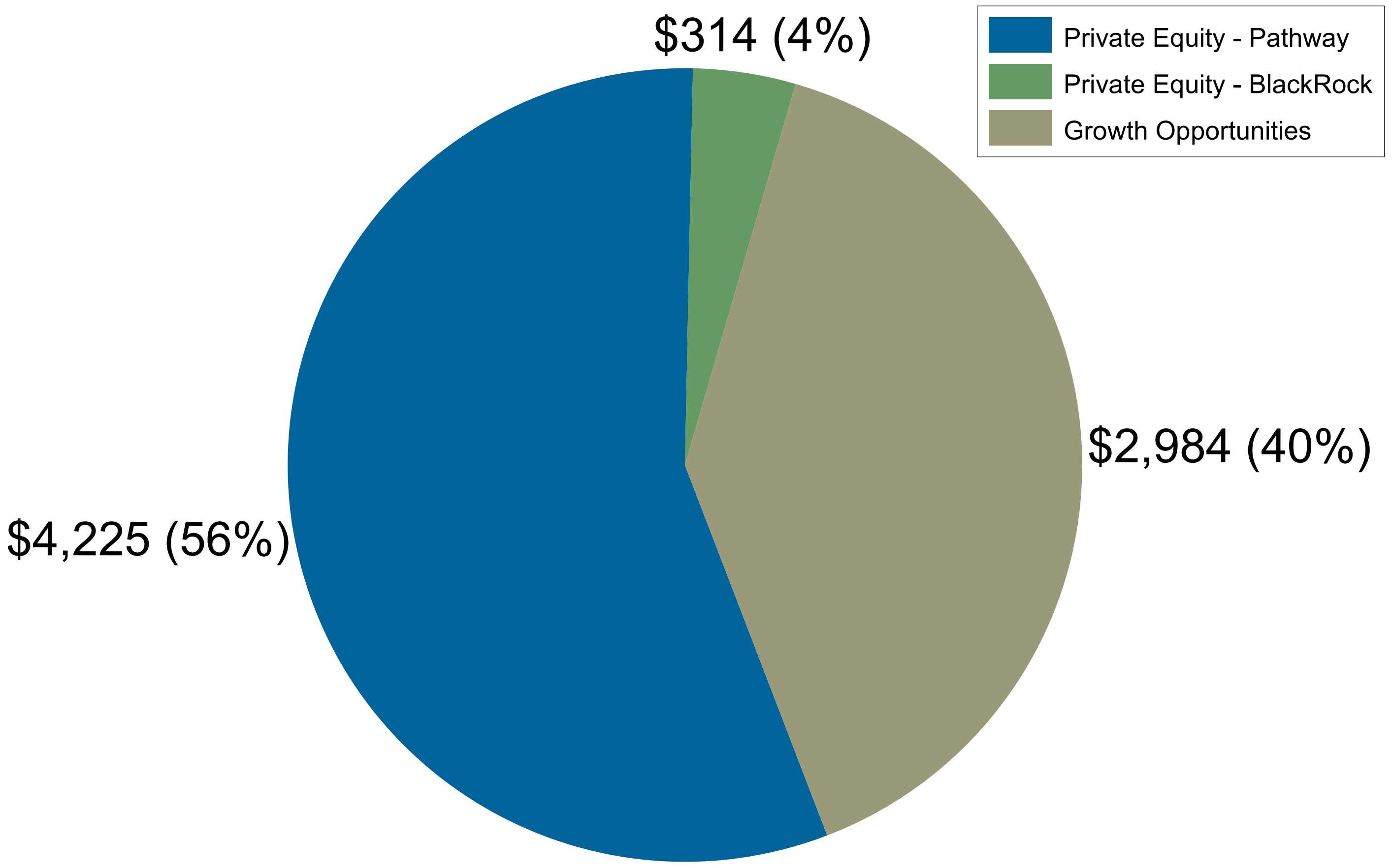
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 5-3/4 Years
10th Percentile	2.66	8.10	4.62	5.80	6.37
25th Percentile	1.67	5.69	3.40	4.71	5.24
Median	1.36	4.99	2.71	4.07	4.38
75th Percentile	0.85	4.01	2.42	3.13	3.86
90th Percentile	0.68	3.47	1.56	2.84	3.61
Absolute Return (net) ●	0.21	5.95	3.28	3.39	4.02
Absolute Return Benchmark ▲	0.84	5.67	5.73	5.91	5.68

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

As of June 30, 2018

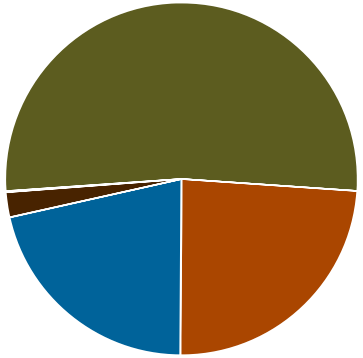
- 60% of the structure is invested in private equity.
- The legacy HarbourVest investments have been transferred to Pathway for oversight management.
- The Pathway portfolio also includes direct investments overseen by Pathway.
- 40% of the structure is invested in growth opportunities.



Private Equity Portfolio Positioning

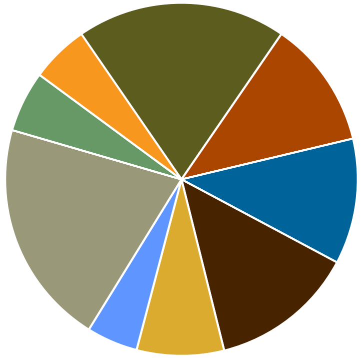
As of December 31, 2017

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



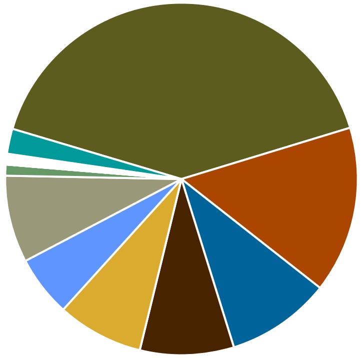
Strategy Mix by Net Asset Value

Buyout	52.19%
Venture/Growth Capital	24.02%
Special Situations	21.42%
Distressed/Restructuring	2.35%



Geographic Mix by Net Asset Value

West/Pacific Northwest	19.26%
Mid-West	11.73%
North Atlantic	11.50%
Southwest/Rockies	13.30%
Southeast	7.98%
Mid-Atlantic	4.69%
Europe	20.73%
Pacific Basin	5.57%
Rest of World	5.35%



Industry Mix by Net Asset Value

Technology	40.70%
Consumer Discretionary	15.33%
Health Care	9.59%
Industrials	8.60%
Financial	7.86%
Telecommunications	5.62%
Energy	7.96%
Materials	1.04%
Utilities	0.46%
Consumer Staples	0.49%
Other/Misc	2.34%

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

As of June 30, 2018

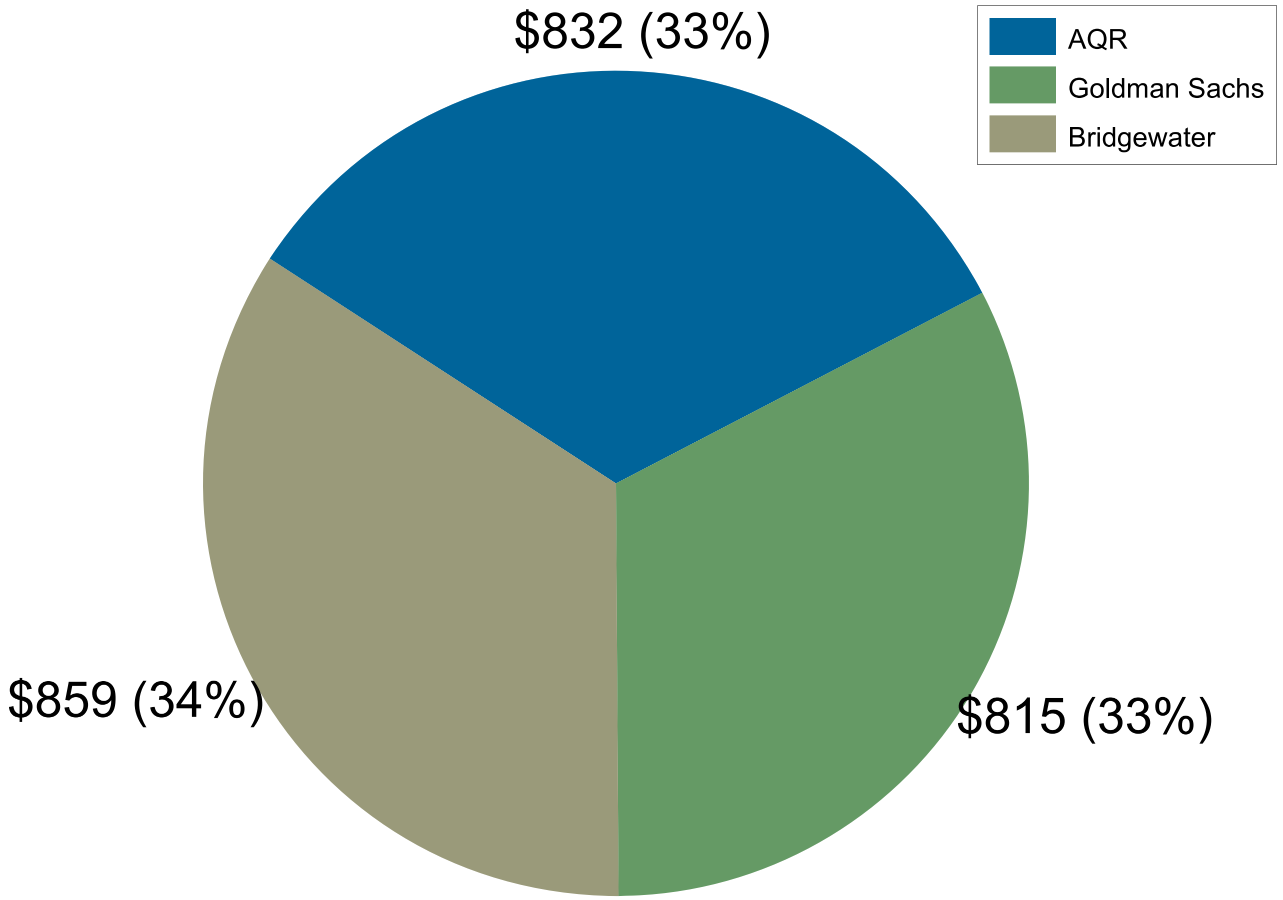
	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years
Private Equity and Growth Opportunities	11.39	32.70	32.70	14.56	23.84
Cambridge Private Equity	3.03	18.27	18.27	12.66	13.81

- APFC's Private Credit and Growth Opportunities composite is ahead of the Cambridge Private Equity Index for all time periods shown.
- Both portfolios contributed to strong returns during the quarter, with Private Equity gaining 8.3% and Growth Opportunities adding 16%.

APFC Multi-Strategy Structure

As of June 30, 2018

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



Multi-Strategy Performance

Periods Ended June 30, 2018

	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years	Last 8 1/4 Years
AQR	(4.50)	1.68	1.68	5.75	6.79	8.17
Bridgewater	1.88	7.99	7.99	4.38	6.48	9.31
Goldman Sachs	(0.68)	3.74	3.74	2.80	4.78	5.95
Multi-Strategy Portfolio	**(1.14)**	**4.45**	**4.45**	**4.29**	**5.49**	**6.29**
TF Ret Objective (CPIU+5%)	2.17	7.87	7.87	6.83	6.54	6.80
Benchmark	0.79	8.20	8.20	7.08	7.55	7.52
Passive Index (60/20/10/10)	0.57	7.83	7.83	6.49	6.81	6.64
Total Fund	**1.68**	**10.74**	**10.74**	**7.96**	**8.91**	**8.34**

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

Closing Remarks

- Total Fund ended the second quarter of 2018 with $65 billion in assets, gaining 1.7% for the quarter. In the Fiscal Year 2018, the Fund has risen 10.7%. This trailing year performance puts the Total Fund in the top decile relative to other large public funds, and in the top third versus other large endowments/foundations.
- Total Fund trails the CPIU+5% objective for the quarter, but bests the other two performance targets. Additionally, Total Fund is ahead of all three targets for Fiscal Year 2018 and the trailing 3- and 5-year periods.
- Over longer periods (last 10- and 20-years), the total Fund only trails CPIU+5% return objective and only for the trailing 20-year period.
- Strong recent performance has helped the Fund perform well relative to most large public funds and endowments. Longer-term performance has not fared as well versus peers, largely due to a comparatively high allocation to non-US equity, emerging markets, and fixed income – this effect, however, has consistently been improving.
- The Public Equity portfolio trailed its index during the quarter. Within Domestic Equities, the small/mid capitalization size bias detracted from performance. International Equities performance was impacted by a strong US dollar and an overweight to emerging markets, which sold off. Intermediate- and longer-term performance of the Public Equity portfolio closely tracks the index.
- The Fixed Income Plus portfolio ended the quarter slightly shy of its respective benchmark. REITs and Listed Infrastructure helped buoy returns, but were offset by absolute performance from Emerging Market Debt.
- The alternatives portfolios' performance for the most part saw broad based gains. Private Equity & Growth Opportunities (+11.4%) added the most value to overall performance, followed by Infrastructure, Private Credit & Income Opportunities (+2.2%), Real Estate (+1.9% gross), and Absolute Return (+0.2%). Asset Allocation (-0.4%) was the only portfolio with returns in the red.
- The Total Fund return in the 2nd quarter provided solid gains. Prudent asset allocation with appropriate levels of diversification and a long-term perspective remain Callan's recommended course.

Risk Overview Memo

APFC ALASKA PERMANENT FUND CORPORATION

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

SUBJECT: Investment Risk Report ACTION: ________

DATE: September 26, 2018 INFORMATION: ___X____

BACKGROUND:

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

STATUS:

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

Presentation: Risk Dashboard

APFC ALASKA PERMANENT FUND CORPORATION

Investment Risk Report

Marcus Frampton, Acting Chief Investment Officer

September 26, 2018

APFC High-Level Risk Thoughts

- The following presentation reviews all the historical metrics and analyses that have been presented in past Board meetings
  - Historical (realized) fund and asset class volatilities and Sharpe Ratios
  - Historical VAR, tracking error and related green, yellow and red zones
  - Scenario Analysis – Risk System's attempt to apply historical tail risk scenarios to APFC's current portfolio
  - Other Risk Factors – Currency risk, geographic exposures vs. benchmark, private exposures/liquidity, unfunded commitments

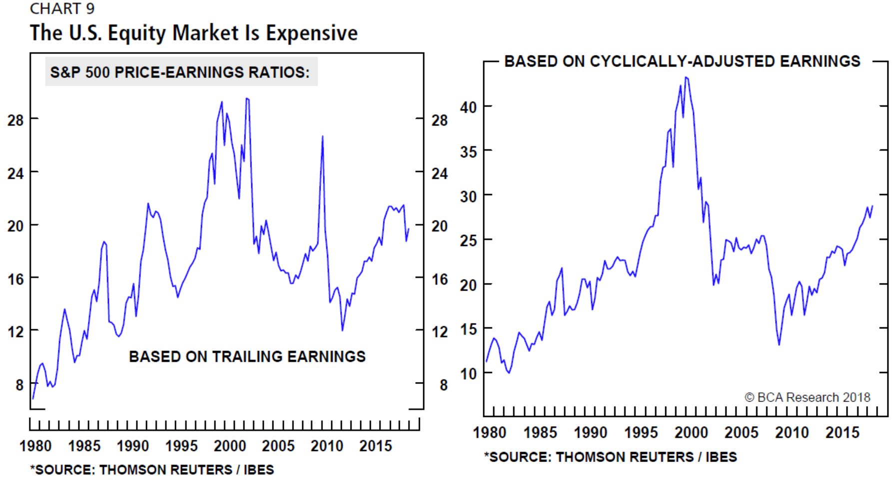
- Continuing to invest resources into our approach to risk management remains a top priority for the APFC Executive Team; accordingly, in the near future a new risk position outside of Investment Department will be created and future Board communications around risk will be led by this functional area

APFC High-Level Risk Thoughts (cont'd)

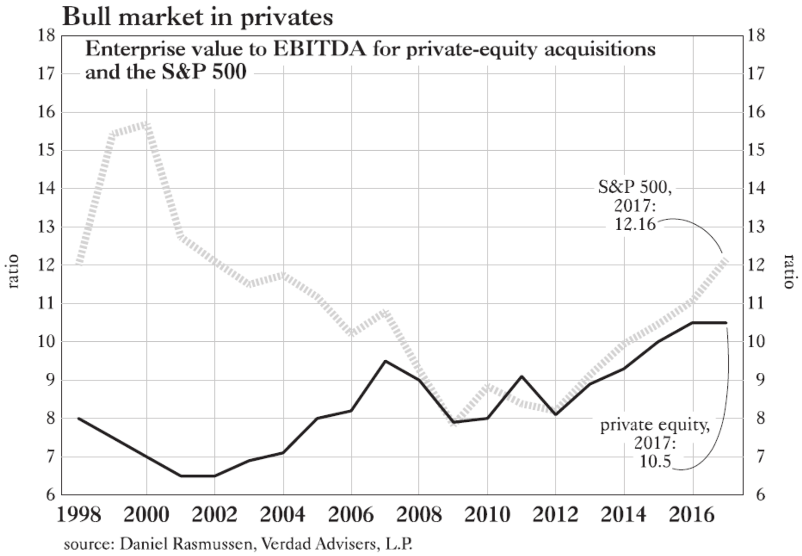
- From an Investments perspective, however, risk remains a critical function embedded within each asset class led by each Investments Director
- Overall Fund risk can be viewed as the aggregate of asset class risks, however, certain inter-asset class dynamics are worth noting
  - Correlation of asset classes can increase in adverse markets
  - Current 5% of Fund underweight to Private Real Estate necessitates being overweight other risk assets
- Each asset class Director effectively operates as CIO and Risk Manager of their own portfolio with focus on the following elements of risk, which are then consolidated upwards for the APFC CIO's view on investment risk
  - Risk vis-à-vis achieving Performance Benchmark (a.k.a. "Tracking Error")
  - Risk to achieving CPI + 500 bps Return Objective (i.e., difficulties inherent in performing against a non-market based objective)
  - Liquidity Risk / Currency Risk / Drawdown Risk
  - Other Asset Class-specific Risk Factors

Market Backdrop
Public and Private Markets are Expensive…

Equity Market Multiples

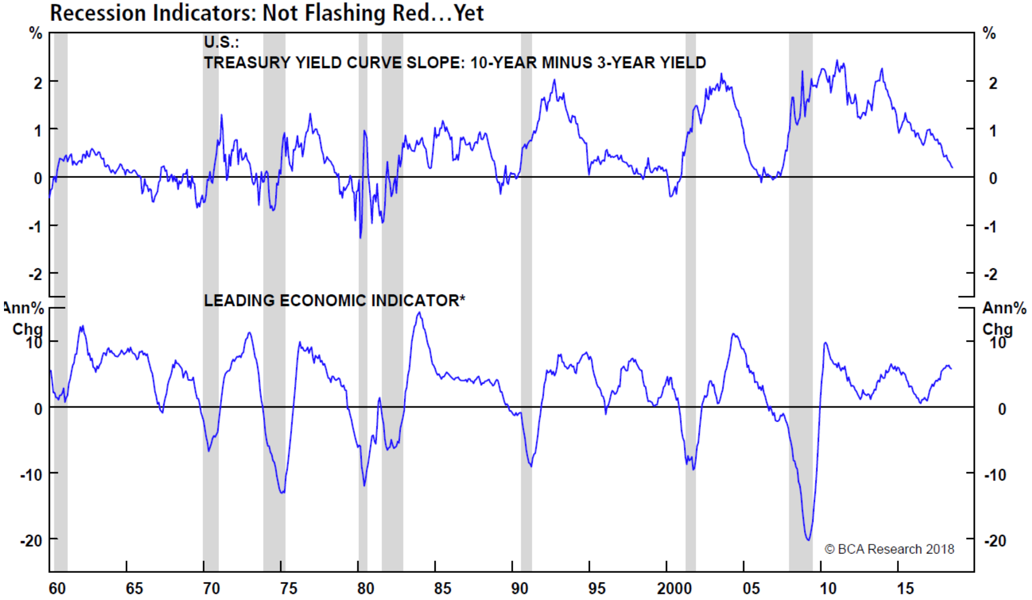


Implied Private Return Premium



Market Backdrop (continued)
…and Indicators Could Portend a More Difficult Environment Going Forward

- Market risk factors
  - Geopolitical risk (Korean Peninsula, Middle East, South China Sea, Russia)
  - Length of current expansion and Bull market
  - Flattening yield curve
  - Current P/E multiples relative to historical averages
  - Euro zone weaknesses (Italian elections, Brexit)
  - Trade wars
  - Emerging markets risks / contagion (Venezuela, Turkey)
  - Increasing inflation expectations and Fed reaction
  - Corporate credit / lending standards
  - Record levels of "dry powder" in private equity, private infrastructure, and private real estate



* SOURCE: THE CONFERENCE BOARD.
NOTE: SHADING DENOTES NBER-DESIGNATED RECESSIONS

Next market downturn will almost undoubtedly have different source and follow different path than previous market turns

APFC High-Level Risk Thoughts (cont'd)

Fixed Income

- **22% Target Allocation of the Fund *(22.3% exposure as of 8/31/18)***
- **Risk vs. Benchmark (tracking error)** - APFC's Fixed Income portfolio positioning results in materially less than ~200 bps tracking error vs. Performance Benchmark and team has historically managed to consistently outperform benchmark
- **Risk vs. CPI + 2% return objective and drawdown risk**
  - Duration profile of largest component of portfolio means that for every ~1% increase in market interest rates portfolio can be expected to lose ~7%
  - Inclusion of non-investment grade bonds (~10% of portfolio) and REIT / Listed Infrastructure (~15% of portfolio) increase drawdown risk in adverse market environments
  - In 2008 Fixed Income was the top performing asset class in virtually all investors' portfolios – for the year Barclays US Agg returned 5.2% while Global High Yield lost 26.9% and REITS declined 37.7%

Public Equities

- **38% Target Allocation of the Fund *(42.0% exposure as of 8/31/18)***
- **Risk vs ACWI IMI Benchmark (tracking error)** – APFC's public equities team adds value over time through tactical over and under-weights to geographies and sectors; for example today is overweight US equities and Emerging Markets, but underweight Non-US Developed Markets; like Fixed Income, however, tracking error typically is managed at fairly low levels (less than ~200 bps)
- **Risk vs. CPI + 5.25% return objective and drawdown risk**
  - On a year-to-year basis investment team is managing more towards the investable performance benchmark than the CPI + 5.25% return objective
  - In past 100 years there have been 10 "Bear Markets" (as defined by 20% decline from previous high) – average drawdown has been 45%, worst was 86% in the 32 months following the market peak of 1929
  - Relatively high starting price / earnings multiples historically have implied lower-than-average forward returns
  - Currency hedging program partially reduces drawdown risk, but there is significant unhedged residual currency risk

APFC High-Level Risk Thoughts (cont'd)

PE & Special Opportunities

- **12% Target Allocation of the Fund *(11.3% exposure as of 8/31/18)***
- **Risk vs. Cambridge Associates benchmark (tracking error) –** portfolio is under-weight mega cap funds and over-weight VC and growth equity; also, with co-investments, APFC has concentrated positions that are absent in benchmark; benchmark reflects strong dollar-weighted bias away from the funds that are hardest to access (which tend to be smaller and well-managed)
  - Average is not a good place to be in private equity
- **Risk vs. Return Objective (CPI + 7.25%) –** team expects to outperform more in strong markets than underperform in weak markets, but particularly with growth bias in the portfolio, performance is strongly pro-cyclical; we should expect losses (though mostly unrealized losses) in a downturn
  - Team works to mitigate losses in a downturn with diversification, careful selection, and addition to the portfolio of counter-cyclical managers and strategies
- **Liquidity and Drawdown Risk –** Portfolio is illiquid and will be even less liquid in weak markets; this is mitigated by control over exit timing of direct investments
- **Other risks –** Currency risk (exposure generally not hedged), Credit risk, Financing Risk (VC investments), Transparency

Private Real Estate

- **11% Target Allocation of the Fund *(5.9% exposure as of 8/31/18)***
- **Risk vs. NCREIF** - In spite of having some different sector weights and underlying strategies, Private Real Estate Portfolio has tracked fairly closely with its Performance Benchmark of NCREIF Index (5-year portfolio return and benchmark return of ~10% annually)
- **Risk vs. Return Objective (CPI + 5%)** - low on a buy-and-hold basis, but higher on a mark-to-market basis into future
- **Liquidity Risk -** Because of the current income profile, modest leverage profile and lack of unfunded commitments, APFC's Private Real Estate portfolio has lower liquidity risk than the rest of APFC's private market portfolio
- Individual asset exposures (e.g., Tyson's Corner and 299 Park) higher than in other parts of private markets portfolio
- Following Simpson Housing divestiture, retail exposure of portfolio is significantly higher than benchmark weighting (47% vs. 23%)

APFC High-Level Risk Thoughts (cont'd)

Private Income

- **7% Target Allocation of the Fund** ***(6.8% exposure as of 8/31/18)***
- **Risk vs. Infra / High Yield benchmark (tracking error)** – tracking error is significant and derives from (i) nature of private market loans vs. syndicated high yield, (ii) currency discrepancy vs. infrastructure benchmark, and (iii) idiosyncratic investments included in portfolio but not in benchmark (e.g., American Homes 4 Rent and Broad River Life Settlements)
- **Risk vs. Return Objective (CPI + 5%)** – minimal risk over a full market cycle but significant year-to-year
- **Liquidity and Drawdown Risk** – Portfolio is illiquid and will be even less liquid in weak markets; this is mitigated by control over exit timing of direct investments, liquid exposures within ADAC, and certain open-ended private credit structures

Absolute Return

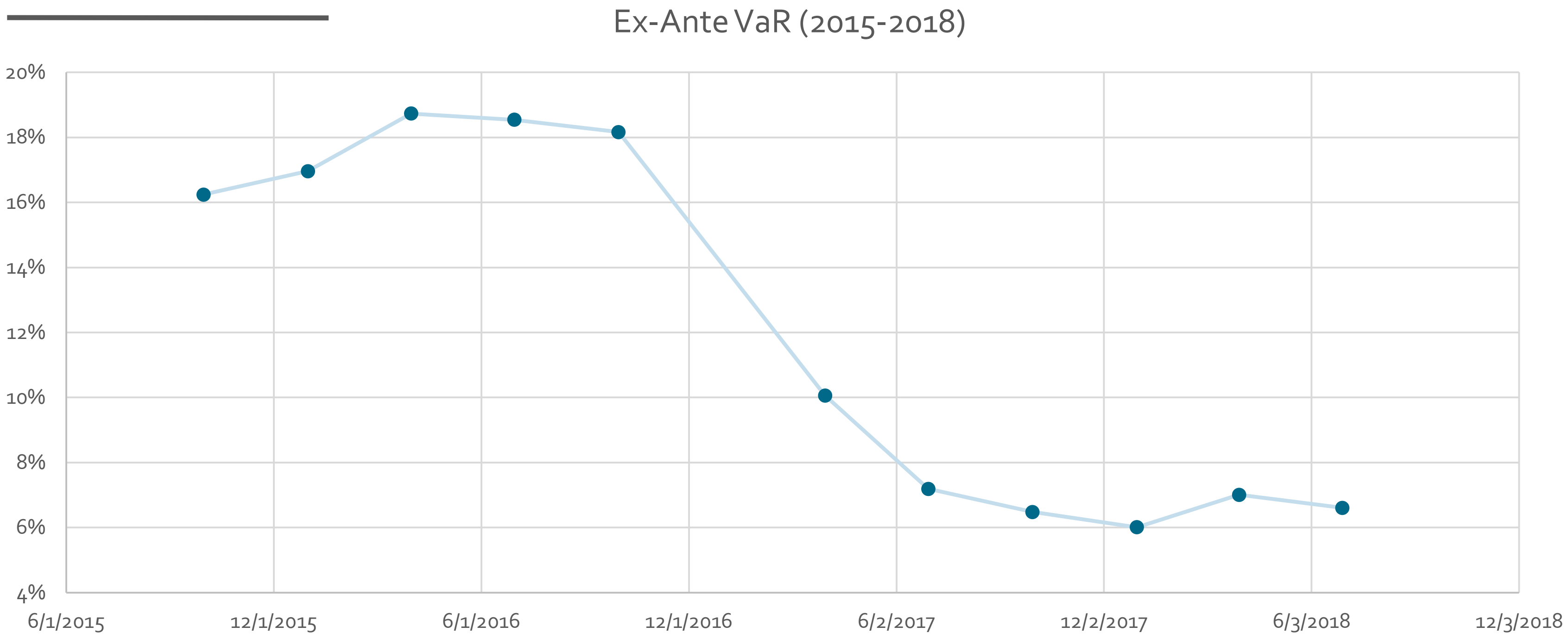
- **5% Target Allocation of the Fund** ***(4.5% exposure as of 8/31/18)***
- **Risk vs. HFRI Hedge FOF Index (tracking error)** – our portfolio has more of a market neutral orientation than the benchmark; we seek to keep up with the benchmark in up markets and outperform the beta-heavy benchmark in down years
- **Risk vs. Return Objective (CPI + 5%)** – this portfolio is the best suited one of APFC's allocations to be viewed through an absolute return objective lens; we seek zero correlation to traditional assets and an average return over time in excess of CPI + 5% net
- **Liquidity and Drawdown Risk** – good liquidity in portfolio, guidelines require that 50% of NAV can be liquidated in 12 months, quarterly liquidity is typical; money losing years should be a two standard deviation event, but perhaps happen one in eight years

Asset Allocation Strategies

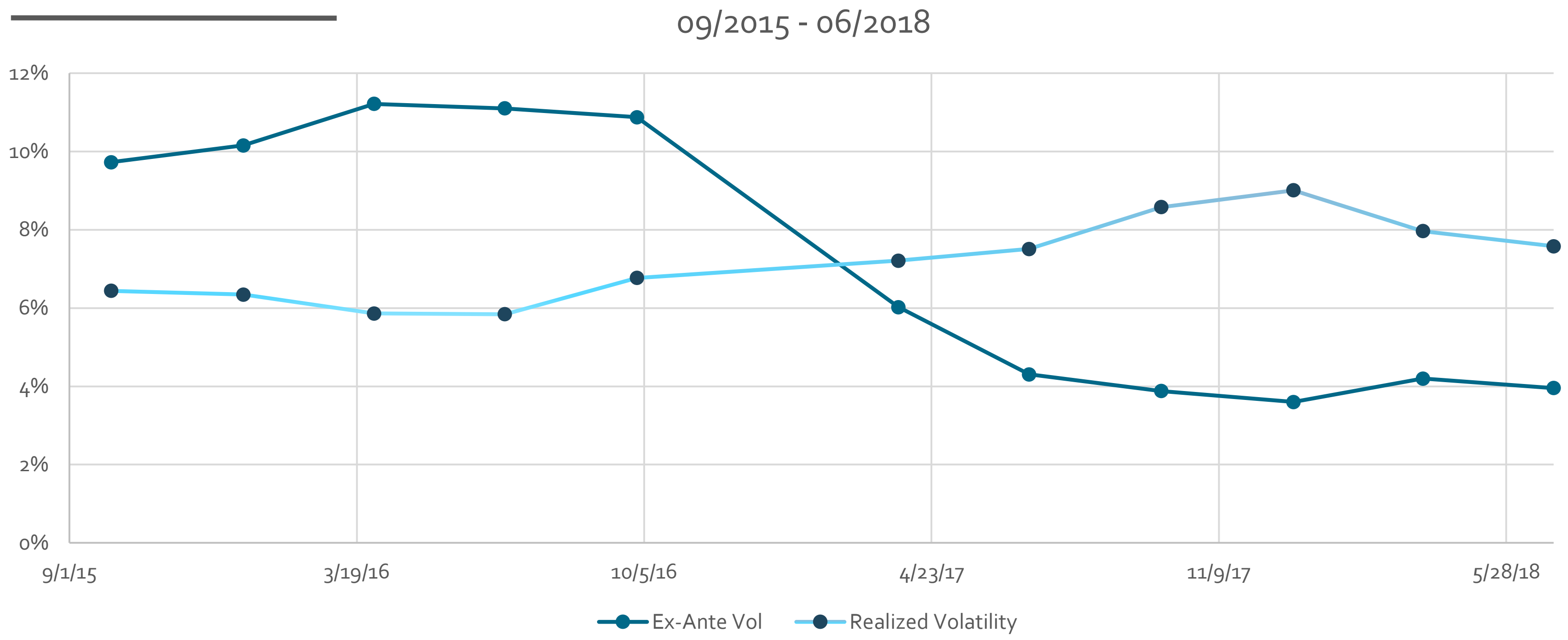
- **5% Target Allocation of the Fund** ***(7.2% exposure as of 8/31/18)***
- **Risk vs. 60% Total Fund / 40% T-bills Benchmark (tracking error)** – tracking error derives from (i) mis-match between risk parity exposures and Total Fund sub-component of benchmark and (ii) cash flow activities in and out of fund that make a static 40% allocation to cash equivalents difficult
- **Risk vs. Return Objective (CPI + 3%)** – 60% of allocation in "risk assets" will drive fluctuations around this return objectives based on performance of risk assets in the public markets
- **Liquidity and Drawdown Risk** – liquid portfolio that should have ~40% of portfolio in cash at any given time; any liquidity risk derives more from large cash draws on Fund as opposed to liquidity issues in this portfolio


Value-at-Risk, Volatility and
Tracking Error
As of June 30, 2018

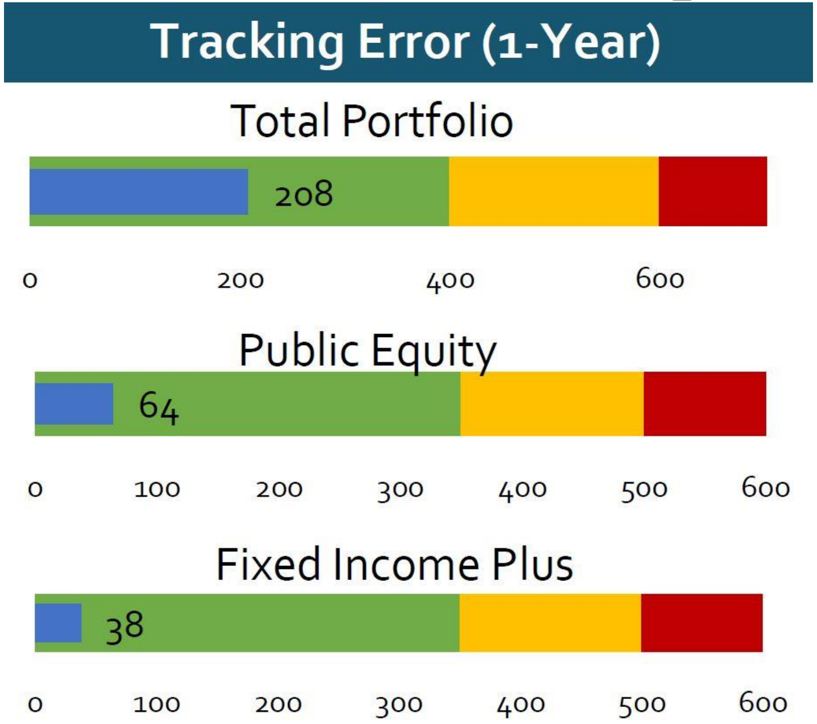
Historical Ex-Ante Value-at-Risk (VaR)



Total Fund Estimated Volatility Compared to Realized Volatility



Ex-Ante Tracking Error



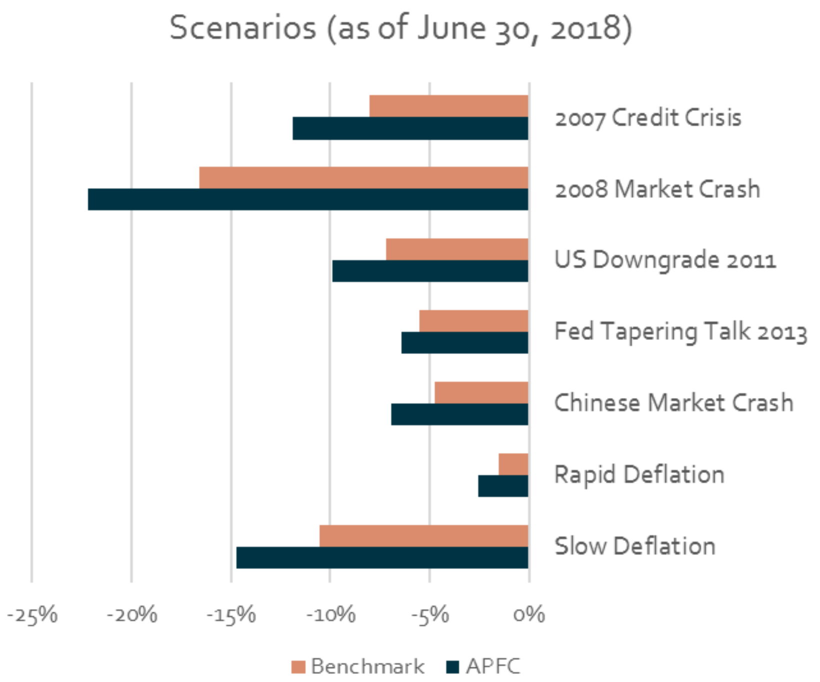
- Also known as “Active Risk”, “Tracking Error” represents the expected average annual differential between a portfolio’s return and its underlying benchmark’s return

- Ex-Ante Tracking Error is forecasted or expected Tracking Error, based on portfolio positioning, as predicted by APFC’s risk system (BlackRock Aladdin)
  - Fund’s FY 2018 outperformance vs. benchmark of ~250 bps is in line with levels predicted by the system
  - Similarly, Public Equities and Fixed Income Plus’ outperformance of 58 bps and 10 bps, respectively, were much more moderate levels of Tracking Error (as forecasted by the risk system)


Scenario Analysis
As of June 30, 2018

Tail Risk: Scenarios

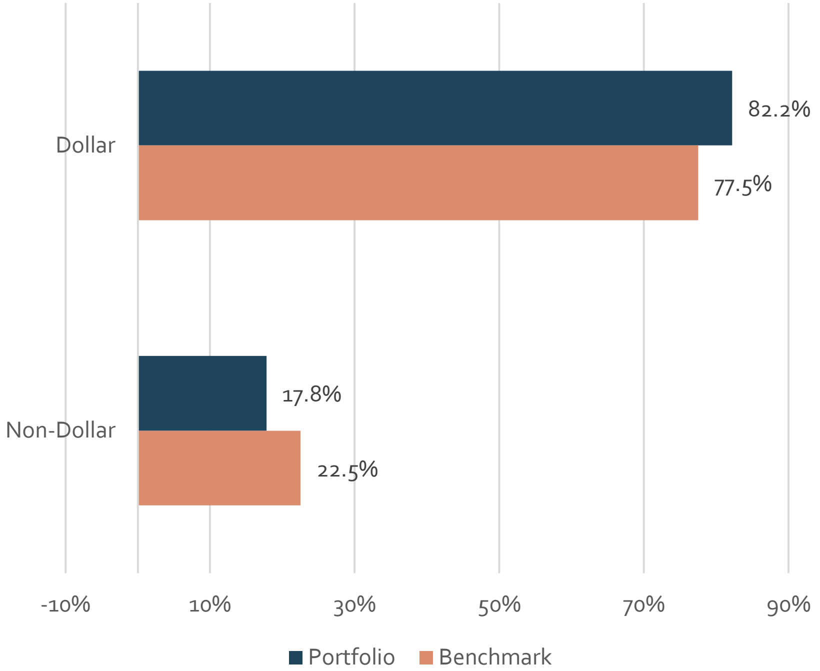
Scenario	Definition
2007 Credit Crisis	Credit & liquidity crisis stemming from a severe slowdown in the housing market causing significant widening of credit spreads and increased implied volatility.
2008 Market Crash	S&P 500 down 20% (2000 bps).
US Downgrade 2011	The period starts with 50% chance US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

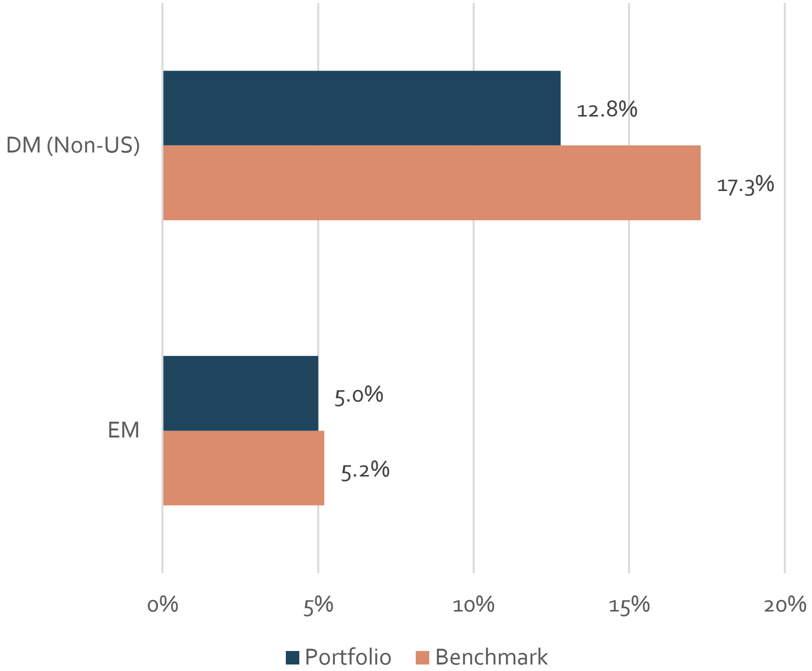


Other Risk Factors

As of June 30, 2018

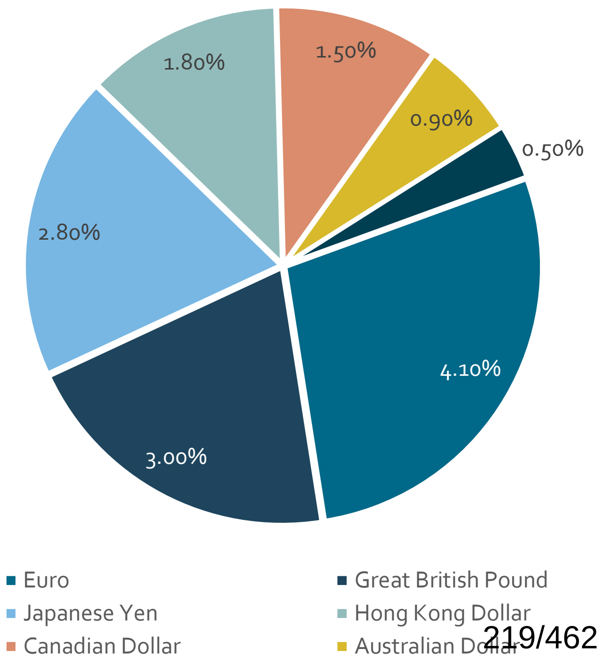
Currency Risk





Non-US Developed Market Currency Exposures

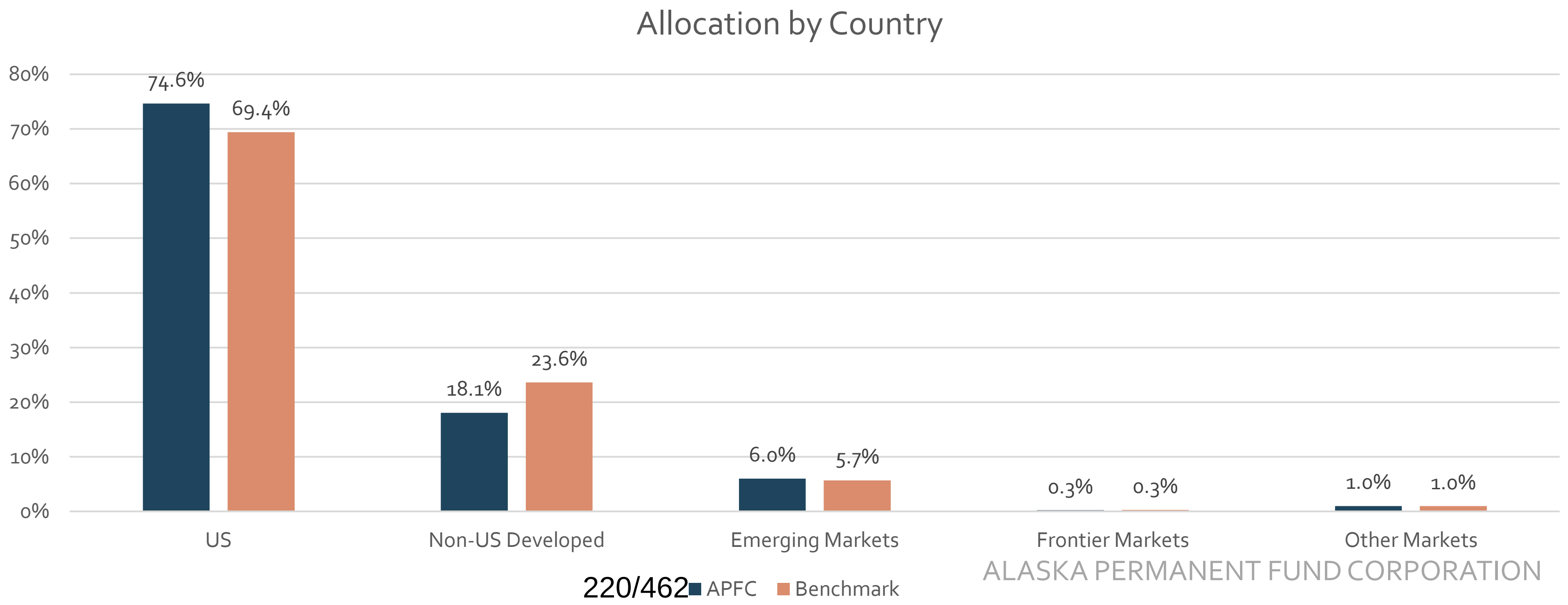
Currency Exposures



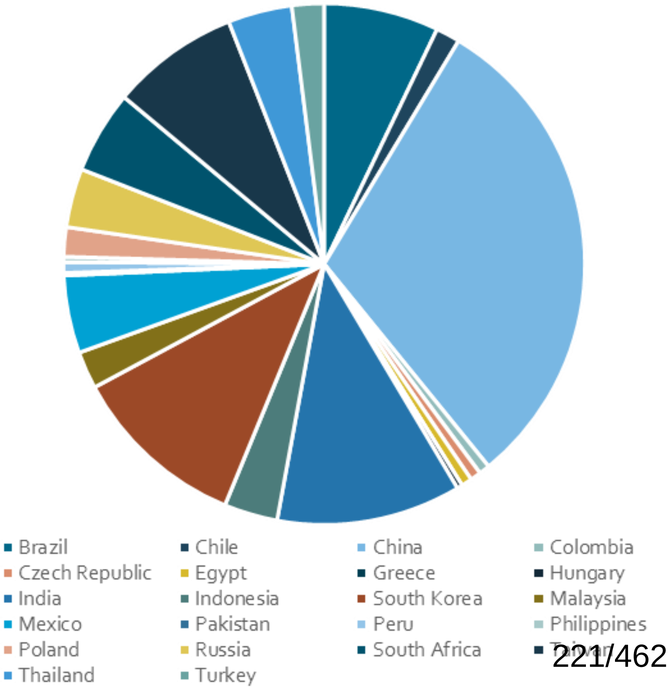
Top Non-US DM Currency Exposures

Country Name	Exposure ($, millions)
Euro	2,665
British Pound	1,950
Japanese Yen	1,820
Hong Kong Dollar	1,170
Total	**7,606 (11.7% of NAV)**
Total Non-US DM Exposure	**8,321 (12.8% of NAV)**

Geographic Risk



Emerging Market Exposure

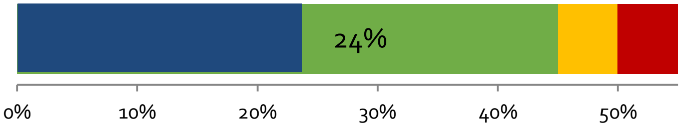


Top EM Country Exposures

Country Name	Exposure ($, millions)
China	1,204
India	452
South Korea	432
Taiwan	314
Brazil	281
South Africa	203
Total	**3,076 (4.70% of NAV)**
Total EM Exposure	**3,946 (6.03% of NAV)**

