



APFC

ALASKA PERMANENT  
FUND CORPORATION

Board of Trustees  
Quarterly Meeting  
May 26-27, 2026

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**QUARTERLY MEETING OF THE BOARD OF TRUSTEES**  
**May 26-27, 2026**

**Valdez Convention & Civic Center**  
**314 Clifton Drive, Valdez**

**Tuesday, May 26, 2026**

**8:30 a.m. – 4:30 p.m.**

**Day 1 Webinar Access (click [here](#) to join)**

**Teleconference Option**

Phone: 323-792-6284

Phone Conference ID: 233 701 565#

**Wednesday, May 27, 2026**

**8:30 a.m. – 12:30 p.m.**

**Day 2 Webinar Access (click [here](#) to join)**

**Teleconference Option**

Phone: 323-792-6284

Phone Conference ID: 723 441 174#

**Written comments can be sent to Trustees anytime at [boardpubliccomment@apfc.org](mailto:boardpubliccomment@apfc.org)**

**AGENDA**

**TUESDAY, MAY 26, 2026**

- 8:30 a.m. BOARD OF TRUSTEES QUARTERLY MEETING CONVENES
- CALL TO ORDER
- ROLL CALL (Action)
- APPROVAL OF AGENDA (Action)
- APPROVAL OF MINUTES (Action)
- February 23-24, 2026 – Quarterly Meeting
- OPPORTUNITY FOR PUBLIC PARTICIPATION
- 8:45 a.m. CHIEF EXECUTIVE OFFICER'S REPORTS (Information/Standard Reports)  
Pending Board Matters, Trustee Education Report, Disclosure Report, Staff Summary Report, Human Resources Summary, Communications Report, Legislative Update, IT Update, Financial Update, Financial Report, APFC Transfers, History & Projections, Investment Management Fee Report, FY26 Budget Update
- 9:30 a.m. CHIEF INVESTMENT OFFICER REPORT (Information)  
Marcus Frampton, Chief Investment Officer
- 10:00 a.m. RISK & COMPLIANCE OVERVIEW (Information)  
Sebastian Vadakumcherry, Chief Risk & Compliance Officer
- 10:30 a.m. BREAK
- 10:45 a.m. PRIVATE MARKETS OVERVIEW (Board Education & Information)  
Allen Waldrop, Deputy CIO – Private Markets
- 11:15 a.m. PUBLIC MARKETS OVERVIEW (Board Education & Information)  
Jim Parise, Deputy CIO – Public Markets

- 11:45 a.m. INVESTMENT ADVISOR COMMENTS (Information)  
George Zinn, John Skjervem, and Janet Becker-Wold
- 12:15 p.m. *LUNCH*
- 12:45 p.m. FUND PERFORMANCE & OVERVIEW (Education & Information)  
Greg Allen, Callan LLC  
Steve Center, Callan LLC
- 2:30 p.m. *BREAK*
- 2:45 p.m. ASSET CLASS UPDATE – ABSOLUTE RETURN (Education & Information)  
Youlian Ninkov, Senior Portfolio Manager
- 3:45 p.m. GOVERNANCE COMMITTEE ACTION ITEMS (Action)  
Chris Poag, General Counsel
- 4:15 p.m. CORPORATE OPERATIONS OVERVIEW: COMMUNICATIONS (Information)  
Pauly Swanson, Director of Communications  
Juliette Alldredge, Communications Manager
- 4:30 p.m. *ADJOURNMENT*

WEDNESDAY, MAY 27, 2026
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- 8:30 a.m. MEETING RECONVENES
- 8:35 a.m. INVESTMENT POLICY UPDATE (Action)  
Sebastian Vadakumcherry, Chief Risk Officer
- 9:30 a.m. APFC BUDGET REVIEW (Action)  
(Possible Executive Session)
- FY26 BUDGET PROJECTIONS & LINE ITEM TRANSFER (Action)
  - FY27 BUDGET APPROVAL (Action)
- Kelli Patterson, Administrative Operations Manager  
Val Mertz, Chief Financial Officer
- 10:30 a.m. *BREAK*
- 10:45 a.m. IAG PRESENTATION: BENCHMARKING (Board Education & Information)  
Janet Becker-Wold, Investment Advisor
- 11:45 a.m. INVESTMENT ADVISOR COMMENTS (Information)  
Janet Becker-Wold, John Skjervem, and George Zinn
- 12:15 p.m. ADDITIONAL OPPORTUNITY FOR PUBLIC PARTICIPATION
- OTHER BUSINESS
- TRUSTEE COMMENTS
- FUTURE AGENDA ITEMS
- 12:30 p.m. *ADJOURNMENT*

<p><i>NOTE: TIMES MAY VARY AND THE CHAIR MAY REORDER AGENDA ITEMS (Please telephone Jennifer Loesch at 907-796-1519 with agenda questions)</i></p>
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SUBJECT: Approval of Minutes

ACTION: X

DATE: May 26, 2026

INFORMATION:

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**BACKGROUND:**

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

- February 23-24, 2026 Quarterly Meeting

**RECOMMENDATION:**

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

**ALASKA PERMANENT FUND CORPORATION  
BOARD OF TRUSTEES QUARTERLY MEETING**

Michael J. Burns Building,  
David Rose Board Room (3rd Floor)  
801 West 10th Street, Juneau,  
Alaska 99801

**February 23- 24, 2026**

**TRUSTEES PRESENT:** Jason Brune, Chair; Ethan Schutt; Vice-Chair; John Binkley; Janelle Earls; Ralph Samuels; Ryan Anderson

**APFC STAFF PRESENT:** Deven Mitchell, CEO; Marcus Frampton, CIO; Valerie Mertz, CFO; Sebastian Vadakumcherry, Chris Poag; Pauly Swanson, Ross Alexander, Jim Parise, Allen Waldrop, Jennifer Loesch, Larissa Murray, Joseph Jeralds, Josh Ungar, Eric Ritchie, Cassandra King, Sarah Clark, Scott Balovich, Marisa McComas, Norix Mangual, Lara Pollock, Lesley Creswell, Sarah Struble, Brady Owen, Jordyn Perletti, Cody Graves, Matthew Ives, Jessica Thornsburry, Steve Adams, Henry Lloyd, Tom O’Day, Michael Prebeg, Luke Kirkham, Jacki Mallinger, Matt Sykes, Colton Scudder, Chris LaVallee, Lillie Haggard, Edward Rime, Ian Horwood, Kelli Patterson, Masha Skuratovskaya, Tara Mendoza, Valeria Martinez, Michael Gumz, Shannon McCain, Joe Shinn, Juliette Alldredge, Fawad Razzaque, Ben Williams, Steven Gagliardo, Matt Ives, Alex Smith, Heather Pedersen.