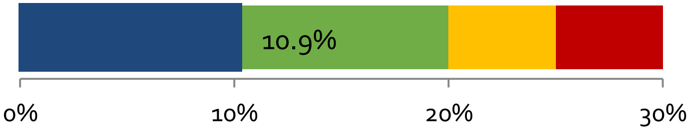
Liquidity Risk

Private Investment Limits



$15.4 Billion Invested in Private Markets

Future Commitments Limits

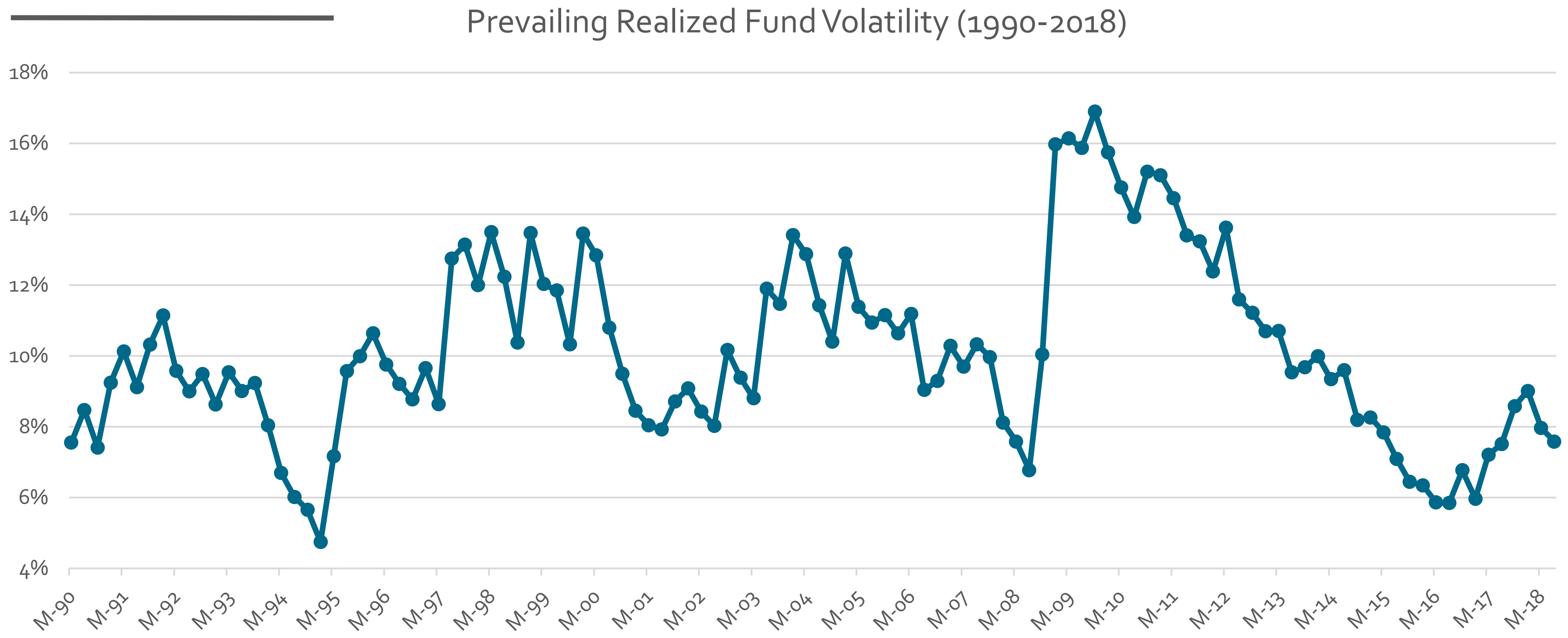


$7.1 Billion Committed to Managers

Prevailing Realized Fund Risk

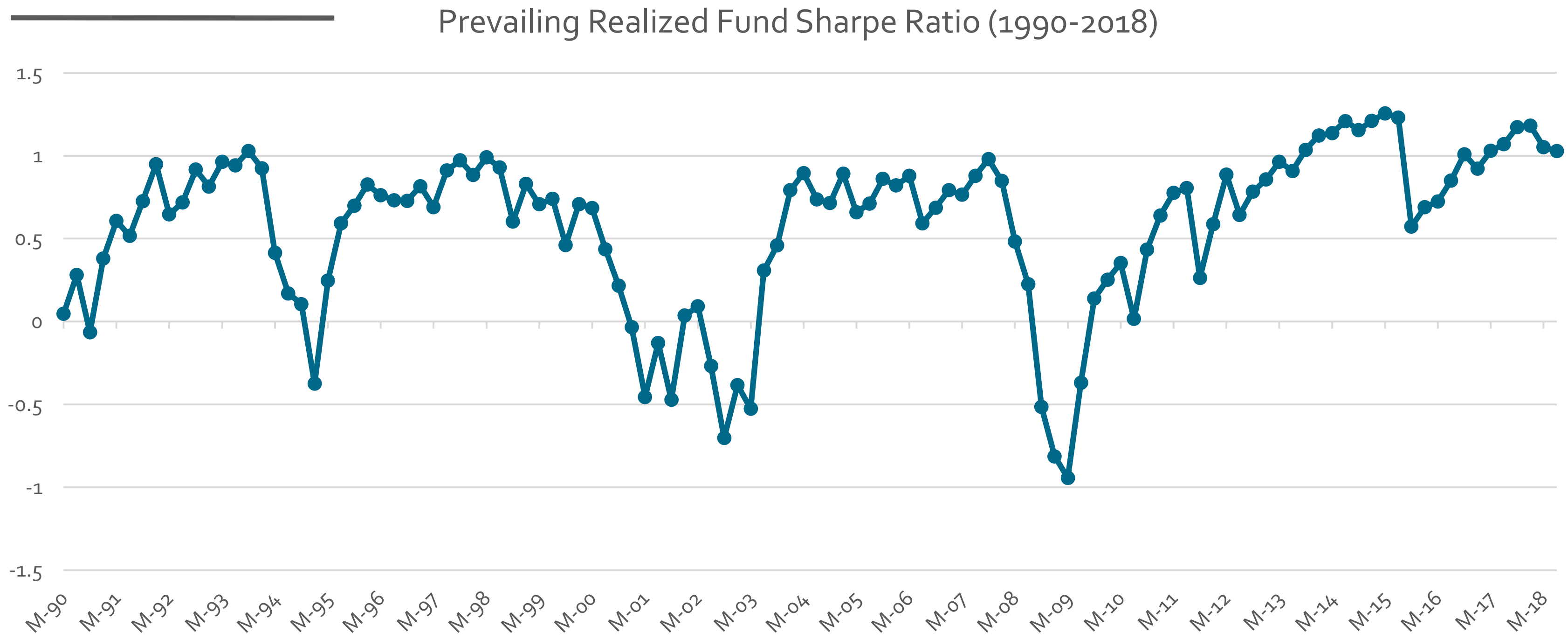
As of June 30, 2018

Realized Fund Volatility



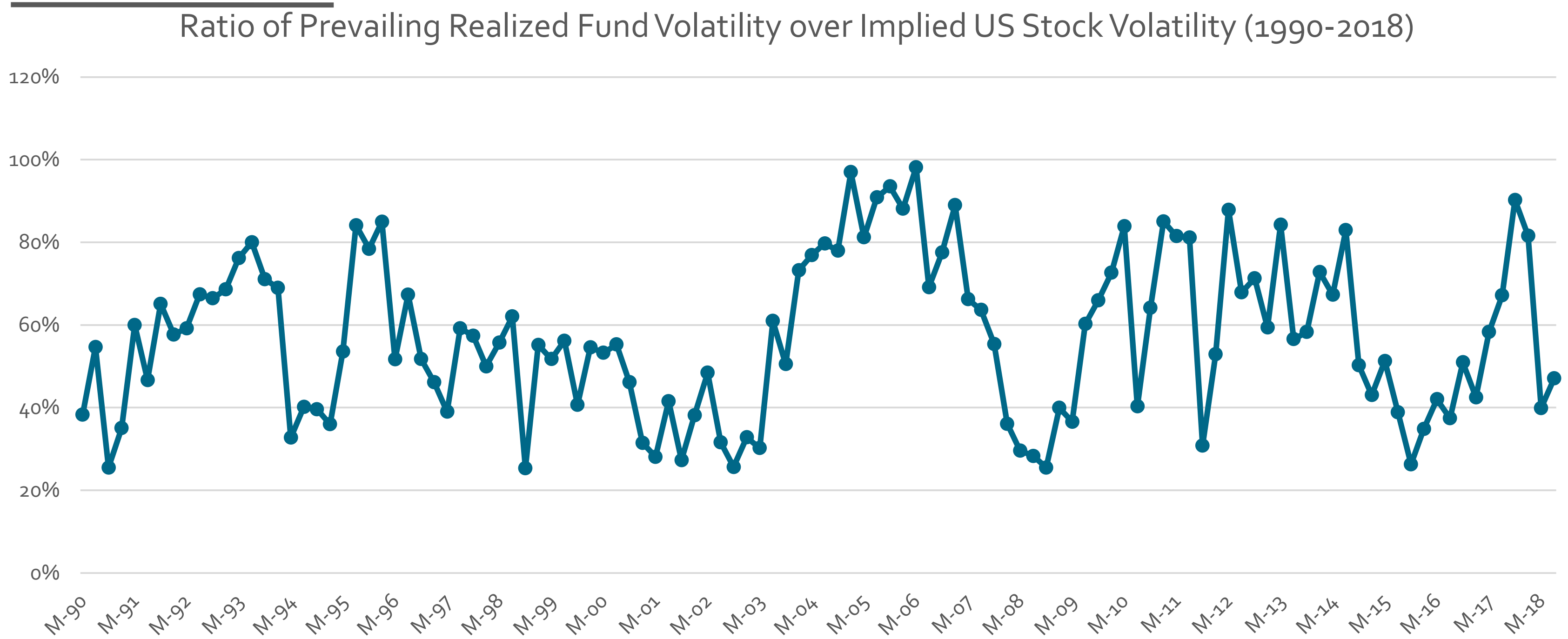
- Calculated as 3-Year Rolling Weighted Moving Average Volatility
- M = March

Realized Fund Sharpe Ratio



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

Comparative Fund Volatility

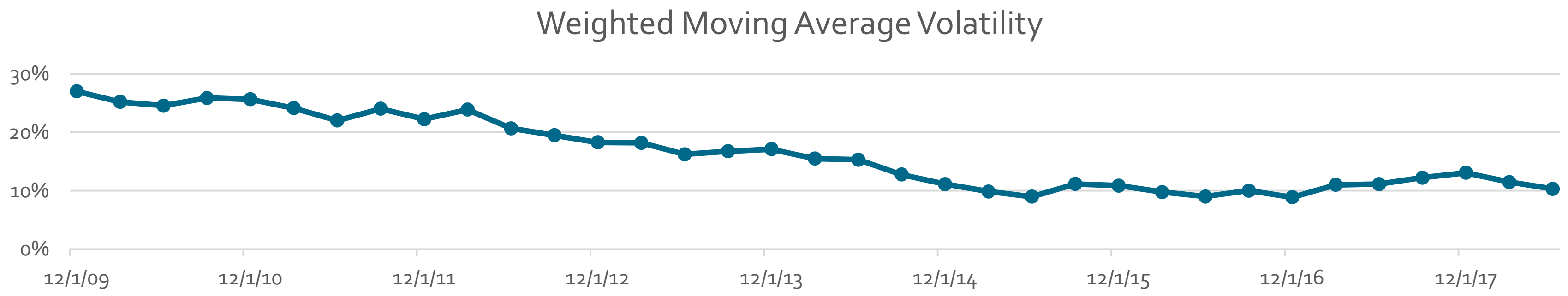


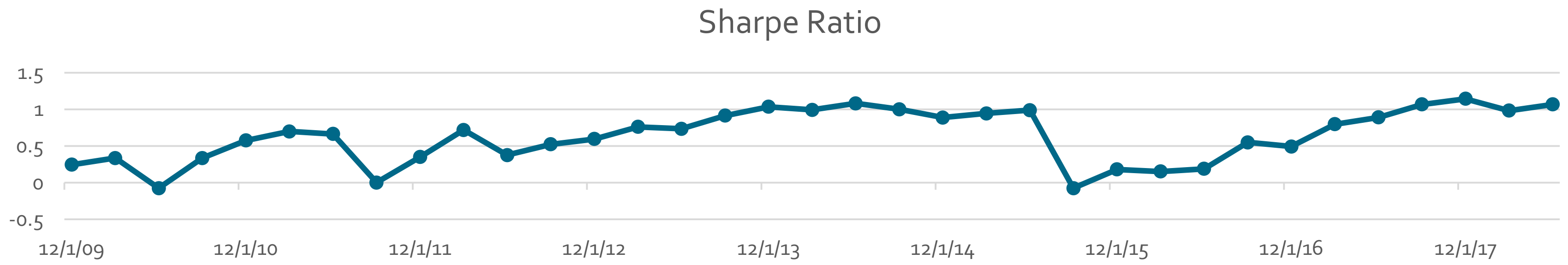
- Calculated using VIX and Rolling Weighted Average Volatility
- M = March

Asset Class Risk

As of June 30, 2018

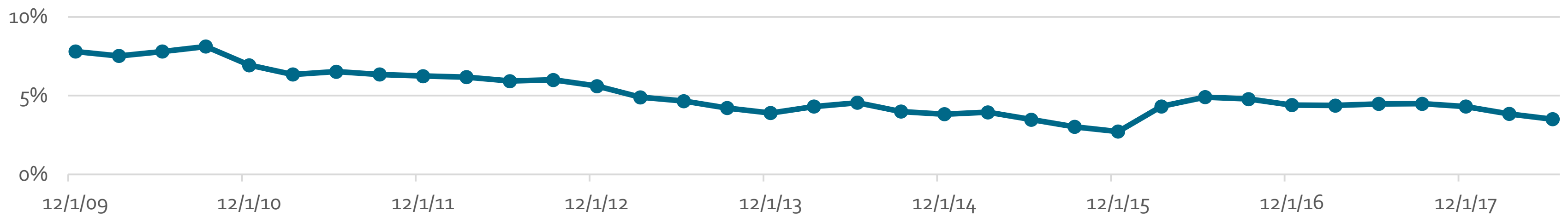
Public Equities



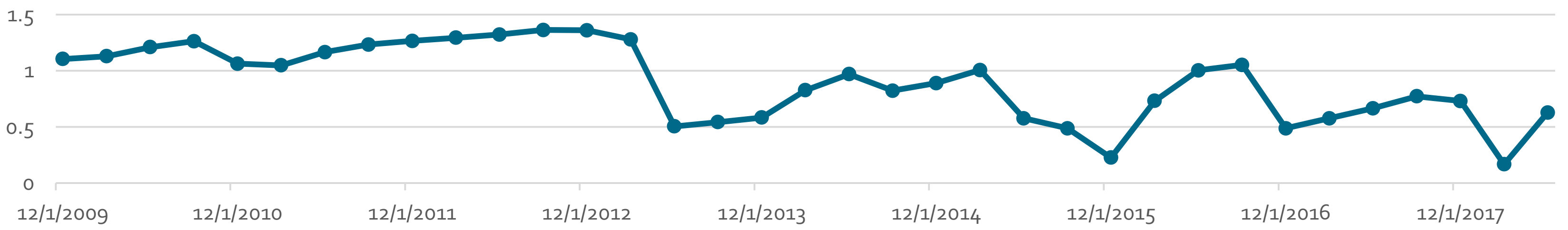


Fixed Income Plus

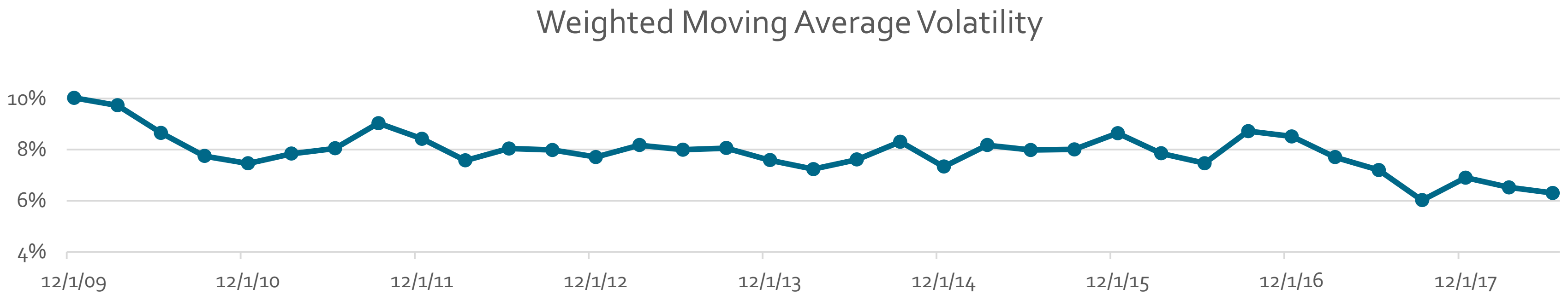
Weighted Moving Average Volatility



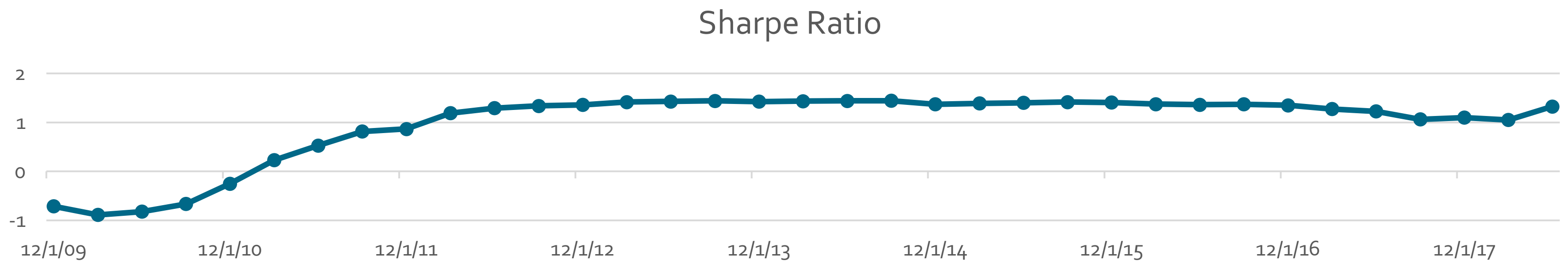
Sharpe Ratio



Real Estate



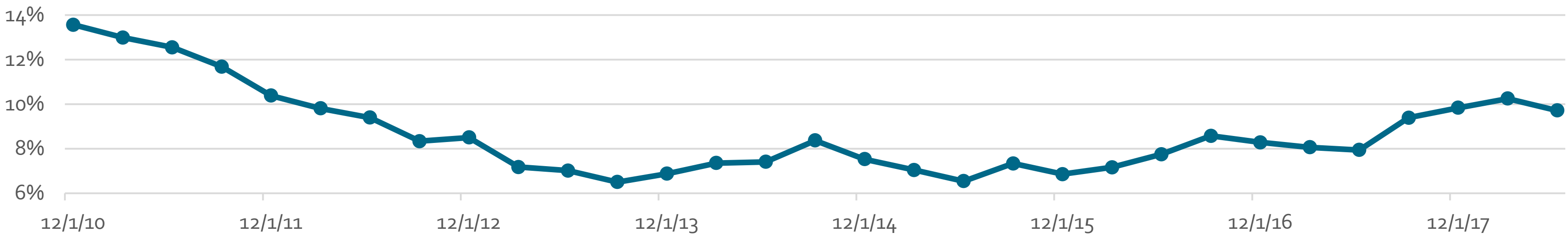
Weighted Moving Average Volatility
10%
8%
6%
4%
12/1/09
12/1/10
12/1/11
12/1/12
12/1/13
12/1/14
12/1/15
12/1/16
12/1/17



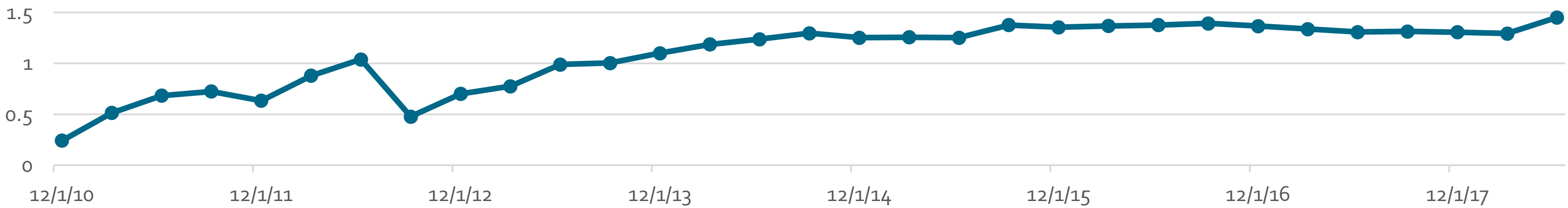
Sharpe Ratio
2
1
0
-1
12/1/09
12/1/10
12/1/11
12/1/12
12/1/13
12/1/14
12/1/15
12/1/16
12/1/17

Infrastructure, Private Credit, and Income Opps.

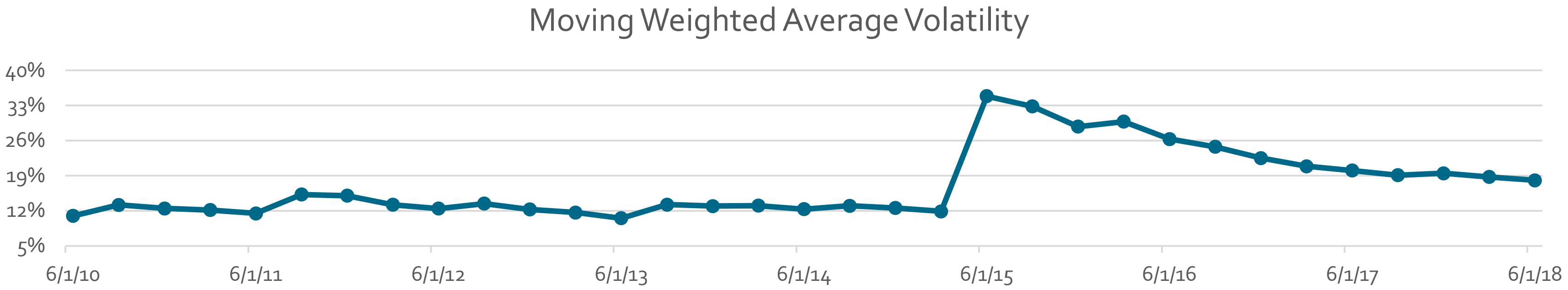
Weighted Moving Average Volatility

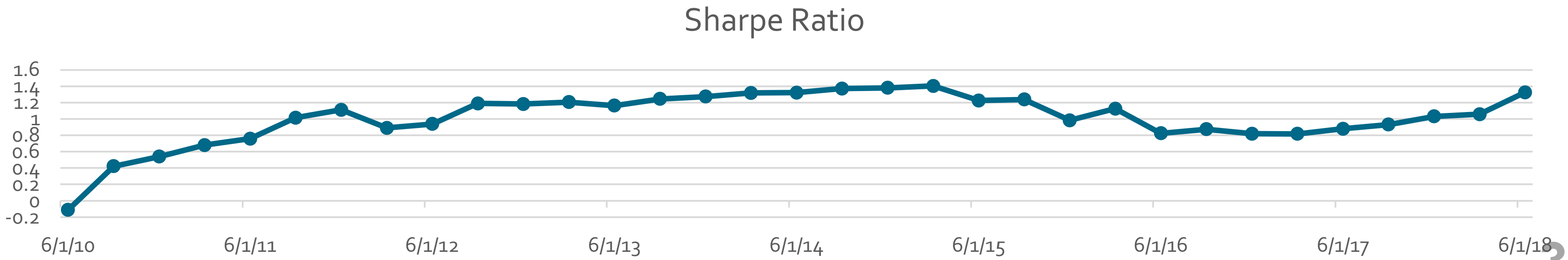


Sharpe Ratio

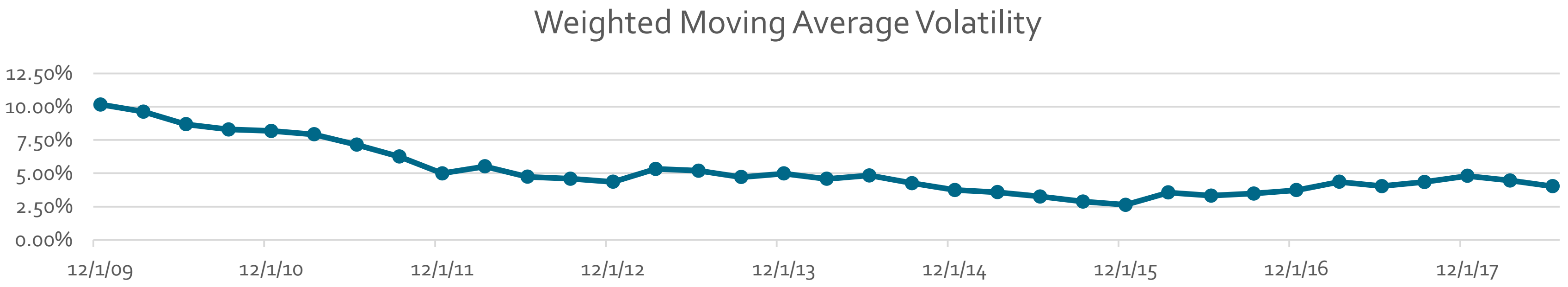


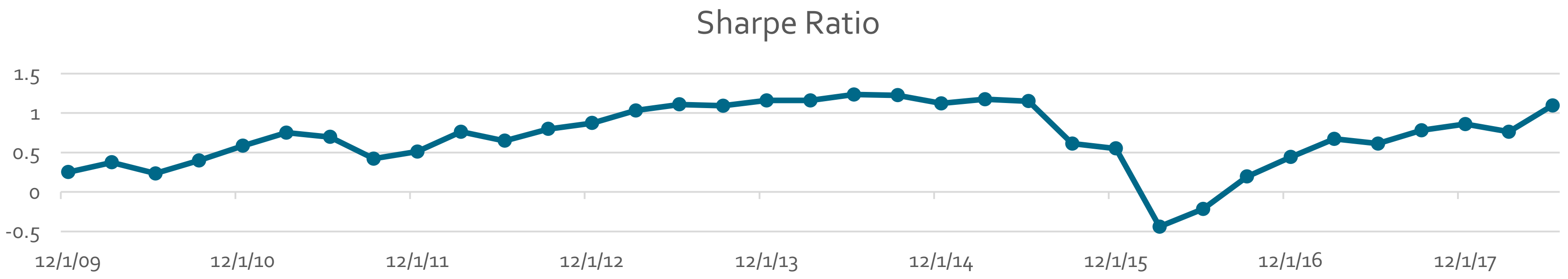
Private Equity and Special Opportunities





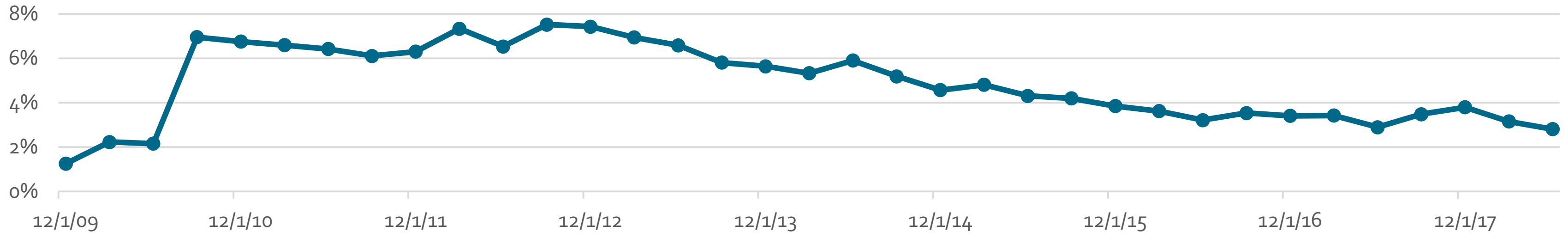
Absolute Return



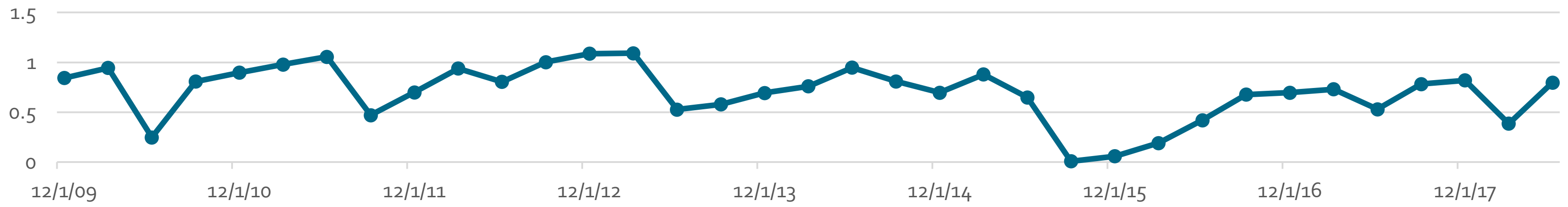


Asset Allocation

Moving Weighted Average Volatility



Sharpe Ratio



Asset Class Updates: Public Equites Memo

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

SUBJECT: Public Equities Asset Class Update ACTION: ________

DATE: September 26, 2018 INFORMATION: ___X____

BACKGROUND:

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

STATUS:

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

Presentation: Public Equities

APFC ALASKA PERMANENT FUND CORPORATION

Public Equities

Portfolio Update

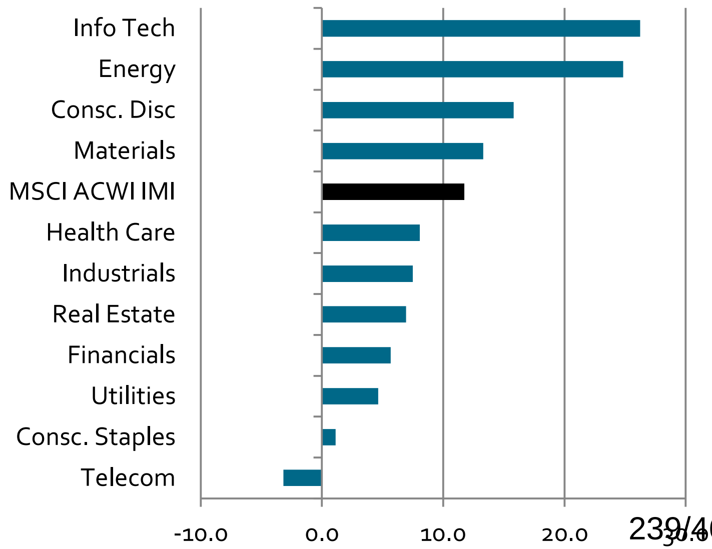
Fawad Razzaque

Sep 26, 2018

Public Equities – Performance

Public Equity Markets (FY 2018)	(%)
MSCI ACWI IMI	**11.14**
Russell 3000	14.79
MSCI Emerging Markets	8.61
MSCI World ex US	7.04

MSCI ACWI IMI Sector Returns

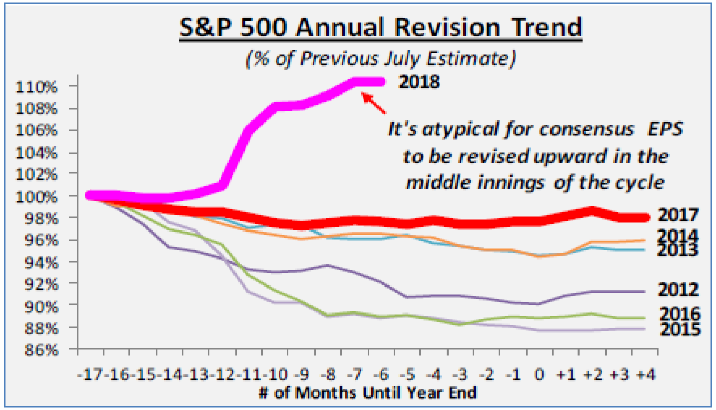


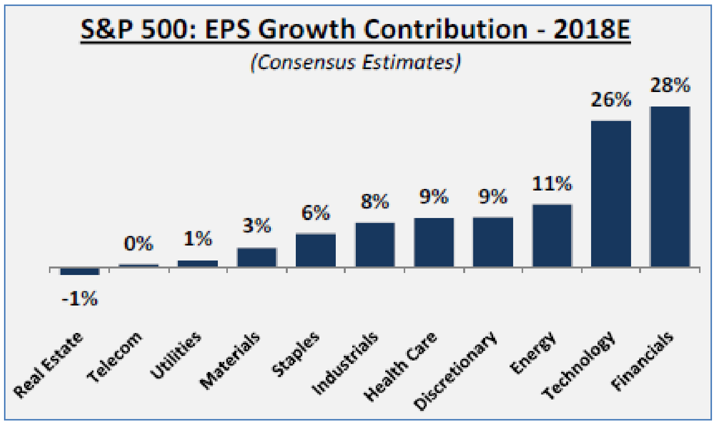
What Drove Equity Market Returns in FY 2018?

- **Global Economic Growth with Concerns over FED Policy, US Dollar and Global Trade**
  - Continued positive trend in Global Corporate Revenue and Earnings Growth
  - FY 18 first half: Synchronized Global Economic Growth without inflation and weak US Dollar – led to Strong Equity Market Returns (driven by EPS growth and multiple expansion), markets led by emerging markets equities
  - FY 18 second half: Asynchronous Global Economic Growth with inflation, strong rebound in US Dollar – led to diverging Equity Market Returns (driven by EPS growth and multiple compression) , markets led by US Equities
  - Valuation multiples compressed across Global Equity markets
  - FY 18 ended with a Significant **Growth Scare** related to Global Trade issues with defensive sectors outperforming pro cyclical sectors

- **FY 18 Relative Outperformance**
  - US Equities led the gains, followed by Emerging Markets and Non US Developed markets
  - Growth and commodity Sectors outperformed
  - Growth continued to outperform Value
  - Small Caps outperformed Large caps in Developed Markets

Stronger Earnings Growth Supporting Stocks despite slightly Tighter Monetary Policy



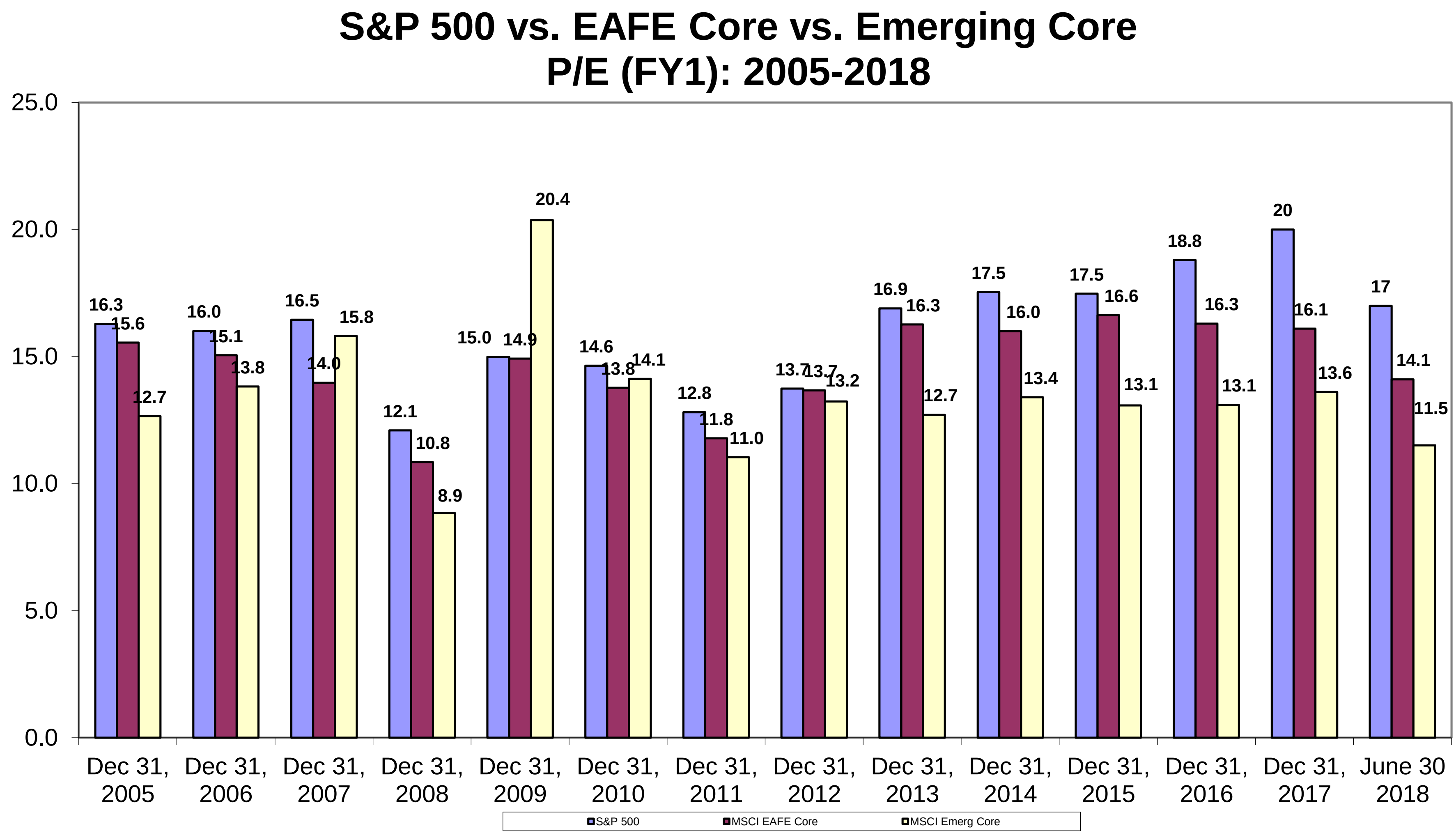


S&P 500 Operating EPS	S&P 500 Operating EPS Consensus - Bottom-Up EPS	YoY
FY 2016A	118.04	0.5%
FY 2017A	132.00	11.8%
1Q18E	38.07	23.2%
2Q18E	39.20	20.3%
3Q18E	41.04	22.7%
4Q18E	42.73	18.6%
FY 2018E	161.17	22.1%
1Q19E	41.17	8.1%
2Q19E	43.30	10.4%
3Q19E	45.27	10.3%
4Q19E	47.32	10.7%
FY 2019E	176.91	9.8%

As of June 30, 2018

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

Public Equities – Valuation



Public Equities – Key Risk Factor to Watch

Rise in US DOLLAR in FY 18 Q4

Public Equities - Allocation

June 30, 2018

Tactical Allocation Change: On May 9, Repositioned $2.4 billion across external managers:

- Increased US Equity allocation **-** Removed the underweight
  Lowered the EM allocation – Reduced the Overweight
- Lowered the Non-US DM allocation – Reduced to underweight

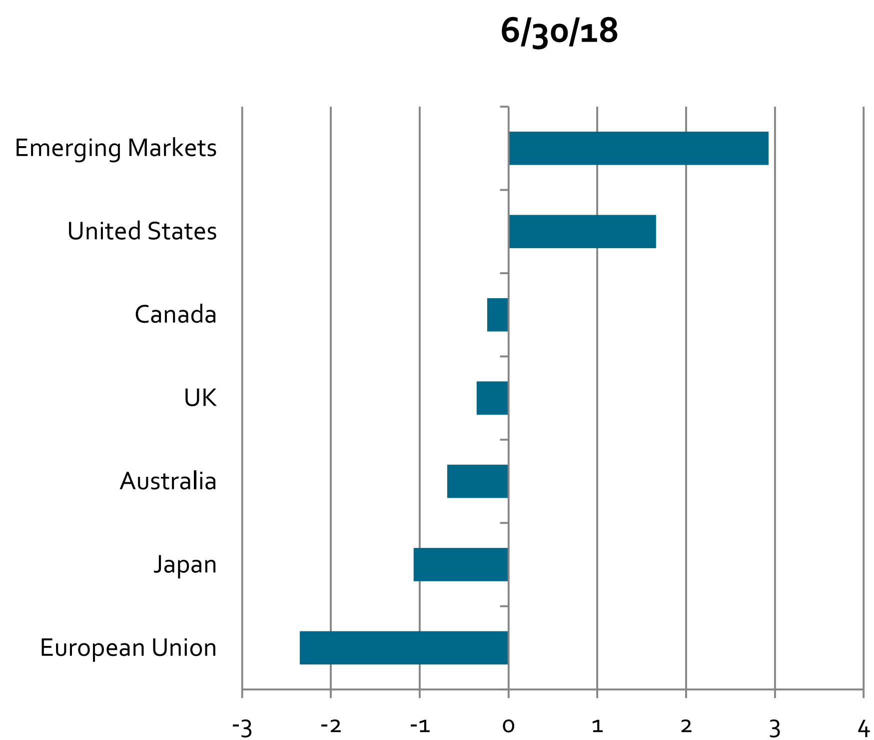
US Equities presented better risk/reward tradeoff, given strong outlook for corporate earnings growth and valuation no longer excessive.

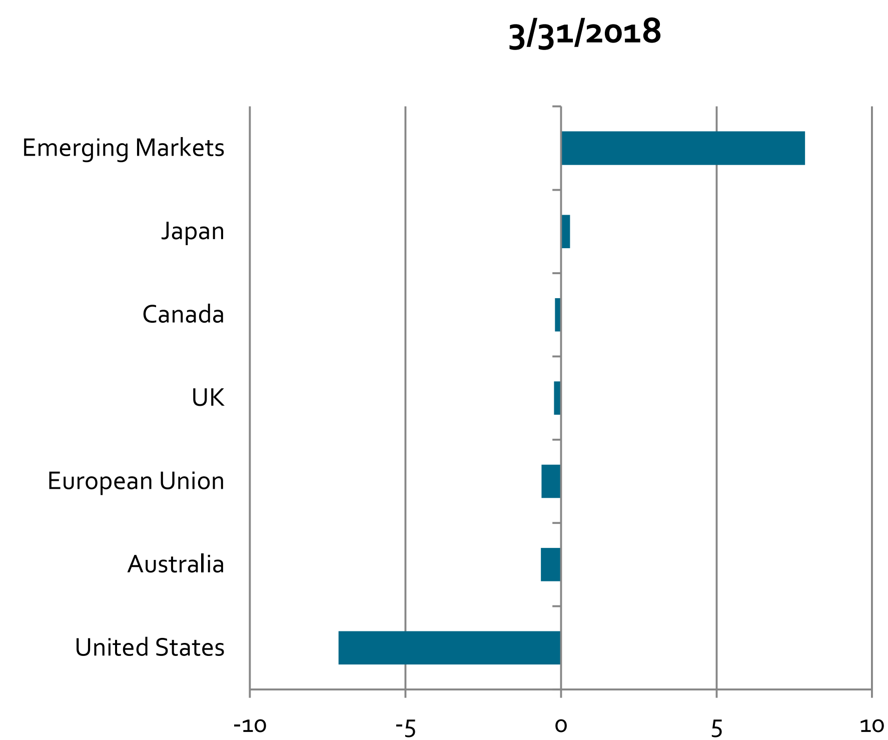
This also Mitigated the impact of rise in USD

Public Equities - Allocation

June 30, 2018

APFC Public Equity Regions

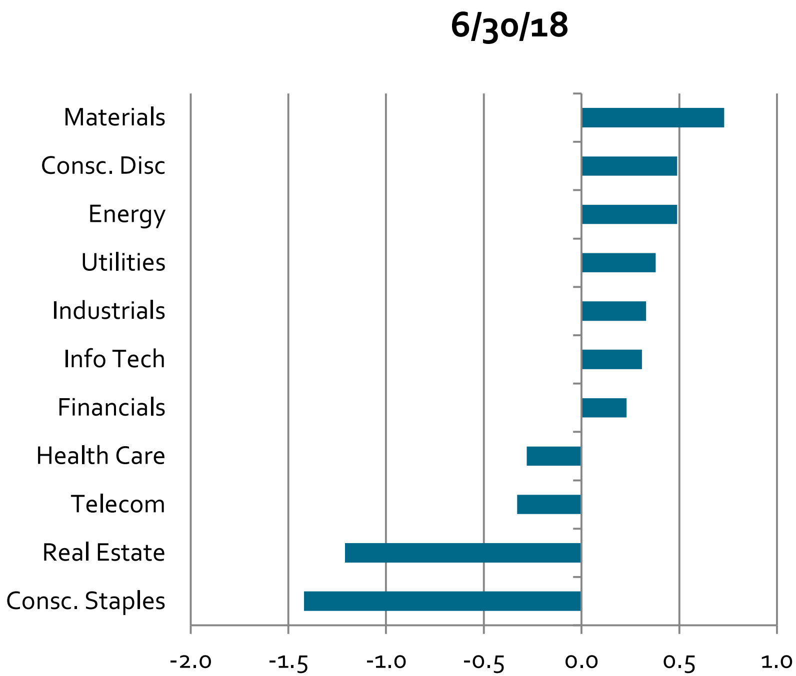


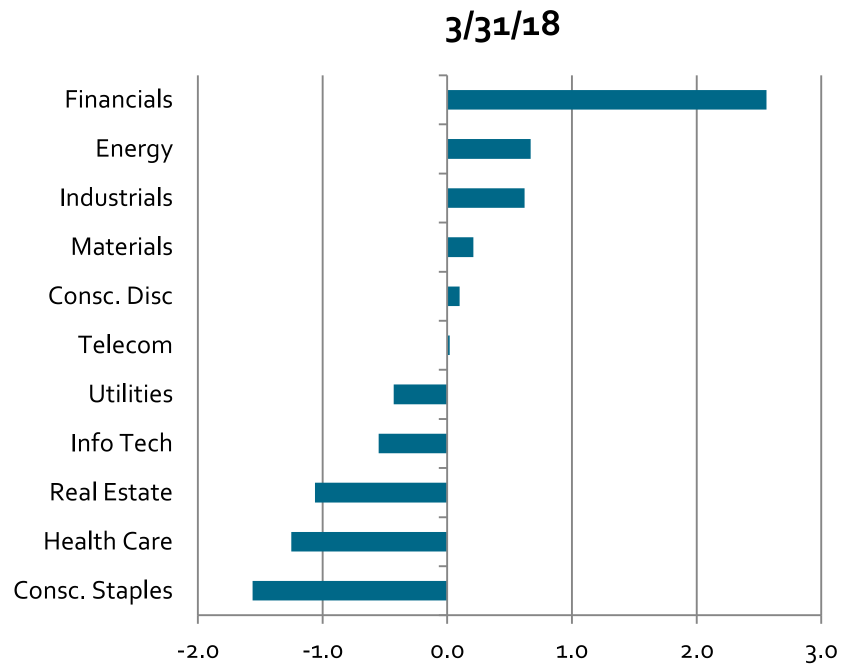


Public Equities - Allocation

June 30, 2018

APFC Public Equity Sectors





Public Equities – Performance (FY 18 Q4)

APFC Allocation	FY Q4 2018 (%)
Public Equities	0.26
MSCI ACW IMI	0.72
Excess Returns (bps)	-46
Breakdown of Excess Returns (Approx.)	
Fund Manager (bps)	-40
Asset Allocation (bps)	-4
Regional (OW EM & UW US)	
Style, Size, and Sector tilts	
In-house Tactical Tilts (bps)	-2

What Drove Relative Returns?

- **Fund Managers** **-40 bps**
  - Success Rate: 41%
  - Skew: Outperformers gained by 36 bps while Underperformers lost by 76 bps, US LC Active Managers lagged
- **Asset Allocation** **-4 bps**
  - Key Contributors: Overweight US Equities
  - Key Detractors: Overweight Value; Overweight Cyclical sectors
- **Internal Equity** **-2 bps**

Performance – Negative Skew in Fund Manager Excess Returns (FY 18 Q4)

Fund Managers	Assets	Attribution
Longview Global Eq	2.95%	0.07%
WCM Global	1.54%	0.05%
Wells Capital	0.62%	0.04%
In House SPDR Yield	1.50%	0.03%
JP Morgan EM	1.44%	0.03%
Trustbridge EM	1.02%	0.03%
Pzena US SCV	0.76%	0.02%
RBC US SCG	0.66%	0.01%
DFA EM Value	1.73%	0.01%
Eagle US SCG	0.77%	0.01%
Macquarie EM	0.70%	0.01%
William Blair EM	1.45%	0.01%
AGI Structured Alpha	0.57%	0.01%
CastleArk US LCG	1.28%	0.01%
Schroders Intl ACV	2.24%	0.01%
SKBA US LCV	1.35%	0.01%
Acadian Intl LCV	1.92%	0.01%
Jennison US SCC	1.12%	0.00%
APF Global Equities	0.38%	0.00%
DFA EM Small Cap	0.55%	0.00%
SSGA US LCG	0.86%	-0.01%
DFA INTL Small Company	1.59%	-0.01%
Johnston Intl LCG	1.49%	-0.01%

Fund Managers	Assets	Attribution
CDAM Global	1.09%	-0.01%
DFA INTL Large Cap	2.04%	-0.01%
T Rowe US SCV	0.70%	-0.01%
RBA Global	1.13%	-0.01%
LSV Intl LCV	2.06%	-0.01%
DFA INTL SCV	1.55%	-0.02%
McKinley Global Growth	2.19%	-0.02%
ArrowStreet Global	2.98%	-0.02%
In House SPDR Low Vol	1.54%	-0.02%
SSgA Russ FDMTL DVLPD LC	6.01%	-0.02%
Mellon FTSE RAFI US LC	2.39%	-0.02%
JP Morgan Intl LCG	2.15%	-0.02%
In House Tactical Tilts	10.34%	-0.02%
Mondrian EM	1.93%	-0.03%
DSM US LCG	2.66%	-0.03%
In House SPDR Momentum	1.54%	-0.04%
LSV US LC Value	3.25%	-0.04%
AGI US LCG	3.40%	**-0.06%**
Lazard Global Core	4.43%	**-0.06%**
Lyrical US LCV	2.42%	**-0.13%**
AQR Global Core	5.73%	**-0.13%**
Total		**-0.40%**

Public Equities – Performance
June 30, 2018

APFC Public Equity	FY 2018
Public Equities	**11.72**
MSCI ACWI IMI	*11.14*
Excess Returns (bps)	**+58**
Domestic Equities	***14.79***
Russell 3000 Index	*14.78*
Excess Returns (bps)	***+1***
International Equities	***8.39***
MSCI ACWI IMI ex-US	*7.75*
Excess Returns (bps)	***+64***
Global Equities	***11.51***
MSCI ACWI	*10.73*
Excess Returns (bps)	***+78***

What Drove Relative Returns in FY 2018?