**ADVISORS & CONSULTANTS PRESENT:** John Skjervem, Investment Advisor; Janet Becker-Wold, Investment Advisor; George Zinn, Investment Advisor; Greg Allen, Callan LLC; Steve Center, Callan LLC

**MEMBERS OF THE PUBLIC PRESENT:** Ben Hofmeister, Julee Farley, Senator Gary Stevens, Representative Bryce Edmon, Tim Lamkin, Tristan Walsh, Aurora Hauke, Jessica Hamlin, Joe Ebisa, Carmela Mendoza, Mark Sabbatini, Michael L. McHargue, Alex Psilakis, Sophia Torres, Veronica Tapia, Zane El-Gamal, Lauren Albanese, Brenda Hentschel, Martin Braun, Robert Gerschultz, Trey Prenovost, Wes Owen, Sheri Owen, Kevin Balaod, Dan Abramson, Ben Mohr, Ed Martin, Jr., Jay Duddles, Gary Hennigh, James Simard, John Hudson, Elaine Schroeder, Doug Woodby, Matt Jones, Mike Reed

**CALL TO ORDER**

CHAIR JASON BRUNE called the quarterly meeting of the Board of Trustees to order at 8:30 a.m. The meeting was held at the Michael J. Burns Building in Juneau, Alaska.

## **ROLL CALL**

Board members present and constituting a quorum were:

- CHAIR JASON BRUNE
- VICE CHAIR ETHAN SCHUTT
- TRUSTEE RALPH SAMUELS
- TRUSTEE JOHN BINKLEY
- TRUSTEE JANELLE EARLS
- TRUSTEE RYAN ANDERSON

## **APPROVAL OF AGENDA**

Vice Chair Schutt moved to approve the agenda, which was seconded by Trustee Samuels. The motion passed without objection.

## **APPROVAL OF MINUTES**

Vice Chair Schutt moved to approve the minutes of the December 17, 2025, quarterly meeting, which was seconded by Trustee Samuels. The motion passed without objection.

## **OPPORTUNITY FOR PUBLIC PARTICIPATION**

The Board received testimony from several members of the public:

- **DOUG WOODY (350Juneau)** inquired about potential investments in the Alaska Liquefied Natural Gas (AKLNG) project. Chair Brune confirmed he had made a referral for staff to evaluate the project's risk-adjusted returns. CEO DEVEN MITCHELL noted that fiduciary duties, including diversification and maintaining a vested financial interest, would limit the size of any such investment.
- **ELAINE SCHROEDER (350Juneau)** urged the Board to utilize transparent climate change risk assessments to protect fund value and ensure direct representation in decision-making.
- **JOHN HUDSON (350Juneau)** discussed the global transition toward electricity technology and recommended the Board consider renewable energy rewards.
- **JIM SIMARD (350Juneau)** updated the Board on a climate-related constitutional case appearing before the Alaska Supreme Court.
- **GARY HENNIGH (City of King Cove)** requested financial assistance for the city following the closure of its processing plant. Chair Brune clarified that the previous in-state investment program was made through third parties and that the Board had since discontinued that program.
- **ED MARTIN, JR.** proposed an allocation of up to \$10 billion into Alaska public obligation infrastructure bonds.

## COMMITTEE REPORTS — GOVERNANCE COMMITTEE

VICE CHAIR ETHAN SCHUTT reported on the February 13 committee meeting regarding recommendations from the law firm WilmerHale. The committee unanimously recommended seven of eight items to the full Board.

Trustee Samuels moved to adopt the recommendations, which was seconded by Trustee Binkley. GENERAL COUNSEL CHRIS POAG clarified that staff would bring proposed charter changes to the May meeting for final action. The motion passed by consensus.

## CHIEF EXECUTIVE OFFICER'S REPORTS

CEO DEVEN MITCHELL provided updates on several corporate matters:

- **Benchmarking Project:** BOARD ADVISOR JANET BECKER-WOLD and advisors from Callan reported they had conducted preliminary due diligence on the benchmarking project and volunteered to lead a presentation for the May meeting.
- **Strategic Objectives:** CEO Mitchell noted that while some immediate opportunities were readily achievable, the corporation is focused on achieving a material impact on long-term performance.
- **Trustee Education Report:** CEO Mitchell noted the upcoming Callan National Conference in April and encouraged Trustee attendance. Trustee Samuels reported the Callan training modules he completed over the holidays were very useful.
- **Disclosure Report:** CEO Mitchell reviewed the investment disclosure and due diligence travel summary report. Chair Brune directed staff to add a column indicating whether each trip was APFC-funded or third-party funded by an investment manager, to improve public transparency.
- **Human Resources:** CEO Mitchell reported a 1.5% fiscal-year-to-date turnover rate. He confirmed the current vacancy rate is approximately 10% across 67 full-time positions.
- **Communications Report:** CEO Mitchell reported the communications team is pursuing 10 initiatives tied to the Permanent Fund's 50th anniversary, including public education campaigns, a website refresh, and legislative outreach. A 50th anniversary celebration was held that evening at the Governor's mansion.
- **Legislative Update:** CEO Mitchell reviewed five active bills. He emphasized the Board's continued support for joining the principal and Earnings Reserve Account (ERA) to protect the fund.
- **Investment Referral Log:** CEO Mitchell noted one active referral from a Board advisor appearing on the log. Chair Brune confirmed he would be submitting an additional referral related to a logistics company that had previously presented to the Board.