- Fund Managers
- Asset Allocation

Domestic Equities + 1 bps

- Over Weight to Small Caps over Large caps was beneficial (17.6% for R2 vs. 14.5% for R1)
- Bias towards Value was a drag (22.5% for R1G v. 6.8% for R1V)

International Equities +64 bps

- Positive relative performance from Active Managers
- Over Weight to Emerging Markets and Info. Tech Sector was beneficial

Global Equities + 78 bps

- Positive relative performance from Active Managers
- Overweight to Europe was a drag

Performance – Public Equities

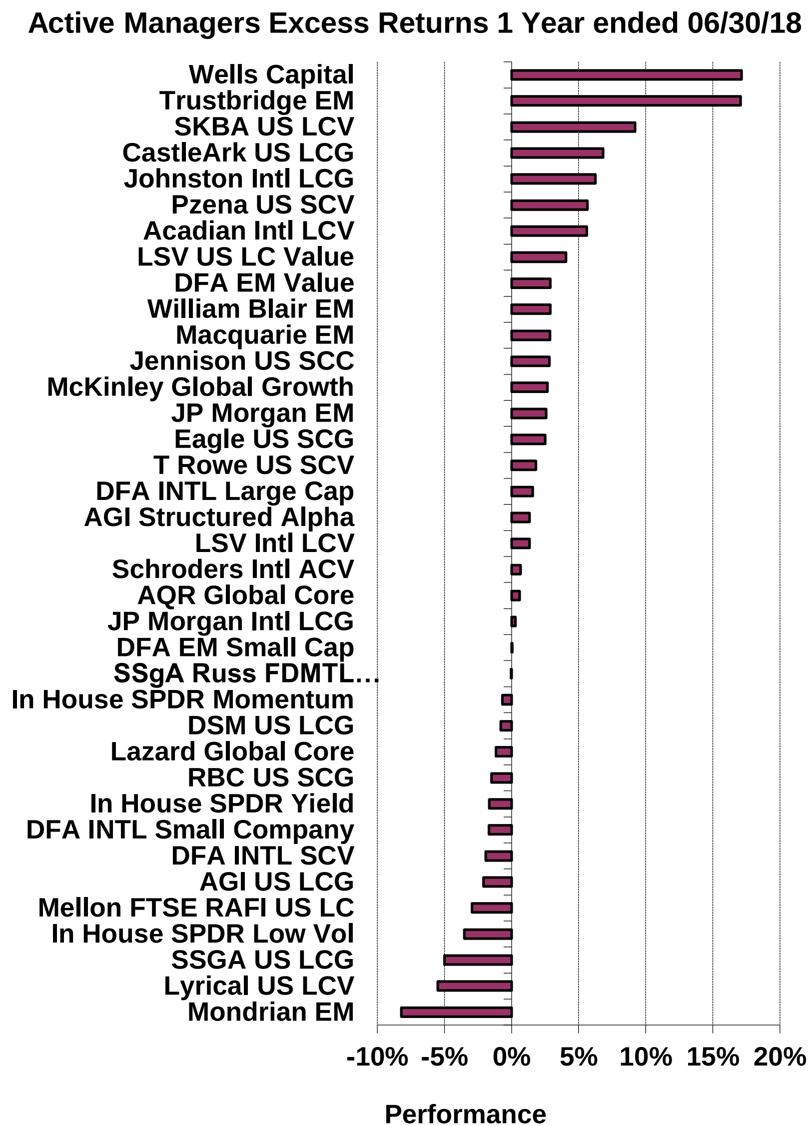
Public Equities	1 Year (%)	3 Years (%)	5 Years (%)
Public Equities	**11.72**	**8.50**	**9.52**
MSCI ACWI IMI	**11.14**	**8.34**	**9.60**
Domestic Equities	14.79	11.26	13.38
Russell 3000	14.78	11.58	13.29
International Equities	8.39	6.38	6.53
MSCI ACWI ex-US	7.75	5.46	6.39
Global Equities	11.51	8.33	9.97
MSCI ACWI	11.14	8.34	9.60

Performance – External Fund Managers (1 Year)

Fund Managers with 3 yrs of Fund history	Excess Returns (%)
Wells Capital	17.16%
Trustbridge EM	17.07%
SKBA US LCV	9.21%
CastleArk US LCG	6.83%
Johnston Intl LCG	6.25%
Pzena US SCV	5.65%
Acadian Intl LCV	5.62%
LSV US LC Value	4.06%
DFA EM Value	2.90%
William Blair EM	2.88%
Macquarie EM	2.86%
Jennison US SCC	2.81%
McKinley Global Growth	2.67%
JP Morgan EM	2.59%
Eagle US SCG	2.51%
T Rowe US SCV	1.82%
DFA INTL Large Cap	1.57%
AGI Structured Alpha	1.35%
LSV Intl LCV	1.34%
Schroders Intl ACV	0.68%
AQR Global Core	0.60%
JP Morgan Intl LCG	0.30%
DFA EM Small Cap	0.06%
SSgA Russ FDMTL DVLPD LC	-0.05%
In House SPDR Momentum	-0.68%
DSM US LCG	-0.81%
Lazard Global Core	-1.16%
RBC US SCG	-1.50%
In House SPDR Yield	-1.67%
DFA INTL Small Company	-1.68%
DFA INTL SCV	-1.92%

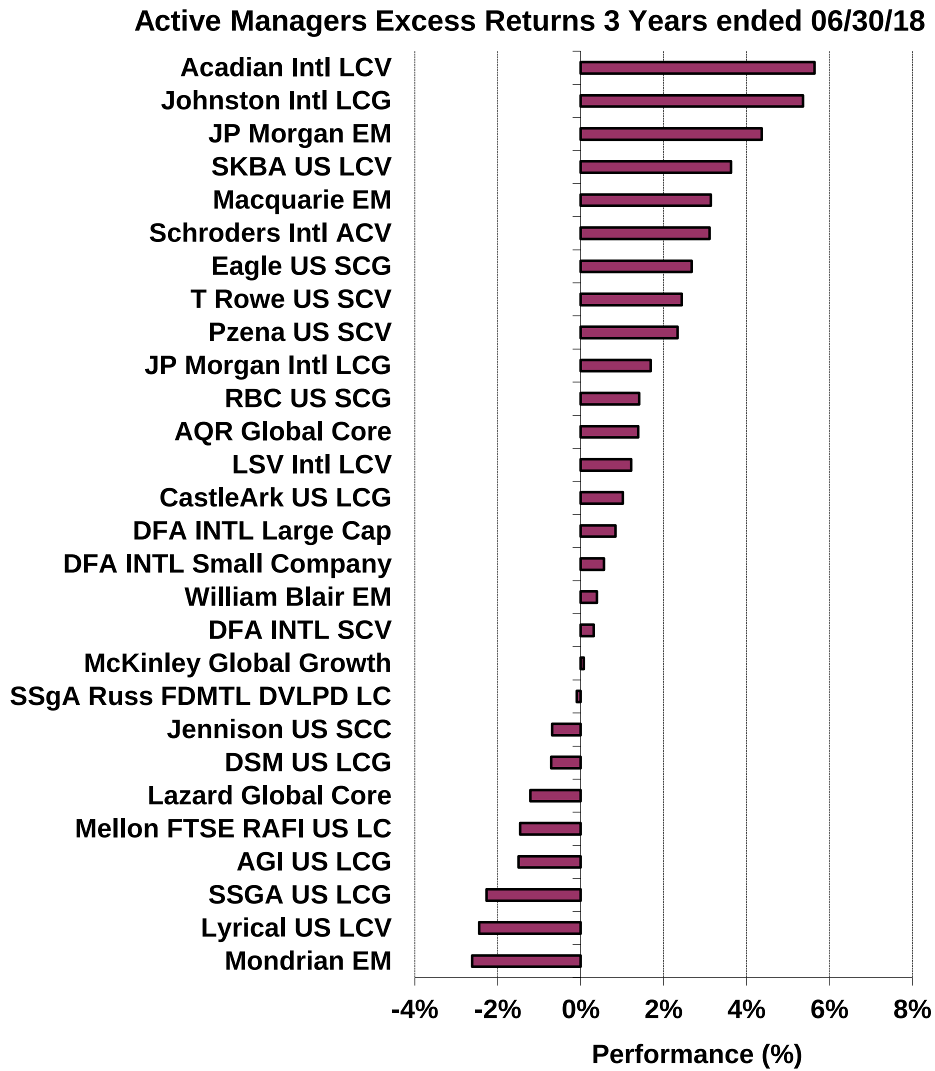
58% Outperformed

AGI US LCG	-2.10%
Mellon FTSE RAFI US LC	-2.94%
In House SPDR Low Vol	-3.52%
SSGA US LCG	-4.99%
Lyrical US LCV	-5.49%
Mondrian EM V	-8.22%
Herndon US LCV	xxx
SSGA INTL	xxx
Lee Munder	xxx



Public Equities – Fund Managers (3 Years)

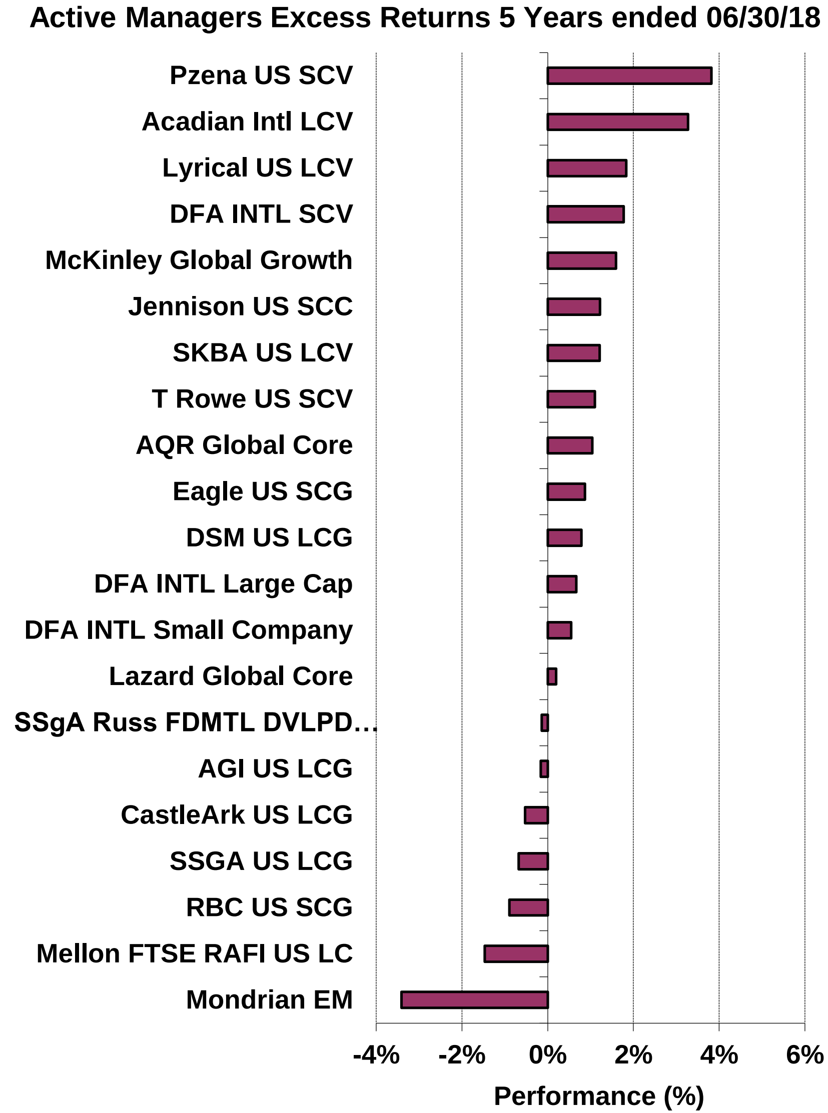
Fund Managers with 3 yrs of Fund history	Excess Returns (%)
Acadian Intl LCV	5.64%
Johnston Intl LCG	5.36%
JP Morgan EM	4.37%
SKBA US LCV	3.63%
Macquarie EM	3.14%
Schroders Intl ACV	3.11%
Eagle US SCG	2.68%
T Rowe US SCV	2.44%
Pzena US SCV	2.34%
JP Morgan Intl LCG	1.69%
RBC US SCG	1.41%
AQR Global Core	1.39%
LSV Intl LCV	1.22%
CastleArk US LCG	1.02%
DFA INTL Large Cap	0.84%
DFA INTL Small Company	0.56%
William Blair EM	0.39%
DFA INTL SCV	0.32%
McKinley Global Growth	0.08%
SSgA Russ FDMTL DVLPD LC	-0.09%
Jennison US SCC	-0.69%
DSM US LCG	-0.71%
Lazard Global Core	-1.21%
Mellon FTSE RAFI US LC	-1.46%
AGI US LCG	-1.50%
SSGA US LCG	-2.27%
Lyrical US LCV	-2.45%
Mondrian EM	-2.62%
Lee Munder	xxx
Herndon	xxx
SSGA INTL	xxx



APFC External Fund Managers: 61% Outperformed

Fund Manager Selection – Excess Returns (5 Years)

Fund Managers 5 Yr Fund history	Mgr Ret. (%)	Index (%)	+/- (%)
Pzena US SCV	15.00%	11.18%	3.82%
Acadian Intl LCV	8.02%	4.75%	3.27%
Lyrical US LCV	12.17%	10.34%	1.83%
DFA INTL SCV	10.73%	8.96%	1.77%
McKinley Global Growth	11.00%	9.41%	1.59%
Jennison US SCC	13.68%	12.46%	1.22%
SKBA US LCV	11.55%	10.34%	1.21%
T Rowe US SCV	12.28%	11.18%	1.10%
AQR Global Core	10.98%	9.94%	1.04%
Eagle US SCG	14.52%	13.65%	0.87%
DSM US LCG	17.15%	16.36%	0.79%
DFA INTL Large Cap	6.90%	6.23%	0.67%
DFA INTL Small Company	10.83%	10.28%	0.55%
Lazard Global Core	9.61%	9.41%	0.20%
SSgA Russ FDMTL DVLPD LC	9.80%	9.94%	-0.14%
AGI US LCG	16.20%	16.36%	-0.16%
CastleArk US LCG	15.83%	16.36%	-0.53%
SSGA US LCG	15.68%	16.36%	-0.68%
RBC US SCG	12.76%	13.65%	-0.89%
Mellon FTSE RAFI US LC	11.90%	13.37%	-1.47%
Mondrian EM	1.60%	5.01%	-3.41%
Herndon	xxx		
SSGA INTL	xxx		
Capital Group	xxx		
GMO	xxx		



APFC Fund Managers: 56% Outperformed

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

FY 2018 Performance – Global Equity Managers

Global Equity Managers		Assets (mil)	FY 18 Q3 (%)	Benchmark (%)
McKinley Capital Management	(MSCI ACWI)	588	13.4	10.7
AQR Global Equity	(MSCI World)	1,541	11.7	11.1
SSgA Russell Fundamental Dvlpd LC	(MSCI World)	1,617	11.0	11.1
In House Tactical Tilts	(MSCI ACWI IMI)	2,782	9.6	11.1
Lazard Asset Management	(MSCI ACWI)	1,190	9.6	10.7

In-House Tactical Tilt – Positions as of 6/30/2018

In-House Tactical Tilts (2,768 million)	(%)
Vanguard S&P 500 (VOO)	59.5
Vanguard FTSE Developed Markets (VEA)	16.8
US Utilities Select SPDR (XLU)	7.2
US Vaneck Vectors Junior Gold Miners	5.4
US Consumer Staples Select (XLP)	3.8
Ishares US Telecommunication (IYZ)	3.6
US Materials Select (XLB)	1.8
Kranesahres CSI China Internet	1.4
Total	100%

Allocation	%	+/-
US	81.3	+
Non US DM	16.8	-
EM	1.4	-

Sector Emphasis:
Utilities
Materials
Consumer Staples

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

Public Equities - Positioning

June 30, 2018

APFC Public Equity Allocation – Relative to MSCI ACWI IMI:

- Regions: **Overweight United States**
  Overweight Emerging Markets
  Underweight World ex US

- Sectors: Modest tilt towards economically sensitive sectors - Tactical

- Style: Modest tilt in favor of Value - Tactical

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

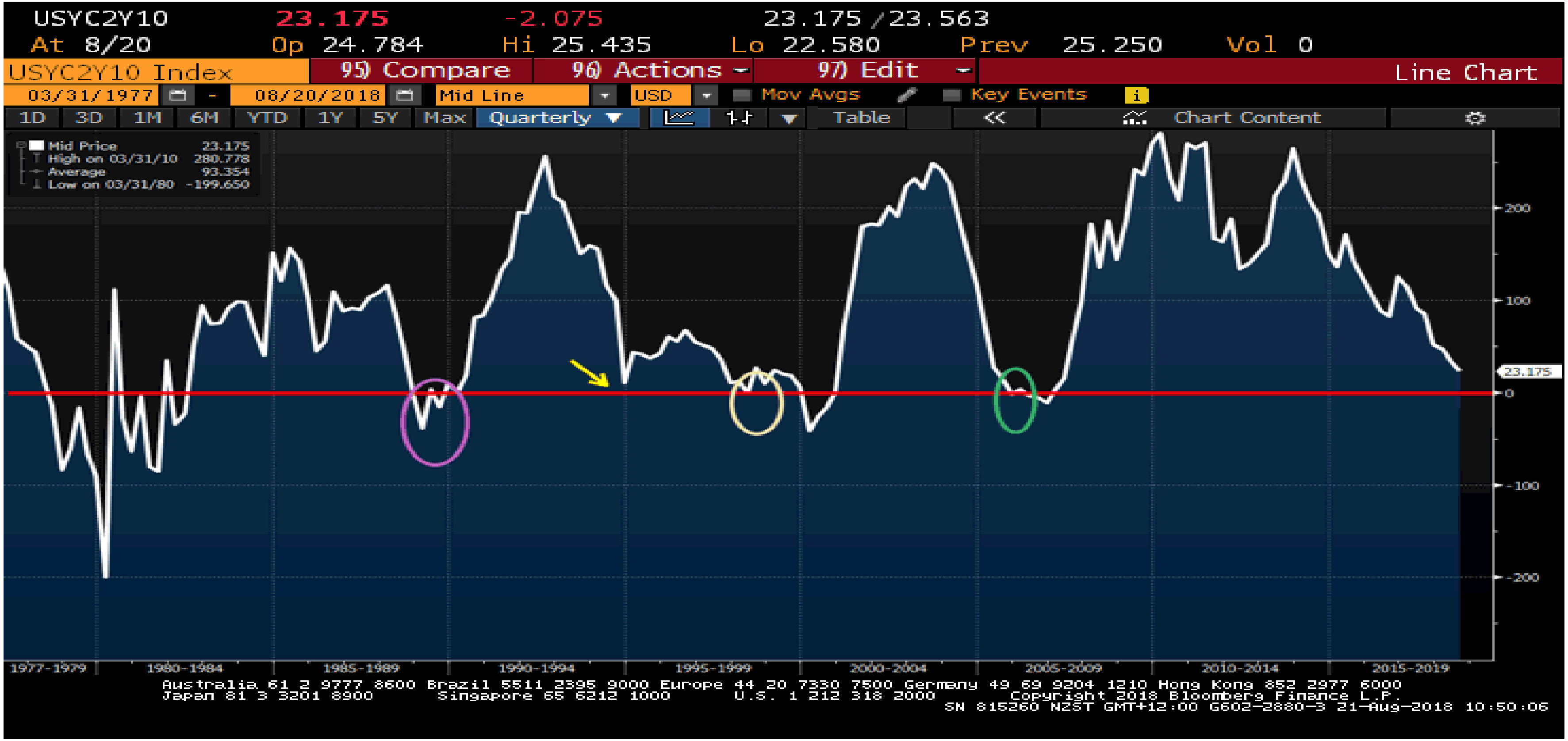
- **Rise in US Dollar**
- **Quantitative Tightening**
- **US - China Trade Relations**
- Greater than expected Slowdown in US Corporate Earnings Growth
- Inverted Yield Curve
- Greater than expected slowdown in China Growth
- Geopolitical Risks – North Korea/Mideast

Public Equities – Key Factors to Watch

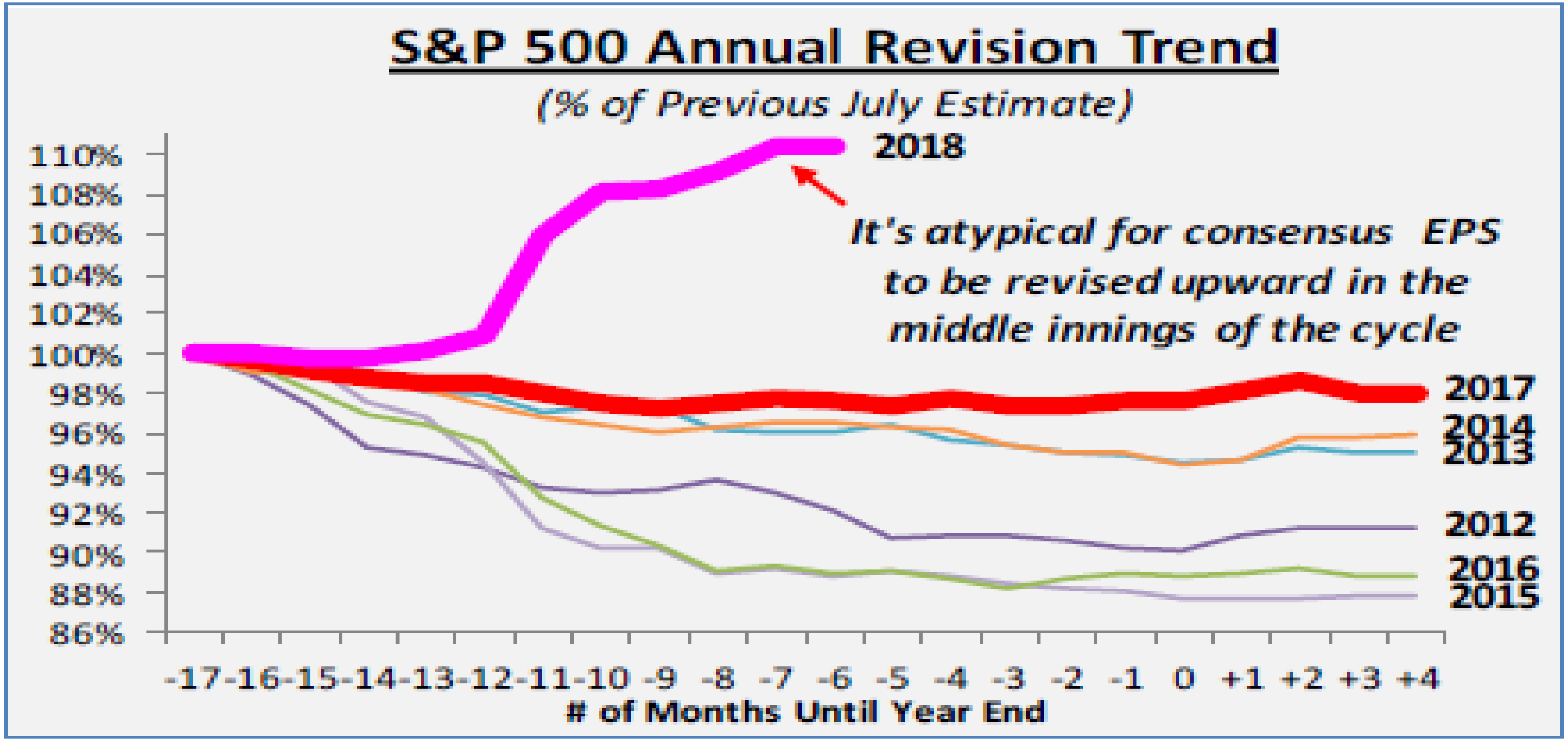
US DOLLAR (5 Yr period)

Public Equities – Key Factors to Watch

Yield Spread between US 10 Yr and US 2 Yr (1977 – 2018) - at the lowest point over the last decade, 23 bps from the point of inversion – as of August 20, 2018



Public Equities – Key Factors to Watch



As of June 30, 2018

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

Asset Class Updates: Fixed Income Memo

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907.796.1500 | apfc.org

SUBJECT: Fixed Income Asset Class Updates

ACTION: ___________

DATE: September 26, 2018

INFORMATION: ____X_____

BACKGROUND:

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

STATUS:

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

Presentation: Fixed Income

APFC ALASKA PERMANENT FUND CORPORATION

APFC Fixed Income Plus Portfolio

September 26, 2018

Fixed Income Plus Performance

Fixed Income Plus ($13,974mm)

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

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	0.12%	0.99%	n/a	n/a
Index	0.27%	0.86%	n/a	n/a

Barclays U.S. Aggregate Portfolio ($3,752mm)

- Neutral duration and long spread product vs Treasuries
- Overweight to agencies and corporates were the greatest contributors

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-0.26%	-0.41%	1.92%	2.46%
Index	-0.16%	-0.40%	1.72%	2.27%

Corporate Bond Portfolio ($3,624mm)

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

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-1.13%	-0.72%	3.50%	4.14%
Index	-0.98%	-0.83%	3.07%	3.51%

Fixed Income Plus Performance

Global Rates ($973mm)

- Portfolio benefited from overweight to Chile and quality bias in Eurozone
- Underexposure to Japan was the detractor from performance

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	0.36%	3.06%	3.35%	3.86%
Index	0.37%	3.34%	3.71%	4.12%

TIPS ($127mm)

- Neutral duration with focus on pure, mean-reverting relative value plays

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	0.82%	2.14%	2.04%	1.72%
Index	0.77%	2.11%	1.93%	1.68%

Fixed Income Plus Cash ($604 mm)

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

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	0.46%	1.26%	n/a	n/a
Index	0.45%	1.36%	n/a	n/a

Internal Aggregate Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.26%	-1.81%	-0.41%	1.92%	2.46%
Index	-0.16%	-1.62%	-0.40%	1.72%	2.27%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-0.04%	-0.05%	-0.01%	0.0%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Inflation	Other
33 bps	12%	79%	6%	3%

Index Comparison

	Portfolio	Index
Duration	5.9	6.0
Yield	3.3	3.3
Spread	55	45
Rating	Aa2	Aa2

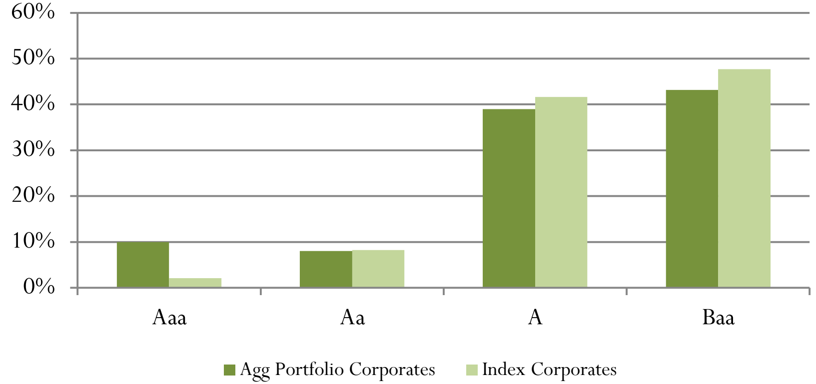
Composition

- $3.752 Billion
- Investment Grade Bonds
- Barclays' US Aggregate Index
- Duration based on interest rate forecast
- Internal Fixed Income Team's Best Ideas
- Primary PM: Jim Parise, Chris Cummins, Masha Skuratovskaya

Internal Fixed Income Aggregate Portfolio

Sector	MV ($mil)	% of Portfolio	% of Index
Total Portfolio	$3,752	100%	100%
Treasury	$1,096	29.2%	37.8%
Government-Related	$249	6.6%	6.6%
Corporate	$1,118	29.8%	25.0%
MBS	$989	26.4%	28.1%
ABS	$127	3.4%	0.5%
CMBS	$127	3.4%	1.9%
Cash	$46	1.2%	0.1%

Portfolio Credit Quality vs. Index



	Portfolio	Index	Over/Under Weight
Duration	5.9	6.0	0.0

Internal Corporate Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-1.13%	-3.54%	-0.72%	3.50%	4.14%
Index	-0.98%	-3.27%	-0.83%	3.07%	3.51%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	0.01%	-0.07%	-0.03%	-0.05%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
57	0.0%	93%	7%	0.0%

Index Comparison

	Portfolio	Index
Duration	7.3	7.3
Yield	4.0	4.0
Spread	124	121
Rating	A3	A3

Composition

- $3.624 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	0.82%	0.00%	2.14%	2.04%	1.72%
Index	0.77%	-0.02%	2.11%	1.93%	1.68%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-0.06%	0.01%	0.09%	0.01%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Inflation	Other
8 bps	24%	0%	76%	0%

Index Comparison

	Portfolio	Index
Duration	7.8	7.7
Yield	2.8	2.8

Composition

- $127 Million (Outflow of $300 million in Q2)
- US Treasury Inflation Protected Securities
- 14+ positions
- Barclays' U.S. TIPS Index
- Portfolio duration and curve position reflects views on rates and inflation valuation
- Primary PM: Masha Skuratovskaya

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

Internal Global Government Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	0.36%	1.42%	3.06%	3.35%	3.86%
Index	0.37%	1.61%	3.34%	3.71%	4.12%

Quarterly Attribution

	FX Hedging	Country Allocation	Duration / Curve	Asset Allocation	Security Selection
Portfolio	-0.22%	0.20%	0.05%	0.01%	-0.05%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
37 bps	97%	0%	3%	0%

Index Comparison

	Portfolio	Index
Duration	7.8	8.6
Yield	3.01	2.99
Rating	Aa3	A1

Composition

- $973 Million (Inflow of $400 million in Q2)
- Investment Grade Sovereign and Agency bonds
- 60+ positions with 25+ issuers
- Barclays' Global Treasury Ex-U.S. Index Hedged
- Cross country allocation is driven by expectation for relative performance. Primary PM: Masha Skuratovskaya

Fixed Income + Allocation

	Fixed Income + Allocation (000's)				FYTD Excess Return Contribution		
	Benchmark		Portfolio		Sector Allocation	Within Sector Allocation	Total Excess Return
US Aggregate	25.00%	3,493,506	26.85%	3,752,210	-0.02%	0.00%	-0.02%
US Corporates	25.00%	3,493,506	25.94%	3,624,306	-0.02%	0.03%	0.01%
High Yield	10.00%	1,397,402	10.39%	1,452,445	0.00%	0.01%	0.01%
REITs	10.00%	1,397,402	9.92%	1,386,885	-0.01%	0.13%	0.12%
Non-US Rates	10.00%	1,397,402	9.48%	1,325,296	-0.08%	-0.04%	-0.12%
TIPS	5.00%	698,701	1.82%	254,145	0.00%	-0.01%	-0.01%
Emerging Market	5.00%	698,701	6.57%	917,807	-0.03%	0.02%	-0.01%
Listed Infrastructure	5.00%	698,701	4.70%	656,841	0.00%	0.16%	0.16%
Total Cash	5.00%	698,701	4.32%	604,089	-0.01%	0.00%	-0.01%
Total	100.00%		100.00%		-0.17%	0.30%	0.13%

Fixed Income Plus Performance

Fixed Income Plus (\$13,974mm)
- Overweight US Agg, Corporates, High Yield and Emerging Markets
- Underweight TIPS, Global Rates, Listed Infrastructure and Cash

Barclays U.S. Aggregate Portfolio (\$3,752mm)
- Neutral duration and long spread product vs Treasuries
- Overweight to agencies and corporates were the greatest contributors

Corporate Bond Portfolio (\$3,624mm)
- Increase in credit quality while spreads tightened
- Overweight 10+ year Credit

Global Rates (\$1,325mm)
Internal (\$973mm)
- Portfolio benefited from overweight to Chile and quality bias in Eurozone
- Underexposure to Japan was the detractor from performance

Allianz (\$352mm)
- Benefitted from Germany vs France overweight
- Performance suffered from widening is external EM spreads and short duration Eurozone periphery

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Aggregate	0.12%	0.99%	n/a	n/a
Index	0.27%	0.86%	n/a	n/a
Strategy	-0.26%	-0.41%	1.92%	2.46%
Index	-0.16%	-0.40%	1.72%	2.27%
Strategy	-1.13%	-0.72%	3.50%	4.14%
Index	-0.98%	-0.83%	3.07%	3.51%
Strategy	0.23%	2.81%	3.40%	3.87%
Index	0.37%	3.34%	3.71%	4.12%
In House	0.36%	3.06%	3.35%	3.86%
Index	0.37%	3.34%	3.71%	4.12%
Allianz	0.25%	3.22%	3.62%	3.96%
Index	0.37%	3.34%	3.71%	4.12%

Fixed Income Plus Performance

Global High Yield ($1,452mm)

- Predominantly managed externally with ETFs used to fill allocation

High Yield ETF ($462mm)

- Underperformed due to ETF tracking and fees

Oaktree High Yield ($582mm)

- Performance trailed due defensive portfolio position

Capital Guardian High Yield ($408mm)

- BB underweight and B overweight were accretive to relative results; Underweight CCC detracted. Industry and Sector selection helped

TIPS ($254mm)

Internal TIPS ($127mm)

- Neutral duration with focus on pure, mean-reverting relative value plays

Alaska Permanent Capital Mgmt. ($127mm)

- maintained a duration short and a curve steepening position in 7s / 10s

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**1.10%**	**2.67%**	**4.87%**	**5.05%**
Index	**1.03%**	**2.62%**	**5.54%**	**5.52%**
ETF	0.52%	1.71%	n/a	n/a
Index	1.03%	2.62%	n/a	n/a
OakTree	0.78%	1.70%	4.17%	4.44%
Index	1.03%	2.62%	5.54%	5.52%
CapGuard	2.21%	5.00%	6.89%	6.73%
Index	1.03%	2.62%	5.54%	5.52%
Strategy	**0.71%**	**1.98%**	**1.76%**	**1.49%**
Index	0.77%	2.11%	1.93%	1.68%
In House	0.82%	2.14%	2.04%	1.72%
Index	0.77%	2.11%	1.93%	1.68%
APCM	0.60%	1.49%	1.47%	1.26%
Index	0.61%	1.45%	1.50%	1.21%

Performance as of 6/30/2018

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

Fixed Income Plus Performance

Emerging Market Debt ($918mm)

ETF ($290mm)

- Overweight Local Currency vs Hard Currency debt

Capital Group ($628mm)

- Overweight in local Brazil and Africa markets vs hard currency debt was the greatest detractor due to rapid strengthening of the US$
- Underweight to local Eastern Europe and security selection in the hard currency bonds offset some of the losses

REITS ($1,387mm)

- Small underweight to the overall REIT sector

AEW ($536mm)

- Individual stock selection in all three regions added to the outperformance.
- U.S. REIT market posted the strongest performance driven by privatizations, M&A, and share repurchases.

American Homes 4 Rent ($37mm)

SSGA Global REITS ($814mm)

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**-7.63%**	**-1.49%**	**3.48%**	**2.19%**
Index	**-7.01%**	**-1.89%**	**3.37%**	**1.89%**
ETF	-8.41%	-7.34	n/a	n/a
Index	-7.01%	-5.78	n/a	n/a
CapGuard	-7.56%	-1.14%	3.60%	2.26%
Index	-7.01%	-1.89%	3.40%	1.64%
Strategy	**6.56%**	**5.84%**	**10.37%**	**7.43%**
Index	**6.05%**	**4.05%**	**5.80%**	**6.31%**
AEW	6.68%	7.55%	8.15%	8.46%
Index	6.05%	4.05%	5.80%	6.31%
AH4R	10.71%	-0.79%	10.55%	6.49%
Index	6.05%	4.05%	5.80%	6.31%
SSGA	6.29%	5.05%	n/a	n/a
Index	6.05%	4.05%	n/a	n/a

Performance as of 6/30/2018

Fixed Income Plus Performance

Listed Infrastructure ($657 mm)

- Small underweight to overall sector

Lazard ($193 mm)

- US and France based investments drove returns higher, led by US rail, electric utility, and a Paris base satellite company.
- Investments in Italy and Germany created a drag on returns.

SSGA ($321 mm)

- Passive portfolio used to adjust weighting

Cohen & Steers ($143 mm)

- Overweight and stock selection in midstream energy was the largest positive contributor to performance.

Fixed Income Plus Cash($604 mm)

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

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**4.22%**	**4.28%**	**9.07%**	**n/a**
Index	**2.30%**	**0.91%**	**5.04%**	**n/a**
Lazard	6.99%	6.28%	13.69%	n/a
Index	6.87%	6.24%	8.56%	n/a
SSGA	2.59%	1.70%	n/a	n/a
Index	2.30%	0.91%	n/a	n/a
C&S	4.29%	7.34%	7.67%	n/a
Index	3.65%	4.62%	7.71%	n/a
Strategy	0.46%	1.26%	n/a	n/a
Index	0.45%	1.36%	n/a	n/a

Asset Class Updates: Private Equity & Special Opportunities Memo

APFC ALASKA PERMANENT FUND CORPORATION

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907.796.1500 | apfc.org

SUBJECT: Private Equity & Special Opportunities Asset Class Update

ACTION: ___________

DATE: September 26, 2018

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.

Presentation: Private Equity & Special Opportunities

ALASKA PERMANENT FUND CORPORATION

Private Equity and Special Opportunities

Portfolio Update | Steve Moseley

Executive Summary

Portfolio continues to generate strong risk-adjusted returns, contributing $5.5 billion in cumulative net gains

Portfolio Summary

($mm, 31-Mar-18) Portfolio	Market Value	% APF	1-Year Net IRR	5-Year Net IRR	Since Inception Returns Net IRR	Since Inception Returns Net Gain
Private Equity	$4,960	7.6%	22.5%	17.6%	13.5%	$3,413
Special Opportunities	2,953	4.5%	40.2%	31.7%	31.7%	2,131
Combined Portfolio	**7,913**	**12.2%**	**29.2%**	**21.4%**	**16.1%**	**5,544**
Public Benchmark[1]			15.0%	10.4%	9.1%	2,340
Excess Return			14.2%	11.0%	7.1%	3,204

Program Summary

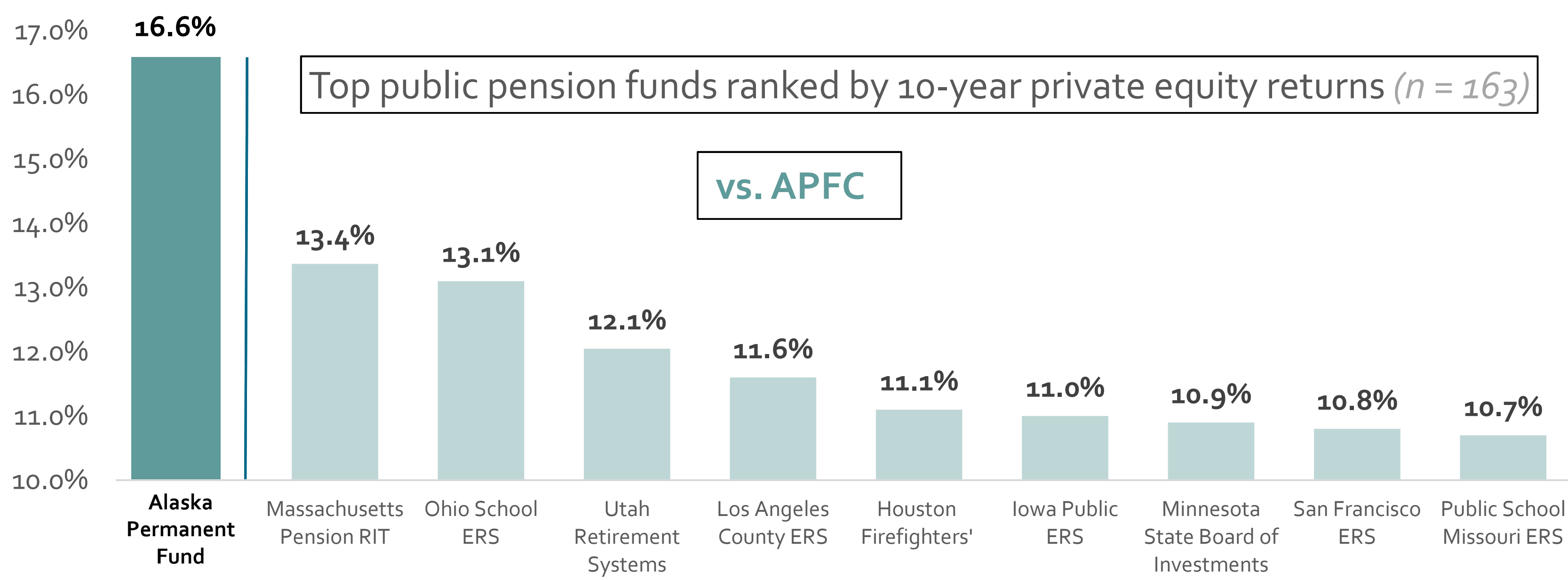
($mm, 31-Mar-18) Program	Commitments FY 2018[2]	Commitments Cumulative	Inception Net IRR
Pathway + HarbourVest	$449	$6,575	13.1%
Staff: PE	857	2,806	20.5%
Staff: SpecOpps	656	4,339	31.7%
Combined Portfolio	**$1,962**	**$13,720**	**16.1%**

Tactical Summary

($mm, 31-Mar-18) Investment Activity	Investment Activity FY2018[2]	Investment Activity Total	Average	Since Inception Net Returns IRR	Since Inception Net Returns Multiple	Since Inception Net Returns Gains	Comments
Fund Commitments	$1,799	$12,646	$39	13.0%	1.5x	$3,753	• Private equity program launched with gatekeepers in 2004
Direct/Co-invest	163	1,074	49	68.5%	2.8x	1,791	• Staff-led program, launched in 2014; minimal fees

Source: Pathway Capital Management and Burgiss as of 31-Mar-2018, 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, 2018. Commitments not netted for $704mm in secondary assets sold in Q4, FY'18.

Top Pension Funds Ranked by PE investment Retuns(1)

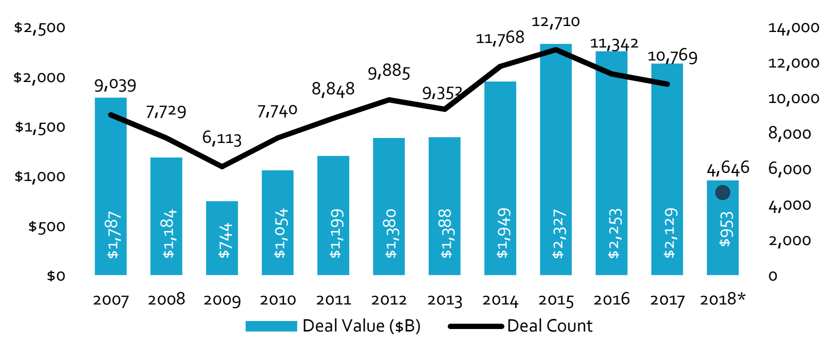


(1) This study conducted by the American Investment Council examines the private equity investments of 163 U.S. public pension funds. The information was collected from publicly available comprehensive annual financial reports and direct communication with public pension funds, when necessary.

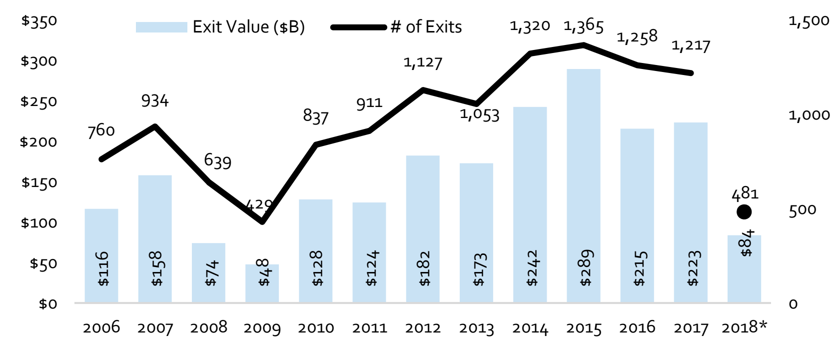
Private Equity Market Update

Purchase price multiples and fundraising velocity require caution

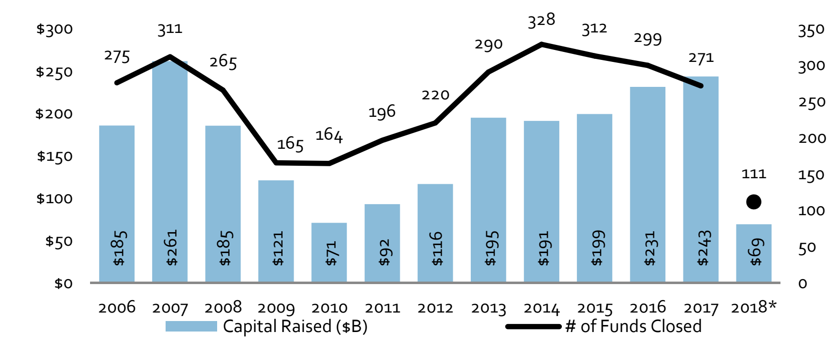
U.S. M&A activity continues to be robust…



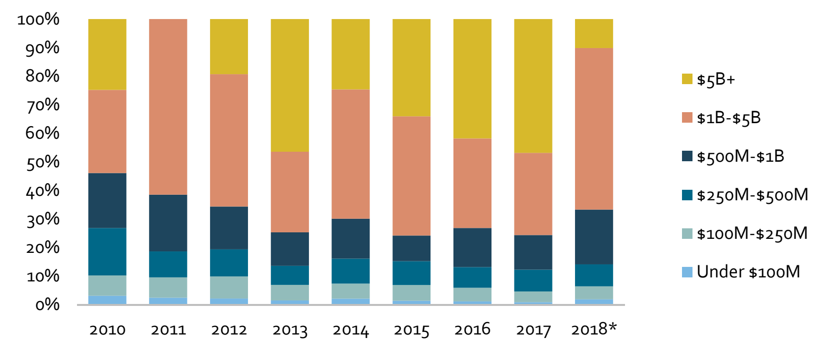
…although exit activity has decelerated in the first half of 2018.



Institutional investors continue to break recent PE allocation records in 2018…



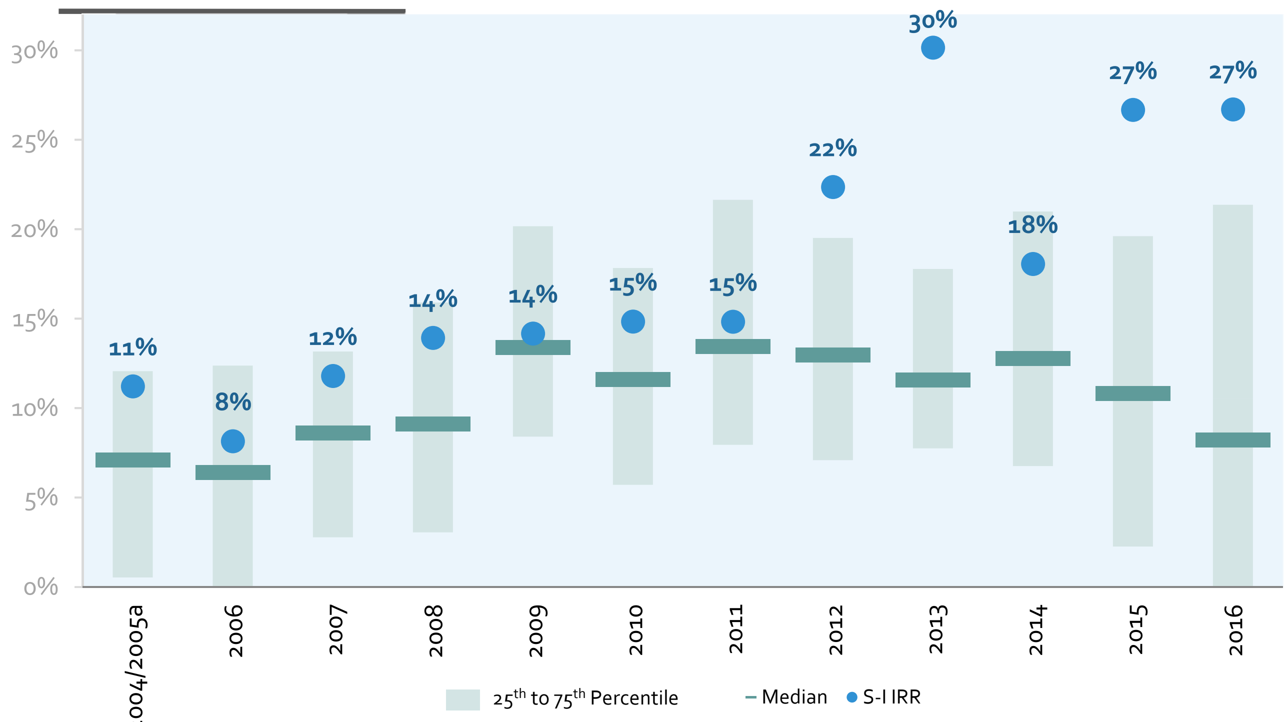
…with large cap PE firms raising a disproportionate share of the capital

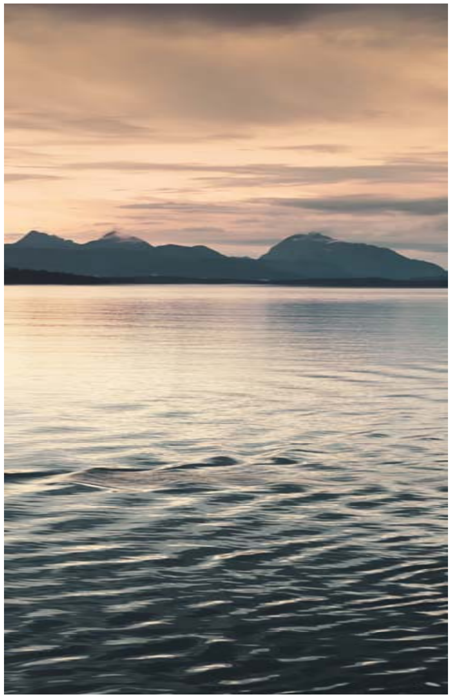


Source: Pitchbook as of Q2 2018.