## CHIEF INVESTMENT OFFICER'S REPORT

CHIEF INVESTMENT OFFICER MARCUS FRAMPTON reported that the fund is having a strong absolute and relative performance year. As of December 31, 2025, the fund was 23 basis points below its performance benchmark, though subsequent public equity market movements had since swung the fiscal year-to-date result positively. M. Frampton previewed the afternoon's asset allocation presentation, noting the portfolio could benefit from increased liquidity given uncertainty around whether private asset classes are adequately compensating investors for illiquidity risk. In response to a question from Chair Brune, M. Frampton confirmed the fund holds several hundred million dollars in gold, primarily through the absolute return portfolio.

## **RISK & COMPLIANCE OVERVIEW**

CHIEF RISK AND COMPLIANCE OFFICER SEBASTIAN VADAKUMCHERRY reviewed the fund's risk metrics.

- **Fund Volatility:** Reported at 3.3%, which is lower than the typical 5% to 6% range.
- **Unfunded Commitments:** The fund has \$7.8 billion in unfunded commitments, representing 8.7% of the total fund.
- **Risk Dashboard:** S. Vadakumcherry confirmed that all metrics remain within established risk tolerance levels, except for the cash position, which is flagged for review due to recent trimming of public equities. Trustees expressed confidence in portfolio stability despite market fluctuations.

## **INVESTMENT ADVISOR COMMENTS**

BOARD ADVISORS JOHN SKJERVEM and JANET BECKER-WOLD shared perspectives on the complexity of the fund's structure. Mr. Skjervem emphasized the administrative burden created by ongoing public scrutiny but underscored the advisors' primary fiduciary obligation to educate Trustees. He noted that the corporation's proprietary methodology remains a core strategic advantage.

## **CORPORATE OPERATIONS OVERVIEW: FINANCE**

CHIEF FINANCIAL OFFICER VALERIE MERTZ and Senior Portfolio Accountants CHRIS LAVALLEE and JACKI MALLINGER provided an educational session on finance operations.

- **Operational Scope:** The team described the significant operational undertaking required to process over half a million transactions per year.
- **Private Markets:** J. Mallinger described the management of 3,500 transactions and statements annually for 839 separate accounts.
- **Centralization:** The Finance department aims to serve as an integrated platform for all corporate fiscal data.

## **ASSET ALLOCATION**

CHIEF INVESTMENT OFFICER MARCUS FRAMPTON and S. VADAKUMCHERRY presented potential adjustments to the asset allocation.

- **Strategic Agility:** M. Frampton recommended reductions in private asset classes to increase portfolio strategic agility and liquidity.
- **Capital Reserves:** The Board discussed the availability of unallocated capital for future investment opportunities.
- **Policy and Oversight:** The Board examined the total asset base, emphasizing the need for comprehensive oversight of all fund components. GENERAL COUNSEL CHRIS POAG reminded the Board that statutory mandates require maximizing total return while maintaining safety of principal.
- **Earnings Reserve Account Legal Opinion:** During discussion of the two-account structure, GENERAL COUNSEL CHRIS POAG advised the Board that per a 2006 Department of Law opinion issued by Mike Barnhill, in the event of a net realized loss, the principal and the Earnings Reserve Account would share losses proportionally based on their respective unit ownership — meaning constitutionally protected principal could mathematically decline in a severe downturn. Chair Brune directed General Counsel Poag to distribute the 2006 legal opinion to all Trustees for review.

## FUND PERFORMANCE PRESENTATION

GREG ALLEN and STEVE CENTER of Callan reviewed performance through December 31, 2025.

- **Returns:** The fund underperformed its benchmark by 23 basis points as of December.
- **Comparative Analysis:** On a comparable basis, the fund has lagged the median performance of public funds in the short term due to a lower allocation to public equities, but remains in the top-quartile for risk-adjusted returns over 10 years.
- **Strategy Adherence:** G. Allen recommended maintaining adherence to the established strategy despite short-term volatility.
- **Legislative Engagement:** CEO Mitchell noted plans to present the corporate funding proposals to the Legislature for consideration.

## ANNUAL ASSET ALLOCATION STUDY

GREG ALLEN and STEVE CENTER of Callan presented the annual asset allocation study. Callan's 10-year capital market projections were unchanged from the prior year. The fund's current target allocation projects a median return of 7.3%, yielding a real return of approximately 4.8%, with a 47.4% probability of meeting the CPI+5 objective. G. Allen presented historical draw rate simulations at 4.5%, 5%, and 6%, finding that a 5% draw would have resulted in shortfalls in approximately 7 of the past 25 years under the current two-account structure, and that corpus erosion under a 6% draw would produce lower cumulative payouts than a 5% draw. G. Allen noted that at approximately the 12-year compounding crossover point, a 4.5% draw would yield higher annual distributions than a 5% draw. VICE CHAIR SCHUTT cautioned that all projections are based on returns during a prolonged bull market and that a sustained market correction would render outcomes materially worse.

**ADJOURNMENT** The meeting recessed for the day at 4:30 p.m.

## **TUESDAY, FEBRUARY 24, 2026 - MEETING RECONVENES**

CHAIR JASON BRUNE reconvened the quarterly meeting of the Board of Trustees at 8:30 a.m. on Tuesday, February 24, 2026. The meeting was held at the Michael J. Burns Building in Juneau, Alaska.

### **PRIVATE MARKETS OVERVIEW**

DEPUTY CHIEF INVESTMENT OFFICER ALLEN WALDROP presented a performance and deployment update across the private market portfolios.

- **Private Equity:** A. Waldrop reported the private equity allocation stood at 16.7% against an 18% target, with an annual deployment pace of approximately \$1.5 billion. One-year performance improved on an absolute basis, though 3- and 5-year returns lagged the benchmark. The portfolio generated \$2.2 billion in distributions during FY25.
- **In-State Investments:** Responding to prior public comments regarding a King Cove processing plant, A. Waldrop clarified that the in-state program utilized third-party managers who held sole discretion over specific investments, such as Peter Pan Seafoods, without direct APFC involvement.
- **Infrastructure and Private Credit:** The private income allocation declined to 8.4% against a 10% target. Infrastructure investments performed strongly, returning over 14% over a 5-year period, largely driven by power generation demand. CHIEF INVESTMENT OFFICER MARCUS FRAMPTON advised maintaining unallocated capital reserves given the highly elevated valuations currently observed in the private infrastructure market.
- **Real Estate:** A. Waldrop noted the real estate allocation declined to 9.4%. The team continued reducing Real Estate Investment Trust (REIT) exposure toward a 5% target while receiving significant debt repayments, generating approximately \$2 billion in total cash flow. BOARD ADVISOR JOHN SKJERVEM contrasted APFC's fund-driven approach with Utah's direct ownership model, noting that APFC's high public visibility makes direct ownership challenging. The Board reaffirmed its commitment to the existing resolution directing a transition toward real estate funds.

### **PUBLIC MARKETS OVERVIEW**

DEPUTY CHIEF INVESTMENT OFFICER JIM PARISE delivered an update on the public equities and fixed income portfolios.

- **Public Equities:** The \$30 billion externally managed equity portfolio experienced short-term underperformance due to managers favoring high-quality small-

capitalization stocks while lower-quality counterparts rallied. J. Parise confirmed that the corporation continued systematically reducing the public equity tracking error target from 300 basis points down to 100 basis points.

- **Fixed Income:** The \$18 billion internally managed fixed income portfolio outperformed its primary benchmarks across all categories except corporate bonds, which faced temporary headwinds from specific technology sector exposures. The fixed income team has consistently exceeded its primary benchmarks every year since 2013.

**ASSET CLASS OVERVIEW: FIXED INCOME SENIOR PORTFOLIO MANAGER TOM O'DAY** provided an educational overview of structured products, which comprised approximately 25% (\$3.5 billion) of the U.S. Aggregate portfolio.

- **Mortgage-Backed Securities (MBS):** T. O'Day outlined the mechanics of agency-backed mortgages, emphasizing that prepayment risk—driven by fluctuating interest rates—represents the primary variable for investors. The team utilizes advanced modeling platforms, including BlackRock's Aladdin, to forecast prepayment speeds and evaluate individual bond pricing.
- **Asset-Backed (ABS) and Commercial Mortgage-Backed Securities (CMBS):** T. O'Day detailed the credit enhancement structures protecting investors in ABS and CMBS tranches.
- **Cash Management:** T. O'Day reported that the internal management of the corporation's \$2.8 billion cash portfolio saved approximately \$4.8 million in external fees and generated an additional \$5.6 million in excess returns during the prior year.

## LEGISLATIVE UPDATE

SENATE PRESIDENT GARY STEVENS and HOUSE SPEAKER BRYCE EDGMON joined the Board to discuss legislative priorities and the fiscal trajectory of the state.

- **POMV Draw Reduction:** G. Stevens introduced legislative discussions surrounding a phased reduction of the Percent of Market Value (POMV) draw from 5% to 4.5%. TRUSTEE JOHN BINKLEY supported the concept, noting that a disciplined 4.5% draw would ultimately yield higher nominal distributions over a 12-year horizon due to compounded principal growth.
- **Single Endowment Structure:** Chair Brune reiterated the urgent consensus of the Trustees and investment advisors to constitutionally merge the principal and earnings reserve accounts. B. Edgmon acknowledged the necessity of the single endowment concept but expressed skepticism regarding the political viability of achieving the required two-thirds legislative majority during the current election year.
- **Expert Testimony:** GREG ALLEN of Callan urged lawmakers to establish a strict, constitutionally protected spending limit to permanently safeguard the fund's sustainability.

- **Legislative Citation:** G. Stevens and B. Edgmon presented the Board with a legislative citation formally recognizing the Permanent Fund’s critical role in funding over 60% of state government operations.

**INVESTMENT ADVISOR PRESENTATION:**

**DIGITAL ASSETS BOARD ADVISOR GEORGE ZINN** introduced **MATT JONES** and **MIKE REED** of Franklin Templeton for an educational session on digital assets, blockchain, and tokenization.

- **Market Evolution:** J. Skjervem reviewed the progression of digital assets since 2021. He noted Bitcoin’s massive market capitalization growth and its transition into the institutional realm via Exchange Traded Funds (ETFs), while highlighting its failure to act as a stable hedge comparable to gold. He further noted the complete collapse of the Non-Fungible Token (NFT) market.
- **Blockchain Infrastructure:** M. Reed detailed how major financial institutions utilize blockchain protocols to eliminate transaction latency and streamline global settlements.
- **Stablecoins and Tokenization:** M. Jones explained the implications of the federal GENIUS Act and highlighted the State of Wyoming’s launch of the FRNT stable token. The token operates as a digital representation of U.S. currency fully backed by eligible short-term treasury assets. The advisors discussed how tokenized assets, such as Franklin Templeton’s Benji money market fund, can continuously accrue value and eliminate traditional settlement delays.
- **Investment Considerations:** M. Frampton confirmed the corporation’s exposure to the sector through highly successful venture capital investments in crypto infrastructure firms like Coinbase and Circle, rather than direct holdings of volatile cryptocurrencies.

**INVESTMENT ADVISOR COMMENTS**

- **BOARD ADVISOR JANET BECKER-WOLD** commended the internal fixed income team, noting that their active management consistently outperformed passive index alternatives by over 1% annually, generating significant additional revenue for the corporation.
- J. Skjervem cautioned against strict peer comparisons, emphasizing that APFC operates with unique governance constraints and faces an unprecedented level of external public scrutiny compared to other sovereign or pension funds.
- G. Zinn praised **CHIEF EXECUTIVE OFFICER DEVEN MITCHELL** and the staff for their highly effective collaborative engagement with the state legislature and executive branch.