Vintage Year Performance

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

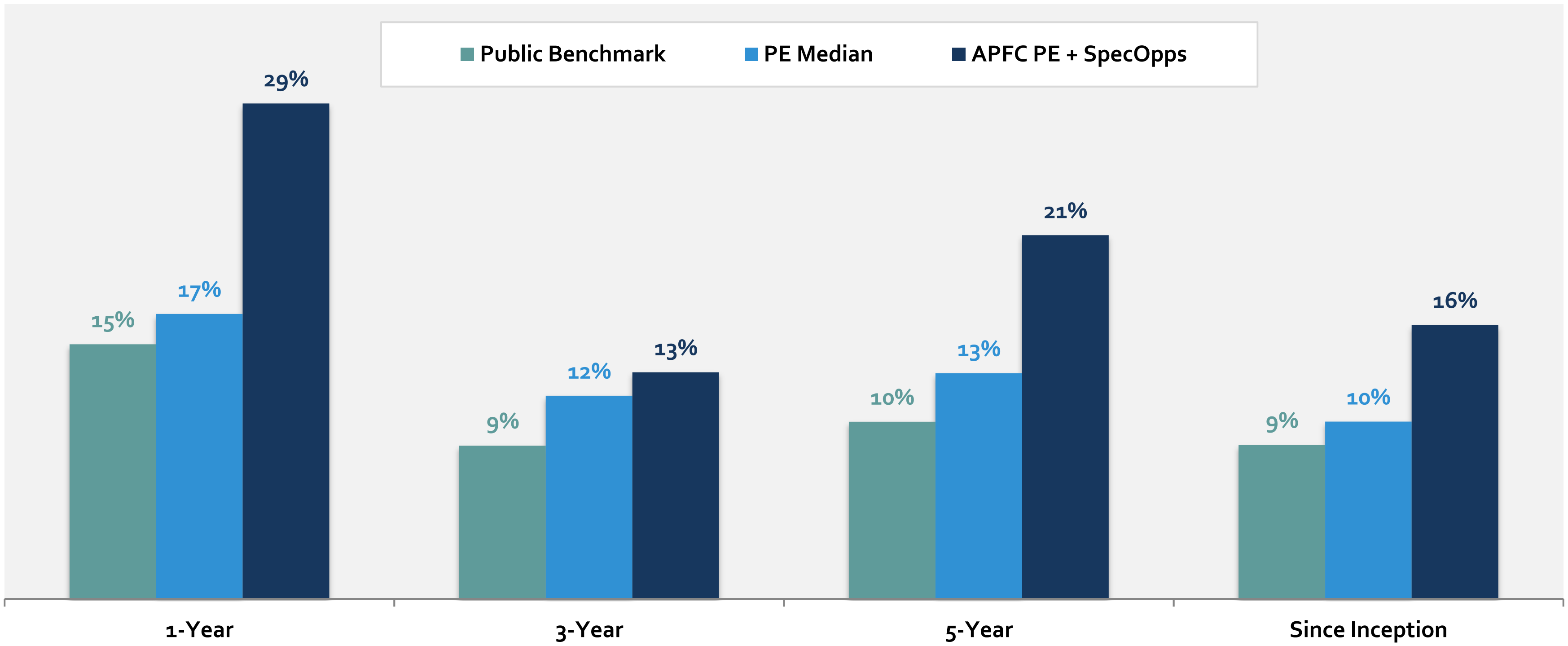




Source: Pathway Capital Management and Burgiss as of 31-Mar-2018.
Note: All returns net of management fees and carry. Returns may differ slightly from Callan's time-weighted returns due to reporting lag and methodology.
a) Represents weighted average benchmark, based on APFC fund commitments for each vintage year.

Portfolio Performance

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

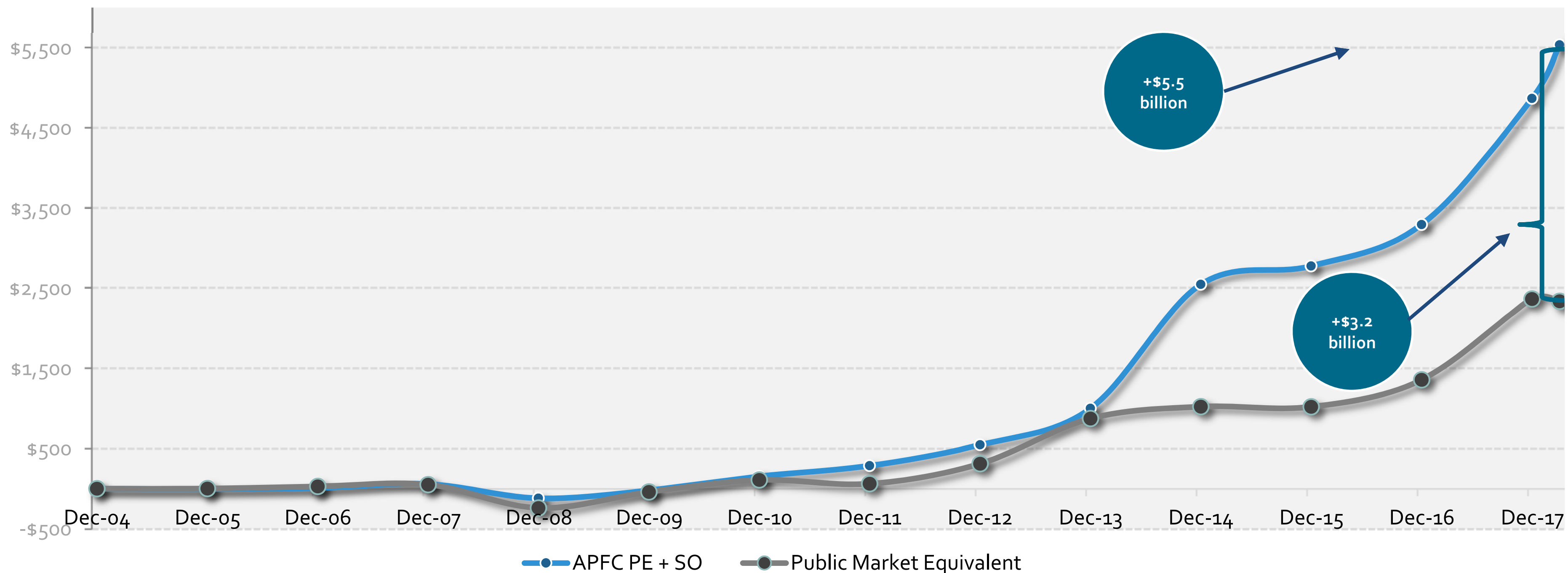


Source: Pathway Capital Management and Burgiss as of 31-Mar-2018.

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 2018- vintages, as of March 31, 2018, produced using Burgiss data.

Private Equity Value-added

PE portfolio has outperformed public benchmark, generating an incremental $3.2 billion of gains to APF since inception



($ in millions)

Sources: Pathway Capital Management and Burgiss as of 31-Mar-2018.
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

Portfolio Highlights

- **Risk**
  - Reduced targeted concentrations and harvested gains
- **Return**(1)
  - 1-yr, 3-yr, and 5-yr net returns of 29%, 13%, and 21%, respectively
  - Exceeded PE industry and public market equivalent benchmarks
  - Cum. incremental gain of $3.2 billion above public benchmark[1]
  - Direct and co-investments sourced by APFC staff have generated 69% net returns since inception in 2014
- **Yield**
  - Record quarterly distributions of $1.463 billion Jan. to March 2018
- **Organizational management**
  - Team size limits potential and increases cost
    - Smaller team → greater costs (and vice versa)

FY'19 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 growth opportunities
- **Reinforce defensive posture**
  - Consolidate preferred GP relationships
  - Favor contractual returns, asset coverage
- **Maintain agility**
  - Enhance portfolio monitoring and data analytics
  - Harvest gains, de-risk portfolio, maintain steady pacing
  - Seek counter-cyclical, uncorrelated strategies and assets
  - Deploy with conviction when markets turn

Source: Pathway Capital Management and Burgiss as of 31-Mar-2018, 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 2018- vintage funds, as of March 31, 2018, 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: Asset Allocation Strategies Memo

APFC ALASKA PERMANENT FUND CORPORATION

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

SUBJECT:	Asset Allocation Strategies	ACTION:	______
DATE:	September 26, 2018	INFORMATION:	X

BACKGROUND:

The Asset Allocation overview provides an overall portfolio overview and investment performance of the Fund. Portfolio asset class positioning versus their target, and Fund and asset class performance versus their benchmarks will be included.

In addition, we will provide an informational update to the Board of Trustees on the current positioning relative to target allocations and an overview of the activity and performance of the strategies within the Asset Allocation Strategies portfolio including Cash, Liquidity Overlay, Risk Parity, Legacy ECIOs and Currency management.

STATUS:

At this meeting Staff will provide an update to the Board of Trustees that includes:

- the key elements of the Fund’s positioning and performance
- compare allocation and performance relative to targets, benchmarks and objectives.
- Current allocations to different strategies within the Asset Allocation portfolio
- Summary of past year activity
- Performance and plan for the legacy ECIOs
- Update on the new risk parity allocation portfolio construction approved by the Board in May 2018.

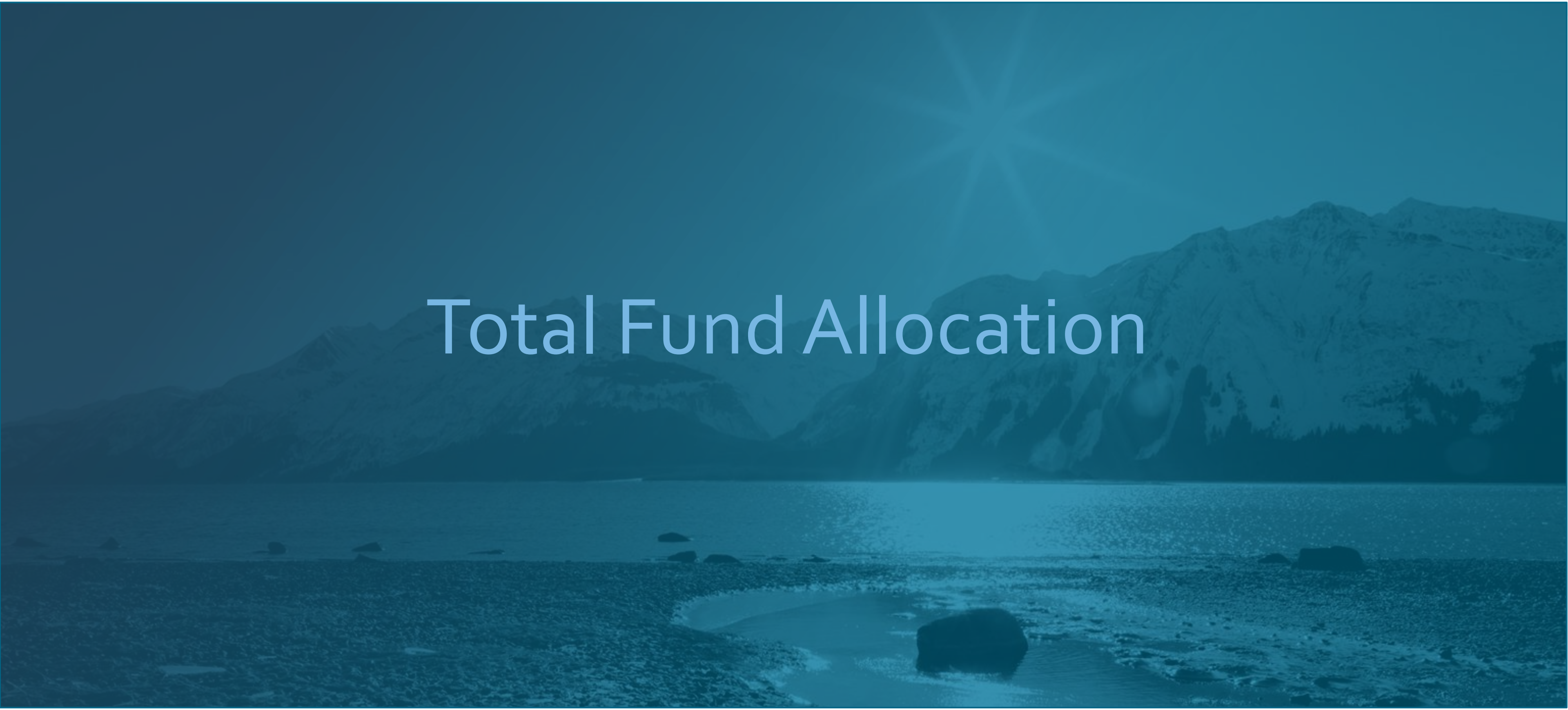
Presentation: Asset Allocation Strategies Review

ALASKA PERMANENT FUND CORPORATION

Asset Allocation and Performance

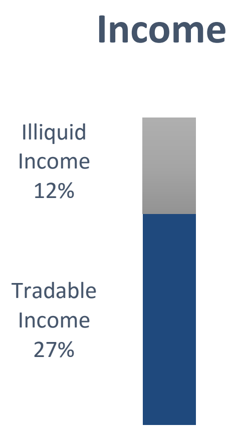
Valeria Martinez- Director of Risk and Asset Allocation

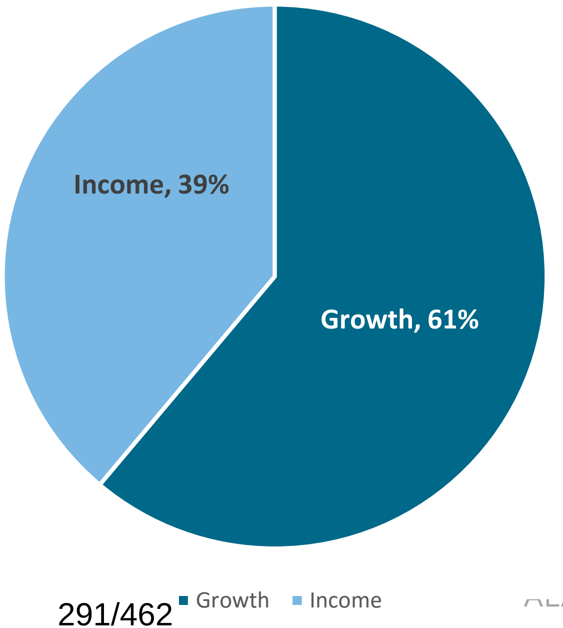
September 2018

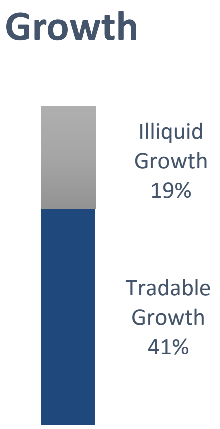

Total Fund Allocation

Asset Allocation by Objective

as of 6/30/2018







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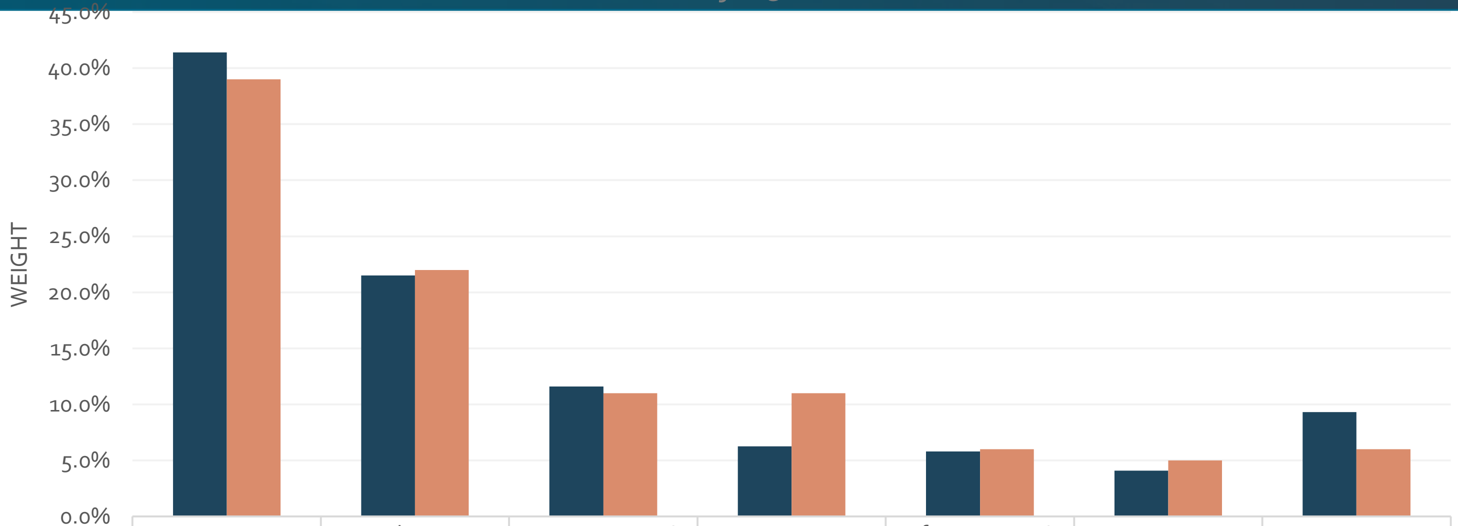
Asset Allocation by Strategy

(as of 6/30/2018)



	Public Equities	Fixed Income Plus	Private Equity & Special Growth	Real Estate	Infrastructure & Special Income	Absolute Return	Asset Allocation
Actual	41.4%	21.5%	11.6%	6.3%	5.8%	4.1%	9.3%
Target	39.0%	22.0%	11.0%	11.0%	6.0%	5.0%	6.0%

Performance

Performance *as of 6/30/2018*

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	1.67%	10.76%	7.96%	8.92%
Performance Benchmark	0.78%	8.20%	7.08%	7.55%
Passive Benchmark	0.57%	7.83%	6.49%	6.81%
CPI+5%	2.17%	7.87%	6.83%	6.54%

Performance Benchmark as of 6/30/2018: 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.5% BB Agg, 5.5% BB Credit, 2.2% BB Global Treasury ex-US Hedged, 0.55% JPM EMBI Global Diversified, 0.55% JPM GBI-EM Global Diversified TR, 2.2% BB US High Yield 2% Issuer Cap, 2.2% S&P Global REIT, 1.1% S%P Global Listed Infrastructure, 11% Cambridge PE (lagged), 11% NCREIF Total Index (lagged), 3.6% FTSE Developed Core Infrastructure (lagged), 2.4% BB US High Yield 2% Issuer Cap (lagged), 5% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, 4% Performance Benchmark.

Passive Index Benchmark as of 6/30/2010: 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 6/30/2018*

3 months ending 6/18	Portfolio Weight	Portfolio Return	Benchmark Weight	Benchmark Return	Relative Contribution
Public Equities	41.38%	0.26%	39.00%	0.72%	-0.18%
Fixed Income Plus	21.49%	0.12%	22.00%	0.27%	-3.00%
Private Equity and Growth	11.27%	11.39%	11.00%	3.03%	0.95%
Real Estate	6.14%	1.89%	11.00%	1.70%	0.01%
Infrastructure, Private Credit and Income Opportunities	5.69%	2.20%	6.00%	-2.67%	0.28%
Absolute Return	4.15%	0.21%	5.00%	0.84%	-0.03%
Asset Allocation	9.26%	-0.42%	6.00%	0.78%	-0.10%

APFC ALASKA PERMANENT FUND CORPORATION

Asset Allocation Strategies

Valeria Martinez- Director of Risk and Asset Allocation

September 26, 2018

AA Strategies Overview

Liquidity

Liquidity decreased from 3.7 billion to 3.5 billion

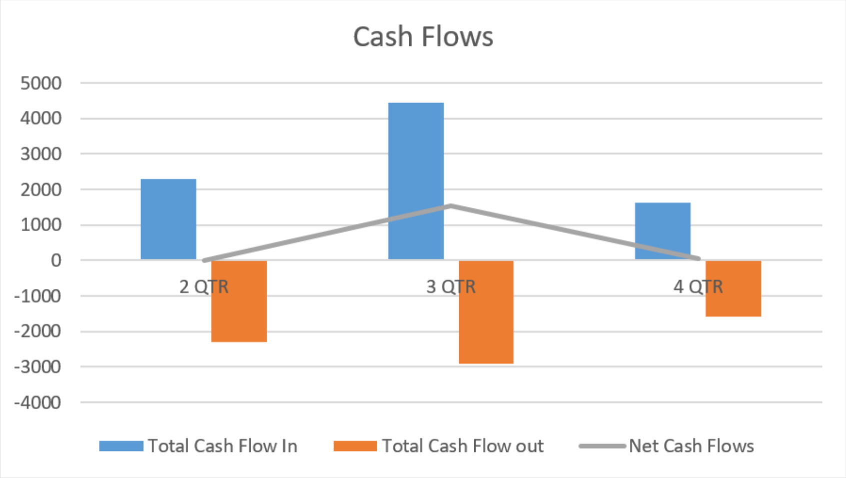
Multi-Asset

Legacy ECIO under redemption, search of risk parity strategies underway

FX Overlay

$2 billion currency overlay program

Liquidity



Source: Callan, Staff calculations.

Liquidity					
($ in millions)	6/30/2018 NAV	1 QTR Return	1 Year Return	3 Year Return	5 Year Return
Internal Cash (securitized)	2,226	-0.05%	-	-	-
Asset Allocation Cash	951	0.41%	1.28%	0.61%	0.37%
Fixed Income Liquidity	337	0.13%	-0.86%	-	-
Total - Liquidity	**3,514**				
90 Day T-Bills		*0.45%*	*1.36%*	*0.68%*	*0.42%*

Cash Flows FY2018				
($ in millions)	2 QTR	3 QTR	4 QTR	Total
Cash tranferred In (Distributions)	2211.4	4,338	1,629	8,178
Other Income	91.4	118	9	218
Total Cash Flow In	**2302.8**	**4455.6**	**1637.28**	**8,396**
Cash Transferred Out (Contributions)	-2285.3	(2,854)	(1,558)	(6,698)
Operational Expenses	-32.1	(69)	(36)	(136)
Total Cash Flow out	**-2317.4**	**-2923**	**-1593.68**	**(6,834)**
Net Cash Flows	**(15)**	**1,533**	**44**	**1,562**

Liquidity Overlay

Program Performance – Q2 2018

Fixed Income Overlay Program

2018	Beginning Benchmark Notional	Portfolio Performance: Change in MV ($MM)	Portfolio Performance: Portfolio Return	Benchmark Performance: US Agg Index Return (X)	Benchmark Performance: 1-Month LIBOR (Y)	Benchmark Performance: Cash (Z)	Benchmark Performance: Benchmark Return (X) - (Y) + (Z)	Net: Over/Under Performance
Q1*	$349.1	$3.5	0.16%	-0.04%	0.26%	0.05%	-0.26%	0.42%
April	$746.7	-$7.3	-0.88%	-0.74%	0.16%	0.02%	-0.88%	0.00%
May	$751.9	$5.0	0.67%	0.71%	1.91%	0.03%	0.58%	0.09%
June	$749.0	-$0.9	-0.12%	-0.12%	2.00%	0.03%	-0.27%	0.15%
Q2	$746.7	-$3.2	-0.33%	-0.16%	4.11%	0.08%	-0.57%	0.24%
YTD	$349.1	$0.3	-0.17%	-0.20%	4.38%	0.13%	-0.82%	0.65%

Equity Overlay Program

2018	Beginning Benchmark Notional	Portfolio Performance: Change in MV ($MM)	Portfolio Performance: Portfolio Return	Benchmark Performance: ACWI IMI Index Return (X)	Benchmark Performance: 1-Month LIBOR (Y)	Benchmark Performance: Cash (Z)	Benchmark Performance: Benchmark Return (X) - (Y) + (Z)	Net: Over/Under Performance
Q1*	$649.8	-$56.2	-6.23%	-5.93%	0.26%	0.05%	-6.14%	-0.09%
April	$1,386.8	$8.3	0.06%	1.01%	0.16%	0.02%	0.88%	-0.82%
May	$1,396.3	$3.3	0.23%	0.39%	0.16%	0.02%	0.25%	-0.02%
June	$1,391.0	-$12.0	-0.86%	-0.60%	0.17%	0.02%	-0.74%	-0.12%
Q2	$1,386.8	-$0.4	-0.57%	0.80%	0.48%	0.07%	0.38%	-0.95%
YTD	$649.8	-$56.6	-6.77%	-5.18%	0.74%	0.11%	-5.79%	-0.98%

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

Equity Overlay Program Benchmark is the ACWI-IMI Index Net

Source: Manager calculations.

Liquidity Overlay

Program Performance – Q2 2018

Combined Program

2018	Beginning Benchmark Notional	Program Performance: Change in MV ($MM)	Program Performance: Portfolio Return	Benchmark: Benchmark Return	Net: Over/Under Performance
Q1	$998.8	-$52.7	-4.02%	-4.10%	0.08%
April	$2,133.5	$1.0	-0.27%	0.26%	-0.53%
May	$2,148.2	$8.3	0.39%	0.37%	0.02%
June	$2,140.0	-$12.8	-0.60%	-0.58%	-0.02%
Q2	$2,133.5	-$3.6	-0.48%	0.05%	-0.53%
YTD	$998.8	-$56.3	-4.49%	-4.06%	-0.43%

Source: Manager calculations.

Liquidity Overlay

Performance Attribution – Q2 2018

Fixed Income Overlay Program

	Benchmark Return	Portfolio Return	Over/Under Performance	Performance Attribution: Spread Mismatch	Performance Attribution: Other
Bps	-57	-33	23	42	-19
$mm	-4.9	-3.2	1.7	3.3	-1.5

Equity Overlay Program

	Benchmark Return	Portfolio Return	Over/Under Performance	Performance Attribution: Component Weighting	Performance Attribution: Instrument Mismatch	Performance Attribution: Timing Differences	Performance Attribution: Other
Bps	38	-57	-96	3	-26	-101	30
$mm	12.0	-0.4	-12.4	0.4	-3.6	-13.6	4.4

Source: Manager calculations.

Legacy ECIOs

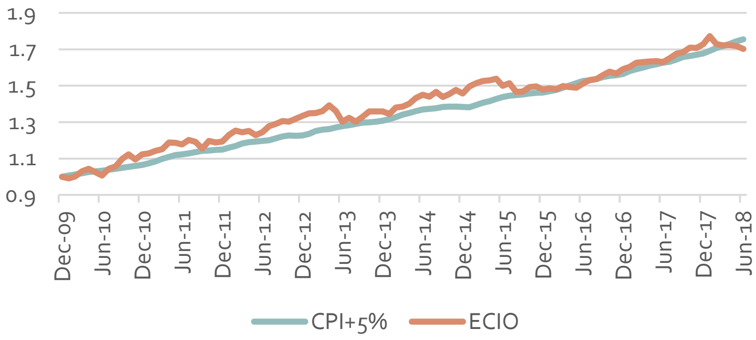
Portfolio Performance

($ in millions)	6/30/2018 NAV	1 QTR Return	1 Year Return	3 Year Return	5 Year Return
ECIO's					
AQR	832	-4.50%	1.68%	5.75%	6.79%
Bridgewater	859	1.88%	7.99%	4.38%	6.48%
Goldman Sachs	815	-0.68%	3.74%	2.80%	4.78%
Total - ECIO's	**2,506**	**-1.14%**	**4.45%**	**4.29%**	**5.49%**

**The FX Overlay program is $2,000,000,000 in notional value*

Source: Callan, Managers, and Investment Staff Calculations

Since inception



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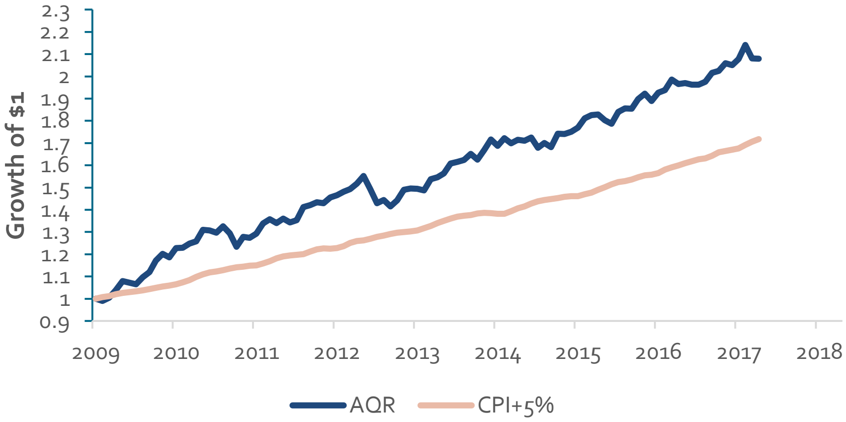
AQR

Current Portfolio Characteristics		
	Since Inception	Last Year
Expected Volatility	7.47%	-
Beta to Equities (S&P 500)	0.26	0.65
Beta to Equities (MSCI World)	0.26	0.82
Volatility Annualized	6.62%	-
	YTD	1 year
Total Portfolio Return	-4.44%	1.68%
Benchmark (CPI+5%)	4.63%	7.87%
Excess Return	-9.07%	-6.19%
Sharpe Ratio	-	1.89

Since Inception Performance



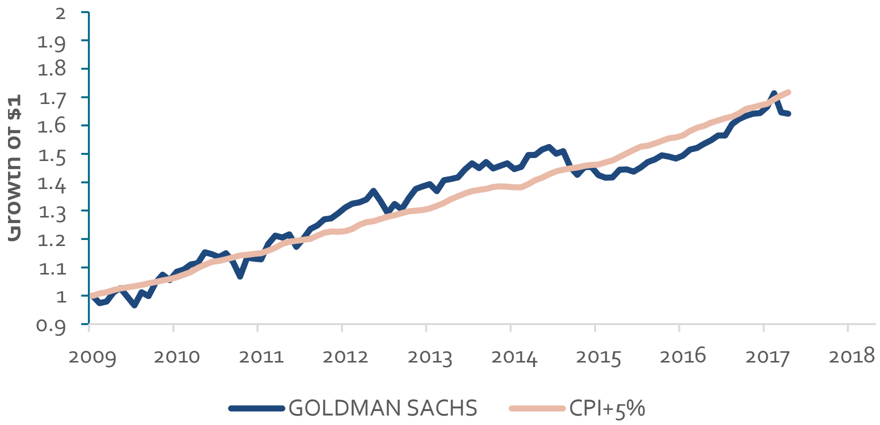
Source: Manager calculations, Albourne.

Goldman

Current Portfolio Characteristics	Since Inception	Last Year
Expected Volatility	9.53%	-
Beta to Equities (S&P 500)	0.44	-0.15
Beta to Equities (MSCI World)	0.46	0.00
Volatility Annualized	6.32%	-

	YTD	1 Year
Total Portfolio Return	-2.05%	3.74%
Benchmark (CPI+5%)	4.63%	7.87%
Excess Return	-6.68%	-4.13%
Sharpe Ratio	-	5.97

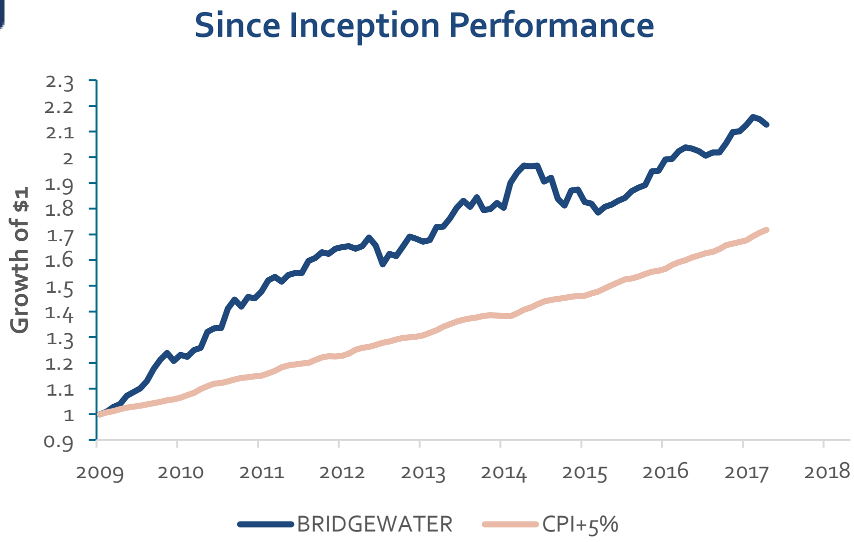
Since Inception Performance



Source: Manager calculations, Albourne.

Bridgewater

Current Portfolio Characteristics		
	Since Inception	Last Year
Expected Volatility	7.10%	-
Beta to Equities (S&P 500)	0.04	1.21
Beta to Equities (MSCI World)	0.09	1.52
Volatillity Annualized	5.81%	-
	YTD	1 Year
Total Portfolio Return	1.88%	7.99%
Benchmark (CPI+5%)	4.63%	7.87%
Excess Return	-2.75%	0.12%
Sharpe Ratio	-	1.33



Source: Manager calculations, Albourne.

Risk Parity

- Board approved risk parity allocation at May 2018 Board meeting
- Traditional portfolios are heavily concentrated in equity risk
- Objective is to realize a higher long-term, risk adjusted return
- Diversify **risk** globally and across asset classes
- Construct a portfolio that is more robust in different environments
- Callan search underway to find best in class risk parity managers and strategies

Currency Overlay Program Performance (Adrian Lee & Partners)

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

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

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

Currency Overlay Program Performance (Adrian Lee & Partners)

Period	Passive Return (%)	Overlay Return (%)	Managed Currency Return (%)	Excess Currency Return (%)
April 2018	-1.91	0.26	-1.65	0.26
May 2018	-1.55	0.02	-1.53	0.02
June 2018	-0.96	-0.02	-0.98	-0.02
Compound Returns				
Last 3 Months	-4.36	0.27	-4.10	0.26
Since Inception	-1.70	-0.60	-2.28	-0.58
Annualized SD	6.06	1.37	6.21	1.37

Source: Manager calculations.

Currency Overlay Program Performance (Adrian Lee & Partners)

Currency	Asset (%) (June 30, 2018)	Deviation (%)	Currency Return (%)	Excess Currency Return (%)
US Dollars	0.00	12.75	0.00	0.00
Japanese Yen	22.40	-5.81	-0.91	0.11
Euro	29.77	-8.10	0.02	-0.02
British Pound	16.46	-1.95	-0.78	0.01
Swiss Franc	6.83	-6.78	-0.99	0.09
Canadian Dollar	8.65	3.63	-1.39	-0.06
Australian Dollar	6.09	3.28	-2.35	-0.09
Swedish Krona	2.33	-0.79	-1.28	-0.02
Norwegian Krone	0.64	4.12	0.39	0.01
New Zealand Dollar	0.16	3.66	-3.51	-0.13
Singapore Dollar	1.21	-2.64	-1.91	0.05
Israeli Shekel	0.45	-1.33	-2.56	0.04
Danish Krona	1.57	0.00	-0.08	0.00
Hong Kong Dollar	3.44	0.00	-0.02	0.00

Source: Manager calculations.

Portfolio Summary

Quarter Ended June 30, 2018

Liquidity

- Since Inception last quarter, liquidity has remained at similar levels changing from $3.7 billion to $3.5 billion
- Recent notable programs include the liquidity overlay to securitize excess cash
- Of the current liquidity, approximately 2 billion is securitized with a mix of bond and equity derivatives
- Other liquidity includes treasury holdings and cash for operational activities
- The liquidity portfolio contributes to all funding of new programs, capital calls and operational expenses of the Fund

Multi-Asset

- At the May 2018 meeting, the Board terminated the ECIO program. These managers are currently under redemption
- Since inception return 6.81%, Sharpe ratio of 1.28
- Board approved Risk Parity allocation. Callan is currently conducting a search

FX Overlay

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

Asset Class Updates: Real Assets Memo

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

SUBJECT:	Real Assets - Private Income & Absolute Return Asset Class Update	ACTION:	________
DATE:	September 26, 2018	INFORMATION:	X

BACKGROUND:

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

STATUS:

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

Presentation: Real Assets: Infrastructure, Special Income, Real Estate, Absolute Return

ALASKA PERMANENT FUND CORPORATION

Real Assets, Private Income and Absolute Return

September 26, 2018

Summary Performance

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

($ in millions)	NAV @ 6/30/2018	% of APFC	Target Allocation	(Twelve Months) Fiscal Year	3 Year Net Returns	5 Year Net Returns
Private Income / Real Assets						
APFC Private Infrastructure	$2,361	3.6%		22.9%	21.5%	16.4%
FTSE Infrastructure Index				*4.9%*	*5.1%*	*7.6%*
APFC Private Real Estate	$4,098	6.3%	11.0%	7.0%	9.2%	10.0%
NCREIF NPI Index				*7.1%*	*8.7%*	*10.0%*
APFC Private Credit	$1,178	1.8%		8.8%	6.5%	7.2%
BC US High Yield Index				*3.8%*	*5.2%*	*5.0%*
APFC Income Opportunities	$258	0.4%		1.9%	7.9%	NA
60% FTSE Infrastructure / 40% BC US High Yield				*4.5%*	*5.2%*	*NA*
Total APFC Real Assets/Private Income (1)	**$7,895**	**12.1%**	**18.0%**	**11.8%**	**12.4%**	**11.5%**
Blended Benchmark (1)				***5.9%***	***7.0%***	***8.5%***
Absolute Return						
APFC Absolute Return	**$2,695**	**4.1%**	**5.0%**	**6.0%**	**3.3%**	**3.4%**
HFRI FOF Index				***5.7%***	***3.6%***	***4.4%***

(1) Blended figures derived by asset weighting each categories figures using current NAV.
Source: Callan official performance reports with one quarter lag to valuations.

Portfolio Highlights

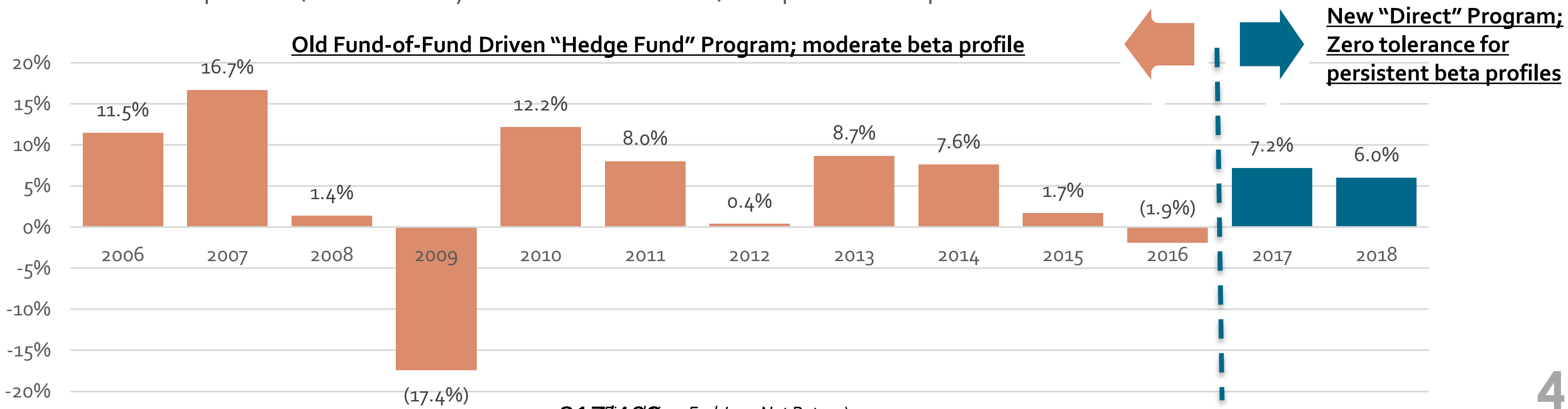
Quarter Ended June 30, 2018

Absolute Return	• Two years into new direct strategy, results continue to be promising with ~6-7% annualized returns over this period (vs. low single digits previously); made money in seven of the eight down months on the S&P 500 in this period • Month-to-month returns generally have been uncorrelated to broader markets
Private Real Estate	• Underlying portfolio performance remains solid (in spite of low leverage profile and occasional quarter-to-quarter appraisal "noise") and generating strong cash distributions to the APFC • Focused on International diversification (via funds/co-invest) and direct investment activity (mostly domestic) led by in-house team
Private Credit	• As is the case with Absolute Return, we have (in the past several years) moved away from a Fund-of-Fund model for Private Credit; the new Staff Direct program has been performing particularly well • Net Returns solidly beating the investable benchmark (US High Yield) for FYTD, 1-year, 3-year and 5-year periods
Income Opportunities	• Portfolio today is relatively small and have three investments that make up substantially all of current exposure (American Homes for Rent JV, Generate Capital direct equity investment, and ADAC in-house direct credit effort) • Area of portfolio where the team can (i) take advantage of market dislocations with larger investments or non-traditional structures and (ii) where investments in private income generating assets can be made which may not fall under the other categories of Infrastructure, Private Credit and Real Estate
Private Infrastructure	• Twelve years since the establishment of APFC's Private Infrastructure program, the portfolio is a well diversified mix of Transportation, Energy and Other (Telecom, Waste, Timber) inflation-protected cash yielding investments with a mix of Fund investments and Direct/Co-Investments • Portfolio has benefitted from being the first area of the APFC Private Markets portfolio where a co-investment strategy was implemented

Absolute Return

Program Summary and Objectives

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



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Note: All returns per Callan year-end monthly performance report.

Absolute Return (cont'd)

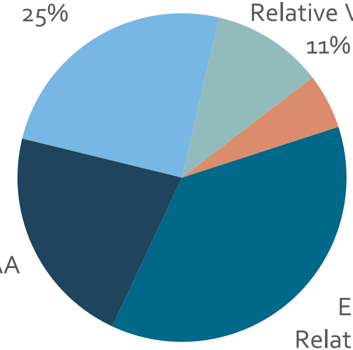
Portfolio Performance

($ in millions)	Jun-18 NAV	4Q18 Return	FY18 Return	FY17 Return
Fund-of-Funds	**$461**	**1.1%**	**8.4%**	**11.2%**
Crestline	$355	0.4%	9.2%	15.9%
Mariner	$106	3.1%	8.3%	6.9%
Direct Portfolio	**$2,210**	**0.4%**	**5.9%**	**4.4%**
Absolute Return Portfolio	**$2,670**	**0.5%**	**6.5%**	**8.4%**

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

Direct Portfolio Overview

Strategy Mix



Portfolio Statistics

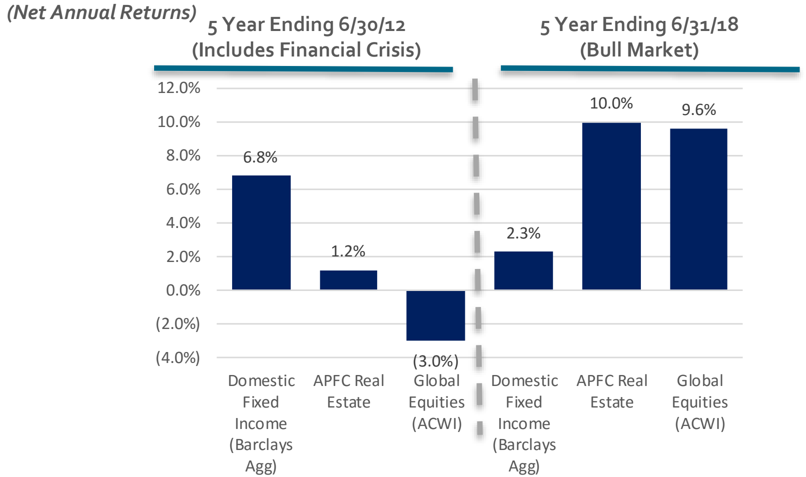
Avg Return	**5.13%**
Volatility	**3.03%**
Sharpe	**1.35**
Corr to S&P	**-0.18**
Corr to HFRI	**-0.20**

Private Real Estate

Program Summary and Objectives

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

Real Estate's Place in Risk/Return Landscape



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

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

Private Real Estate

Real Estate Portfolio Composition by Property Type

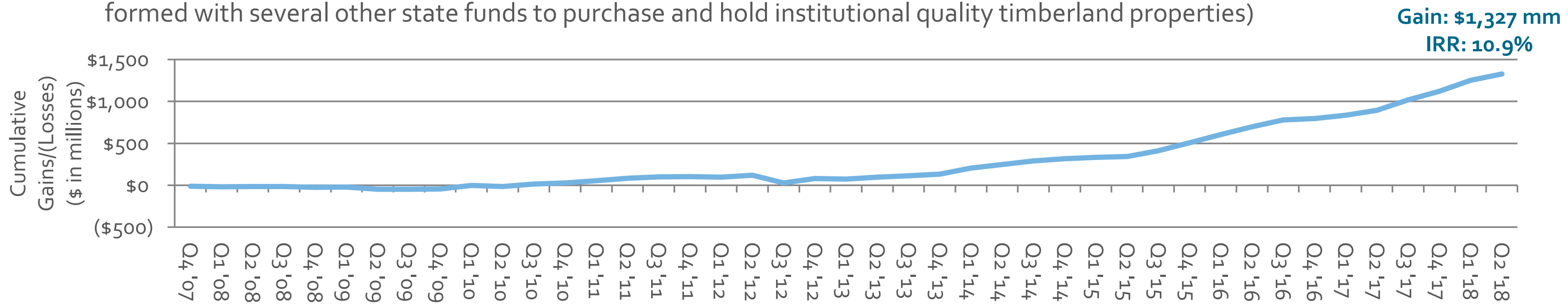
Property Type	March 2018 Market Value ($mm)	% of Portfolio	NCREIF % of Portfolio March 2018	LTV %	RETURNS			
					1 Year		3 Year	
					APFC	NCREIF	APFC	NCREIF
Hotel	$68	2%	1%	0.0%	7.8%	6.2%	12.1%	7.0%
Industrial	$305	7%	15%	23.8%	18.7%	13.5%	13.9%	13.3%
Multi-Family	$322	8%	24%	21.5%	6.8%	6.4%	10.5%	8.0%
Office	$1,481	36%	37%	26.6%	3.1%	6.6%	5.7%	7.7%
Retail	$1,922	47%	23%	34.7%	8.8%	4.8%	9.3%	8.4%
Total:	**$4,098**	**100%**	**100%**	**29.8%**	**7.0%**	**7.1%**	**8.9%**	**8.7%**

(Note: Real Estate values and returns are reported with a one quarter lag. 2Q18 actual values as of 3/31/18.)

Private Infrastructure

Program Summary and Objectives

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

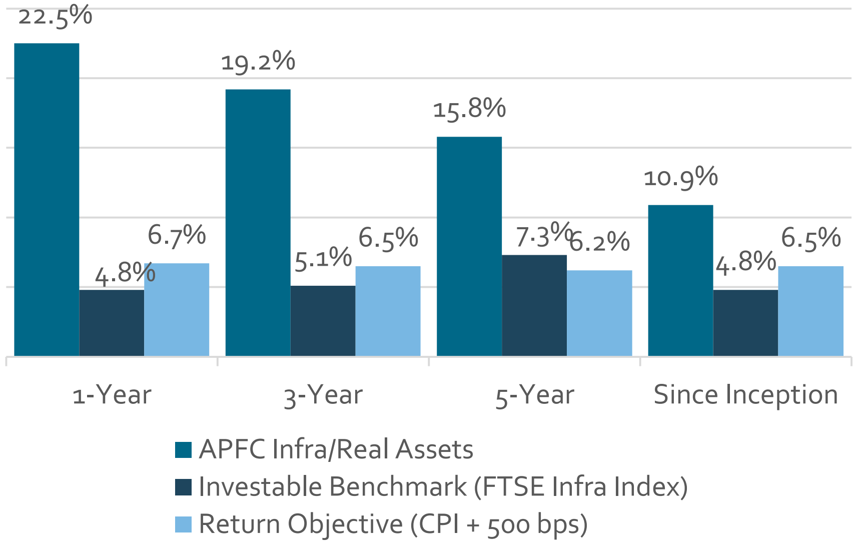


Since Inception Net IRR @ Calendar Year End

2.4%	3.7%	6.0%	7.3%	8.8%	10.3%

Private Infrastructure (Cont'd)

Horizon IRR's @ March 31 Marks



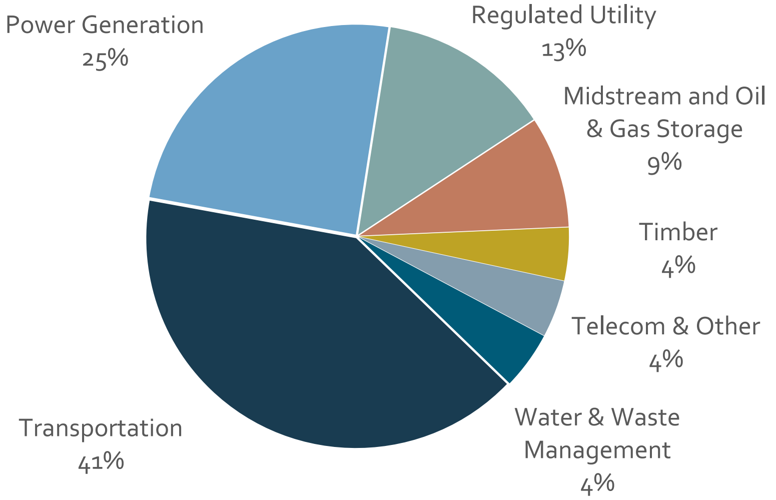
Since Inception Portfolio Performance

($ in millions)	Capital Committed	Capital Called	Capital Returned	Current Value	Net IRR	Multiple-of-Money
Pre-2012 Funds	$1,700	$1,569	$1,380	$1,246	10.6%	1.67x
2012 and Newer Funds	$1,956	873	242	735	9.2%	1.12x
Total Fund Investments	$3,656	$2,442	$1,622	$1,982	10.5%	1.48x
Timber JV	$119	$92	$3	$89	0.2%	1.00x
Co-Investments	$301	$301	$13	$356	14.7%	1.22x
Listed Infrastructure	$300	$300	$397	$0	10.6%	1.32x
Total - 12/31/17	**$4,376**	**$3,135**	**$2,035**	**$2,426**	**10.9%**	**1.42x**
12-Months Ago	*$3,684*	*$2,555*	*$1,557*	*$1,892*	*9.3%*	*1.35x*
Total (Excl. Citi Infra)	**$3,876**	**$2,688**	**$1,929**	**$2,136**	**15.3%**	**1.51x**

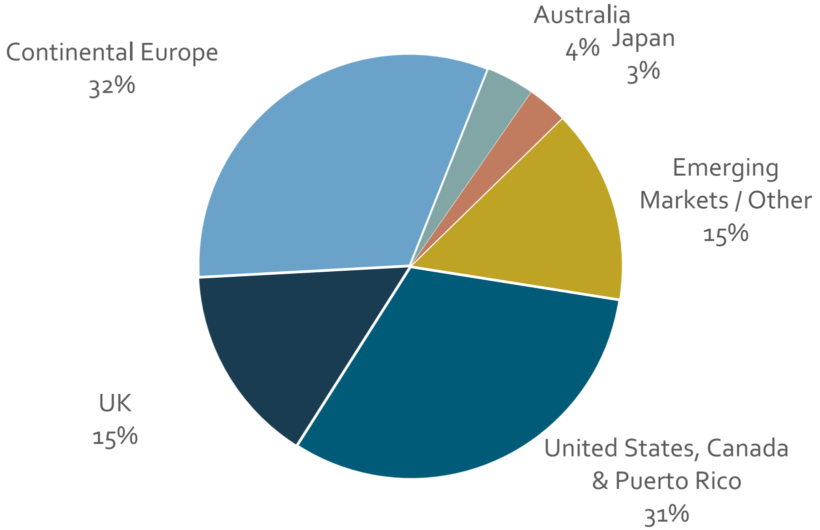
Note: Returns are as of March 31, 2018 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Private Infrastructure (Cont'd)

Sector Mix



Geographic Mix



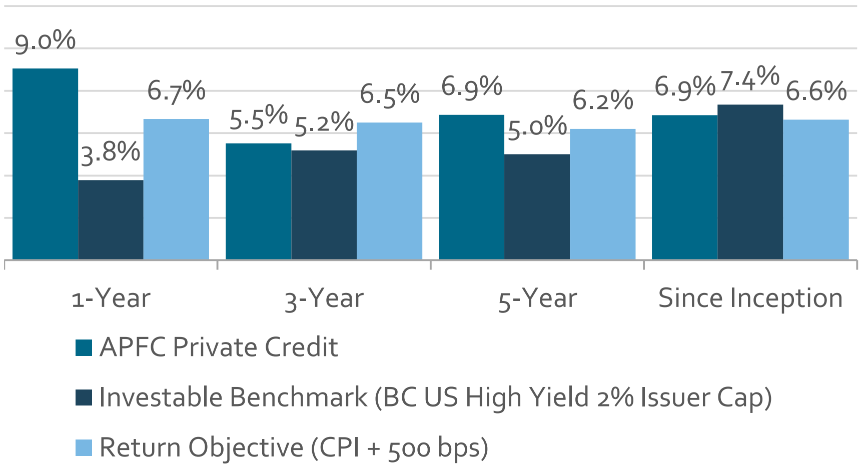
Private Credit and Income Opportunities

Program Summary and Objectives

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

Private Credit

Horizon IRR's @ March 31 Marks



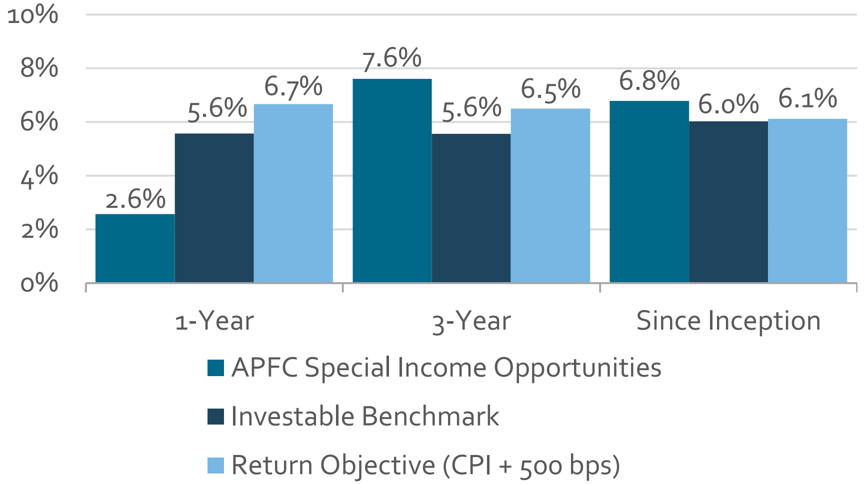
Note: Returns are as of March 31, 2018 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Since Inception Portfolio Performance

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
Crestline AK Distressed Investments	2007	$429	$452	$0	2.4%	1.1x
Oak Tree VIII (Distressed Debt)	2009	$250	$327	$36	9.1%	1.4x
Oak Tree III (Mezzanine Debt)	2010	$229	$285	$15	9.7%	1.3x
Audax III (Mezzanine Debt)	2010	$223	$210	$77	9.5%	1.3x
AK Credit Opportunities Fund	2011	$716	$353	$700	6.5%	1.5x
Audax IV (Mezzanine Debt)	2015	$11	$1	$10	2.8%	1.0x
Crestline AK Opportunistic	2015	$152	$33	$138	10.5%	1.1x
APFC Staff Direct	2015	$201	$20	$196	11.7%	1.1x
Total Private Credit		**$2,211**	**$1,680**	**$1,172**	**6.9%**	**1.3x**
12 months ago		*$2,023*	*$1,461*	*$1,105*	*6.6%*	*1.3x*

Income Opportunities

Horizon IRR's @ March 31 Marks



Note: Investable Benchmark is 60% FTSE Developed Core Infrastructure and 40% Barclays U.S. High Yield. Returns are as of March 31, 2018 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Since Inception Portfolio Performance

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
American Homes for Rent II	2013	$161	$32	$165	7.4%	1.2x
Athyrium Opportunities Fund II	2016	$8	$1	$7	NM	1.0x
Generate Capital	2017	$85	$0	$85	NM	1.0x
BroadRiver III	2017	$4	$2	$2	NM	0.9x
Total Income Opportunities		**$260**	**$36**	**$258**	**6.8%**	**1.1x**
12 months ago		*$164*	*$30*	*$169*	*10.5%*	*1.2x*

Strategic Plan Review Memo

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

SUBJECT: APFC Strategic Plan FY17-FY21 ACTION: ______________

DATE: September 6, 2018 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 FY2018, 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.

Strategic Plan Review

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)

FY20 Budget Approval Memo

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

SUBJECT: **FY2020 Proposed Budget** **ACTION:** X

DATE: **September 27, 2018** **INFORMATION:** ____________

The FY2020 budget request was presented to the Board at the budget work session on September 6th. Feedback from this discussion has been incorporated into the request as presented in this memo.

Staff is requesting approval of the FY20 budget at this meeting. The Office of Management and Budget will review the Board's request and the Governor's proposed budget for all public agencies, including the APFC, will be presented to the Legislature by December 15th 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 on occasion this has been delayed by extended Legislative sessions.

The Alaska Permanent Fund Corporation's operating budget appropriation has historically been divided into two allocations: one for operations of the corporation and one for costs related to investment management. A detailed breakdown of these two allocations can be found in the appendix to this memo. Two scenarios are presented below: one that includes the incentive compensation program for Investment staff that was approved by the Board in May and one that includes a 3 percent retention adjustment for all staff and no funding for incentive compensation.

	Authorized	Proposed with Incentive Comp	Variance	Without Incentive Comp	Variance
	FY2019	**FY2020**	**From FY2019**	**FY2020**	**From FY2019**
Operating Allocation	$ 18,074,600	$ 20,986,600	$ 2,912,000	$ 19,182,700	$ 1,108,100
Investment Management Allocation	$ 150,498,700	$ 155,795,000	$ 5,296,300	$ 155,795,000	$ 5,296,300
Total Appropriation	**$ 168,573,300**	**$ 176,781,600**	**$ 8,208,300**	**$ 174,977,700**	**$ 6,404,400**

OPERATING ALLOCATION

The Operating Allocation is separated into five objects of expenditure, each of which is discussed below.

Personal Services –

	Authorized	Proposed with Incentive Comp	Variance	Without Incentive Comp	Variance
	FY2019	FY2020	From FY2019	FY2020	From FY2019
Personal Services	$ 11,861,201	$ 14,893,600	$ 3,032,399	$ 13,089,700	$ 1,228,499

New position requests

APFC has a total of 57 full-time and 2 part-time, year-round positions plus 2 summer interns. Ten full-time positions were added in FY2019. There are currently 13 full-time vacancies, including the Chief Investment Officer position, and 2 part-time vacancies. The breakdown of filled and vacant FTEs by department be found in the table below. Filling these vacancies continues to be a priority.

CURRENT COUNT BY DEPARTMENT	FILLED FTEs	VACANT FTEs
Executive	6	0
Investments	21	7
Finance	11	3
Information Technology	4	2
Administration	2	2**

** Includes 1 full-time and 2 part-time positions

The FY2020 budget proposal includes four new positions: one investment officer, one investment associate, one attorney and one administrative assistant for Human Resources. As the portfolio grows and the focus on internal investing in private markets continues, it is necessary to add staff to monitor and manage these investments. It is difficult to anticipate at this point, exactly where the staffing needs will exist, so the new investment positions have not been assigned to a particular asset class. Staffing requirements will continue to be evaluated to determine the most effective use of these positions within Investments.

With the asset allocation shifting towards a greater participation in private markets, the legal work required to vet and onboard these investments has compounded. Currently, APFC has a memorandum of understanding with the Alaska Department of Law allowing APFC to retain general counsel to provide legal counsel on matters related to investment transactions of the Fund as well as other legal matters as they may relate to the Fund or APFC. In consultation with the Attorney General and Department of Law, we concluded that pursuing an additional in-house legal position at this time was warranted. The new position being requested will assist General Counsel on all Fund and APFC legal matters.

APFC plans to expand the college intern program to include opportunities outside of the corporation. We will partner with our investment managers to provide internships to Alaskan students studying outside of Alaska as well as any student attending a university within Alaska. In order to support this program, administrative support for Human Resources is necessary.

The FY2020 personal services request represents the total cost of the four new positions, full staffing of existing positions, funding of retention adjustments for all staff as well as incentive compensation for Investments staff. For comparison purposes, total cost without the funding of incentive compensation is shown as well. Amounts requested reflect an anticipated vacancy rate of 3%.

Travel –

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Travel	$ 1,203,200	$ 1,203,200	$ -

The FY2019 authorization for Travel contained a significant increment over FY2018. Staff anticipates that this level of funding will be adequate to allow for increased international travel as the portfolio continues to grow in its global exposure, as well as additional travel for the four new positions. No increment is being requested for FY2020.

Contractual Services –

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Contractual Services	$ 4,174,899	$ 4,084,800	$ (90,099)

Detailed comparisons for the areas discussed below are found in the appendix to this memo.

Audit, Legal, Consulting – Professional services which support the broader needs of the Corporation are contained within this group, such as audit, and legal and consultants not directly related to Fund investments. This line contains an increment for the annual audit in anticipation of possible increased cost as this contract will go out to bid for the FY2020 audit. The requests for legal fees and corporate consulting were reduced based upon actual experience of the last several years. This results in a decrement over FY2019 of approximately $40,000 for this line.

Public Communications – This group encompasses all of the layout and design, printing, and web hosting services which support the communications program. Costs are not expected to increase over FY2019.

Board Meetings – Items related to board support and board meetings, including room and equipment rentals, refreshments, transcription services, and board packet software are included in this group. The FY2020 request contains a small decrement, which is reflective of most board meetings being held at the corporate offices in Juneau.

Information Technology – All of the IT contractual services related to the general support of the corporation are in this group. This includes software licenses, support, equipment repairs, and telecommunications costs. There is a decrement included in this line of approximately $100,000. Anticipated expenses in this area for FY2020 include continuing work on the business continuity project started in FY2018, security audits, as well as ongoing maintenance and support of existing technology.

HR and Recruitment – Due to the reduction in requested positions from ten in FY2019 to four in FY2020, the budget request for HR and recruitment includes a decrement for expenses such as notices, recruitment travel, and moving expenses. There is an increment included for software to enhance the capabilities of our Bamboo human resource system.

Training – Training and professional certifications for staff are important to ensure that APFC can continue to compete in global investment markets in order to effectively manage and grow the portfolio. The FY2020 request includes a small increment over FY2019 to cover training expenses of the new positions requested.

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 FY2020 budget proposal includes natural growth in these support costs due to a growing staff and general inflationary increases.

Commodities and Equipment –

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Commodities	$ 435,300	$ 355,000	$ (80,300)
Equipment	$ 400,000	$ 450,000	$ 50,000

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, and office supplies. The two lines are differentiated 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 the appendix.

Information Technology – With the project to enable staff to work remotely through VPN and VDI largely complete in FY2019, we anticipate a lesser need for workstation and other commodities purchases for IT. Therefore, the FY2020 proposal includes a $110,000 decrement in this area. The amount included will be used for equipment for the new positions as well as other standard maintenance and replacements. There is a $50,000 increase in the Equipment line for IT to cover replacement of end-of-life equipment in the data center.

Office Support – The Commodities budget includes subscriptions to industry publications, office supplies and paper. The increase in the request for FY2020 is due to anticipated cost increases for commodities at the current usage level. It also includes an amount to cover potential purchases related to the office reconfiguration which were not anticipated in the FY2019 request.

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
	FY2019	FY2020	From FY2019
Investment Manager Fees	$ 136,520,085	$ 140,591,800	$ 4,071,524

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 through net-of-fee arrangements. Projected growth of the Fund means an increase in externally managed assets, resulting in requested increments over the FY2019 budget. All asset classes except for real estate have requested increments due to growing assets under management. The real estate assets are now managed exclusively under net-of-fee arrangements so the request for that line goes to zero.

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Investment Due Diligence	$ 7,178,200	$ 7,178,200	$ -

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 FY2019 funding level is expected to be sufficient to cover the anticipated need in this area for FY2020 so this request is being held flat. As in FY2019, this proposal includes funding for APFC to host the annual IFSWF meeting in Juneau in the Fall of 2019.

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Investment Systems	$ 5,300,415	$ 6,425,000	$ 1,124,585

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 FY2020 request includes natural growth in existing subscription costs, as well as a provision for potential new systems and feeds. As the portfolio evolves into new types of investments, additional supporting analytics is required. The FY2020 proposal also includes increases in the user licenses for systems that new employees in the Investments department will need to manage investments.

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Custody Fees	$ 1,500,000	$ 1,600,000	$ 100,000

Custody Fees – Bank of New York Mellon is the custodian of the Fund's assets. Custody fees are increasing as exposure to emerging markets increases, some of which require additional support services.

Proposed Motion:

The Board of Trustees authorizes APFC staff to:

1. Carry forward the FY2020 proposed Operating and Investment Management Allocations, including funding for an incentive compensation program for Investment staff, 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 $176,781,600 is appropriated from Alaska Permanent Fund corporate receipts for the investment and operating costs of the Alaska Permanent Fund Corporation."

Presentation: FY20 Proposed Budget

APFC ALASKA PERMANENT FUND CORPORATION

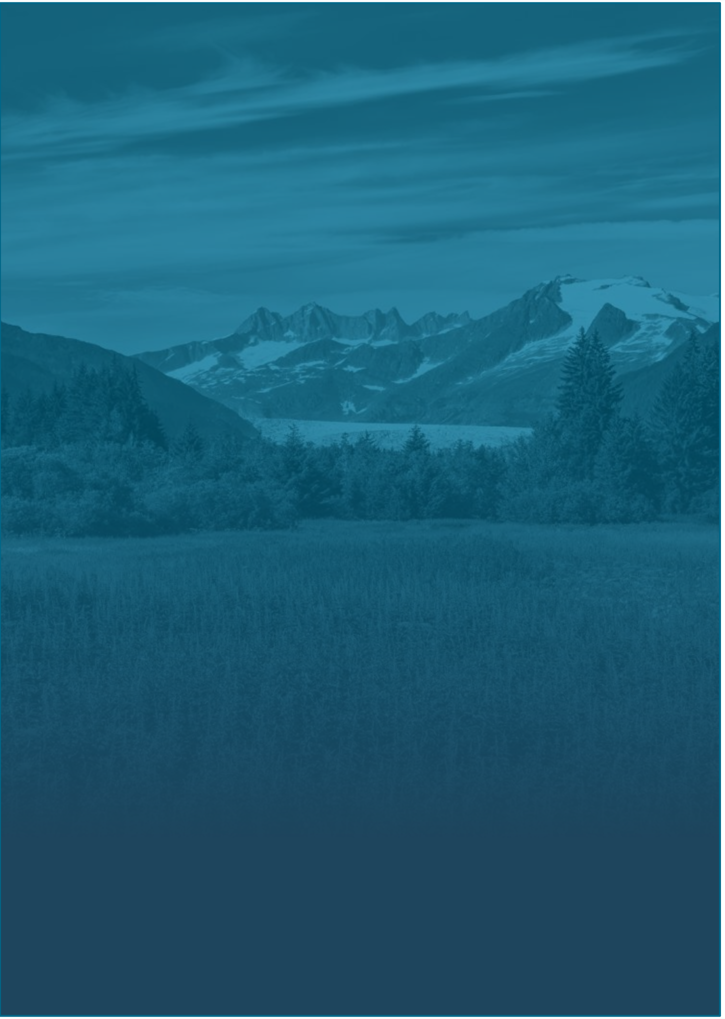
FY2020 Proposed Budget

September 27, 2018

Two Allocations -

- Corporate Operations
- Investment Management Fees

Capital Budget



Corporate Operations

- Personal Services
- Travel
- Contractual Services
- Commodities
- Equipment

Total Corporate Operations

Corporate Operations	Authorized	Proposed with Incentive Comp	Variance		Without Incentive Comp	Variance
	FY2019	FY2020	From FY2019		FY2020	From FY2019
	$ 18,074,600	$ 20,986,600	$ 2,912,000		$ 19,182,700	$ 1,108,100

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Personal Services

Personal Services	Authorized	Proposed with Incentive Comp	Variance		Without Incentive Comp	Variance
	FY2019	FY2020	From FY2019		FY2020	From FY2019
	$ 11,861,201	$ 14,893,600	$ 3,032,399		$ 13,089,700	$ 1,228,499

- Salaries
- Benefits
- Trustee Honorarium

Travel

Travel	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
	$ 1,203,200	$ 1,203,200	$ -

- Staff
- Trustee
- Moving/Non-employee

Contractual Services

Contractual Services	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
TOTAL	$ 4,174,899	$ 4,084,800	$ (90,099)
Audit, Legal, Consulting	$ 434,270	$ 392,300	$ (41,970)
Public Communications	$ 146,500	$ 146,500	$ -
Board Support & Meetings	$ 56,350	$ 54,850	$ (1,500)
Information Technology	$ 2,581,564	$ 2,475,000	$ (106,564)
HR and Recruitment	$ 62,824	$ 68,000	$ 5,176
Training/Education	$ 186,620	$ 190,000	$ 3,380
Office Support	$ 706,771	$ 758,150	$ 51,379

Commodities & Equipment

	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
Commodities	$ 435,300	$ 355,000	$ (80,300)
Equipment	$ 400,000	$ 450,000	$ 50,000

- Office/IT Supplies
- Subscriptions
- Equipment < $5,000
- Equipment > $5,000

Investment Management Allocation

Investment Management	Authorized	Proposed	Variance
	FY2019	FY2020	From FY2019
TOTAL INVESTMENT MANAGEMENT FEES	$ 136,520,085	$ 140,591,800	$ 4,071,715
Public Equity	$ 82,493,617	$ 88,473,871	$ 5,980,254
Fixed Income Plus	$ 13,116,245	$ 12,270,507	$ (845,738)
Real Estate	$ 780,000	$ -	$ (780,000)
Alternative Investments	$ 40,130,223	$ 39,847,422	$ (282,801)
Investment Due Diligence	$ 7,178,200	$ 7,178,200	$ -
Investment Systems	$ 5,300,415	$ 6,425,000	$ 1,124,585
Custody Fees	$ 1,500,000	$ 1,600,000	$ 100,000
TOTAL INVESTMENT MNGMNT ALLOCATION	$ 150,498,700	$ 155,795,000	$ 5,296,300

Proposed Motion

- Carry forward the FY2020 proposed Operating and Investment Management Allocations, including funding for an incentive compensation program for Investment staff, to the Governor and Legislature.

- Request that the Corporation's budget be included in the language section of the Operating Budget bill as follows:

  "An amount not to exceed $176,781,600 is appropriated from Alaska Permanent Fund corporate receipts for the investment and operating costs of the Alaska Permanent Fund Corporation."


Questions?

FY20 Proposed Budget Request

APFC ALASKA PERMANENT FUND CORPORATION

Appendix
Alaska Permanent Fund Corporation
FY2020 Budget Proposal

Budget Line	Actual FY2018	Authorized FY2019	Proposed with Incentive Comp FY2020	Variance From FY2018	Variance From FY2019	Without Incentive Comp FY2020	Variance From FY2019
Personal Services	$ 9,378,315	$ 11,861,201	$ 14,893,600	$ 5,515,285	$ 3,032,399	$ 13,089,700	$ 1,228,499
Staff	9,361,102	11,833,661	14,857,800	5,496,698	3,024,139	13,053,900	1,220,239
Trustees: Honoraria	17,213	27,540	35,800	18,587	8,260	35,800	8,260
Travel	550,889	1,203,200	1,203,200	652,311	-	1,203,200	-
Staff	498,068	946,077	982,100	484,032	36,023	982,100	36,023
Trustees	20,509	45,623	71,600	51,091	25,977	71,600	25,977
Recruitment Travel	32,312	211,500	149,500	117,188	(62,000)	149,500	(62,000)
Contractual Services	1,566,185	4,174,899	4,084,800	2,518,615	(90,099)	4,084,800	(90,099)
Audit, Legal, Consulting	254,095	434,270	392,300	138,205	(41,970)	392,300	(41,970)
Public Communications	127,360	146,500	146,500	19,140	-	146,500	-
Board Support and Meetings	25,952	56,350	54,850	28,898	(1,500)	54,850	(1,500)
Information Technology	434,570	2,581,564	2,475,000	2,040,430	(106,564)	2,475,000	(106,564)
HR and Recruitment	47,698	62,824	68,000	20,302	5,176	68,000	5,176
Training/Education	44,169	186,620	190,000	145,831	3,380	190,000	3,380
Office Support	632,341	706,771	758,150	125,809	51,379	758,150	51,379
Commodities	160,361	435,300	355,000	194,639	(80,300)	355,000	(80,300)
Information Technology	121,875	385,000	275,000	153,125	(110,000)	275,000	(110,000)
Office Support	38,486	50,300	80,000	41,514	29,700	80,000	29,700
Equipment	73,708	400,000	450,000	376,292	50,000	450,000	50,000
Information Technology	73,708	400,000	450,000	376,292	50,000	450,000	50,000
Operating Allocation Total	**$ 11,729,458**	**$ 18,074,600**	**$ 20,986,600**	**$ 9,257,142**	**$ 2,912,000**	**$ 19,182,700**	**$ 1,108,100**

Budget Line	Actual FY2018	Authorized FY2019	Proposed with Incentive Comp FY2020	Variance From FY2018	Variance From FY2019	Without Incentive Comp FY2020	Variance From FY2019
Investment Management Fees	$ 118,947,372	$ 136,520,085	$ 140,591,800	$ 21,644,428	$ 4,071,715	$ 140,591,800	$ 4,071,715
Equity	73,052,540	82,493,617	88,473,871	15,421,331	5,980,254	88,473,871	5,980,254
Fixed Income Plus	10,619,695	13,116,245	12,270,507	1,650,812	(845,738)	12,270,507	(845,738)
Real Estate	472,341	780,000	-	(472,341)	(780,000)	-	(780,000)
Alternative Investments	34,802,796	40,130,223	39,847,422	5,044,626	(282,801)	39,847,422	(282,801)
Investment Due Diligence	3,143,720	7,178,200	7,178,200	4,034,480	-	7,178,200	-
Investment Systems	4,152,345	5,300,415	6,425,000	2,272,655	1,124,585	6,425,000	1,124,585
Custody Fees	1,351,260	1,500,000	1,600,000	248,740	100,000	1,600,000	100,000
Investment Management Allocation Total	**$ 127,594,697**	**$ 150,498,700**	**$ 155,795,000**	**$ 28,200,303**	**$ 5,296,300**	**$ 155,795,000**	**$ 5,296,300**

Legislative Requests Memo

SUBJECT: Legislative Initiatives ACTION: X

DATE: September 27, 2018 INFORMATION: ______

Outlined below are three issues the Corporation has identified that would require legislation to address. The goal of this agenda item is to generally discuss each of these issues and solicit feedback from the Board on which issues, if any along with any others not listed below, you would support advancing 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 (i.e. exercising its investment powers) 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 investments opportunities must often be completed within a relatively short time frame and often involve proprietary information, application of the state procurement code (with built in timelines and the public process/transparency process) 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.

c. **Proposed sample language-**

"AS 36.30.850(b) is proposed to be amended by adding a new subsection to read:
(49) a contract of the Alaska Permanent Fund Corporation to provide investment related services for assets managed by the Alaska Permanent Fund Corporation."

2. Inflation Proofing

a. **Issue**-The passage of SB 26 preserved in laws the existing language for inflation proofing the Fund and the FY19 Operating Budget included an estimated amount for inflation proofing the current year. Inflation proofing was not appropriated for FY16, FY17 or FY18. Any amount for FY20 and beyond is subject to appropriation and continues to be a risk for the Fund. Given the Trustees' stated goal to preserve the purchasing power of the Fund for future generations, a more permanent, long-term solution may be in order.

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 of the fund to hold the corpus of the Fund harmless from the effects of inflation just like we currently use realized gains to offset realized losses.

c. **Proposed sample language**-

"AS 37.13.140 is proposed to be amended to read:
Net income of the fund shall be computed annually as of the last day of the fiscal year in accordance with generally accepted accounting principles, excluding<u>: (1)</u> any unrealized gains and losses**<u>; and (2) an amount to be transferred annually to the principal of the fund to offset the impacts of inflation</u>**."

3. **<u>Corporation Budget (AS 37.13.150)</u>**

a. **Issue**-Under existing law APFC must seek an annual appropriation of Fund earnings to cover both the costs of operating the corporation and the costs associated with external managers that are not paid out of the investment proceeds that we have hired them to manage (i.e. public equity managers). APFC continues to believe it is time to find a new budget paradigm that will allow the Fund and its managers to continue operating. Two proposed solutions are outlined below:

b. **Preferred Proposed Solution**-The most effective solution would be to request a change to APFC's investment authority so that *all* investment related costs could be financed with Fund assets (i.e. be a direct cost of the investment) rather than being funded with Fund *earnings* through an annual appropriation. To be clear, this is already how our private market investments are structured. This proposed change would include both costs associated with external managers (i.e. public equity managers), as well as the costs of operating the corporation (i.e. APFC operating budget). All of these investment costs would be tracked and reported to ensure transparency on how much was spent while investing the assets of the Fund.

c. **Proposed Sample Language**-

"AS 37.13.120(a) is proposed to be amended to read:
(a)The board shall adopt regulations specifically designating the types of income producing investments eligible for investment of fund assets**<u>, including the internal and external costs associated with making and managing these investments</u>**.

AS 37.13.150 is proposed to be repealed."

d. **Alternate Proposed Solution**-If the Board, Administration, or Legislature prefers the status quo (i.e. Fund earnings and annual appropriation used to cover APFC's internal and external budget (except private market investments)), we could request the Legislature approve APFC's budget two fiscal years in advance. For example, while the Legislature is working on the FY20 budget for state government APFC would request an appropriation for FY21. So, if come June 30, 2019 the Legislature has not yet approved a budget for FY20, APFC will avoid being swept up in a potential government shutdown because APFC's FY21 budget will have been approved in the FY20 budget.

e. **Proposed Sample Language-**

"AS 37.13.150 is proposed to be amended to read:
The revenue generated by the fund's investments must be identified as the source of the operating budget of the corporation **<u>and should be included in the state's operating budget two fiscal years in advance of the fiscal year in which the operating budget is being considered</u>** [in the state's operating budget under AS 37.07 (Executive Budget Act)]. **<u>The operating budget of the corporation shall be developed and approved by the board and is exempt from the Executive Budget Act under AS 37.07.</u>** The unexpended balance of the corporation's annual operating budget does not lapse at the end of the fiscal year but shall treated as income under AS 37.13.140.

Investing in Global Real Estate Memo

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

SUBJECT: Investing in Global Real Estate ACTION: Click to Enter Text.

DATE: September 27, 2018 INFORMATION: X

BACKGROUND:

Marcus Frampton, Acting Chief Investment Officer and Director of Real Assets and Absolute Return, will moderate a question and answer session following presentations by participating panelists.

Biographies of Participants:

Taylor Mammen (Managing Director, Institutional, RCLCO)

Taylor Mammen is a Managing Director based in RCLCO's Los Angeles office and currently serves as the firm's Director of Institutional Advisory Services (IAS). Since joining RCLCO in 2006, he has directed and managed consulting engagements in each of the firm's practice areas, across a wide range of geographies. As Director of IAS, Taylor leads the firm's institutional investor client relationships, including directing investment strategy, underwriting, and asset management responsibilities. Taylor has helped establish the IAS practice within RCLCO while sourcing and underwriting approximately $4 billion in equity commitments to separate accounts and funds on behalf of public pension funds. He also serves on RCLCO's Executive Committee, with responsibility for implementing firm strategy.

Taylor joined RCLCO after serving as director of research for a boutique government relations consulting firm in Washington, D.C. and working with the Boston Redevelopment Authority on a public-private initiative to revitalize and "re-knit" downtown Boston in response to the Big Dig. He received his Masters in City Planning from the Massachusetts Institute of Technology and a Bachelor of Arts in Political Science from Brigham Young University. He is an active member of the Pension Real Estate Association (PREA) and the Urban Land Institute.

Ben Maslan (CFA Principal, RCLCO)

Ben Maslan is a Principal based in RCLCO's Los Angeles, California office.
Ben serves across RCLCO's practice groups with a focus on investment analysis on behalf of the firm's institutional accounts and strategic planning and litigation support services. In these engagements he brings to bear his experience in various aspects within commercial and residential real estate, including risk management, due diligence, and underwriting

processes. He has experience examining national, regional, and local market trends for all types of real estate, including commercial, residential, construction, and land.

Prior to joining RCLCO, Ben spent six years at Cornerstone Research, where he managed a variety of economic and financial consulting projects. Ben previously worked at Transom Consulting Group in Los Angeles, a start-up strategy consulting firm, where he provided strategic solutions to financial services firms. Earlier in his career, Ben worked as a Summer Associate for Bank of America Securities and as a Senior Analyst at Mercer.

Ben holds an MBA from the UCLA Anderson School of Management and a Bachelor of Arts in Business Administration from the University of Washington. He is a Chartered Financial Analyst (CFA) charterholder.

Myles Sanger (Portfolio Director, CBRE)

Myles is portfolio director within the continental European Separate Accounts Business, responsible for several multi country investment portfolios. He joined CBRE Global Investors (then ING Real Estate Investment Management) in 2006 within the Pan European Acquisitions Team where he had primary responsibility for separate accounts and non-European funds investing in Europe. Prior to CBRE Global Investors, Myles worked for several large international real estate investors and management companies, including Deutsche Bank, Lend Lease and LaSalle.

Myles Sanger has worked in the real estate industry for over 25 years, much of which in the management of separate account mandates, including Nationale Nederlanden, the New South Wales Government Pension Scheme (A$1.6 billion) and the Continental European investments for Alaska Permanent Fund. He also has broad experience across Europe and internationally with regard to the acquisition, management and divestment of real estate in all sectors. Financial management and asset management teams responsible for client portfolios functionally report to him and he is responsible for the development and effective implementation of client strategy.

He has a degree in Land Economics from the University of Western Sydney and an MBA from the Australian Graduate School of Management (University of Sydney). He is a member of the Australian Property Institute and trained as a real estate valuer prior to moving into investment management.

Tim Munn (Director Separate Accounts EMEA, Head of Inbound Capital, CBRE)

Tim is a Senior Director of CBRE Global Investors having joined the company in September 1998. He leads a team within the EMEA Separate Accounts Group focused on clients from outside Europe. Based in London, Tim serves on the European Leadership Team, the UK Executive Committee and is Chairman of the UK Management Board. He is also a member of the UK Investment Committee and Portfolio Oversight Committee.

During his time at the company, Tim has undertaken numerous investment purchases and sales, whilst overseeing high value asset management initiatives on behalf of his clients. His experience includes the restructuring of take-over mandates, investing for new start-up accounts and managing disposal programs.

Tim serves on the Global Separate Accounts Committee and Global CIO Council. Alongside his EMEA responsibilities, Tim is utilizing his experience in running separate account mandates to facilitate cross regional investment and promote best practice globally as the company expands its global separate account business.

Tim is a professional member of the Royal Institution of Chartered Surveyors. In May 2003 he obtained the Investment Management Certificate from UKSIP (Society of Investment Professionals) and is now approved under Section 59 of the Financial Services & Markets Act 2000 to undertake regulated activities.

Tim graduated from the University of Oxford (Merton College) in August 1997 with a BA (Hons) degree in Modern History and he then completed a Masters in Property Valuation and Law at City University.

Barry Blattman (Senior Managing Partner and Vice Chairman, Brookfield)

Barry Blattman is Vice Chairman of Brookfield Asset Management, focusing on senior, strategic client and business relationships and contributes to general business development and transaction strategy globally. He also serves on the Investment Committee for all of Brookfield's private fund programs.

Prior to joining Brookfield in 2002, Mr. Blattman was a Managing Director at Merrill Lynch, having begun his career with Salomon Brothers in 1986.

Mr. Blattman holds a Bachelor of Arts from the University of Michigan and an MBA from New York University. He serves on the boards of Montefiore Medicine and Montefiore Health System, is chairman of Montefiore's Real Estate Planning & Development Committee, Co-Chair of the University of Michigan's NY Metropolitan Regional Campaign Council and is a member of The University of Michigan LSA Dean's Advisory Committee.

Presentation: RCLCO

GLOBAL REAL ESTATE MARKET AND TRENDS

Alaska Permanent Fund Corporation

September 27, 2018

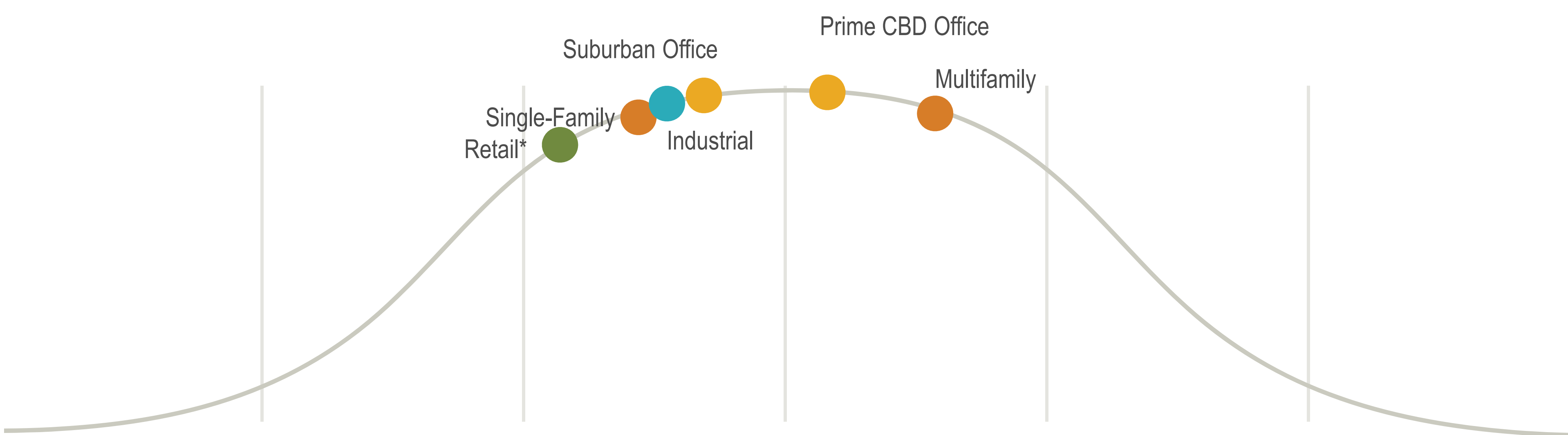
RCLCO
FUND ADVISORS

ECONOMIC TRENDS AND THEMES

	Trends and Themes	Possible Real Estate Strategies
LIVE	• Enduring lifecycle stage shifts and changes • Aging Millennials and Baby Boomers' "Silver Wall of Maturity " • Housing inventory at 30-year low suggesting pent up demand • Stagnant wage growth and increasing income inequality	• Lower Density Rental Products • For-Sale Housing Development • Active Adult and Seniors Housing • Manufactured Housing
WORK	• Companies locate to where talent wants to be and talent demands work spaces offering: o Proximity to housing, transportation, and amenities o Interesting and collaborative workspace • Large percentage of existing office stock may be structurally obsolete • Growing need/demand for health care	• Best Markets & Evolving Submarkets • Build New and Renovate "Best Properties": o Walkability to Transport & Amenities o Flexible Floor Plans o 21st Century Infrastructure • Medical Office, Evolving Health Care Real Estate
SHOP	• Industrial is the "new retail" through eCommerce • Consumers want "less stuff, more fun" • Convenience is paramount: o Location, location, location o Click and Shop • Increasing obsolescence of many retail centers	• Logistics-Based Industrial, from "Super Bulk" to "Last Mile" • Best Groceries in the Best Locations • Experiential Retail • Redevelop/Repurpose Obsolete Retail

PROPERTY MARKETS OUTLOOK: TWO BASIC STORIES

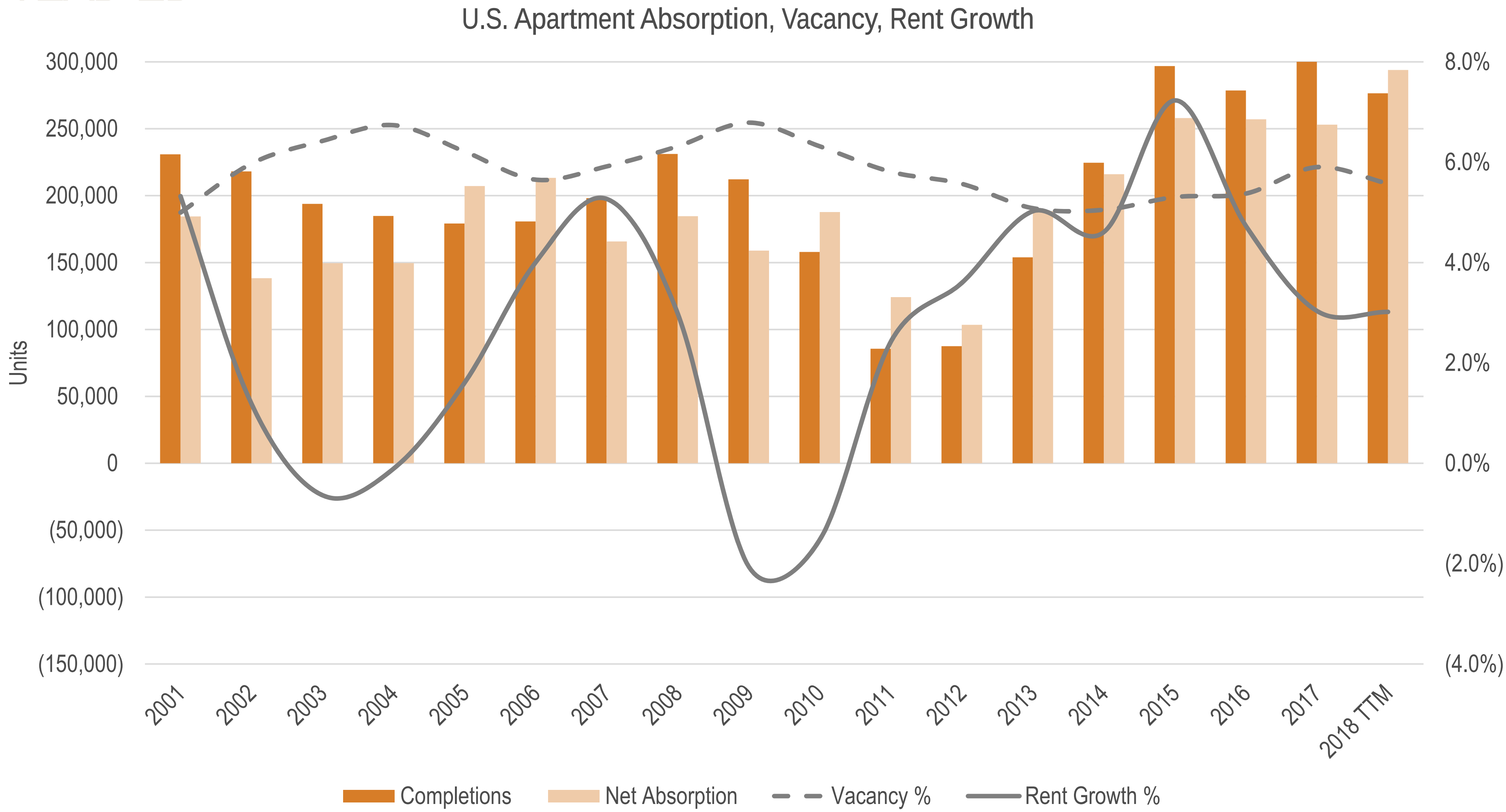
MULTIFAMILY: Still performing well across markets, though a high level of new inventory threatens occupancy and rent growth. Strong demand in long-term from household growth and increasing urbanization.	OFFICE: Significant variation in performance across markets, though generally sustained by limited construction. Declining long-term demand due to decrease in required space per worker and growth of co-working sector.
RETAIL: Virtually no new supply + economic growth are driving performance. Shift toward e-commerce threatens long-term fundamentals.	INDUSTRIAL: Strong performance even given new supply, with exceptionally high rent growth in supply-constrained markets.



* Community and neighborhood centers

APARTMENT DEMAND EXCEEDS SUPPLY; 1ST TIME SINCE 2013

OCCUPANCY DECLINED SLIGHTLY YOY, WHILE RENT GROWTH STEADIED



Notes: Apartment criteria filtered as follows: multifamily (apartment), 50+ units, and a 3-star or greater CoStar rating

Source: CoStar; RCLCO

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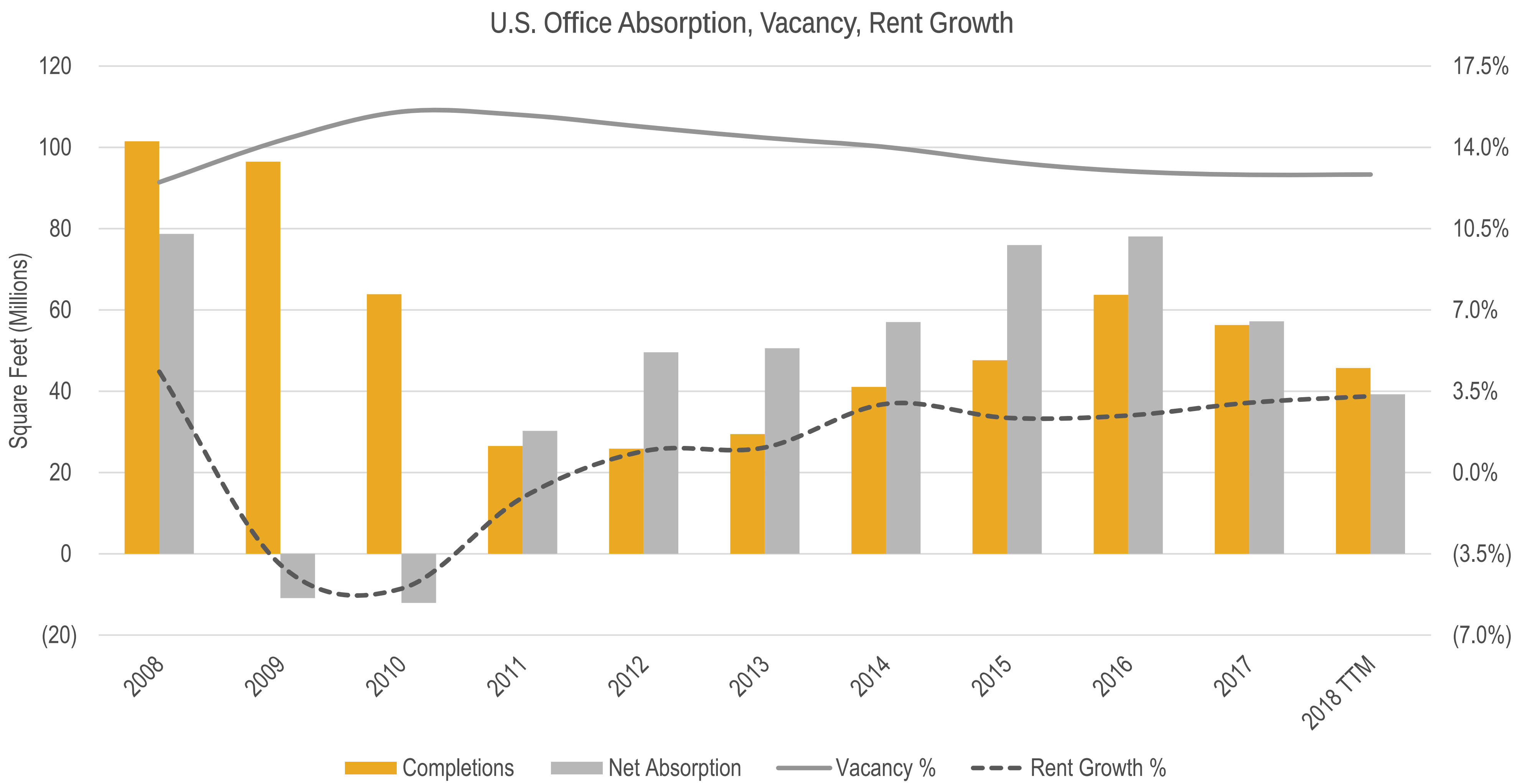
OFFICE NEW SUPPLY EXCEEDS NET ABSORPTION FOR 1ST YEAR SINCE 2010

RENT GROWTH INCREASES SLIGHTLY; VACANCY REMAINS STEADY



Note: Office criteria filtered as follows: office, not owner occupied, 30,000+ SF, and a 3-star or greater CoStar rating
Source: CoStar; RCLCO

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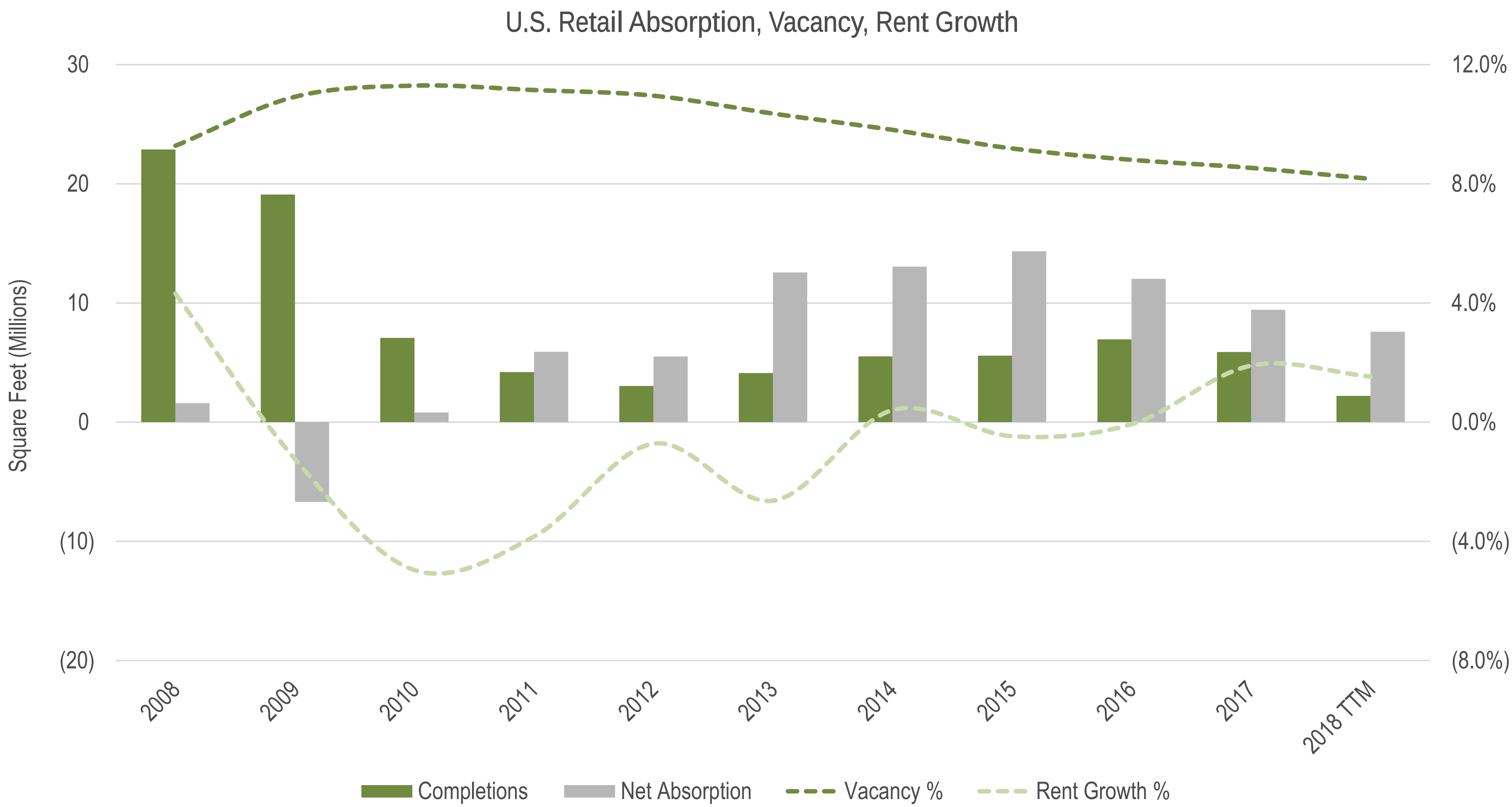
NEW SUPPLY OF RETAIL AT LOWEST LEVEL SINCE 2012