**ADDITIONAL OPPORTUNITY FOR PUBLIC PARTICIPATION / OTHER BUSINESS / TRUSTEE COMMENTS**

Chair Brune opened the floor for an additional period of public comment. No members of the public requested to speak.

In closing remarks, D. Mitchell praised the investment team for navigating complex markets under intense public oversight. VICE CHAIR ETHAN SCHUTT and Chair Brune expressed deep gratitude for the staff's dedication and operational excellence. Chair Brune requested that staff coordinate future engagement opportunities with the corporation's summer interns to encourage long-term retention of Alaskan talent. He also previewed the next quarterly meeting in Valdez, which will feature an educational tour of the Alyeska Pipeline terminal.

### **ADJOURNMENT**

Vice Chair Schutt moved to adjourn the meeting, which was seconded by Trustee Earls. Hearing no opposition, Chair Brune adjourned the meeting at 2:49 p.m.

SUBJECT: Chief Executive Officer Report

ACTION:

DATE: May 26, 2026

INFORMATION: X

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BACKGROUND:

The CEO's report provides reports detailing Board matters, disclosures, staffing and budget updates, and financial reports.

STATUS:

CEO, Deven Mitchell, will present highlights from the following reports:

- Pending Board Matters
- Trustee Education Report
- Disclosure Report
- Staff Summary Report
- Human Resources Summary
- Communications Report
- Legislative Update
- Information Technology Update
- Investment Referral Log
- Financial Update
- Financial Report
- APFC Transfers
- APFC History & Projections
- Investment Management Fee Report
- FY26 Budget Update

SUBJECT: Pending Board Matters

ACTION:

DATE: May 26, 2026

INFORMATION:   X  

BY	TASK	CAPTURED	TARGET	COMPLETED
Mitchell	Update Compensation Structure	12/22 4/23	TBD	
Mitchell	Peer Group Definition	7/22	TBD	
Frampton Vadakumcherry	Benchmarking	12/25	5/26	

SUBJECT: Trustee Education

ACTION: \_\_\_\_\_

DATE: May 26, 2026

INFORMATION:     X    

**BACKGROUND:**

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.

TRAINING OPPORTUNITY	TOPIC	LOCATION	DATES
Callan	Total Portfolio Approach Webinar	Virtual	June 4, 2026
	June Regional Workshops	Denver	June 16, 2026
		Chicago	June 18, 2026
	Market Intel Webinar	Virtual	July 24, 2026
	“Callan College” Introduction to Investments	Virtual	September 22, 2026
	October Regional Workshops	Atlanta	October 20, 2026
		San Francisco	October 22, 2026
	2027 National Conference	Scottsdale	April 4, 2027
	<i>Please see page 88 of the Callan Presentation for Callan events</i>		

# Memo

To: Governance Committee  
 From: Deven Mitchell, Chief Executive Officer  
 Date: May 26, 2026  
 Re: Investment Disclosure Report

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 initial, quarterly, and annual disclosures for reportable holdings as of March 31, 2026.

APFC Investment Policy Disclosures			
Name	Position Title	Disclosure Type	Received
Janelle Earls	APFC Trustee	Quarterly	4/1/26
John Binkley	APFC Trustee	Annual	3/10/26
		Quarterly	4/28/26
Ryan Anderson	APFC Trustee	Annual	3/13/26
		Quarterly	4/23/26
Ethan Schutt	APFC Trustee	Annual	3/11/26
		Quarterly	4/30/26
Jason Brune	APFC Trustee	Annual	3/11/26
		Quarterly	4/27/26
Ralph Samuels	APFC Trustee	Quarterly	4/28/26
Steve Adams	Senior Portfolio Manager	Annual	3/17/26
Ross Alexander	Senior Portfolio Manager	Annual	3/12/26
Chris Cummins	Senior Portfolio Manager	Annual	2/16/26
Steve Gagliardo	Portfolio Manager	Annual	3/13/26
Matt Ives	Credit Analyst	Annual	3/16/26
		Quarterly	4/28/26
Luke Kirkham	Investment Analyst	Quarterly	4/29/26
Chris LaVallee	Senior Portfolio Accountant	Quarterly	4/24/26
Jennifer Loesch	Executive Administrative Specialist	Annual	3/12/26
Valerie Mertz	Chief Financial Officer	Annual	3/13/26
Tom O'Day	Senior Portfolio Manager	Annual	3/12/26
Matt Olmsted	Senior Portfolio Manager	Annual	3/16/26
Jim Parise	Deputy CIO – Public Markets	Annual	3/15/26

Chris Poag	General Counsel	Annual	2/23/26
Lara Pollock	Investment Associate	Annual	2/18/26
Fawad Razzaque	Director of Public Equity	Quarterly	4/30/26
Ed Rime	Portfolio Manager	Quarterly	4/29/26
Eric Ritchie	Senior Portfolio Manager	Annual	3/16/26
Terek Rutherford	Investment Associate	Annual	3/13/26
		Quarterly	4/28/26
Colton Scudder	Credit Analyst	Annual	3/12/26
Joe Shinn	Senior Investment Analyst	Quarterly	4/30/26
Alex Smith	Investment Operations Manager	Annual	5/1/26
Matt Sykes	Investment Analyst	Annual	3/16/26
Josh Ungar	Senior Portfolio Manager	Annual	3/13/26
Allen Waldrop	Deputy CIO – Private Markets	Annual	2/18/26

As a reminder, quarterly - only subsequent new Reportable Investments made during the quarter must be disclosed by the thirtieth (30) day following the end of each quarter. For the purpose of clarity, acquiring additional shares or selling shares of an already disclosed Reportable Investment does not need to be disclosed again as a quarterly investment.

All disclosures are under review as required per the APFC Investment Disclosure Policy. After review, disclosures are filed in the appropriate personnel file. Detailed records are kept on file and available upon request.

# Memo

To: Board of Trustees  
 From: Deven Mitchell  
 Chief Executive Officer  
 Date: May 26, 2026  
 Re: Due Diligence and Travel Summary Report

**Background:**

This report includes APFC staff completed travel and due diligence numbers for the period January 1 – March 31, 2026. The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

**Due Diligence Summary:**

Department	Number of Meetings Held	
	In Person	Telephonic/Virtual
Executives	18	39
Fixed Income	10	32
Public Equity	5	42
Private Income	27	141
Absolute Return	1	52
Real Estate	25	165
Private Equity	31	108
Total Fund Cash	0	4

**Travel Summary:**

Budget-to-Actual Report: January 1 – March 31, 2026

\*The following can be found in full in the FY26 Budget Update\*

CORPORATE OPERATIONS	BOARD-AUTHORIZED BUDGET	EXPENDITURES	BUDGET REMAINING
Travel	\$1,025,000	\$442,917	\$582,083
Staff	\$877,000	\$422,315	\$454,685
Trustees	\$18,000	\$14,317	\$3,683
Moving/Non-Employee	\$130,000	\$6,285	\$123,715

**Trip Summary – 3<sup>rd</sup> Quarter – January 1 – March 31, 2026**

TRAVELER	PURPOSE	DATES OF TRAVEL		LOCATION	3 <sup>rd</sup> Party
Adams	Due Diligence	1/7/26	1/7/26	Los Angeles	
Gagliardo	Annual General Meeting	1/12/26	1/16/26	Miami	
Razzaque	Due Diligence	1/16/26	1/25/26	Tampa & Miami	
Alexander	Manager Meetings	1/26/26	1/29/26	Dallas	Yes
Mitchell	Speaking Engagement	1/29/26	1/30/26	Anchorage	
Scudder	Training	1/31/26	2/8/26	Anchorage	
Ritchie	Due Diligence	2/1/26	2/7/26	Boston	
Sykes	Due Diligence	2/1/26	2/7/26	Boston	

TRAVELER	PURPOSE	DATES OF TRAVEL		LOCATION	3 <sup>rd</sup> Party
O'Day	Manager Meetings	2/3/26	2/3/26	New York	
Adams	Due Diligence	2/9/26	2/13/26	Juneau	
Waldrop	Manager Meetings	2/10/26	2/12/26	San Francisco	
Binkley	Quarterly Board of Trustees Meeting	2/22/26	2/25/26	Juneau	
Brune	Quarterly Board of Trustees Meeting	2/22/26	2/24/26	Juneau	
Samuels	Quarterly Board of Trustees Meeting	2/22/26	2/24/26	Juneau	
Anderson	Quarterly Board of Trustees Meeting	2/22/26	2/25/26	Juneau	
Schutt	Quarterly Board of Trustees Meeting	2/22/26	2/25/26	Juneau	
O'Day	Quarterly Board of Trustees Meeting	2/22/26	2/27/26	Juneau	
Waldrop	Quarterly Board of Trustees Meeting	2/22/26	2/26/26	Juneau	
Gagliardo	Annual General Meeting	2/23/26	2/27/26	San Francisco	
Pollock	Annual General Meeting	2/24/26	2/28/26	Chicago	
Mitchell	Conference	2/24/26	3/2/26	San Diego	
Alexander	Manager Meetings	3/1/26	3/13/26	London	Yes
Rutherford	Manager Meetings	3/2/26	3/5/26	Los Angeles/Houston	Yes
Horwood	Anchorage Office Visit	3/2/26	3/6/26	Anchorage	
Ungar	Anchorage Office Visit	3/2/26	3/7/26	Anchorage	
Adams	Due Diligence	3/2/26	3/6/26	Washington DC	
McCain	Conference	3/8/26	3/11/26	San Francisco	
Pollock	Conference	3/8/26	3/13/26	Phoenix	Yes
Rime	Conference/Training	3/15/26	3/19/26	Phoenix	
Parise	Manager Meetings	3/19/26	3/28/26	New York	
Ritchie	Due Diligence	3/21/26	3/28/26	Houston/Austin	
Lloyd	Due Diligence	3/21/26	3/30/26	Houston/Austin	
Ungar	Training/Manager Meetings	3/22/26	3/27/26	San Francisco	
Waldrop	Conference	3/22/26	3/24/26	Los Angeles	Yes
Rime	Manager Meetings	3/23/26	3/27/26	Los Angeles	Yes
O'Day	Manager Meetings	3/26/26	3/26/26	New York	



SUBJECT: HR Summary Report  
DATE: May 26, 2026

ACTION:  
INFORMATION: X

APFC continues to maintain a low turnover rate of 3%, with only two employee separations for the current fiscal year. (Investment Operations Analyst and IT Specialist).

An offer is in progress for the Investment Operations Analyst, and subject to approval job offers for the Chief Operating Officer and Private Income Investment Analyst have been made. Governor’s office approval has been requested for each of these positions.

Recruitment progress: Fixed Income Global Rates Analyst is interviewing finalist candidates.

APFC is awaiting approval from the Governor’s office for the recruitment of an IT Specialist prior to posting.