DECLINING VACANCY ATTRIBUTABLE TO LIMITED NEW SUPPLY



Notes: Above data is for neighborhood and community centers only; Retail criteria filtered as follows: retail property in a shopping center, not owner occupied, 30,000+ SF, multiple tenancy, and a 3-star or greater CoStar rating

Source: CoStar; RCLCO

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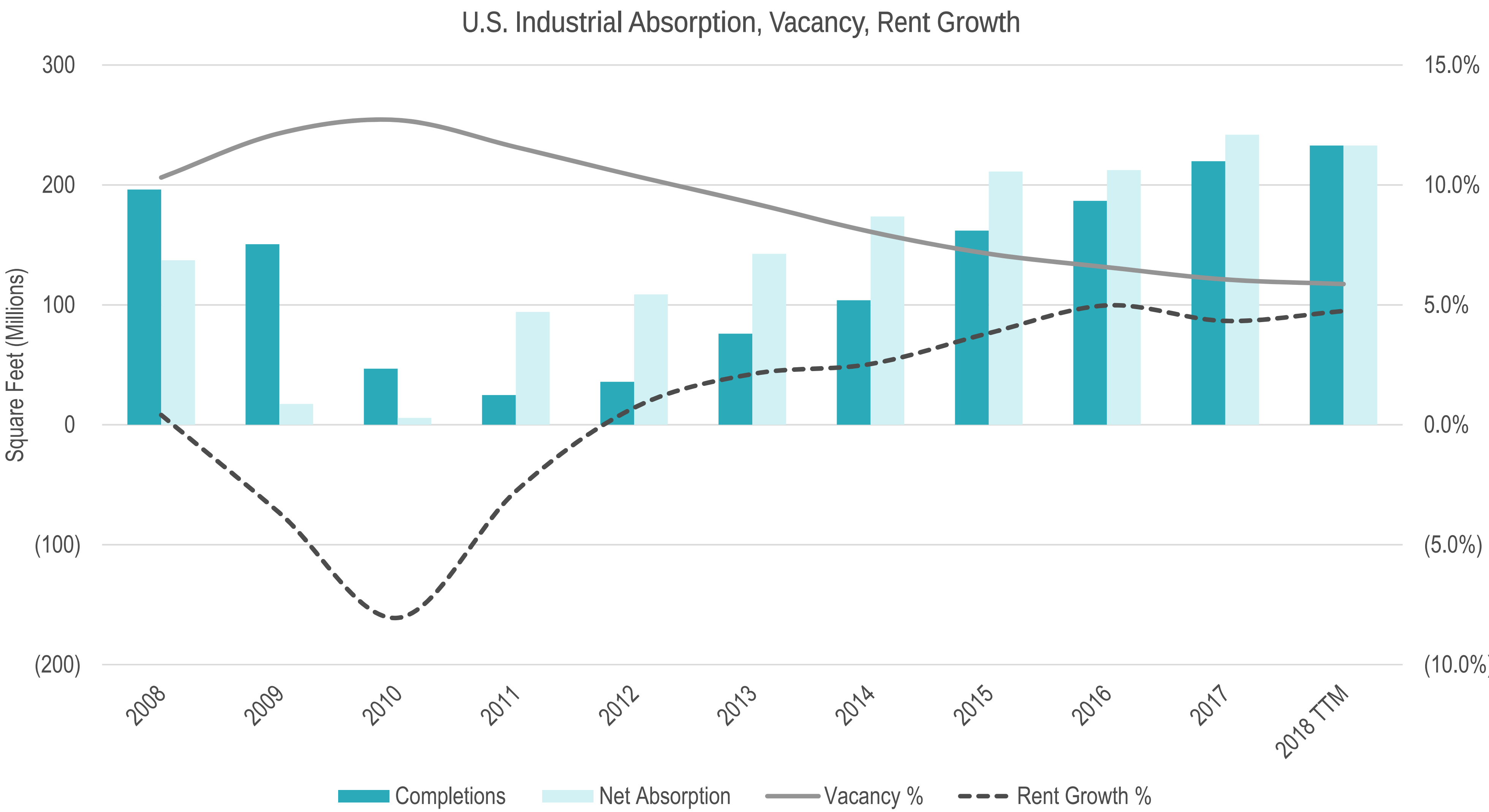
INDUSTRIAL SUPPLY AND DEMAND IN EQUILIBRIUM

OCCUPANCY AND RENT GROWTH CONTINUE TO INCREASE



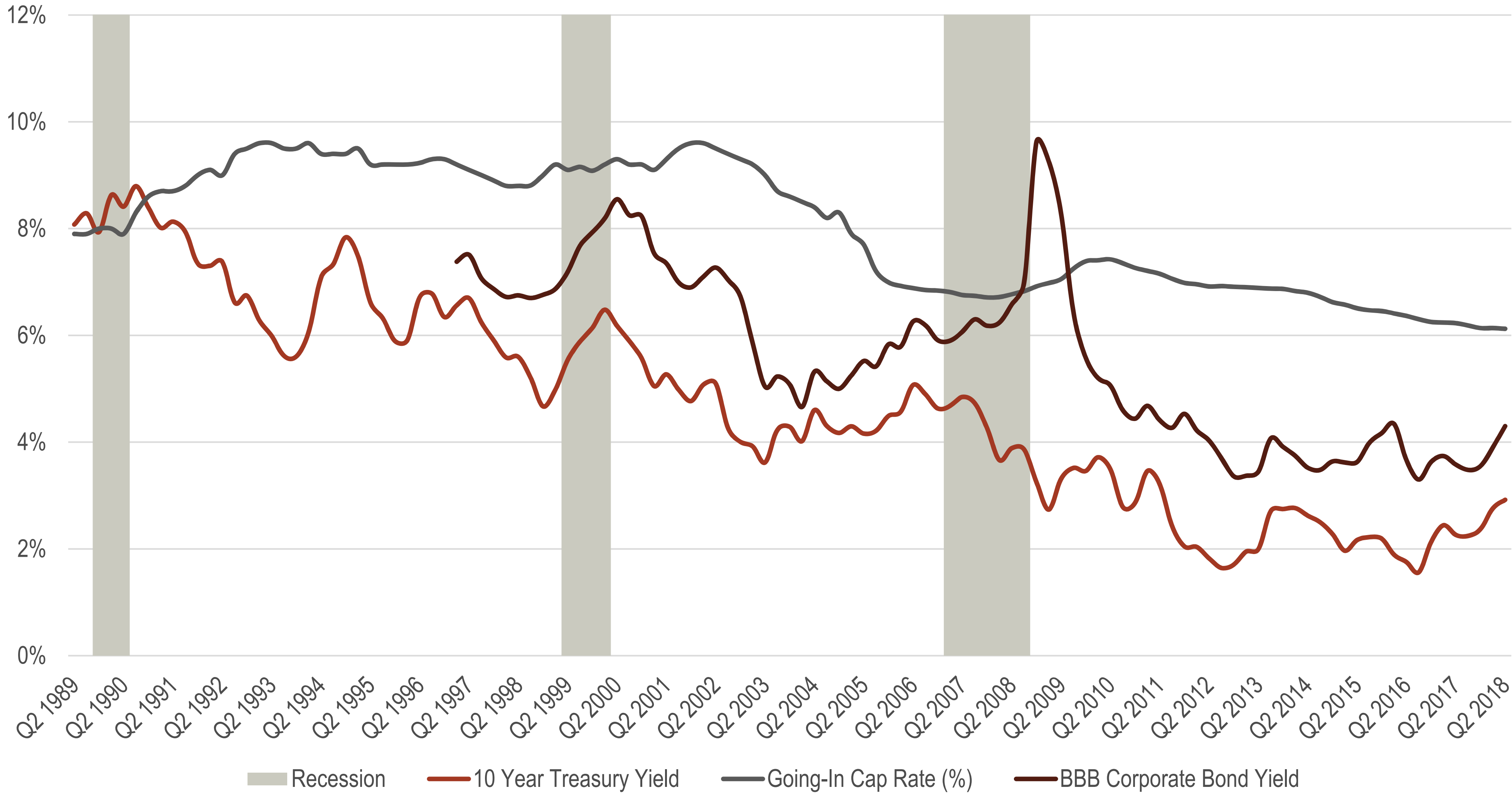
Note: Industrial criteria filtered as follows: industrial property (secondary type is either distribution or warehouse), 30,000+ SF, and a 3-star or greater CoStar rating

Source: CoStar; RCLCO

RCLCO FUND ADVISORS

NARROWEST POST-RECESSION SPREADS

HISTORY SUGGESTS THAT SPREADS HAVE ROOM TO NARROW FURTHER LATE IN THE CYCLE



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Source: U.S. Federal Reserve; Real Estate Research Corporation (RERC); RCA; Federal Reserve Bank of St. Louis; RCLCO

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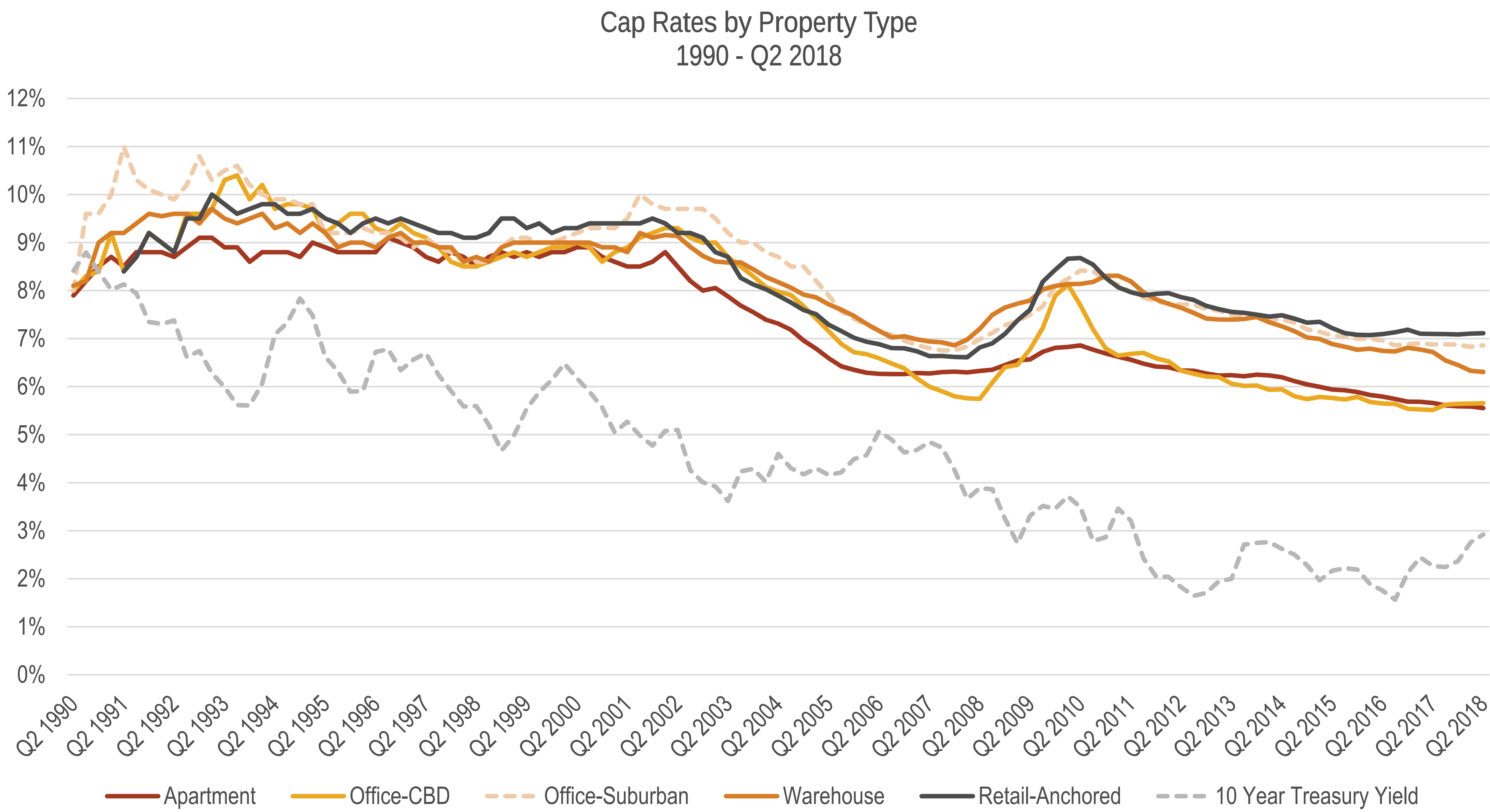
CAP RATES BY PROPERTY TYPE

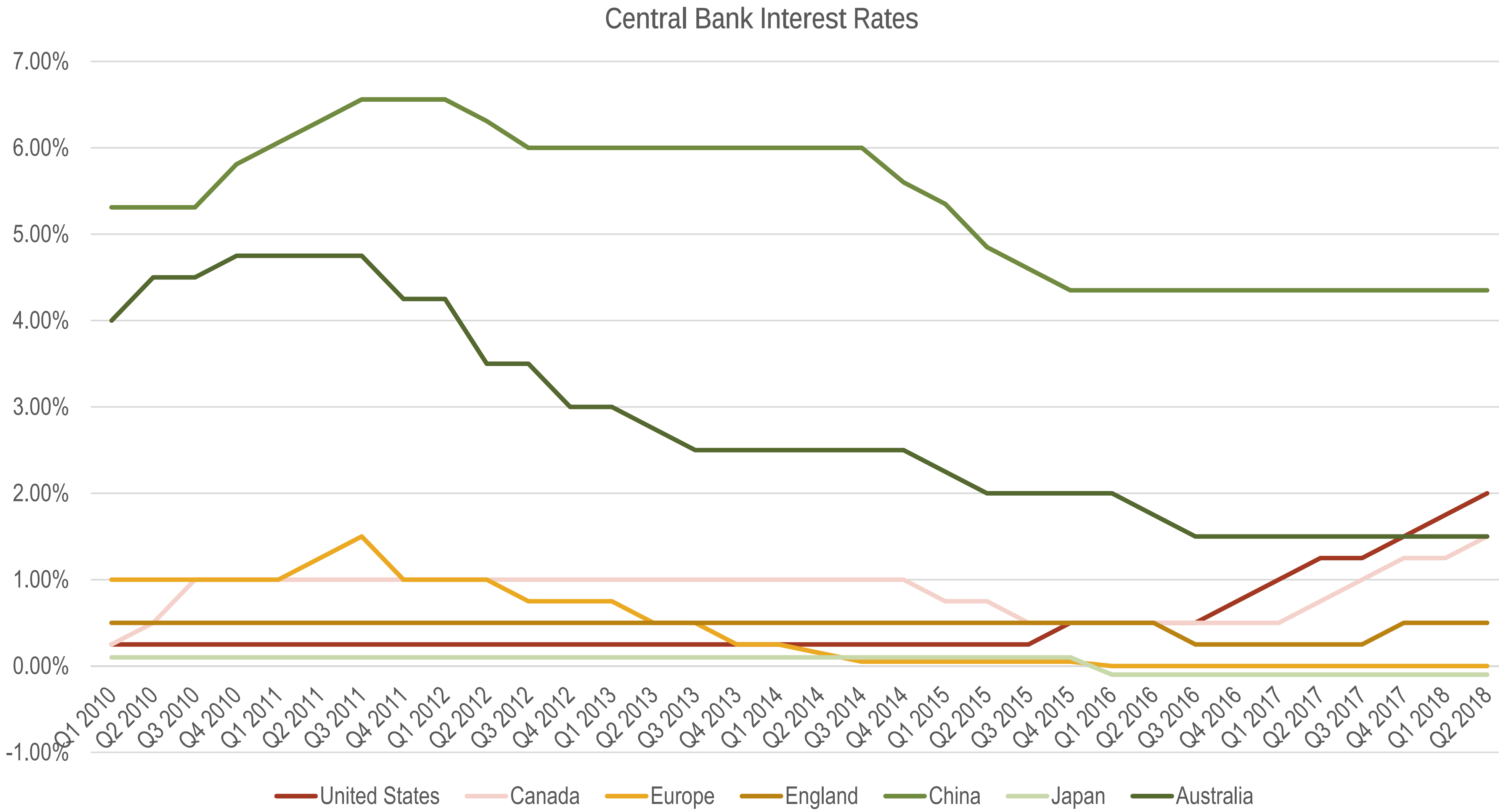
THE SPREAD ACROSS PROPERTY TYPES IS HISTORICALLY WIDE



RCLCO FUND ADVISORS

Source: RERC; RCA

RATES RISING IN U.S. AND CANADA; FLAT IN EUROPE AND APAC



Current Rate						
United States	Canada	Europe	England	China	Japan	Australia
2.00%	1.50%	0.00%	0.50%	4.35%	-0.10%	1.50%

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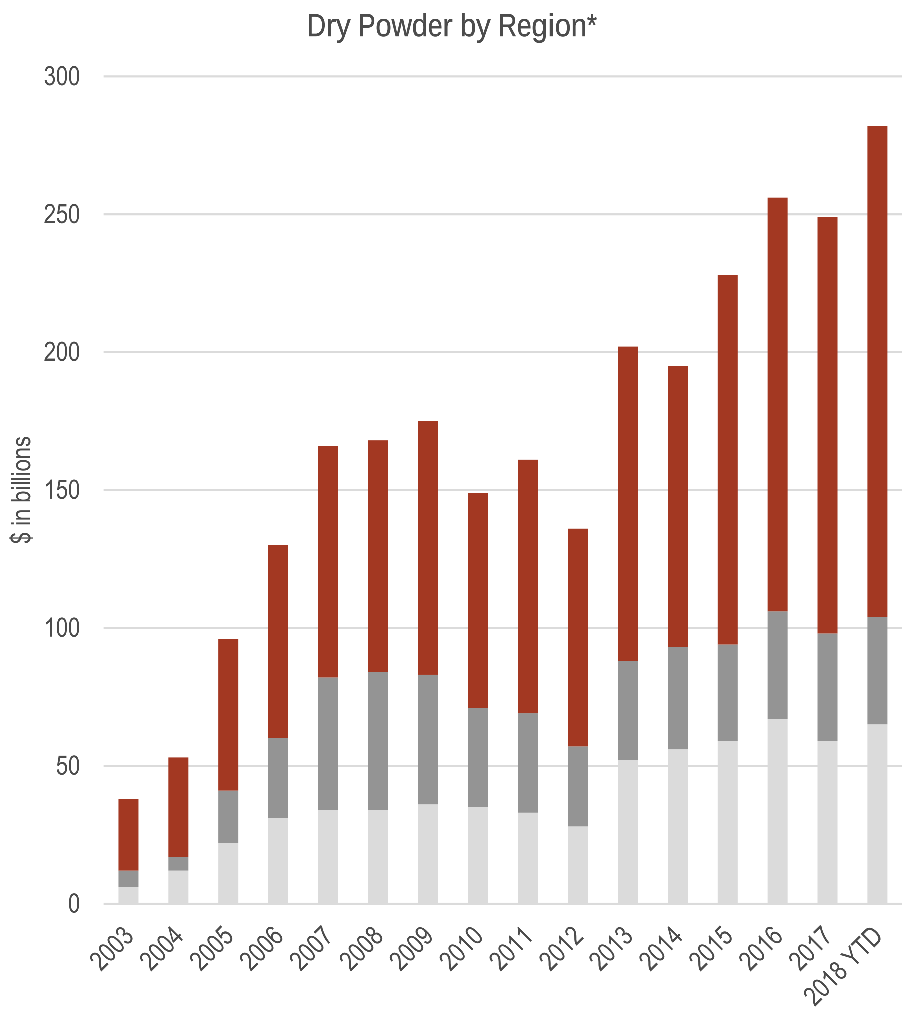
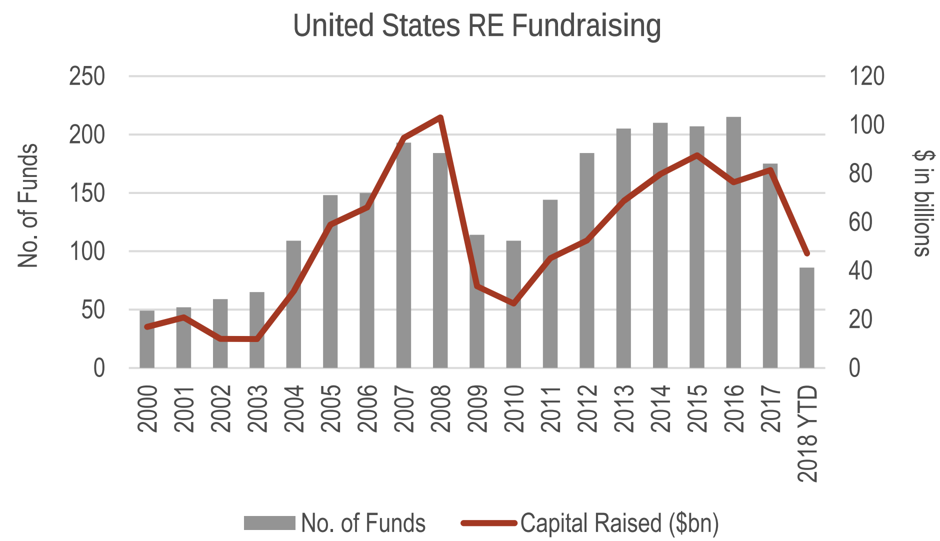
The information contained in this report is confidential, may be legally privileged, and is intended only for the use of the APFC.

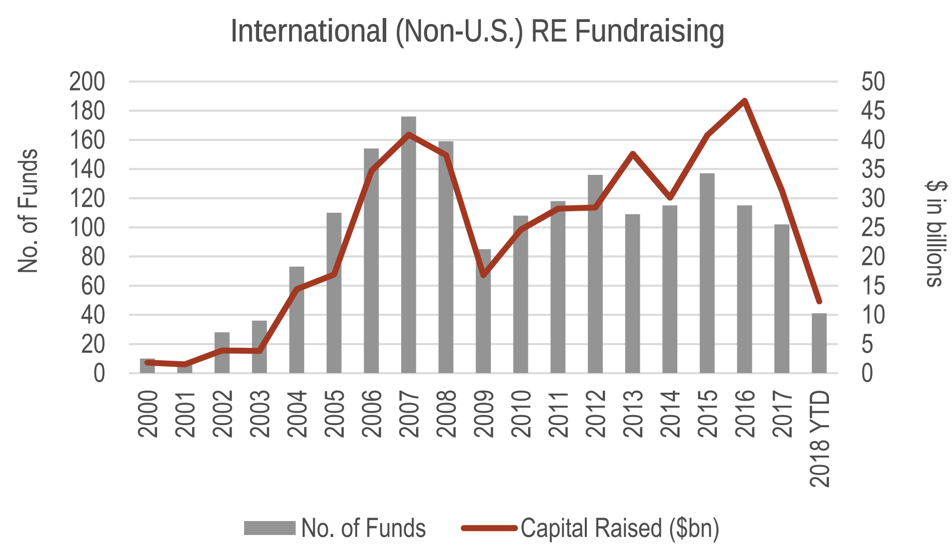
Source: FXStreet.com

DRY POWDER REMAINS AT RECORD LEVELS

2018 FUNDRAISING SO FAR TRACKING 2017 IN THE U.S., BUT TRAILING INTERNATIONALLY





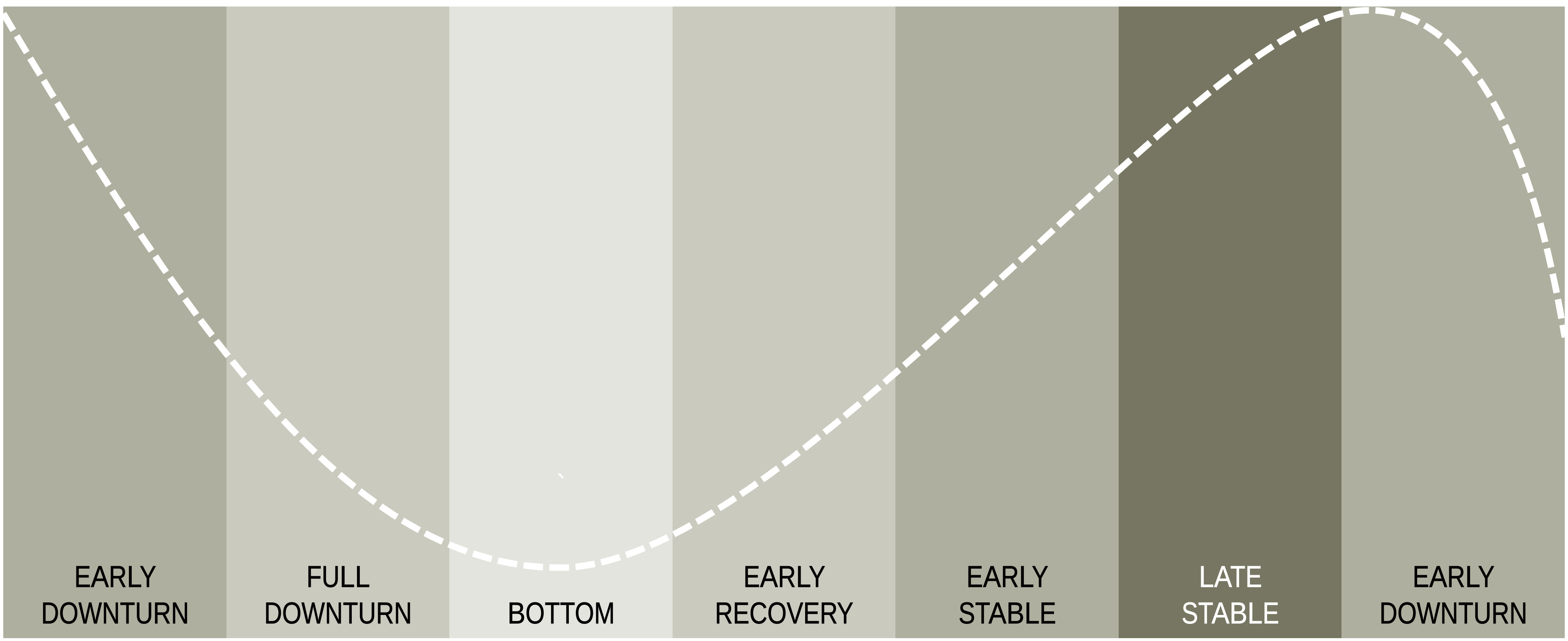


*Private equity cash reserves held to fund future obligations
Source: Preqin; RCLCO

POINT OF VIEW FOR REAL ESTATE

CURRENT AND NEAR-TERM OUTLOOK

- "Goldilocks" conditions, placing real estate in the "late stable" stage of the market cycle
- Likely endures through the end of 2018 and into 2019, or whenever the broader economy slows
- Investors should be taking advantage of this time period to generate "dry powder"



INTERNATIONAL AS A SOLUTION?

OPPORTUNITIES EXIST WITH ADDED RISK

The reasons one would invest internationally:

Higher Returns

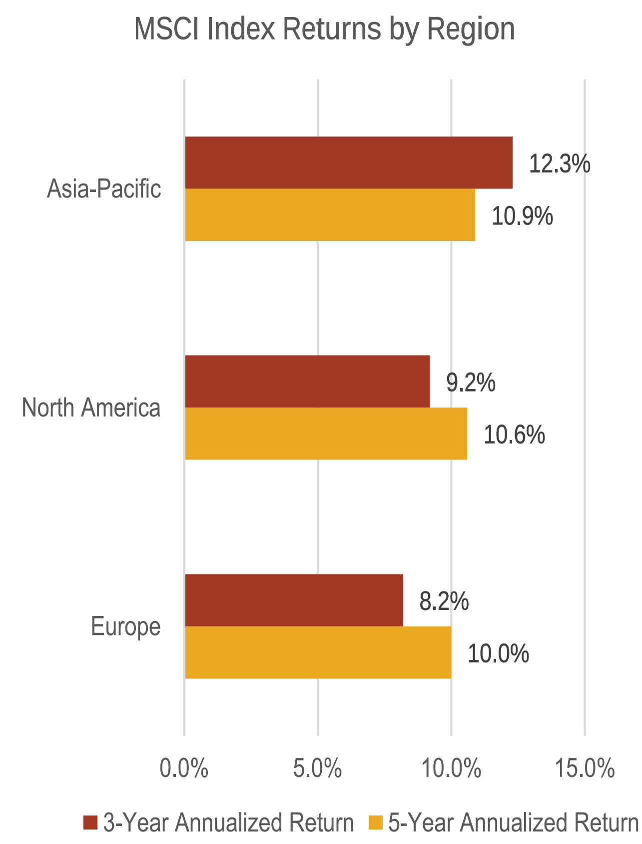
- Certain markets may offer higher going-in yields and future growth
- Emerging markets in particular have more room to grow than the US and other developed markets

Diversification

- Exposure to markets with limited correlation to the US
- Volatility of returns in theory are reduced, especially during downturns

Tactical Plays

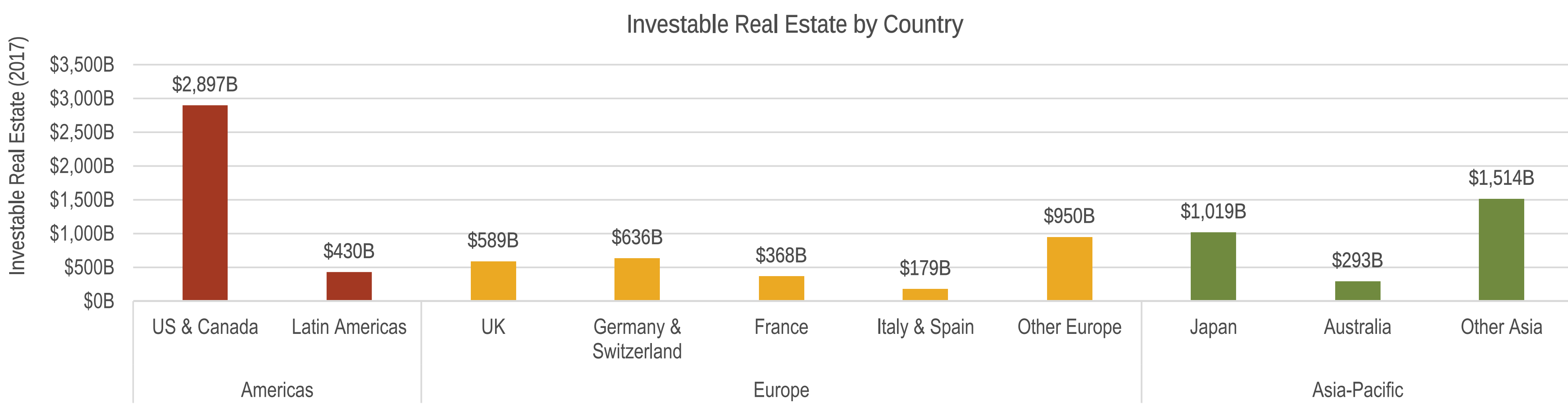
- Specific opportunities that don't exist domestically
- Markets that may be at different points in the economic cycle

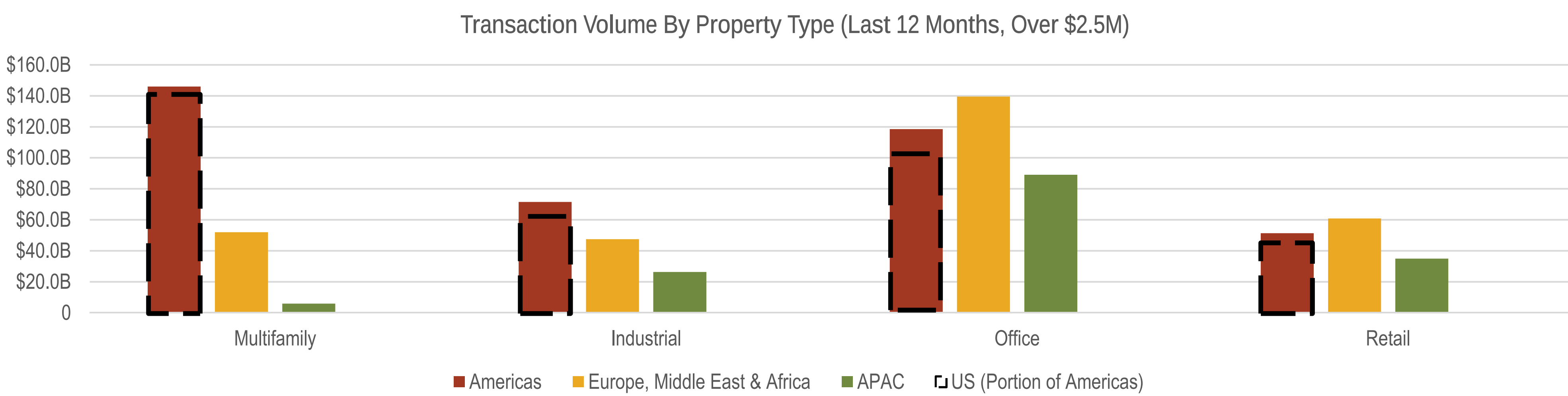


Source: MSCI

U.S. THE WORLD'S LARGEST REAL ESTATE MARKET

OFFERS GREATEST VOLUME OF APARTMENT & INDUSTRIAL ASSETS

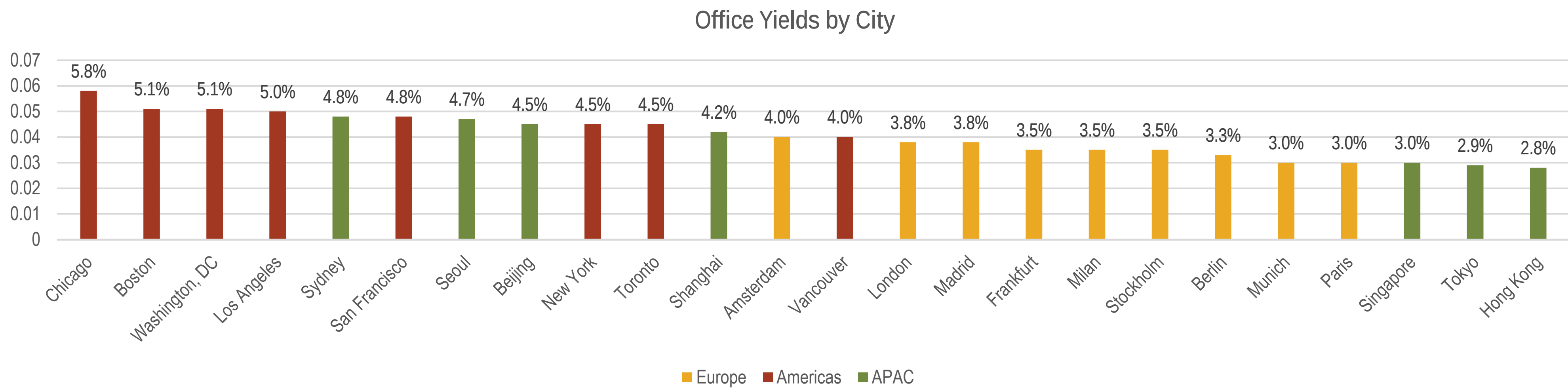


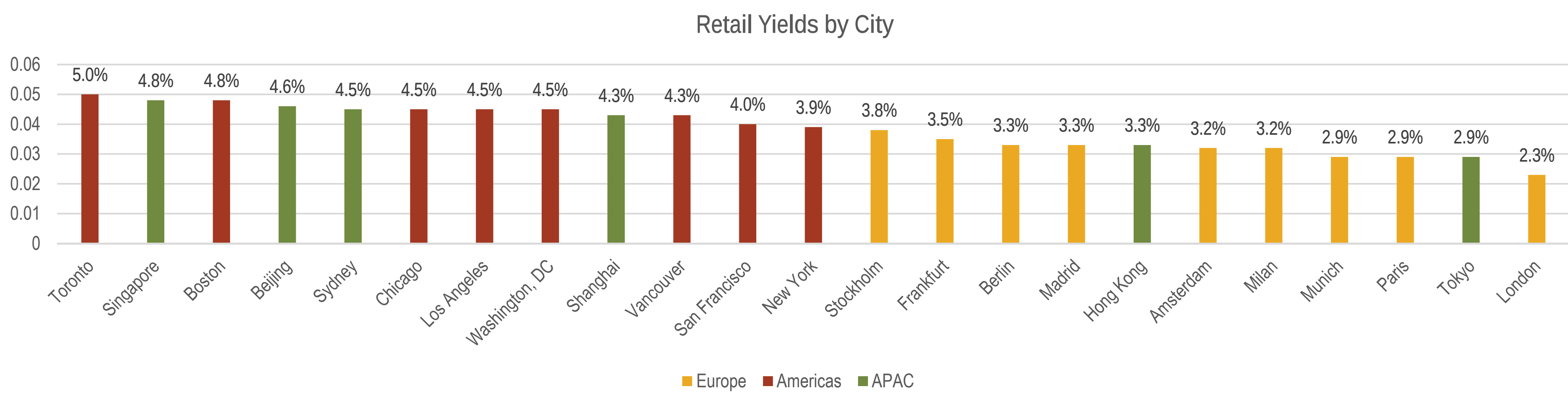


RCLCO FUND ADVISORS

Source: MSCI; RCA

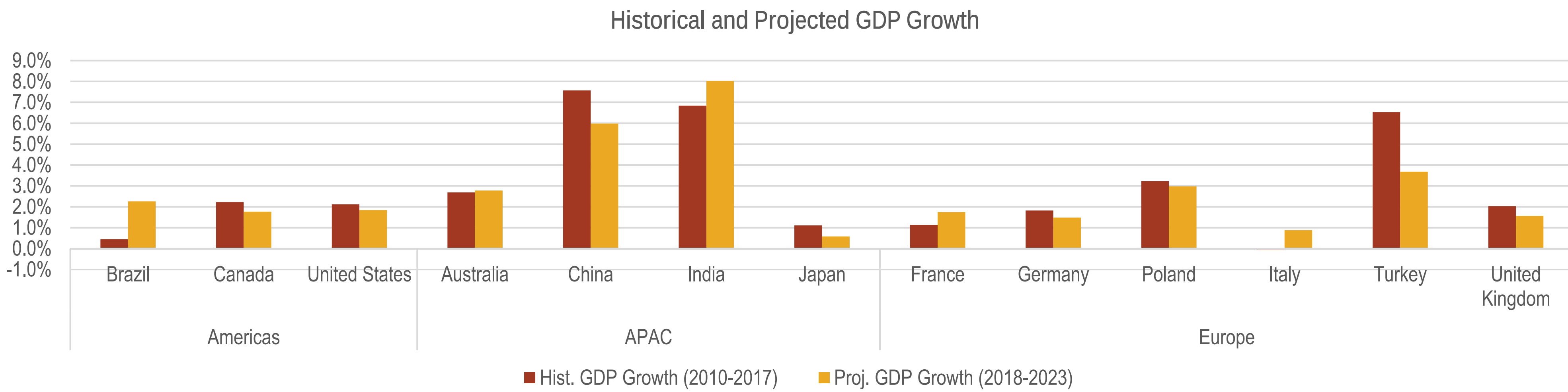
OFFICE YIELDS HIGHEST IN U.S. CITIES
EUROPE OFFERS LOWEST CAP RATES

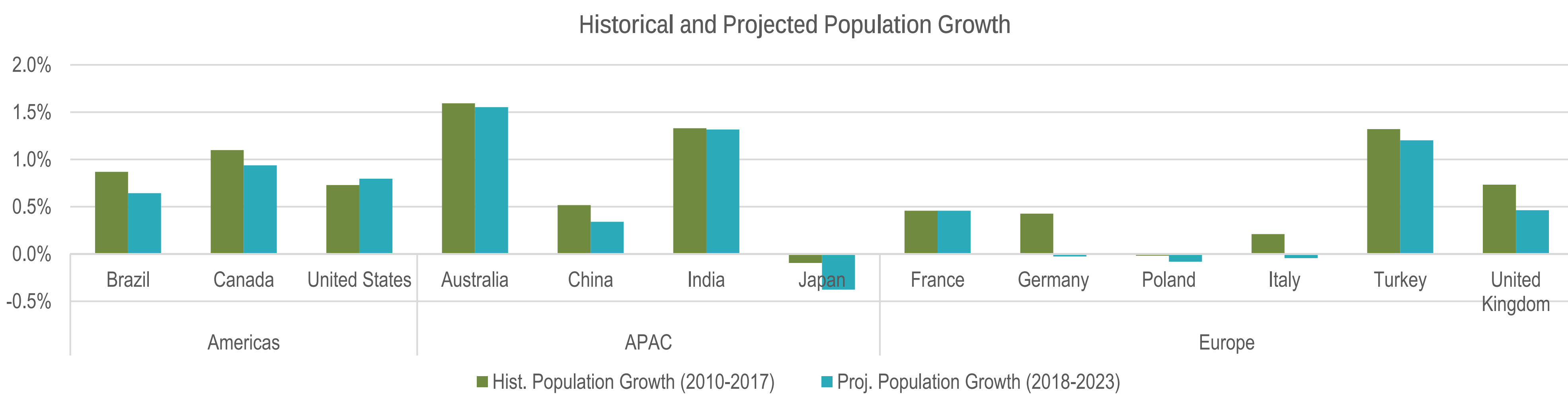




Source: CBRE Q4 2017 Global Market Report

APAC PROJECTED TO HAVE HIGHEST GROWTH
WESTERN EUROPE PROJECTED TO HAVE LOWEST GROWTH

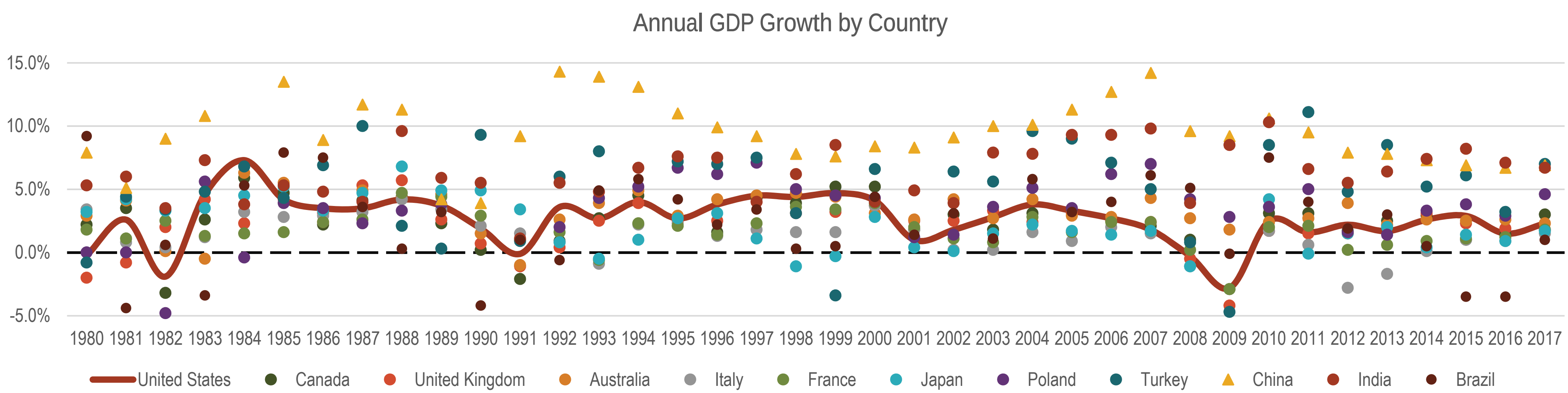


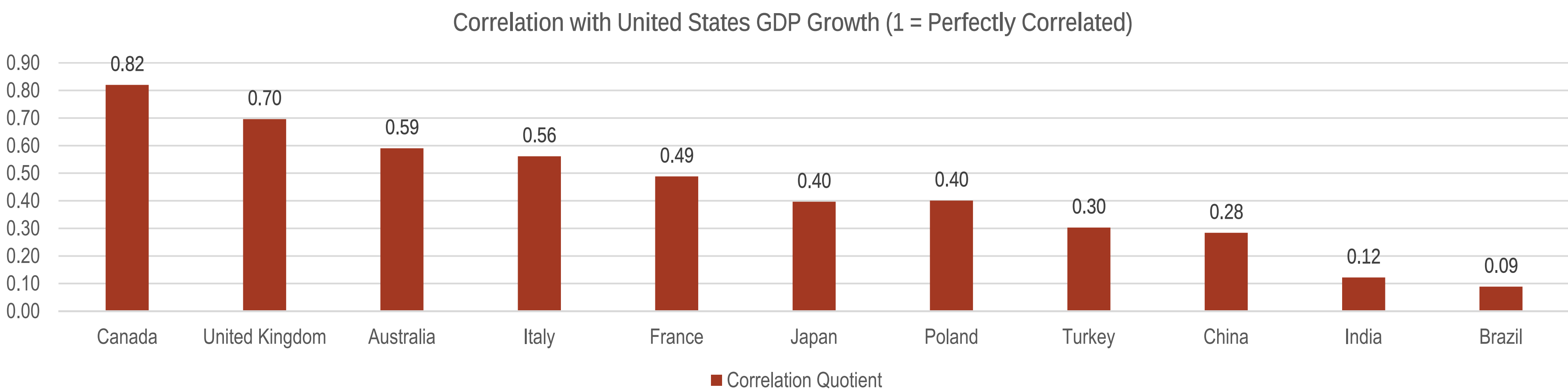


Source: World Bank; IMF

EMERGING MARKETS OFFER GREATEST DIVERSIFICATION BENEFITS TO U.S. INVESTORS

MARKETS ARE MORE CORRELATED TODAY THAN ANYTIME IN HISTORY



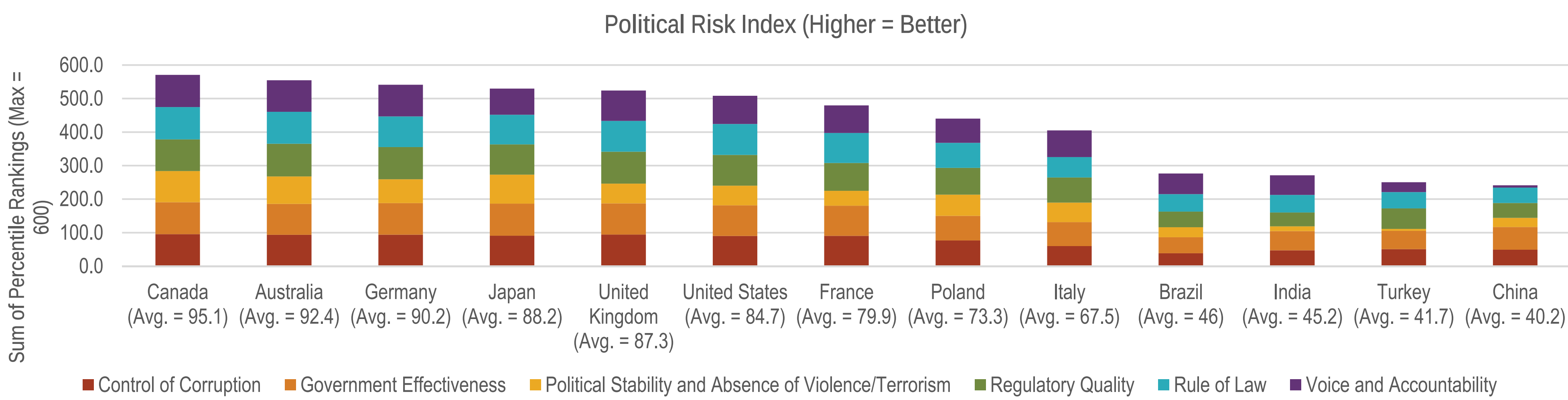


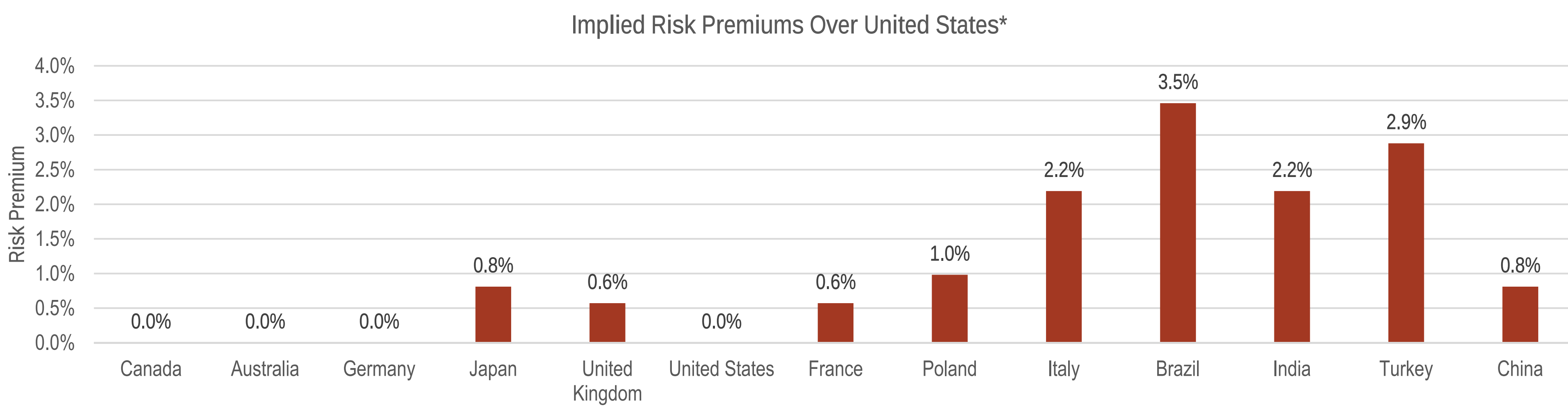
RCLCO FUND ADVISORS

Source: World Bank; Vanguard; MSCI

EMERGING MARKETS ARE ALSO RISKIEST

IMPLIED PREMIUMS MAY NOT BE SUFFICIENT TO COVER ADDED RISK





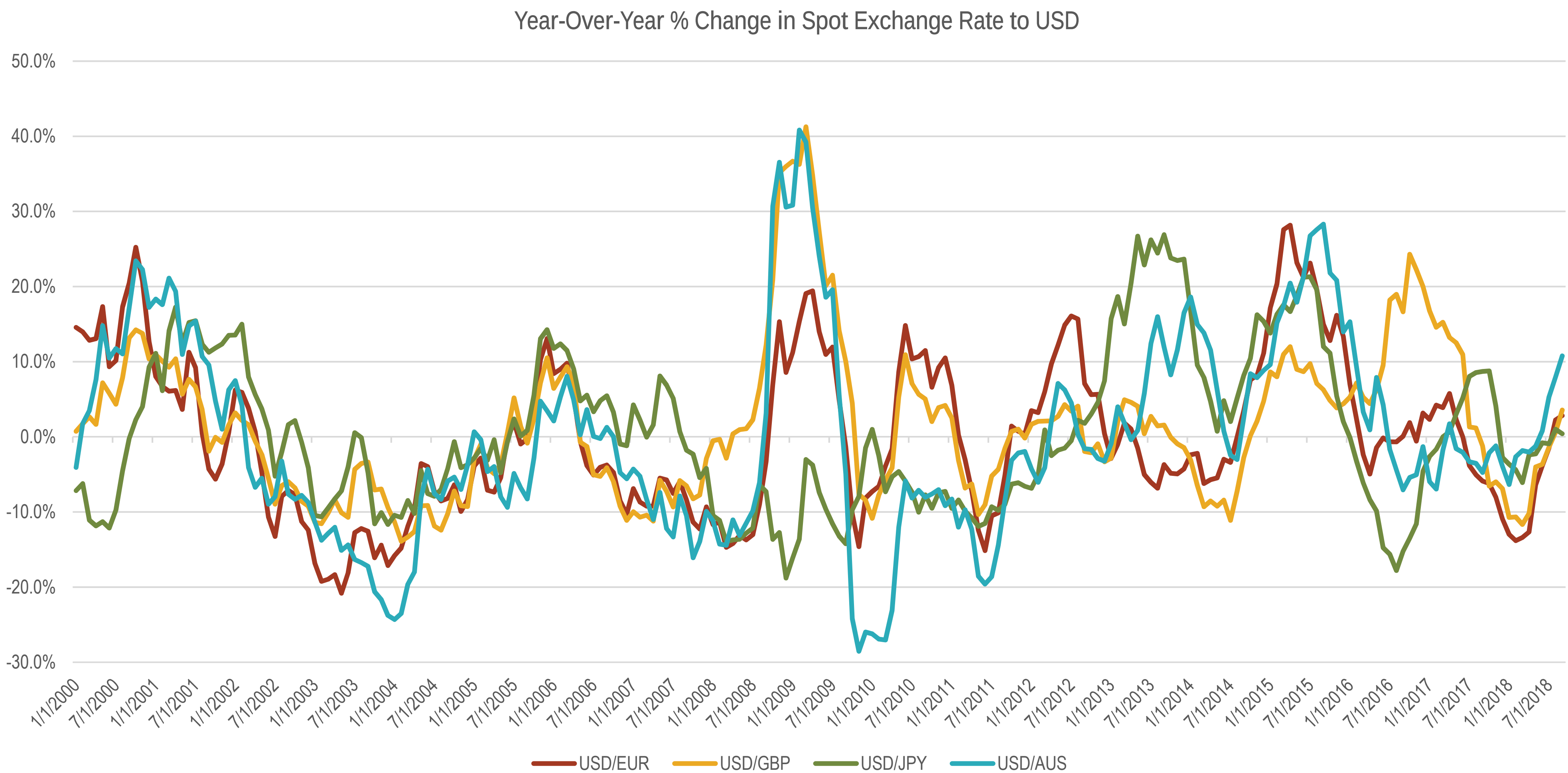
Risk premiums are based on CDS spreads derived from the Moody's credit ratings of each country.
Source: World Bank; Pictures of Global Risk (Aswath Damodaran)

RCLCO FUND ADVISORS

CURRENCY RISK

UNPREDICTABLE AND INTENSIVE TO MONITOR AND HEDGE

- Hedging currency risk is expensive, complex, and requires active management
- Returns may not always compensate for international currency volatility



Source: World Bank

CONCLUSIONS

US Remains Relatively Attractive

- Despite being late stage in the cycle, U.S. may continue to offer the most favorable risk-return profile
- U.S. offers access to a broader range of "institutional" product types (particularly those with strong market drivers)

Opportunity in APAC?

- Investing in APAC markets could achieve two goals:
  - Certain countries in the Asia-Pacific region offer relatively attractive yields and strong growth prospects, especially compared to Europe
  - Asian-Pacific markets are also less correlated with the United States than European markets
- But would be accompanied by the following risks:
  - These countries also have the highest levels of political and regulatory risk
  - Management of currency risk in international markets is expensive, complex, and time-intensive, and may consume any excess returns relative to domestic investment

DISCLAIMERS

CRITICAL ASSUMPTIONS

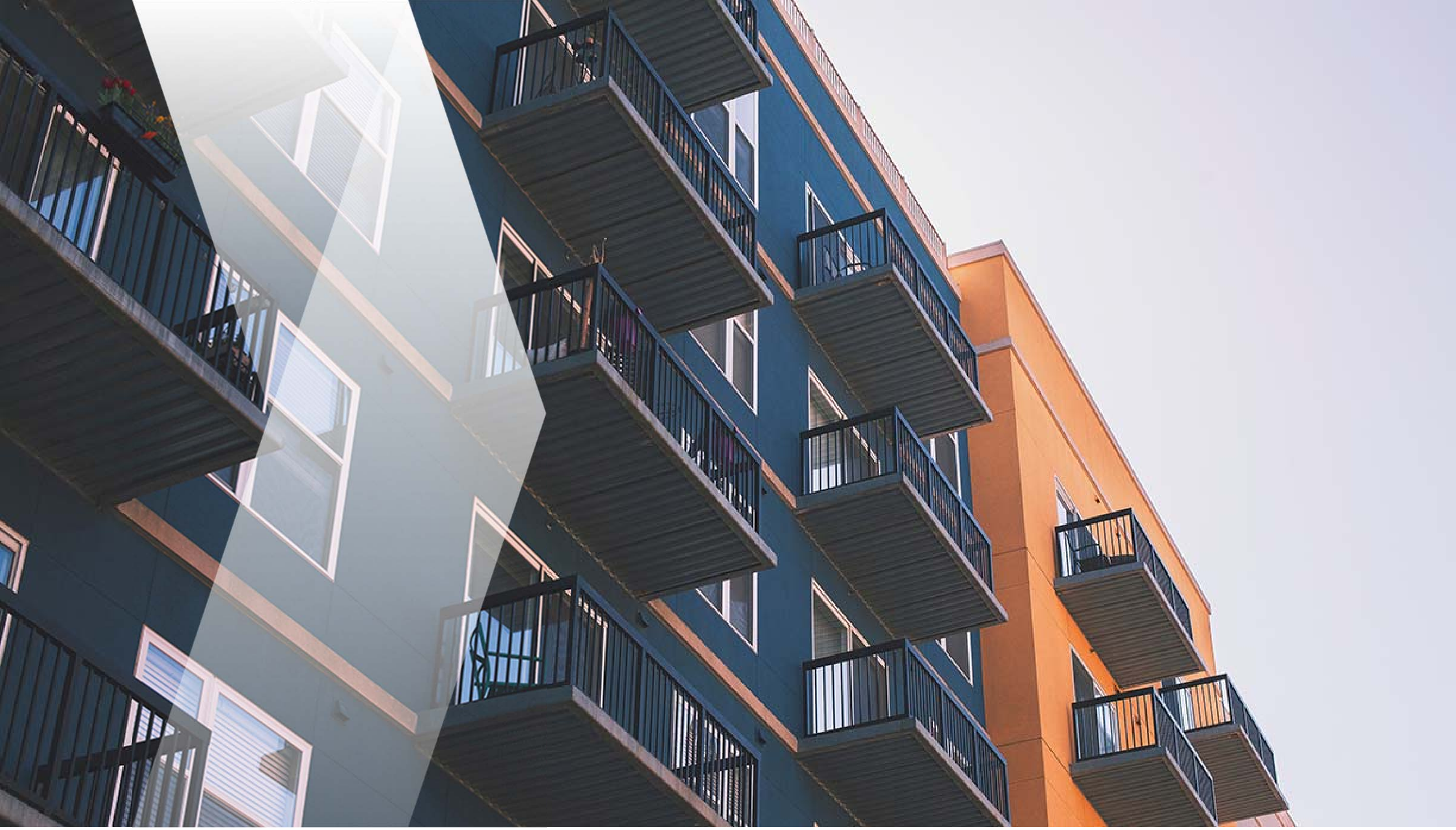
Our analysis depends on the correctness and completeness of data available as of the date of this memo. The future performance of the global, national, and local economy and real estate market, and other factors similarly outside our control may vary. Given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously. Stable and moderate growth patterns are historically not sustainable over extended periods of time; the economy is cyclical; and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

Our analysis cannot predict unusual economic shocks on the national and/or local economy, potential benefits from major "booms" that may occur, or the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

GENERAL LIMITING CONDITIONS

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable and comprehensive. This study is based on estimates, assumptions, and other information developed by RCLCO Fund Advisors from its independent research effort and general knowledge of the industry. No responsibility is assumed for inaccuracies in reporting by any data source used in preparing or presenting this study. This memo is based on information that to our knowledge was current as of the date of this memo, and RCLCO Fund Advisors has not undertaken any update of its research effort since such date.



TAYLOR MAMMEN, MANAGING DIRECTOR

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E: TMAMMEN@RCLCO.COM

RCLCO FUND ADVISORS

Presentation: CBRE

PRESENTED TO:

ALASKA PERMANENT FUND CORPORATION

CONFIDENTIAL AND PROPRIETARY

GLOBAL REAL ESTATE INVESTING

CBRE GLOBAL INVESTORS

CBRE GLOBAL INVESTORS

The global real asset investment management business within CBRE Group

Platforms	Real Estate		Infrastructure
Programs	Private Direct	Private Indirect	Public Securities
Profile	Separate Accounts		Commingled Funds
Implementation	Core	Value Add	Opportunistic

DIRECT REAL ESTATE

$80.3bn

CBRE GLOBAL INVESTORS

INDIRECT REAL ESTATE

$20.5bn

CBRE GLOBAL INVESTMENT PARTNERS

LISTED REAL ESTATE

$13.0bn

CBRE CLARION

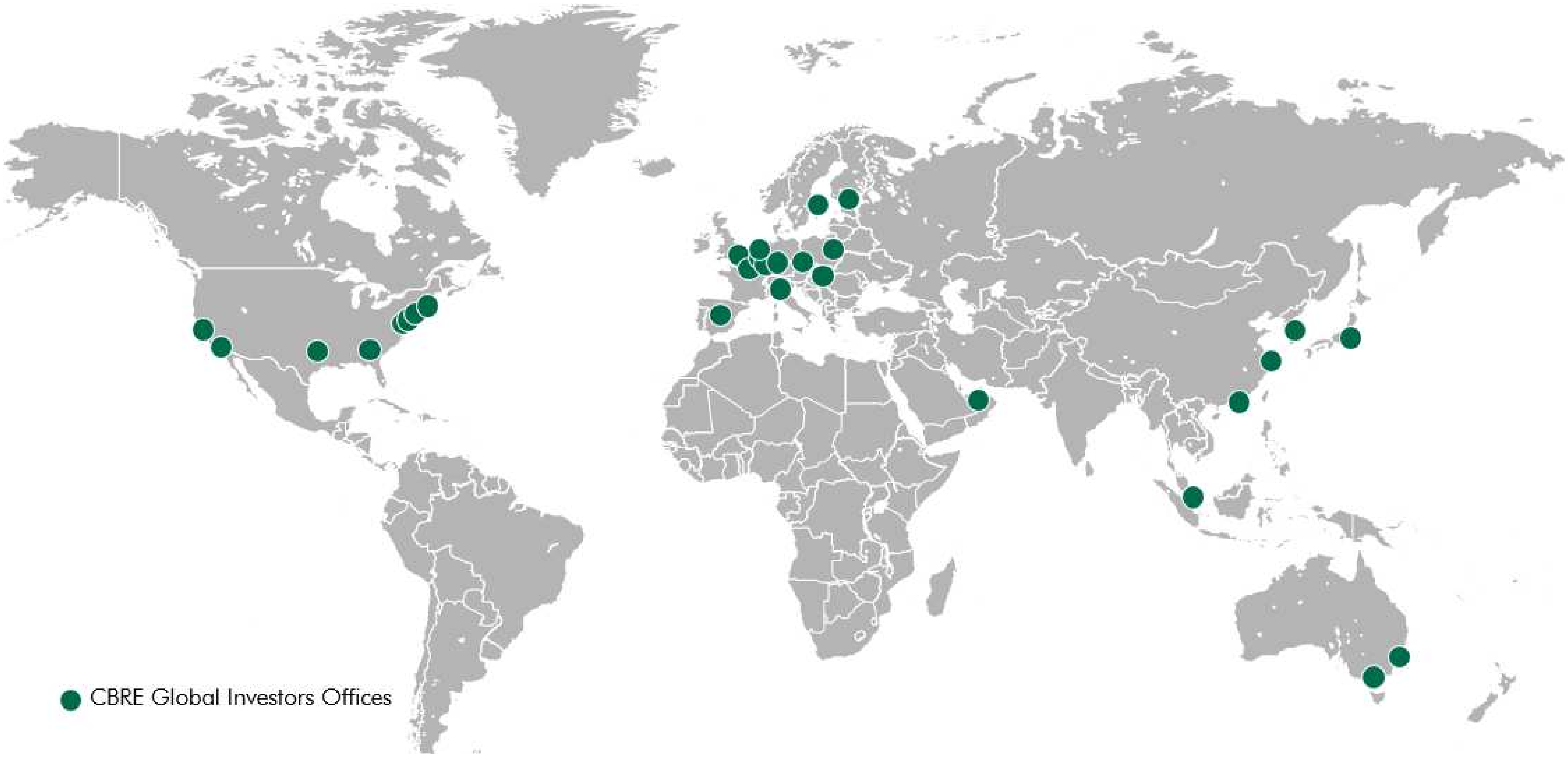
INFRASTRUCTURE

$6.3bn

CBRE CALEDON

As of June 30, 2018. Assets under management (AUM) refers to the fair market value of real asset-related investments with respect to which CBRE Global Investors provides, on a global basis, oversight, investment management services and other advice and which generally consist of investments in real assets; equity in funds and joint ventures; securities portfolios; operating companies and real asset-related loans. This AUM is intended principally to reflect the extent of CBRE Global Investors' presence in the global real asset market, and its calculation of AUM may differ from the calculations of other asset managers.

CBRE GLOBAL INVESTORS - OUR GLOBAL OPERATING PLATFORM



CBRE GLOBAL INVESTORS

32 Offices

760+ Employees

$102B* AUM

540+ Institutional Clients

CBRE GROUP, INC.

450+ Offices

75,000+ Employees

*As at June 30, 2018

THE WHY AND THE HOW OF GLOBAL REAL ESTATE INVESTING

Higher risk-adjusted return potential through a sensible, long-term global allocation

GREATER OPPORTUNITY SET

- c.70% of the investable RE market is outside the U.S.

DIVERSIFICATION

- Low correlations between U.S. and international markets

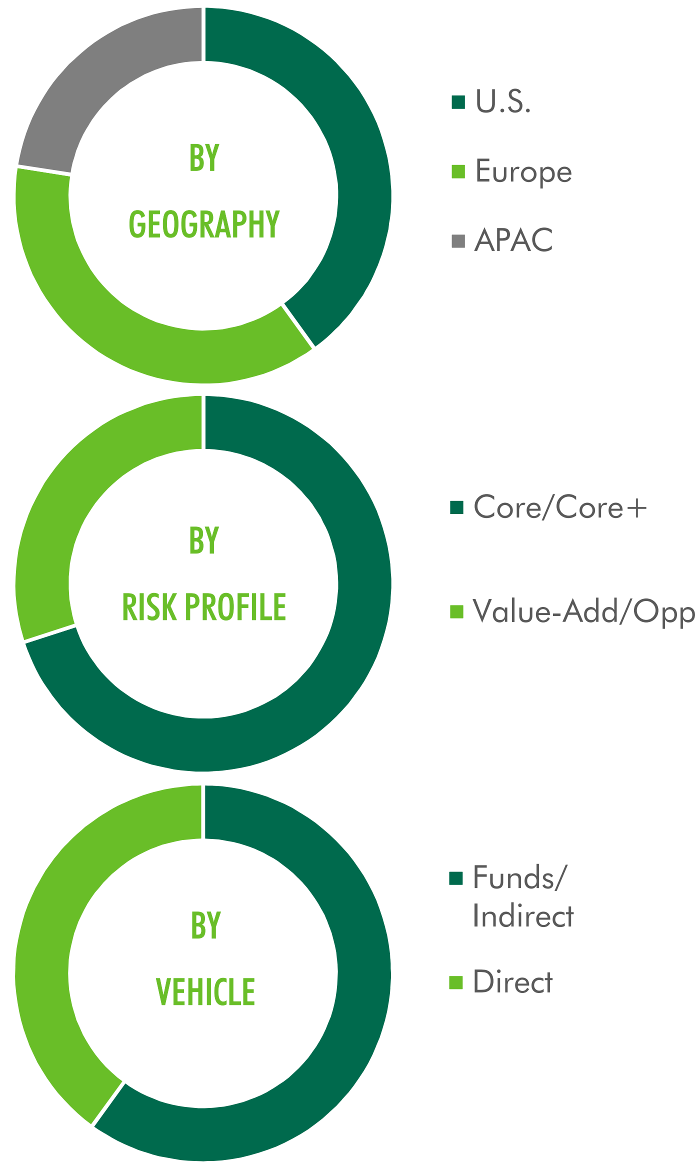
DOWNSIDE RESILIENCE

- Asynchronous RE cycles = lower downside risk (ex: GFC)

ENHANCED RETURN POTENTIAL

- U.S. relatively later in the cycle vs. many international markets

CBRE Global Investors' Global RE Allocation Recommendations

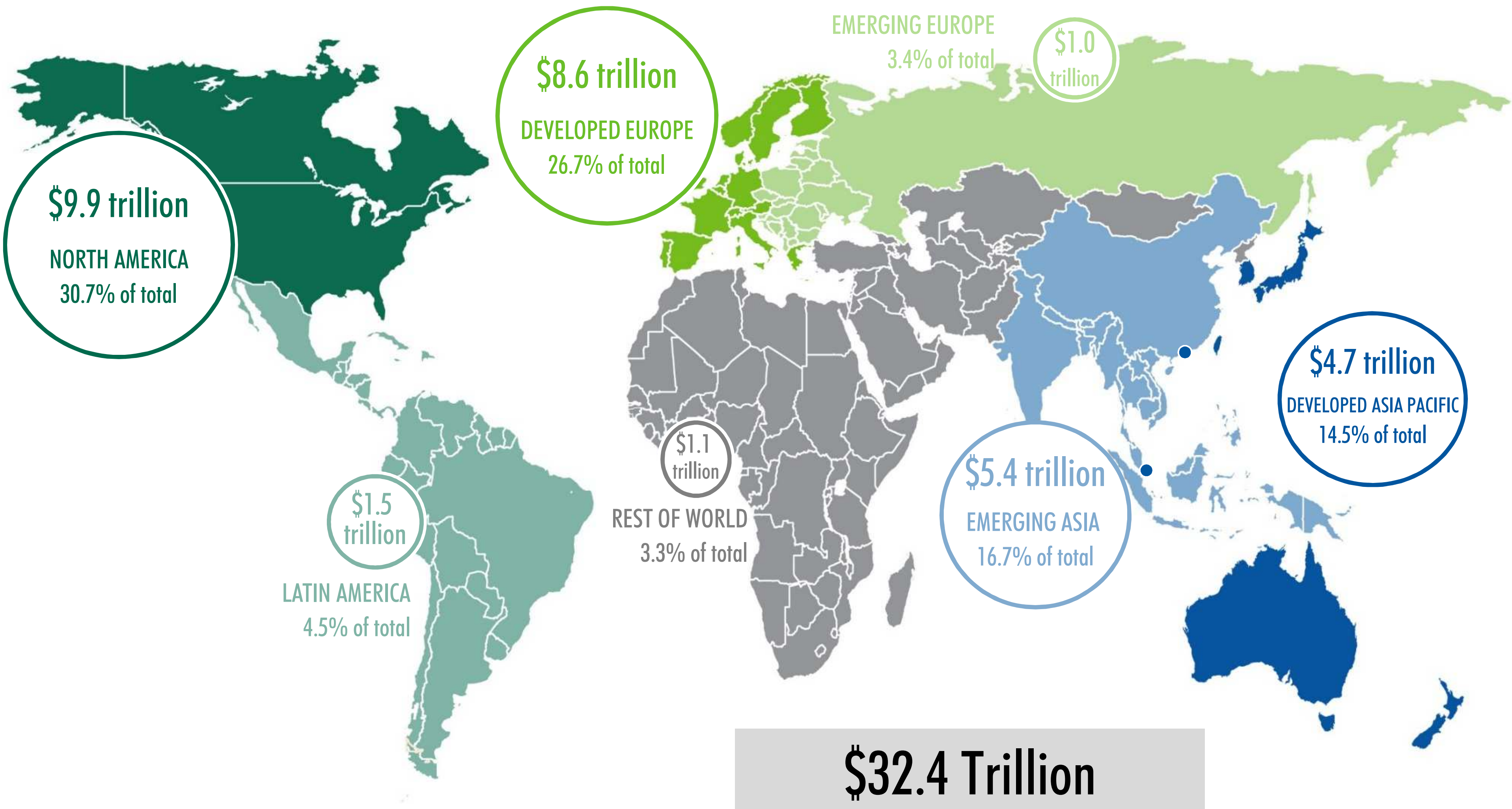


Source: Preqin, plan websites, annual reports and related plan publications

Why Invest in Global Real Estate

CBRE
GLOBAL
INVESTORS

THE GLOBAL INVESTABLE UNIVERSE OFFERS SUBSTANTIAL INVESTMENT CHOICES

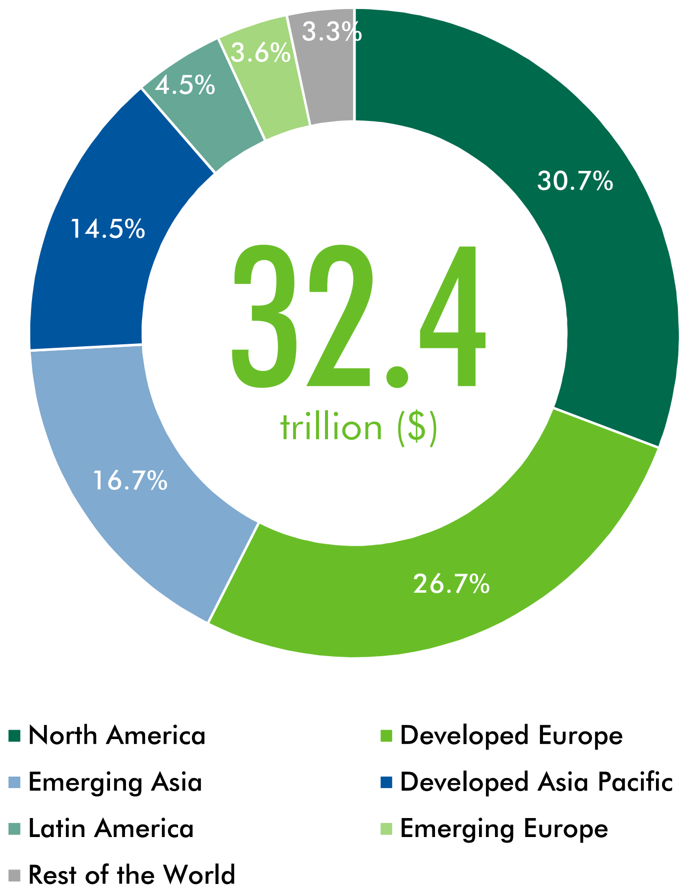


Source: CBRE Global Investors, Oxford Economics

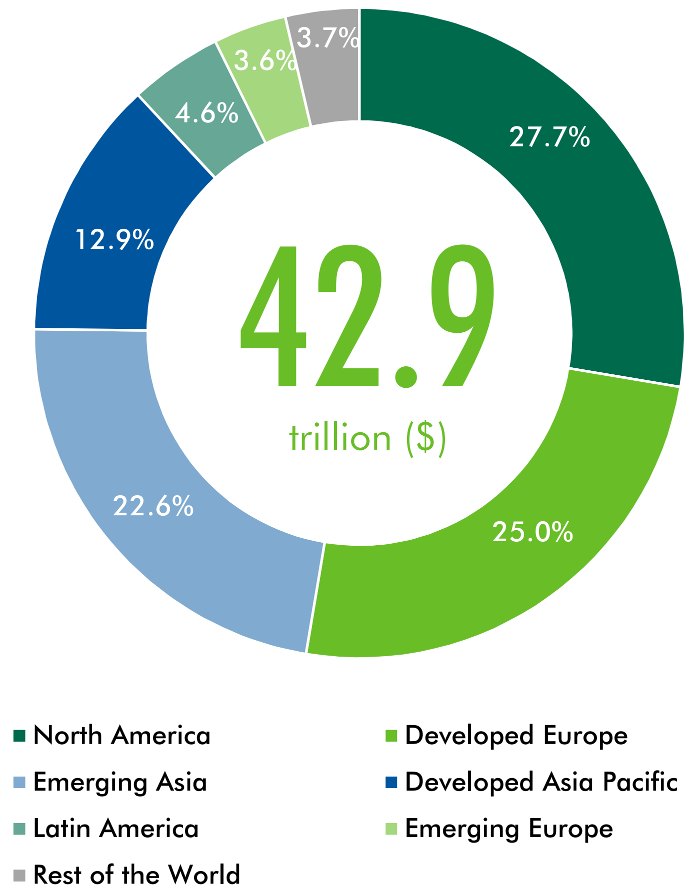
ENLARGED SET OF INVESTMENT OPPORTUNITIES

The largest and an increasing part of the investable universe in direct real estate can be found outside of the U.S.

Real estate investable universe by region 2018



Real estate investable universe by region 2023

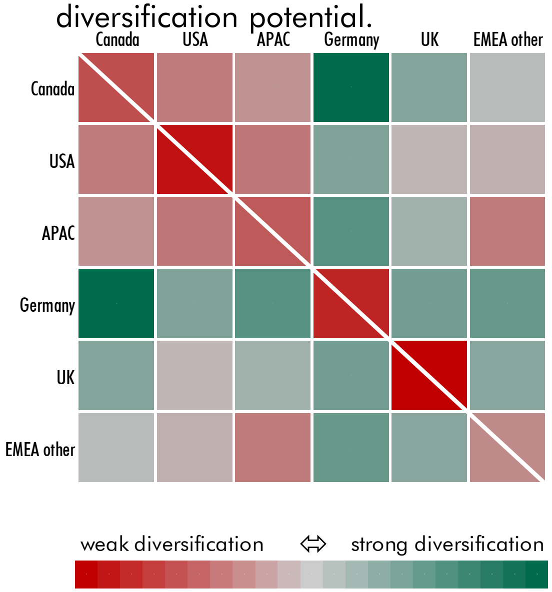


Source: CBRE Global Investors, Oxford Ecomomics

GREATER SET OF DIVERSIFICATION OPPORTUNITIES

More diversification potential outside of own country and region

- Effect of international diversification is substantially greater than of domestic diversification (87 key cities of MSCI)
- Even large countries with many internal markets/cities have limited diversification benefits if the portfolio has only domestic allocations
- Property markets do not move fully synchronized over the property cycle and adding investments in different countries improves the overall risk profile through the positive effect of diversification and better risk-adjusted returns outside of the domestic market
- The average correlation between returns of 22 domestic U.S. markets is 93% while the average correlation of these U.S. markets with 65 non-US key markets is 54%. This indicates strong diversification potential.

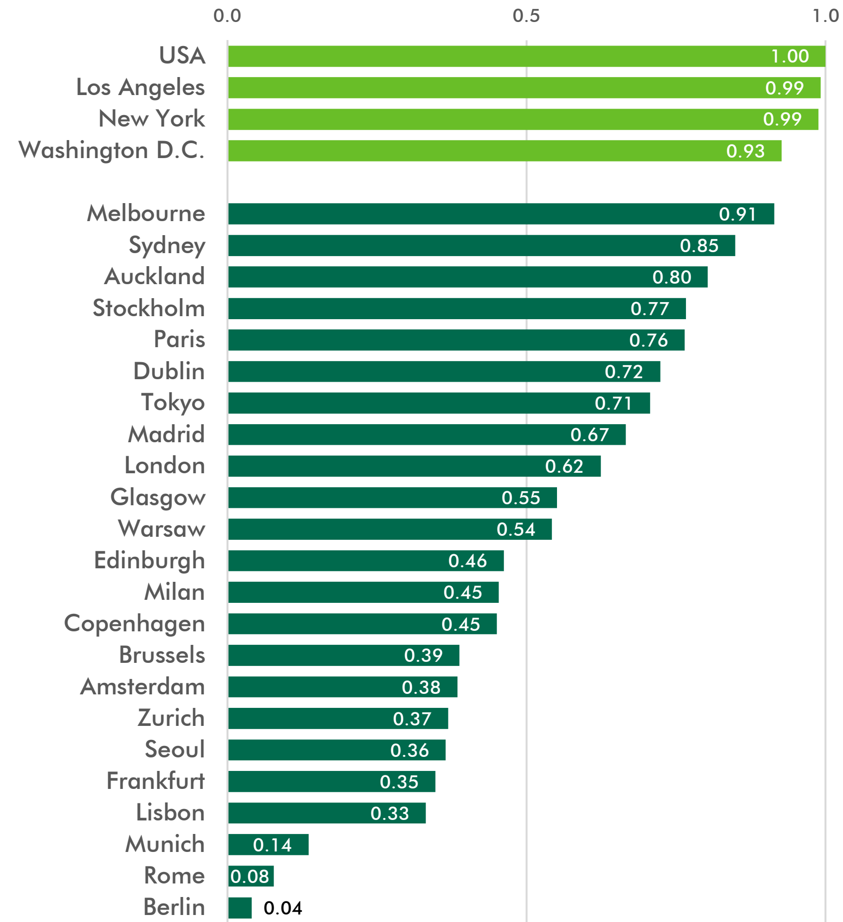


Stronger diversification with markets outside own region

(average correlation between individual markets)

For U.S. lower correlations outside of U.S.

(Average correlation coefficient of specific markets with U.S. average)

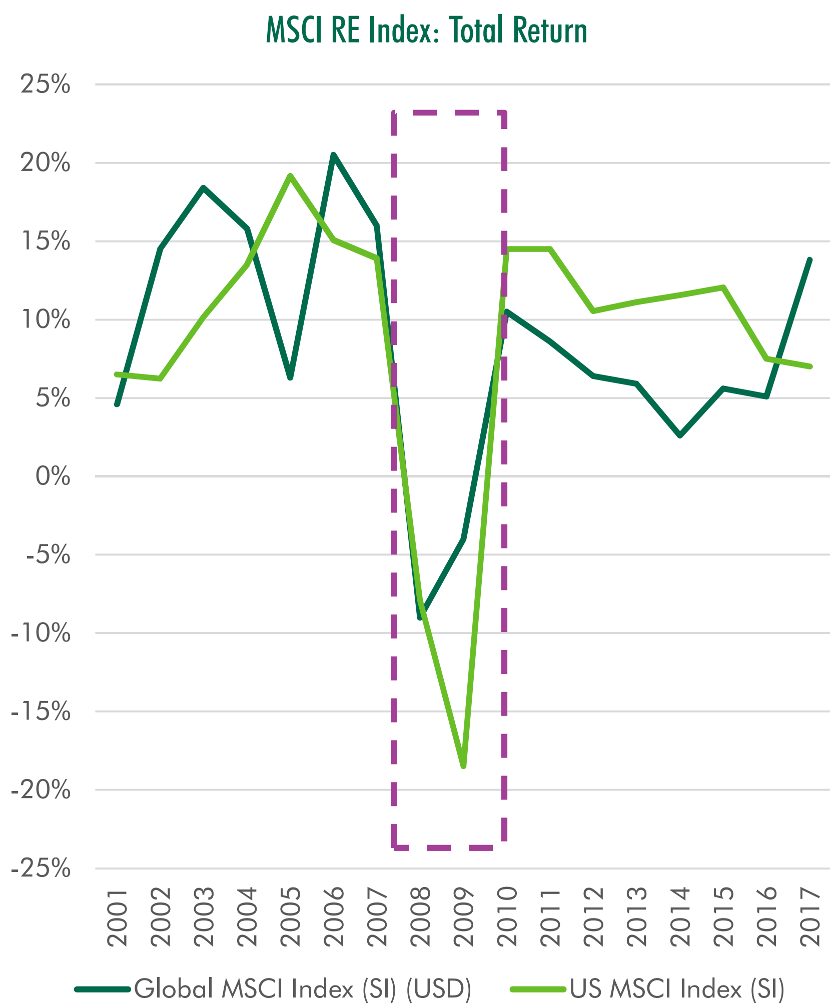


Number of domestic markets in between brackets, all property total return in local currency

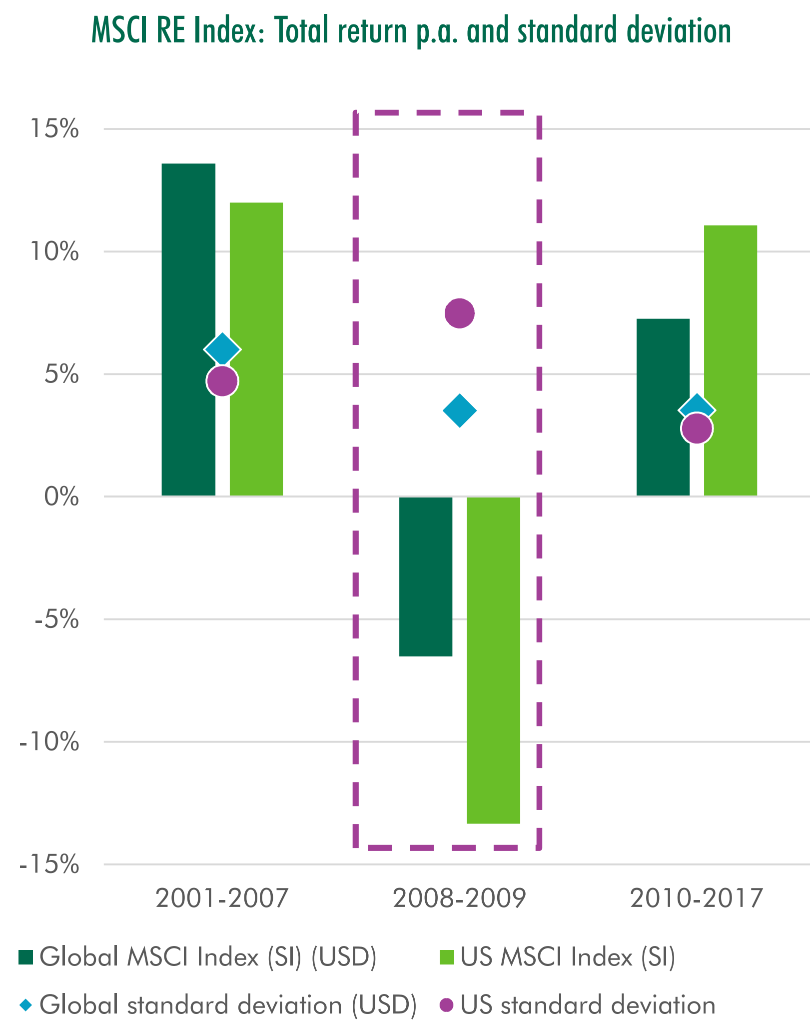
Source: MSCI (data for 2006-2017)

DOWNSIDE RESILIENCE FOR GLOBAL DIVERSIFIED REAL ESTATE PORTFOLIO (USD)

While upside potential of investing only in the domestic market is limited, the downside risk is much greater. Creating a globally diversified portfolio mitigates the downside risk.

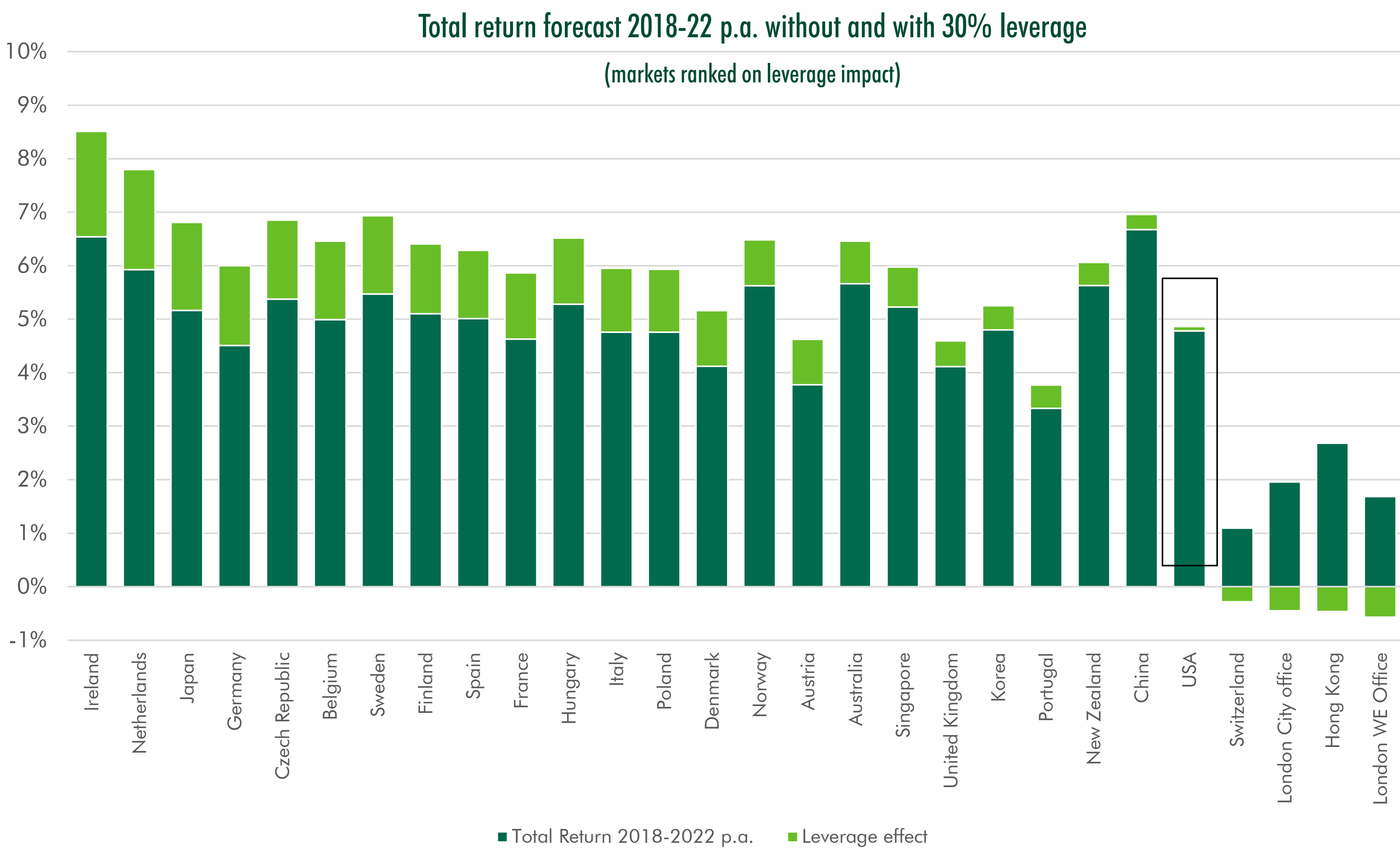


Source: MSCI, SI = Standing Investments



Source: MSCI, SI = Standing Investments

STRONGER LEVERAGE EFFECT ON TOTAL RETURNS OUTSIDE OF US



Source: CBRE Global Investors

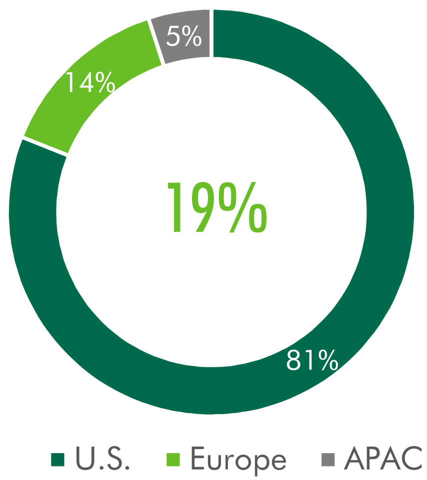
No assumptions for taxes, fees or costs applied

How to Invest In Global Real Estate

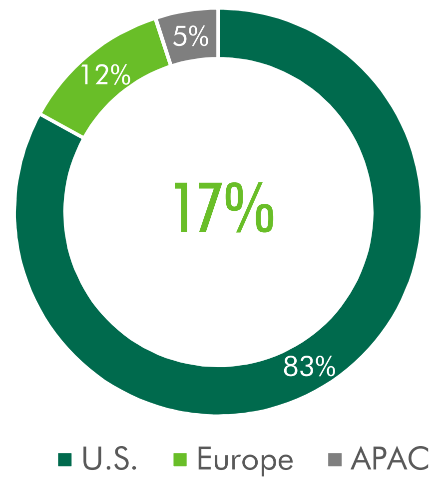
INTERNATIONAL REAL ESTATE ALLOCATIONS: OTHER LARGE US INVESTORS

Other large permanent funds, endowments, and pension plans have gone global

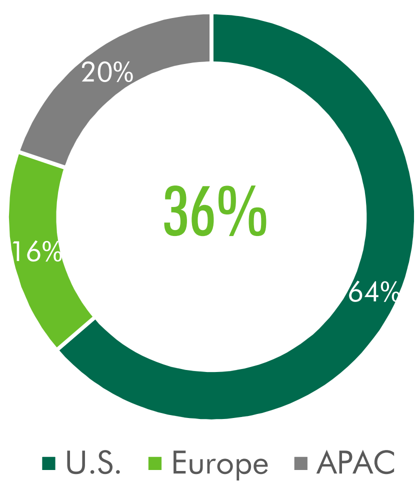
Texas Permanent School Fund
$40 Billion Permanent Fund



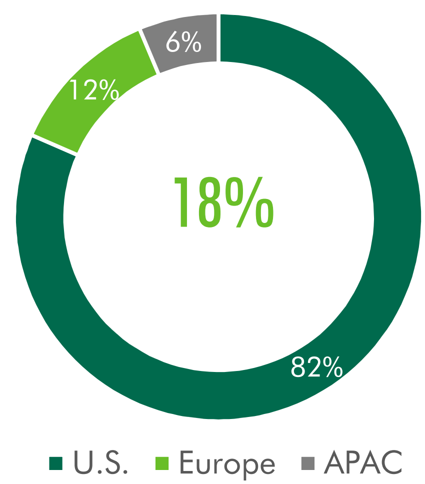
New Mexico State Investment Council
$24 Billion Permanent Fund



CalPERS
$350 Billion Public Pension Plan



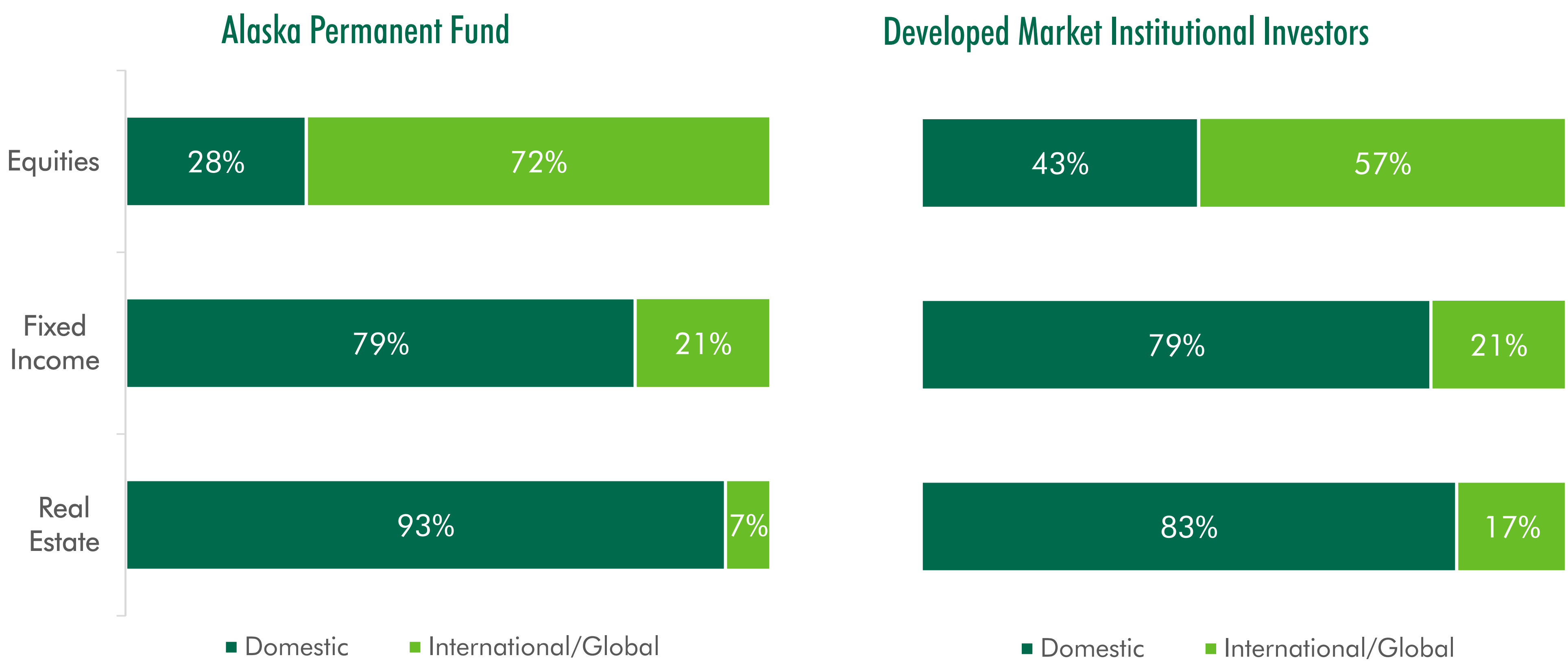
Teacher Retirement System of Texas
$150 Billion Public Pension Plan



Source: Preqin, plan websites, annual reports and related plan publications

COMPARISON TO EQUITY AND FIXED INCOME ALLOCATIONS

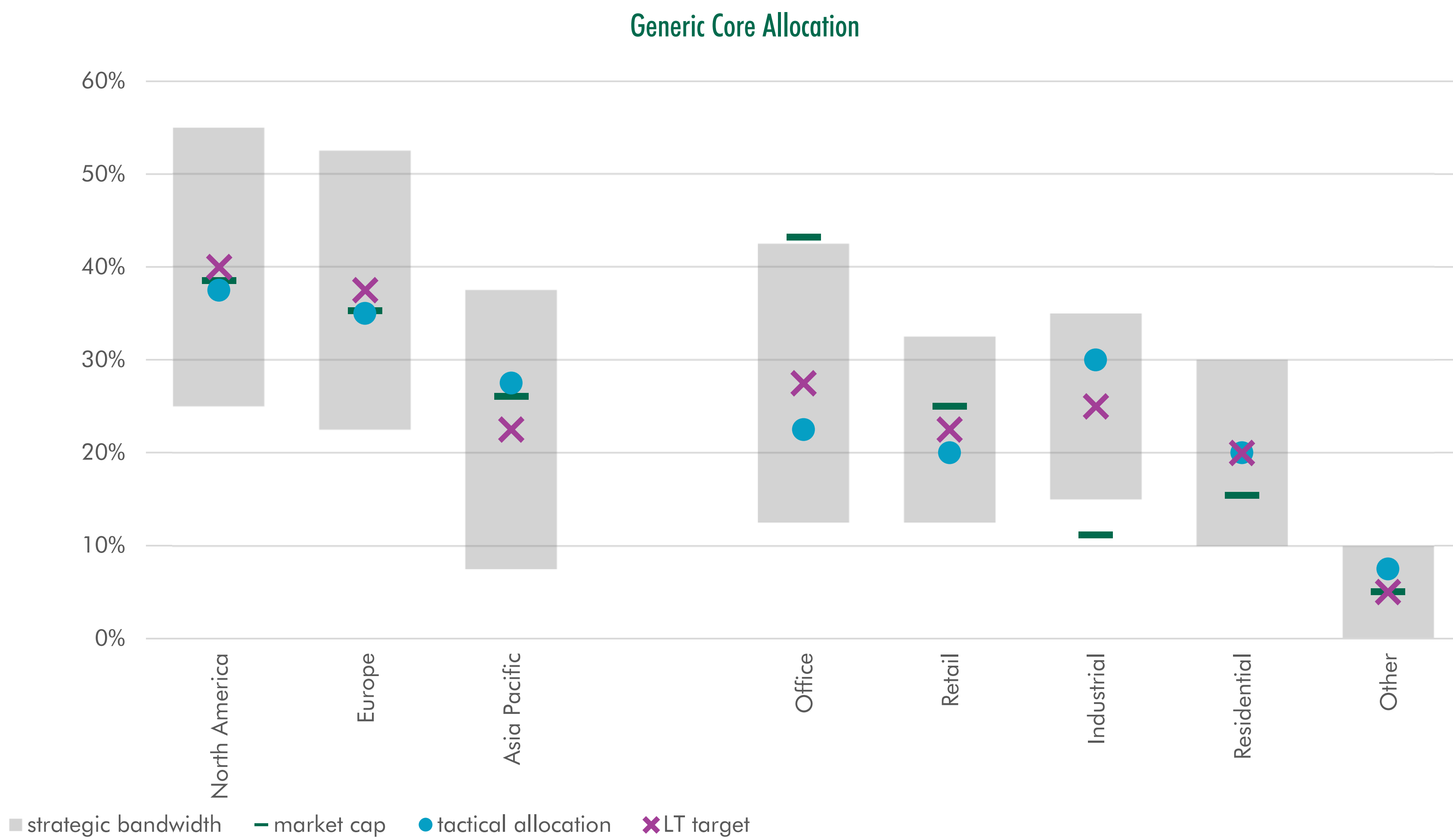
Stock and bond allocations are global for APFC and other investors; room to go for international RE



Sources: AFPC Annual Report 2017, MSCI/IPD, "The erosion of the real estate home bias," 11/2014.
Developed markets = U.S., Japan, UK, Australia, Canada and Switzerland.