Staffing Activity (Vacancies) as of 5/11/2026				
Vacancy Date	Dept	Section	Position	Status
4/13/2026	Operations	Info Tech	IT Specialist	Vacant - <b>pending</b> recruitment waiver
10/31/2025	Operations	Middle Office	Investment Operations Analyst	Vacant – offer in progress validation <b>pending</b>
10/12/2024	Investment	Private Income	Investment Analyst	Vacant – hire <b>pending</b> approval
6/9/2025	Operations	Risk & Compliance	Business Analyst	Vacant
5/10/2025	Operations	Admin Ops	Chief Operating Officer	Vacant – hire <b>pending</b> approval
3/8/2025	Investment	Private Income	Portfolio Manager	Vacant -
3/8/2025	Investment	Real Estate	Director of Investments - RE	Vacant –
2/20/2025	Investment	Public Equity	Portfolio Manager	Vacant
5/8/2024	Investment	Fixed Income	Investment Analyst (Global Rates)	Vacant – candidate selection in process

Headcount & Vacancies as of 5/4/2026			
Division	Total FTE	Filled FTE	Vacant FTE
Investments	32	27	5
Operations	34	30	4
<b>Total FTE</b>	<b>66</b>	<b>57</b>	<b>9</b>
<b>Non-perm interns</b>	<b>2</b>	<b>2</b>	<b>0</b>
<b>Total Positions (FTE + non-perm interns)</b>	<b>68</b>	<b>59</b>	<b>9</b>

Note: The Investment Operations Analyst position is not reflected in the charts on this report because APFC has put it forward to be defunded in FY27.

## Intern Program Selections:

### APFC Internal Program:

- Finance Department: APFC Finance Intern – Kian Flynn (University of Michigan; pursuing a Bachelor of Business Administration with a focus in Finance and a minor in Economics). Start date; May 18, 2026.
- Investment Department: Investment Intern – Josiah Nyman (Stevens Institute of Technology; pursuing a Bachelor of Science in Quantitative Finance). Start date: May 26, 2026.

### External Partner Program:

- L&B Realty Advisors (Dallas, Texas): Bennett Main (University of Michigan; pursuing a Bachelor of Arts in Economics with a minor in Real Estate Development).
- Denali Advisors (Anchorage): Leo Mlacnik (Colorado School of Mines; pursuing an Applied Mathematics major with a statistics focus).

Thank you to our APFC staff and our external partners for the time and effort invested in supporting these internship programs and providing meaningful experience opportunities for Alaskan students.

SUBJECT: Communications Report

ACTION:

DATE: 5/26/2026

INFORMATION: X

**APFC Communications**

As the investment manager of the Alaska Permanent Fund, APFC is accountable to many audiences: Alaskans, national partners, and global investors. We are committed to providing reliable, accurate information that meets the needs of each audience while fostering trust, transparency, and accountability.

**Communications Vision:** to be a trusted voice in fostering transparency, engagement, and understanding of APFC's mission.

**In-State Mission of Education & Awareness**

We strive to strengthen our education efforts and better support Alaskans' understanding of the Alaska Permanent Fund.

**Financial Focus on Institutional Investing**

The coverage of APFC in respected financial publications enhances institutional investor credibility. It ensures accurate, high-quality information about the Fund and our team's stewardship reaches partners, policymakers, stakeholders, and the public.

Combining our team's insight and our national partner's institutional investment fluency builds trust and credibility, elevating APFC's expertise while sharing Alaska's story.

**Presentations, Interviews, Outreach**

March 2026-May 2026

- **Pensions & Investments Interview** with Deven Mitchell on Mar. 5
- **JDHS "Investing & Finance" Class** with Deven Mitchell on Mar. 12
- **Financial Times Interview** with Ross Alexander on Mar. 13
- **University of Pennsylvania and Energy Futures Initiative Foundation research project** with Deven Mitchell on Mar. 25
- **UK Consul General** with Deven Mitchell and Marcus Frampton on April 15
- **Consul General of the Republic of Indonesia** with Deven Mitchell on Apr. 28

**Communications Support**

To support APFC's ongoing communications efforts, a competitive procurement process is underway. Proposals were due by May 5, 2026, and APFC anticipates selecting a contractor and launching a new communications services partnership on June 1, 2026. We appreciate the interest in this contract and are grateful to the 11 Alaska firms that submitted proposals to support our work on behalf of Alaskans.

**Comms Strategic Plan Alignment**

In Q3, communications efforts were guided by stakeholder expectations for transparency, reliable information, and resources. Through this approach, APFC continues to strengthen public understanding of the Fund's management and role in Alaska's financial future while reinforcing accountability to Alaskans.

**Refreshed Website Launch**

APFC launched its refreshed website on May 12, 2026, strengthening apfc.org as a trusted, accessible source of information about the Alaska Permanent Fund and APFC's work on behalf of Alaskans. Between January 1 and April 30, 2026, apfc.org had 29,000 unique users globally. The updated site supports APFC's strategic communications goals by improving transparency, education, and engagement for Alaskans, policymakers, media, and thought leaders.

Following launch, communications will use website analytics to evaluate whether users are effectively finding key information, engaging with educational content, and taking meaningful actions. These measures will help assess progress toward APFC's strategic goals for transparency, education, engagement, and brand recognition.

Phase two of the refresh, an interactive public holdings component, will commence soon to bring at-a-glance transparency to stock holdings, counties, and sectors.

**AK Youth Education Program Delivery**

The "Alaska Renewable Revenue" curriculum continues to be taught statewide, now reaching more than 30% of Alaska's school districts, and the Anchorage School District adopted it at the start of the academic year. As of March 2026, ARE has reached over 21 districts, 63 communities, and 4,050 students.

**APFC Insights**

The email newsletter provides monthly financial statements, quarterly performance reports, Board meeting notices, and key publications, offering data and context.

**Organic Social Media**

APFC's social media serves as a public education channel, delivering consistent, relevant messaging about the Fund and Corporation that aligns with our strategic priorities.

**Looking Forward****Statutory Publications**

Annual Report and General Election production are underway, with an upcoming publication planned for this Fall.

**People Behind the Fund Video Series**

In collaboration with our Partners at Yuit, the "People Behind the Fund" campaign includes short-form video interviews. The series aims to build trust and improve public understanding of the work of APFC and is available on [apfc.org](https://apfc.org).

**50th Anniversary Communications**

Planning continues for communications tied to the Alaska Permanent Fund's 50th anniversary, including content, outreach, and educational materials that highlight the Fund's history, stewardship, and long-term value to Alaska.