GLOBAL REAL ESTATE PORTFOLIO ALLOCATION

Tactical allocation based on 5 year forecast



CBRE Global Investors as of 2018 H1

OUR GLOBAL RECOMMENDED STRATEGIES

Office Recovery and Evolution

Shortage of highly functional space primarily in CBDs combined with strong demand from creative, tech and services firms in "innovation districts" – "Live/Work/Play"

Prime Logistics Facilities in Major Distribution Hubs

Shortage of modern facilities and strong demand driven by e-commerce. High demand for "last mile" fulfillment in tightly supplied urban locations.

Global Recommended Strategies

Dominant and Experiential Retail

Retailers are concentrating their presence in dominant shopping centers and high streets serving affluent demographics that provide a differentiated experience

Select Residential in Under-Served Markets

Demographic trends driving demand for infill lifestyle apartments, student accommodations and quality middle-class housing in underserved markets – "Live/Work/Play".

APPENDIX I:

Investment Strategies and Our Key Products

HOW WE ACCESS OUR RECOMMENDED STRATEGIES

	Direct Property	Syndicated Direct	Programmatic Venture	In-house Funds
DESCRIPTION	Single asset 100% Ownership to place investor in a control position	Partner with a Fund or small group of large investors to access an existing asset or portfolio of assets that is too large for single ownership	Vehicle, exclusive to our clients, set-up to acquire a series of assets in a pre-defined strategy – often with a third party specialist operator	Minority equity ownership of a CBRE Global Investors managed fund – Core, Value-Add and Specialist
CHARACTERISTICS	Complete control over strategy and decision making	Joint control over key decisions Pre-specified assets – no 'blind' pool	Strong control over decision making i.e. veto rights on investments Ability to control the size and duration of the vehicle	Pooled vehicle - Fund Manager discretion over investments (subject to Advisory Board approval above pre-specified levels) Diversification of risk across a pool of assets
EXAMPLES	CBD Offices Multi-Family Regional Retail	Dominant Retail Large lot size CBD Office Large Logistics Portfolio	Student Accommodation On-Airport Logistics Senior Living	Pan-European Core Fund Asia Value Partners Dutch Residential Fund

OUR KEY INVESTMENT PRODUCTS GLOBALLY

Investment strategies accessed through funds and separate account mandates

		POOLED FUNDS			SEPARATE ACCOUNTS
		Core/Core+		Enhanced Returns	Core/Core+
	AMERICAS	**U.S. Core Partners** • Open-end • Target Net IRR: 7-9% • GAV: $2.6B		**Strategic Partners U.S. 8** • Closed-end • Target Net IRR: 12% • Target GAV: $3.7B	**Regional Separate Accounts** • Discretionary and Non-Discretionary Accounts • Primarily Core
	EMEA	**Pan European Core Fund** • Open-end • Target Net IRR: 8-10% • GAV: €2.95B **UK Property Fund PAIF** • Open-end • Target IRR: Outperform IPD UK PFF All Balanced Fund Index • GAV: £1.5B	**European Industrial Fund** • Open-end • Target Net IRR: 8% • GAV: €801M **Dutch Funds (Residential, Retail and Office)** • Open-end • Target Net IRRs: 5.5-9.5% • Combined GAV: €4.3B	**Europe Value Partners** • Closed-end • Target Net IRR: 14% • Target GAV: €2.5B **European Shopping Centre Fund II** • Closed-end • Target Net IRR: 11-13% • GAV: €755M	**Regional Separate Accounts** • Discretionary and Non-Discretionary Accounts • Primarily Core
	ASIA PACIFIC			**Asia Value Partners IV** • Closed-end • Target Net IRR: 13% • Target GAV: $500M	**Regional Separate Accounts** • Discretionary and Non-Discretionary Accounts • Primarily Core
	GLOBAL	**Global Alpha** • Open-end • Target Net IRR: 9-11% • GAV: $3.1B			**Global Separate Accounts** • Accounts in the Americas, EMEA and APAC • Combined GAV: $25B+ (includes direct investments only)

APPENDIX II: Biographies

BIOGRAPHY

TIM MUNN

SENIOR DIRECTOR - EMEA SEPARATE ACCOUNTS GROUP, HEAD OF INBOUND CAPITAL

tim.munn@cbreglobalinvestors.com | T +44 207 809 9263

Tim is a Senior Director of CBRE Global Investors having joined the company in September 1998. He leads a team within the EMEA Separate Accounts Group focussed on clients from outside Europe. Based in London, Tim serves on the European Leadership Team, the UK Executive Committee and is Chairman of the UK Management Board. He is also a member of the UK Investment Committee and Portfolio Oversight Committee.

During his time at the company, Tim has undertaken numerous investment purchases and sales, whilst overseeing high value asset management initiatives on behalf of his clients. His experience includes the restructuring of take-over mandates, investing for new start-up accounts and managing disposal programmes.

Tim serves on the Global Separate Accounts Committee and Global CIO Council. Alongside his EMEA responsibilities, Tim is utilising his experience in running separate account mandates to facilitate cross regional investment and promote best practice globally as the company expands its global separate account business.

Tim is a professional member of the Royal Institution of Chartered Surveyors. In May 2003 he obtained the Investment Management Certificate from UKSIP (Society of Investment Professionals) and is now approved under Section 59 of the Financial Services & Markets Act 2000 to undertake regulated activities.

Tim graduated from the University of Oxford (Merton College) in August 1997 with a BA (Hons) degree in Modern History and he then completed a Masters in Property Valuation and Law at City University.

BIOGRAPHY

MYLES SANGER

Portfolio Director Separate Accounts EMEA, CBRE Global Investors

Myles.sanger@cbreglobalinvestors.com

Myles is portfolio director within the continental European Separate Accounts Business, responsible for several multi country investment portfolios. He joined CBRE Global Investors (then ING Real Estate Investment Management) in 2006 within the Pan European Acquisitions Team where he had primary responsibility for separate accounts and non European funds investing in Europe. Prior to CBRE Global Investors, Myles worked for several large international real estate investors and management companies, including Deutsche Bank, Lend Lease and LaSalle.

Myles Sanger has worked in the real estate industry for over 25 years, much of which in the management of separate account mandates, including Nationale Nederlanden, the New South Wales Government Pension Scheme (A$1.6 billion) and the Continental European investments for Alaska Permanent Fund. He also has broad experience across Europe and internationally with regard to the acquisition, management and divestment of real estate in all sectors. Financial management and asset management teams responsible for client portfolios functionally report to him and he is responsible for the development and effective implementation of client strategy.

He has a degree in Land Economics from the University of Western Sydney and an MBA from the Australian Graduate School of Management (University of Sydney). He is a member of the Australian Property Institute and trained as a real estate valuer prior to moving into investment management.

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Where funds are invested in property, investors may not be able to realise their investment when they want. Whilst property valuation is conducted by an independent expert, any such opinion is a matter of the valuer's opinion. Property is a specialist sector which may be less liquid and produce more volatile performance than an investment in broader investment sectors. CBRE Global Investors Limited is regulated by the Royal Institution of Chartered Surveyors (RICS).

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CBRE GLOBAL INVESTORS

Presentation: Brookfield

Brookfield Asset Management

ALASKA PERMANENT FUND CORPORATION
BOARD MEETING

SEPTEMBER 2018

Brookfield Asset Management Inc. ("BAM" or "Brookfield Asset Management" or the "Firm", together with its affiliates, "Brookfield") is pleased to present to Alaska Permanent Fund Corporation, at its request, with the following information. The information provided herein is for informational and illustrative purposes only and reflects Brookfield's perspectives and beliefs. Investors should consult with their advisors prior to making an investment in any fund or program, including a Brookfield-sponsored fund or program. This document and the information provided herein is not intended to be (and should not be construed as) an offering document or investment advice.

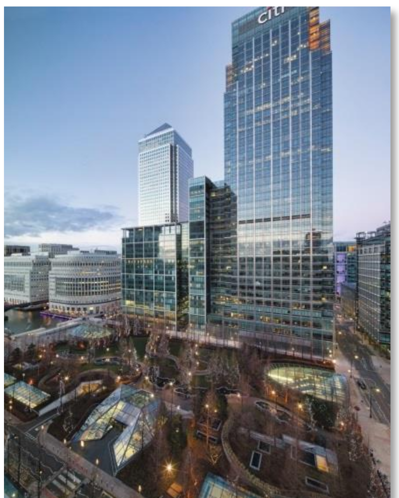
Brookfield

Please refer to Notice to Recipients on last page.

Brookfield in Profile

We are one of the world's leading alternative asset managers, distinguished by 115 years of history of owning and operating real assets

Real Estate
$160 billion[1]
AUM



Office, Retail, Multifamily, Industrial, Hospitality

Infrastructure
$78 billion[1]
AUM

Utilities, Transport, Energy, Communications Infrastructure, Sustainable Resources, Hydroelectric, Wind, Solar

Private Equity
$28 billion[1]
AUM

Business Services, Industrial Operations and Residential Development

$285B+
ASSETS UNDER MANAGEMENT

80,000+
OPERATING EMPLOYEES[2]

750+
INVESTMENT PROFESSIONALS[2]

30+
COUNTRIES

Please refer to endnotes on page 12.

The Brookfield Advantage

Global Presence

With more than 100 offices in over 30 countries, our global network gives us extraordinary access to proprietary deal flow

Contrarian Investors

Our experience shows us that the best opportunities are often found in regions or sectors undergoing periods of financial or operational challenge

Large Scale Capital

Our strong balance sheet and ready access to large scale capital enables us to do transactions of a size that sets us apart

Capital Preservation

Protecting the capital entrusted to us is at the forefront of how we think about risk, which means that we pursue a prudent and disciplined approach to investing and financing

Operational Expertise

We started as owners and operators of real assets, and continue to use our operational expertise as we seek to enhance cash flows, increase the value of underlying assets and produce solid long-term returns

Alignment of Interests

Ensuring alignment of interests with our private fund investors is a priority for us: we are often one of the largest investors in our funds

Brookfield's Global Real Estate Presence

Our strong property-level focus, global, on-the-ground presence and operating capabilities enable us to drive returns throughout real estate market cycles

~285
PROFESSIONALS[1]

$160B
AUM

~17,000
EMPLOYEES MANAGED GLOBALLY[1,2]

CANADA
$8B AUM

EUROPE & MIDDLE EAST
$28B AUM

UNITED STATES[3]
$108B AUM

BRAZIL
$2B AUM

ASIA PACIFIC
$14B AUM

OFFICE
$74B AUM
- ~290 properties
- ~140 million square feet ("sf")

RETAIL[4]
$49B AUM
- ~170 properties
- ~150 million sf

MULTIFAMILY[5]
$10B AUM
- ~150 managed properties
- ~43,000 managed apartments

INDUSTRIAL
$3B AUM
- ~110 properties
- ~35 million sf

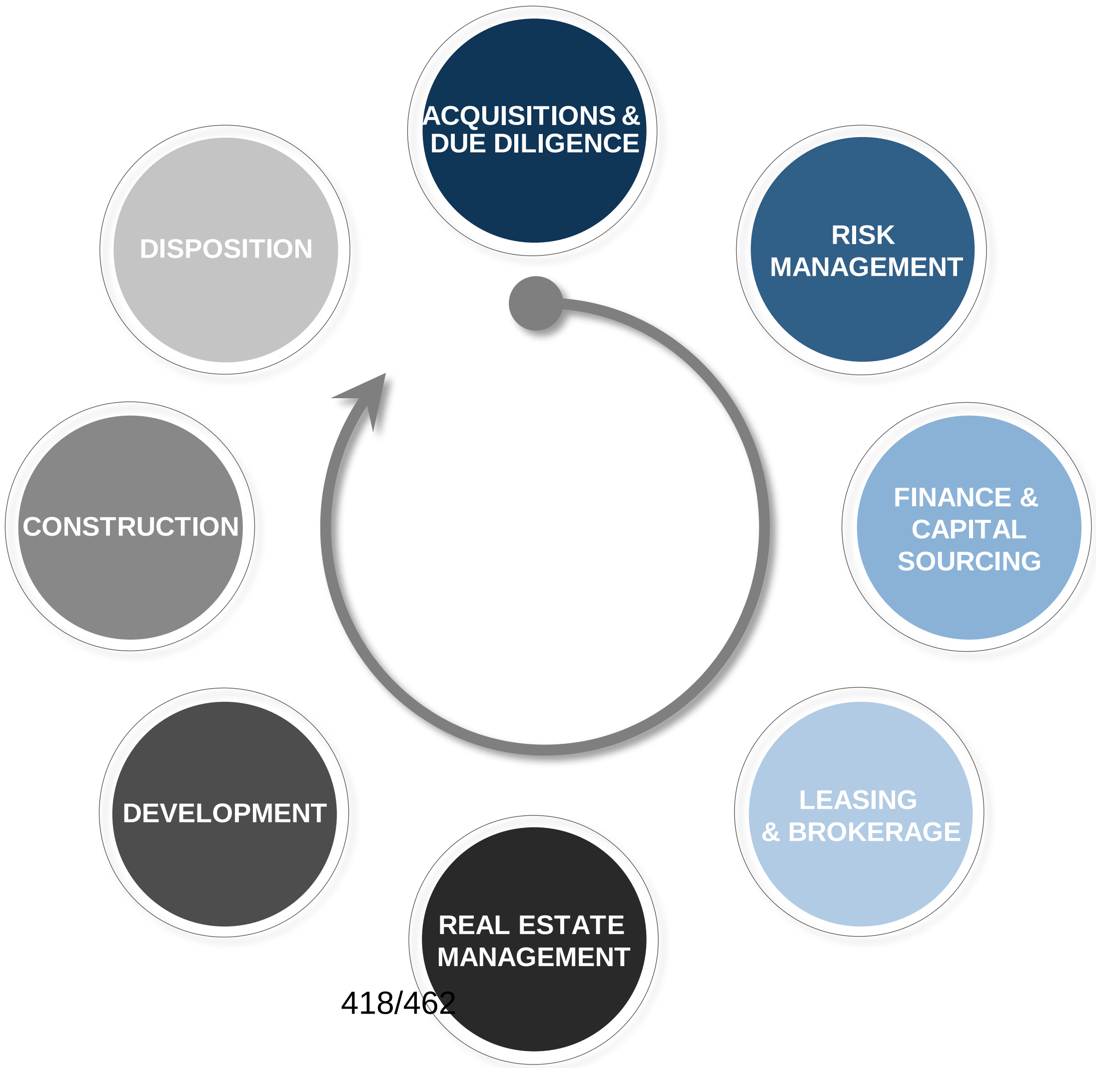
HOSPITALITY & OTHER
$24B AUM
- ~330 triple net leases
- ~200 self-storage properties
- ~160 hotels / holiday parcs
- ~140 manufactured housing communities
- ~50 student housing assets

Development | Leasing | Renovations | Property Management | Marketing | Tenant Management |

Please refer to endnotes on page 12.

Brookfield's Operational Advantage

We drive investment performance through active operational improvements, enhancing cash flows to create value and reduce risk



418/462

Brookfield's Investment Approach

We seek to apply three key components in our approach to real estate investing

Acquire High-Quality Assets

+

Invest On a Value Basis

+

Enhance Value Through Operations

419/462

Opportunistic Investing

To implement our opportunistic investment strategy we seek to:

- **Execute** multi-faceted transactions through restructuring, recapitalization, and public-to-private expertise to invest on a value basis at a discount to intrinsic value
- **Create** long-term value in our investments by applying corporate finance, mergers and acquisitions, and restructuring capabilities
- **Unlock** value from high-quality assets through redevelopment and development initiatives to increase sustainable cash flows and reduce risk
- **Utilize** global platform to identify attractive investment opportunities across geographies and sectors
- **Drive** value through clearly-defined strategies for operational improvement
- **Protect** against downside through structuring and prudent use of leverage

Center Parcs, U.K.

Candor, India

Wynyard, Australia

Brookfield Property Group's Recent Acquisition Highlights[1]

Since 1987, we have invested $52 billion of equity in real estate, and in the last six years we have completed the following major acquisitions[2]:

IDI Gazeley[3]
North American and European industrial property portfolio
$1.3 billion

China Xintiandi[4]
Portfolio of central Shanghai mixed-use properties
$510 million

Canary Wharf Group[5]
U.K. property development and investment company
$5.7 billion

Simply Self Storage
Owner and operator of self-storage assets across the U.S.
$750 million

Potsdamer Platz
Trophy mixed-use asset in central Berlin
$640 million

IFC Seoul[4]
Landmark, mixed-use complex in Seoul
$820 million

666 Fifth Avenue
Landmark office tower in Midtown Manhattan
$600 million

GGP
Second-largest mall owner in the U.S.
$15 billion








2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018







Brookfield Office Properties
Acquisition completed

Capital Automotive[4]
Triple-net portfolio of automotive dealerships
$1.2 billion

Center Parcs[4]
Portfolio of 5 short-break U.K. holiday destinations
$1.5 billion

Associated Estates Realty Corporation
Multifamily REIT consisting of 55 operating properties
$840 million

Rouse Properties[6]
Owner / operator of ~40 U.S. malls
$1.0 billion

U.K. Student Housing
Portfolio of ~30 U.K. student housing properties
$760 million

U.S. Manufactured Housing
Portfolio of ~140 U.S. manufactured housing communities
$580 million

The Serviced Apartment Company
Portfolio of ~2,600 serviced apartments in Europe
$560 million

Note: Dollars invested are rounded and represent total equity invested or committed, in some instances over several transactions. Please note that in certain instances, Brookfield Property Partners ("BPY") or Brookfield's Private Real Estate Funds own less than 100% of the investment.
Please refer to Endnotes on page 12.

BSREP III Seed Investment Overview: Forest City

Agreement to acquire Forest City Realty Trust (“Forest City”), a publicly traded, diversified U.S. REIT with high-quality assets in gateway markets at attractive pricing[1]

INVESTMENT OVERVIEW

- Brookfield Strategic Real Estate Partners III (“BSREP III”) is under agreement to acquire all of the outstanding shares of common stock of Forest City for a price of $25.35 per share
- Forest City’s portfolio consists of premier real estate in gateway U.S. cities in office, life science and multifamily, and high-quality, entitled development opportunities in high barrier to entry markets
- The portfolio is comprised of:
    - 6.3 million sf of office assets including 4.5 million sf in the New York City / Brooklyn market
    - 2.3 million sf of premier life science assets predominantly in Cambridge, MA
    - 18.6K multifamily units across the U.S. with ~70% of value in core markets of New York, D.C., Boston, L.A., San Francisco, Denver, and Dallas
    - 6 large-scale urban mixed-use development projects in the New York MSA, D.C., Denver, and San Francisco

OPERATIONAL UPSIDE[2]

- Brookfield expects to use its deep operating expertise across property sectors to implement value-add capex initiatives at certain key assets, improve operating margins, institute best practices and execute on accretive development opportunities

VALUE CREATION OPPORTUNITY[2]

- Pursue targeted redevelopment projects and work with joint venture partners to execute on accretive redevelopment initiatives
- Execute value-add capex programs at certain key assets
- Develop and control urban mixed-use properties in gateway markets in scale through a secured development pipeline

CLOSING AND FUNDING[1]

- Projected acquisition date: Q4 2018, subject to shareholder approval
- Expected equity commitment: $3.5 billion, of which Brookfield expects to offer a portion as co-investment

New York Times Building, Manhattan, NY


University Park, MIT, MA


Westfield San Francisco Center


Metro 417, Los Angeles, CA

Please refer to endnotes on page 12.

Opportunistic Market Conditions – Brookfield's Perspective

We believe global markets continue to provide opportunity for higher yielding real estate investments[1]

UNITED STATES

- Real estate fundamentals positive
- Stable GDP growth
- ‘Non-core’ assets may be sold by REITs
- Consolidation opportunities in alternative property sectors
- Undermanaged assets or portfolios with sub-optimized capital structures at the property, portfolio or corporate level
- Potential for value through selective redevelopment or asset repositioning
- Depressed valuations in retail sector
- Shortage of affordable/workforce housing
- E-commerce trends and last-mile supply constraints driving occupier demand in industrial sector

U.K. & CONTINENTAL EUROPE

- Real estate fundamentals improving
- Private markets navigating political uncertainty
- Limited competition for large-scale transactions
- Limited new supply
- Low valuations of office REITs
- Emerging Private Rented Sector (“PRS”) in U.K.
- Development opportunities in smaller “secondary” markets with strong local partners

CANADA

- Positive economic growth, steady immigration and strong employment conditions
- Potential opportunities in the well-populated business centers of Toronto and Montreal where there is little new supply
- Energy markets remain challenged
- Select hospitality and multifamily in gateway markets
- Depressed valuations in retail sector
- Consolidation in alternative asset classes

Please refer to endnotes on page 12.

Opportunistic Market Conditions – Brookfield's Perspective

We believe global markets continue to provide opportunity for higher yielding real estate investments[1]

BRAZIL

- GDP growth, declining inflation, moderating interest rates and easing unemployment
- Risks still largely political though great strides have been made towards promoting economic development
- Limited competition for large-scale transactions
- Distressed sales by owners of high vacancy properties that are not willing to endure long lease-up periods, as well as by some foreign owners seeking to exit the market
- Favorable supply outlook in office sector
- Shortage of modern industrial product

AUSTRALIA

- Transition into non-resource based economy
- Continued low volatility and interest rates
- Opportunities in secondary markets like Perth, Brisbane and Canberra, in addition to areas outside of Australia, like New Zealand
- Fragmented alternative property sectors

INDIA

- Strong GDP growth and real estate fundamentals
- Progressive economic policy with encouragement of foreign investment
- Distressed asset sales by government-owned banks
- Rapidly expanding middle class and rising incomes
- Large-scale office transactions on an off-market basis
- Industrial development from cross-border trade and dated assets
- Office market remains a key sector of focus, select opportunities may emerge in logistics and hotel sectors

CHINA

- Monetary policy being used to control liquidity and credit
- Continuing rise of middle class will drive demand
- Deleveraging a top priority for Chinese policymakers with state-owned enterprises divesting ‘non-core’ assets
- Shortage of office space in Shanghai and Beijing
- Increasing demand for cold storage facilities and a wide range of consumer-related industries including retail and logistics

Please refer to endnotes on page 12.

Endnotes

Page 2

1) AUM excludes public securities managed by Brookfield Investment Management Inc. (the "Public Securities Group" or "PSG") totaling ~$20 billion and excludes cash, financial assets and other assets totaling ~$2 billion.
2) As of December 31, 2017. Covers investment professionals and operating employees across all of Brookfield's business lines (e.g., private funds, listed entities, and public securities vehicles) and investment sectors (e.g., real estate, infrastructure, and private equity), including related operating businesses and portfolio companies. Investment professionals include all personnel involved in the capital allocation process, including research, investment analysis, risk analysis, performance measurement analysis, and other personnel.

Page 4

1) Number of professionals reported as of December 31, 2017.
2) Covers operating employees across all of Brookfield's real estate related business lines (e.g., private funds, listed entities, and public securities vehicles), including related operating businesses and portfolio companies.
3) Includes AUM in the Bahamas.
4) Includes assets managed by GGP Inc. as of June 30, 2018. On August 28, 2018, Brookfield Property Partners ("BPY") completed an acquisition of a 100% interest in GGP Inc.
5) Excludes developments not yet in lease-up stage and developments held on BPY's balance sheet, and by Canary Wharf Group.

Page 8

1) The transactions listed are intended to highlight Brookfield Property Group's capabilities across asset classes and through market cycles and includes a selection of equity deals from 2012 onwards with over $500 million of equity invested/committed; and they are not intended to be an exhaustive list or illustrative of the types of deals that Brookfield Property Group has invested in or may invest in on a going-forward basis. For a complete list of investments made by Brookfield Property Group, please contact Brookfield.
2) Represents equity invested as of June 30, 2018, which includes the initial capital investment, follow-on investments, capital expenditures and short-term subscription facility drawdowns as applicable.
3) IDI Gazeley was sold in October 2017.
4) Amount is inclusive of co-investment.
5) Brookfield initially acquired a 15% interest in 2003 and a further 7% interest was acquired in 2010. In April 2015, Brookfield, in conjunction with its joint venture partner completed the acquisition of a 100% interest in Canary Wharf.
6) Brookfield Strategic Real Estate Partners II L.P. ("BSREP II") completed the privatization of Rouse through the acquisition of 66.7% of the outstanding shares of Rouse's common stock. The remaining 33.3% of Rouse continues to be held by BPY. Amount shown represents an estimate of 100% of Rouse's equity at the time of BSREP II's acquisition, plus additional equity invested by BSREP II subsequent to its acquisition.

Page 9

1) There is no guarantee that Brookfield will be able to successfully close or contribute capital at all or on the terms provided herein. There is no guarantee that Brookfield will be able to successfully close on the deal at all or, if closed, on the timeline of terms provide herein or that that Brookfield will offer any investors, including qualifying investors, significant (or any) co-investment opportunities.
2) There is no guarantee that Brookfield will be able to successfully implement the investment strategy or any value creation opportunities listed herein.

Pages 10-11

1) Certain of the information provided herein has been prepared based on Brookfield's internal research and certain information is based on various assumptions made by Brookfield, any of which may prove to be incorrect. Brookfield may have not verified (and disclaims any obligation to verify) the accuracy or completeness of any information included herein including information that has been provided by third parties and you cannot rely on Brookfield as having verified such information. The information provided herein is for informational and illustrative purposes only and reflects Brookfield's perspectives and beliefs. There is no guarantee that the provided commentary will be achieved and undue reliance should not be put on the outlook provided. Actual results could differ materially from what is set forth herein.

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Investing in Alaska Emerging Managers Memo

SUBJECT: Investing in Alaska Emerging Managers

ACTION: ____________

DATE: September 27, 2018

INFORMATION: ______X______

BACKGROUND:

As part of the APFC's ongoing efforts to identify and support skilled and differentiated private market investment managers, the Board recently directed staff to explore programs designed specifically to identify Alaska-based managers.

Representatives from two investment firms with a long history of designing and managing geographically targeted emerging manager programs, Hamilton Lane and GCM Grosvenor, will participate in a panel on this topic in order to further inform APFC Board and staff.

Presenters: Paul R. Yett, Managing Director, Hamilton Lane

Jason R. Howard, Partner, GCM Grosvenor

Moderator: Steve Moseley, Head of PE and Special Opportunities, APFC

Jason Howard is a Partner at GCM Grosvenor focused on client portfolio management, private equity fund investments, and private equity co-investments. He is located in the Los Angeles office. Prior to joining GCM Grosvenor, Mr. Howard was a Principal in the Customized Fund Investment Group of Credit Suisse Group AG. Previously, he was an Associate in the Investment Banking Division at Goldman Sachs. Mr. Howard was also a Manager of Deal Analysis at Walt Disney Pictures and Television and a consultant for Turner Broadcasting. He began his career in the Mergers & Acquisitions Group at Goldman Sachs.

Mr. Howard graduated with high honors from the Goizueta Business School at Emory University with a Bachelor of Business Administration in 1999. Mr. Howard currently serves as a member of The Salvation Army's National Advisory Board.

Paul Yett is a Managing Director at Hamilton Lane, based in the firm's San Francisco office, where he is involved in both the firm's investment activities and client relationships. Paul began his career with Hamilton Lane in 1998 in the Due Diligence Department where he managed the firm's global venture capital practice and real estate. Paul is an Investment Committee member and manages a number of the firm's client relationships.

Prior to joining Hamilton Lane, Paul spent four years with Stone Pine Asset Management, LLC, a Denver-based private equity firm, where he was part of a team that managed a direct private equity mezzanine fund under the parent company, FCM Fiduciary Capital Management Company. Paul began his career in Denver as a Lease Accountant with Bramalea U.S. Properties where he covered several of the firm's U.S. commercial retail properties.

Paul currently serves on the governing board of the Robert Toigo Foundation. He received a B.S. in Finance from San Diego State University.

Presentation: Hamilton Lane

What are Targeted Investment Programs?

Private equity investment programs created to generating attractive returns as well as achieve specific ancillary goals that are of social or economic nature

Attractive Private Equity Returns

+

Ancillary Benefits

- Geographic Area (In-State, Provincial, Regional)
- Energy Alternatives/Clean Tech/ Environmental
- Emerging Manager/First Time Funds
- Ethnic/Minority/Women owned
- Industry Sector (IT, Healthcare IT, Life Sciences etc.)
- International and/or Emerging Markets
- Socially Responsible Investments/ Human Rights

Also referred to as " Impact Investment Programs" or "Double Bottom Line Programs"

What are the potential benefits to Investors?

Investment Performance Benefits

- Track Record
- J-Curve Mitigation
- Take advantage of investment opportunities otherwise not a fit for the broader PE mandate

Economic and Social Benefits

- Job Creation
- Increased Tax Base
- Help grow sustainable and appropriate industry sectors
- Facilitate and attract non-local investment

Public Relations Benefits

- Positive publicity for the Organization, Board and Staff
- Attract and encourage constituent participation

Core Portfolio Benefits

- Incubator for potential future core manager relationships
- Diversification tool that offers more control
- Flexibility of structure can help fulfill exposure and/or return considerations

Key Considerations

Due to their very nature, such programs require dedicated effort and investment discipline to execute successfully

Important factors to consider:

Clarity of Goals and Objectives	Matching Investment Landscape and Goals	Amount of Capital/ Size of Opportunity
Suitable Investment Vehicle	Manager Expertise/ Platform	Flexible Investment Guidelines
Familiarity with PE/VC Culture	Benchmarking	Creating measurable ancillary benefits

Hamilton Lane Experience

History of developing placed-based (or regionally targeted) investment programs globally

New York

California

Florida

Nevada

Idaho

Focus on Portfolio Construction

- Multi-faceted investment platform
  - Co-Investment
  - Primary
  - Secondary
- Diversity of programs across strategies and regions
- Generated material liquidity across more seasoned programs

Experience in Targeted Investment Programs

- Managing over $2.0B in capital
- Pioneered geographically focused private equity programs
- Over 16 years of Targeted Investment Programs experience with reputable institutional LPs
- Over 30,000 jobs created across programs*
- Approximately 50% of capital in underserved regions

Dedicated Relationship Management

- In-house legal, finance and reporting capabilities
- Access to industry-leading data and proprietary data-mining tools
- Enhanced transparency and portfolio company analytics
- Market research and ongoing client training

As of December 31, 2017
*Source: Reporting by GPs and companies on an annual basis, collected by Hamilton Lane

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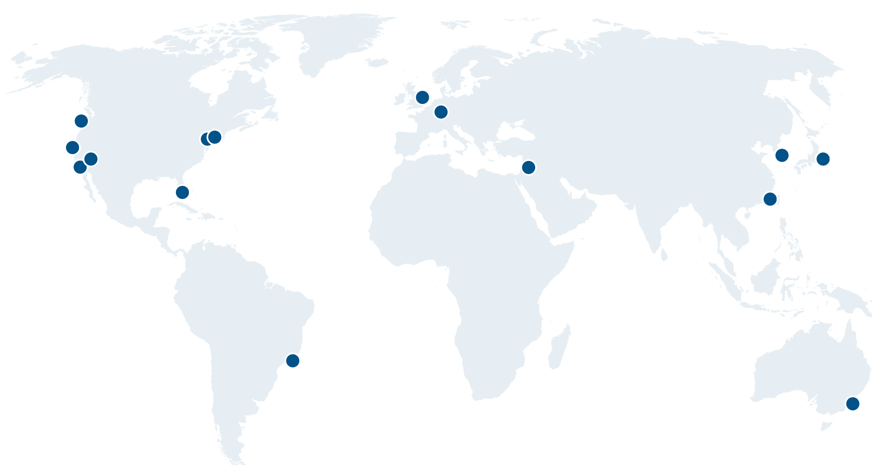


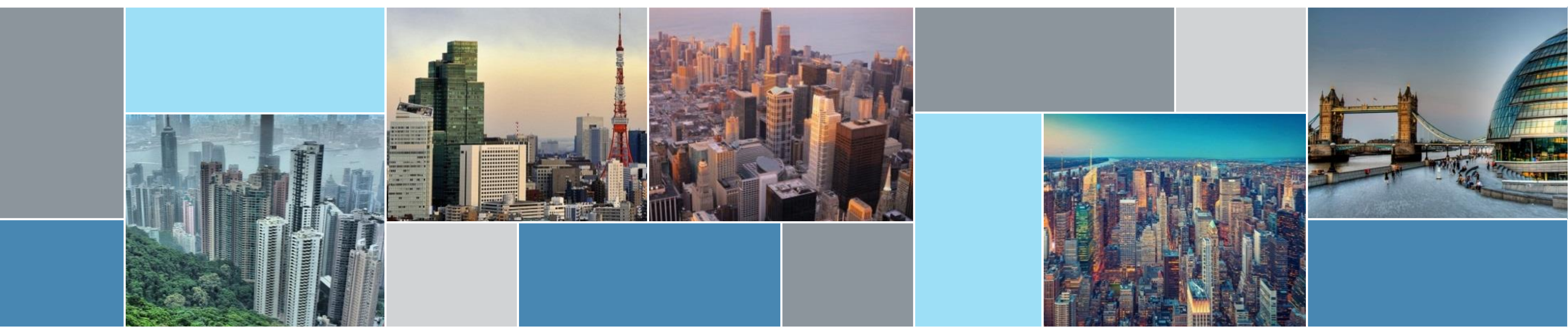
Presentation: GCM Grosvenor

GCM GROSVENOR

Approaches and Considerations for Establishing an In-State / Regional Program

Alaska In-State / Regional Program

September 2018



Key Questions to Address

Developing answers to the following key questions will help guide program evaluation and development when considering a potential in-state / regional program.

Strategy / Program Goals	▪ What are the program objectives? ▪ How is success defined for the program? ▪ Which investment asset classes are within scope (PE, RE, infrastructure) and which are excluded? ▪ Is the program focused solely on in-state investments or broader regional investments? ▪ What are the return expectations? ▪ Will the program pursue a place-based and or sector-based strategy? ▪ What are the key program milestones? ▪ What is the timeline for evaluating a program's success? ▪ Which metrics will be tracked to measure the program's progress? ▪ What is the expected program risk profile / appetite? ▪ Which clusters of in-state innovation / competitive advantage are expected to drive deal flow? ▪ Will the program have a broad / diversified focus or a more narrow/targeted focus on early stage company investments? ▪ What is the targeted number of investments?
Sizing / Investment Universe	▪ What is the minimum criteria for an investment to qualify as an in-state / regional deal? ▪ How much capital is targeted for deployment? ▪ Does the current in-state deal flow support the proposed capital deployment plan? ▪ Could the new program expand the investment universe? ▪ Which industries generate the most deal flow? ▪ Are existing investment opportunities failing to attract capital or are there few investment opportunities? ▪ Who are the most active GPs/investors in the state / region? ▪ Is the investment ecosystem / community in place to support the planned growth? ▪ What's the typical deal size of existing investments?
Capital Source(s)	▪ Will the program's capital be provided by a single LP or multiple LPs? ▪ Will all capital be committed upfront or after achievement of specific milestones?
Communications	▪ Who are the key stakeholders and how frequently will they require updates? ▪ What are the expectations for ongoing reporting of the program's progress?
Resources / Team	▪ Which governance model will be employed for the program? ▪ Who would be involved to manage the program? Only investment team members or a broader group of stakeholders? ▪ Will the program have an advisory board? ▪ Are internal resources sufficient to source, consummate and monitor investment? Are out-sourced resources required?

Note: For illustrative purposes only. **No assurance can be given that any investment will achieve its objectives or avoid significant losses.**

Approaches to In-state Programs

Considerations for Achieving Various Potential Program Goals

Approach	Key Considerations
Support new company creation	▪ Develop early stage VC-focused program, with capital available to fund companies as they grow ▪ Consider investments in VC funds and direct investments in companies ▪ Help build a network between universities, labs, incubators, and others
Support growth of existing companies	▪ Nexus to the State is easily identified ▪ Establish diversified investment program with flexibility to invest debt and or equity in companies of varying maturity ▪ Include companies within the state / region and those growing into the area ▪ Include investments in funds and direct investments in companies ▪ Include flexibility to incentivize GPs to spend time in region sourcing deals
Grow investment community / ecosystem	▪ Target investments to attract existing GPs to establish offices / presence in state ▪ Focus on supporting establishment of new funds
Support IP transfer from Universities	▪ Build off of and utilize existing relationships with universities ▪ Include investments in funds and direct investments in companies ▪ Team with incubators and economic development agencies to foster entrepreneurial growth

Note: For illustrative purposes only. **No assurance can be given that any investment will achieve its objectives or avoid significant losses.**

Potential Approaches to In-state Programs (cont'd)

Portfolio Construction Considerations when Developing a Program Goals

Select risks include: manager risk, macroeconomic risk, credit risk, interest rate risk, security selection risk, mark-to-market risk, jurisdiction risk, regulatory risk, capital markets risk, and inflation risk. Additional risks that result in losses may be present

Approach	Key Considerations
Fund Investments	▪ Matching high performing funds to program objectives is often difficult ▪ Diligence complexity / resource intensity for evaluating emerging manager investments ▪ Adherence to program objectives and fund in-state/regional nexus expectations ▪ Potentially longer time frame to assess success of fund investments
Co-Investments	▪ Nexus to the State is easily identified ▪ Potential to reduce J-curve for a program ▪ High quality sponsored opportunities are often limited ▪ Potential concentration in key industries most prominent/acquisitive within the state
Venture Capital/Growth Equity	▪ Very long investment cycle (extended J-curve) ▪ Typically lower job impact ▪ Technology expertise is critical in the fund
Private Equity	▪ Generally less volatile than venture or growth ▪ Typically greater in-state job impact ▪ Lends itself to co-investment opportunities
Real Estate	▪ Variety of potential strategies ▪ Cash flow generation and J-curve similar to private equity ▪ Job impact depends on project / investment scope
Infrastructure	▪ Cash yield potentially mitigates J-curve impact ▪ Longer investment horizon can provide recession resistance to the portfolio ▪ Can generate co-investment opportunities

Note: For illustrative purposes only. **No assurance can be given that any investment will achieve its objectives or avoid significant losses.**

Measuring Impact

Sample metrics for assessing an in-state / regional program could include:

Metric	Key Considerations
Capital Deployment	▪ Dollars invested in region ▪ % of capital invested in region ▪ Other dollars from outside the program invested in the same investments ▪ Number of investments in region
Jobs and Infrastructure	▪ Number of jobs created or maintained in region ▪ Number of company headquarters in region ▪ Number of facilities in region
Impact	▪ Woman, indigenous, or minority-owned funds and companies ▪ Spending / payroll taxes / procurement by portfolio companies in region ▪ Track businesses in underserved and Low and Moderate Income ("LMI") areas
Quality of Jobs	▪ Percentage of companies providing benefits to employees including but not limited to: › Medical Insurance › Retirement Plan › Paid Sick leave › Paid Vacation › Company Stock › Other benefits including disability benefits

Note: For illustrative purposes only. **No assurance can be given that any investment will achieve its objectives or avoid significant losses.**

Appendix

Notes and Disclosures

GCM Grosvenor

Notes and Disclosures

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Alaska Investment Policy Memo

SUBJECT: Alaska Investment Policy ACTION: _____X________

DATE: 9/27/2018 INFORMATION: ____________

BACKGROUND:

APFC's current Investment Policy & Procedures were reviewed and approved in May 2018 with an effective date of July 1, 2018. As a result of the discussion and review, the Board requested staff provide ideas for implementing the policy and any needed amendments to the policy. We have included the language of the existing policy for reference below:

V ALASKA INVESTMENT POLICY

To implement the requirements of Alaska Statute 37.13.120(c), the Board believes the Fund should have an in-state investment policy that maintains the investment integrity of the Fund and is both proactive and impartial. As such, any in-state investment should be considered by APFC under the following considerations:

Honor Alaska Statute 37.13.120(c): Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to or better than a similar non-Alaskan investment, the Alaskan investment should be preferred.

Require Compelling Risk-Adjusted Returns: To honor the prudent investor rule provided in Alaska Statute 37.13.120(a), any Alaskan investment contemplated by APFC must be attractive on a stand-alone basis.

Ensure Fund Diversification: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), the total of all in-state investments shall generally not exceed 1% of the Fund without Board approval (measured at the time of purchase)—includes public and private market investments.

Seek Participation by Non-Alaskan Institutional Investors: In order to ensure that an Alaskan investment opportunity is attractive on a stand-alone basis and satisfies the institutional quality requirements of 15 AAC 137.420, APFC should generally seek to invest into an Alaskan investment alongside of at least one of its peers (i.e., a large institutional investor, which may include endowments, foundations, sovereign wealth funds, or public or private pension funds).

STATUS:

Attached is a revised Investment Policy incorporating a new Alaska Investment Policy. Staff recommends the Board of Trustees adopt the Policy as revised.

Proposed Alaska Investment Policy SEPTEMBER 2018

I ALASKA INVESTMENT POLICY

A. Objective and Considerations

To implement the requirements of Alaska Statute 37.13.120(c), the Board believes the Fund should have an in-state investment policy that maintains the investment integrity of the Fund and is both proactive and impartial. As such, any internal in-state investment decision made by APFC Staff should include the following considerations:

- Honor Alaska Statute 37.13.120(c): Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to or better than a similar non-Alaskan investment, the Alaskan investment should be preferred.
- Require Compelling Risk-Adjusted Returns: To honor the prudent investor rule provided in Alaska Statute 37.13.120(a), any Alaskan investment contemplated by APFC must be attractive on a stand-alone basis.
- Ensure Fund Diversification: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), Board approval is required for any in-state investment that would exceed 1% of the Fund, at the time of investment.
- Seek Participation by Another Institutional Investor: In order to ensure that an Alaskan investment opportunity is attractive on a stand-alone basis and satisfies the institutional quality requirements of 15 AAC 137.420, APFC should generally seek to invest into an Alaskan investment alongside of at least one of its peers (i.e., a large institutional investor, which may include endowments, foundations, sovereign wealth funds, or public or private pension funds).

B. In-State Investment Targets

To encourage the APFC Staff to identify and invest the Fund in additional compelling in-state investments, the following investment targets and guidelines are set to promote compliance with AS 37.13.120(c):

- By 2020, at least 2% of the Fund should be invested in-state;
- By 2021, at least 3% of the Fund should be invested in-state;
- By 2022, at least 4% of the Fund should be invested in-state;
- By 2023, at least 5% of the Fund should be invested in-state;
- For purposes of this Section, a Fund investment will be considered "invested in-state" if,
    - An external investment manager has an office in Alaska and the employee(s) that is primarily responsible for management of the asset(s) is based in Alaska; or

    - An external investment manager with offices outside of Alaska makes an investment in Alaska, such as an investment in a portfolio company or investment project located in Alaska.
- Fund investments managed internally by APFC Staff will not be included in achieving these targets.

Resolution 18-03 In-State Emerging Manager Program

Alaska Permanent Fund Corporation

RESOLUTION OF THE BOARD OF TRUSTEES OF THE ALASKA PERMANENT FUND CORPORATION SUPPORTING AN IN-STATE EMERGING MANAGER PROGRAM

RESOLUTION 18-03

Private equity and venture capital investors combine investment capital with the application of operational expertise and other resources designed to support growth of the underlying operating companies and drive returns on invested capital. Because private equity and venture capital investments typically catalyze investment from other sources and require legal, advisory, accounting and other support services, prudent investment activity in Alaska should have a positive multiplier effect.

To encourage the growth of this positive impact within Alaska, consistent with the requirements of Alaska Statute 37.13.120(c), the Alaska Permanent Fund Corporation should target a portion of its private equity and venture capital investments at opportunities within Alaska that provide a rate of return on investment consistent with the expected risk/return profile of similar investments outside of Alaska.

Because the sourcing, selection, and ongoing active support of emerging private equity and venture capital fund managers is time and resource-intensive, APFC staff should outsource day-to-day management of this program while retaining oversight responsibility.

NOW THEREFORE BE IT RESOLVED that the Trustees direct the Executive Director to create an In-State Emerging Manager Program consistent with the following guidance:

1) APFC staff should conduct a targeted request for information ("RFI") in order to identify and select a discretionary fund-of-funds manager with demonstrable expertise in:
   - identifying capable and promising private investment firms;
   - supporting the growth and development of emerging investment firms; and
   - monitoring and reporting on the activity of underlying managers and investments.

2) The RFI should establish expected standards and targeted characteristics of underlying fund managers. Such characteristics are expected to include:
   - an in-State investment strategy designed to deliver returns consistent with similar investments outside of the state;
   - a business presence in Alaska; and
   - an ability to raise additional capital from other institutional sources.

3) Following the RFI, APFC staff is directed to design and negotiate an investment management agreement with the selected fund-of-funds manager. The agreement will establish the rights and responsibilities of the parties and govern the manager's relationship with the APFC.

4) The initial capital commitments and investments made through this program will be up to $200 million and will be a part of the Fund's allocation to Private Equity and Special Opportunities, which includes tracking the performance of this program against the benchmarks used to evaluate the performance of this asset class. It is anticipated that APFC will renew its investment commitments to investment partners that demonstrate success during the initial phase of this investment program.

PASSED AND APPROVED by the Board of Trustees if the Alaska Permanent Fund Corporation, this day of _____________, 2018.

/s/
Bill Moran
Chairman, Board of Trustees
Alaska Permanent Fund Corporation

ATTEST:

/s/
Angela M. Rodell, Corporate Secretary

Chief Investment Officer Interviews Memo

SUBJECT: Chief Investment Officer Interviews

ACTION: __________

DATE: September 27, 2018

INFORMATION: ____X_____

BACKGROUND:

Board of Trustees are to conduct interviews for the position of the Chief Investment Officer of the Alaska Permanent Fund Corporation. Upon completion of the interviews, when the Board and Executive Director discuss the attributes of these candidate, because this discussion could be impinge on the reputation and character of these candidates, under AS 44.62.310(c)(2), the Board is authorized convene this portion of the meeting in executive session; provided that any of these candidates has the ability to request the portion of the discussion that relates to them be held in public.

Election of Corporate Officers Memo

SUBJECT: Election of Corporate Officers ACTION: ____X_____

DATE: September 27, 2018 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

Calendar of Upcoming Board Meetings Memo

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

SUBJECT: Board of Trustees Meetings ACTION: X

DATE: September 27, 2018 INFORMATION: X

BACKGROUND:

APFC's Board of Trustees holds quarterly meetings to review and evaluate the investment performance of the portfolio, the asset allocation and investment risk of the Fund, and the compliance program in relation to applicable laws, regulations, and governance policies. Special meetings of the Board of Trustees are scheduled as required.

The 2019 and 2020 Board of Trustees Meeting schedules have been previously approved. Please note that the December 2018 Quarterly Board Meeting will be held in Juneau. Attached are the calendars for your information, please mark your schedules.

2019 BOARD OF TRUSTEES MEETINGS ARE CURRENTLY SCHEDULED:

FEBRUARY 27-28, 2019 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting Advisor: Mitchell
MAY 22-23, 2019 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting/Audit Committee Advisor: TBD *Memorial Day is Monday, May 27*
SEPTEMBER 5, 2019 Thursday Location: Juneau	Audit Committee/Budget Planning Session Advisor: Zinn *Labor Day is Monday, September 2*
SEPTEMBER 25-26, 2019 Wednesday & Thursday Location: Juneau	Annual Board Meeting Advisor: Zinn
DECEMBER 3-4, 2019 Tuesday & Wednesday Location: Juneau	Regular Quarterly Meeting Advisor: Mitchell

2020 BOARD OF TRUSTEES MEETINGS ARE PROPOSED TO BE SCHEDULED:

FEBRUARY 19-20, 2020 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting Advisor: TBD
MAY 20-21, 2020 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting/Audit Committee Advisor: TBD *Memorial Day is Monday, May 25*
SEPTEMBER 3, 2020 Thursday Location: Juneau	Audit Committee/Budget Planning Session Advisor: TBD *Labor Day is Monday, September 7*
SEPTEMBER 23-24, 2020 Wednesday & Thursday Location: Juneau	Annual Board Meeting Advisor: TBD
DECEMBER 9-10, 2020 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting Advisor: TBD

RECOMMENDATION:

- Review of 2019 Board of Trustees Meeting Schedule
- Re-approval of 2019 Board of Trustees Meeting Schedule

2019 BOT Meetings

2019 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING	ADVISOR
February 27-28, 2019 (Wednesday/Thursday)	Juneau	Regular	Mitchell
May 22-23, 2019* (Wednesday/Thursday)	Juneau	Regular Audit Committee	TBD
September 5, 2019* (Thursday)	Juneau	Audit Committee Budget Planning Session	
September 25-26, 2019 (Wednesday/Thursday)	Juneau	Annual Meeting	Zinn
December 3-4, 2019 (Tuesday/Wednesday)	Juneau	Regular	Mitchell

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release date for the Audited Statements and the Annual Report as required in statute.

2020 BOT Meetings

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

2020 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING	ADVISOR
February 19-20, 2020 (Wednesday/Thursday)	Juneau	Regular	TBD
May 20-21, 2020* (Wednesday/Thursday)	Juneau	Regular Audit Committee	TBD
September 3, 2020* (Thursday)	Juneau	Audit Committee Budget Planning Session	TBD
September 23-24, 2020 (Wednesday/Thursday)	Juneau	Annual Meeting	TBD
December 9-10, 2020 (Tuesday/Wednesday)	Juneau	Regular	TBD

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release date for the Audited Statements and the Annual Report as required in statute.