SUBJECT: Legislative Update

ACTION:

DATE: 5/26/2026

INFORMATION: X

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The 34<sup>th</sup> Alaska State Legislature is scheduled to adjourn sine die on May 21, 2026.

The 35<sup>th</sup> Alaska State Legislature will convene its first regular session in January 2027.

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APFC’s legislative efforts remained focused on education, securing budget resources to maintain the Corporation’s investment management capacity, and monitoring legislation impacting the Fund and APFC.

Legislative interest in the Alaska Permanent Fund remains strong as Fund earnings continue to play an increasingly important role in supporting both dividends and essential state services, the draw now accounting for more than 66% of unrestricted general fund revenue. Discussions surrounding long-term constitutional and structural reforms continued throughout the session; progress was incremental, and no reform measures were passed.

Both the House and Senate Finance Committees expressed interest in evaluating the current Percent of Market Value (POMV) draw, which is set at 5% based on a five-year average market value. Callan provided testimony to both committees, noting that establishing a ‘right-sized’ draw rate is essential to preserving the Fund’s long-term sustainability and value. The Senate Finance Committee introduced [SB274](#), proposing an incremental stepdown of the draw rate from 5% to 4.5%; the bill received unanimous committee support and passed out of SFIN – it is currently in SRules.

### **Resources for Investment Management**

#### **FY27 APFC Appropriations**

There is a separate in-depth presentation on the Operating Budget and APFC’s funding priorities, which include recruiting, developing, and retaining exceptional talent; bolstering modern, secure IT systems; maintaining data centers and equipment; and implementing cyclical workstation replacements.

#### **FY27 Alaska Permanent Fund Appropriations**

The following language section items relate to deposits into and withdrawals from the Fund, as well as inflation proofing appropriation transfers from the ERA to the Principal to protect intergenerational value.

- Royalties to Principal
  - Constitutional, Art. IX, Sec. 15 *estimated to be \$323,012,154*
  - Statutory, AS 37.13.010(a)(2) *estimated to be \$108,646,000*
- Inflation Proofing for Permanent Deposits in the Principal AS 37.13.145(c)
  - *estimated to be \$1,491,000,000* from ERA to Principal

- Percent of Market Value Draw per AS 37.13.140(b)
  - 5% POMV \$3,996,868,095 from ERA to Dividend Fund & General Fund
- Amerada Hess Settlement Earnings AS 37.13.145(d)
  - AK Capital Income Fund AS 37.05.565 *estimated to be* \$26,312,800
- State Agency Royalty Support – Fund Source: 1105 PFund
  - Department of Revenue \$99,600
  - Department of Law \$3,191,000
  - Department of Natural Resources \$7,968,100

### **Legislation that impacts the Fund and the Corporation**

No substantive legislation affecting the Fund/APFC was passed.

### **Proposed resolutions amending the Constitution of the State of Alaska**

- 1 Constitutional Amendment proposing a single fund endowment with a 5% POMV draw limit. Fifty percent of this draw would be directed to dividends for eligible Alaskans without needing appropriation, while the remaining fifty percent would be allocated for government operations. [HJR30](#) and [SJR23](#) have been referred to FIN.
- 2 Constitutional Amendments for a classic single fund endowment with a limit of a 5% POMV draw. [HJR10](#) is in HFIN, the 3rd committee of referral, and [SJR14](#) is in SFIN, the 1<sup>st</sup> committee of referral.
- 1 Constitutional Amendment that includes a 5.5% POMV and guaranteed dividends. [SJR5](#) remains in SJUD, the 1<sup>st</sup> committee of referral.

### **Legislation related to the Fund**

- 1 bill that maintains the 5% POMV annual draw from the ERA and provides a distribution to the dividend fund and to the general fund. [SB109](#) remains in the 1<sup>st</sup> committee of referral, SFIN.
- 1 bill that maintains the statutory 5% annual POMV draw and designates 69% of state mineral royalty revenue for the dividend, [HB114](#), which remains in HSTA, the 1<sup>st</sup> committee of referral.
- 1 bill to allow individuals to direct a portion of their dividend to the state general fund or the Principal of the Permanent Fund. [HB11](#) remains in HSTA, the 1<sup>st</sup> committee of referral.

- 1 bill calling for the inclusion of state financial information, including permanent fund earnings, on the PFD stub. [SB254](#) is in SSTA, the 1<sup>st</sup> committee of referral.
- 1 bill providing for a step down of the POMV draw rate from 5% to 4.5%. [SB274](#) passed out of SFIN and is in SRules.

### Legislation related to APFC

- 1 bill aimed at eliminating or modifying state agency publications that are outdated, redundant, or excessive. APFC's AS 37.13.170 is included in the bill providing for the use of APFC's website to post annual income statements and balance sheets. [HB200](#) and [SB177](#) remain in the 1<sup>st</sup> committees of referral.
- 1 bill that amends Trustee qualifications and calls for legislative confirmation. [HB315](#) had one hearing in HSTA, the first committee of referral – heard & held.
- 1 bill that calls for an asset allocation of at least 25% in S&P 500 companies and deletes the prudent investor rule and diversification mandate under AS 37.13.120 investment responsibilities. [HB 373](#) is in the first committee of referral, HSTA, and has not been scheduled.
- 2 bills that exempt Alaska from observing “advanced time” daylight saving time with the condition that Alaska's time zone be set to Pacific Standard: [HB41](#) and [SB26](#). SB26 passed the Senate on May 13. The bill is in HFIN.
- 1 bill that adds a subsection to AS 37.13.120 to prohibit investment from furthering social, political, or ideological interests with the sponsor's intent to ensure investment decisions are focused on maximizing returns. [HB 6](#) remains in HJUD, the 1<sup>st</sup> committee of referral.
- 1 bill restricting a fiduciary of a state fund, [SB221](#), is in SFIN, 1<sup>st</sup> committee of referral.
- 2 resolutions that bring forth a constitutional appropriation limit: [HJR 1](#), [SJR 4](#). APFC will work with sponsors to ensure that the appropriations for managing the Fund fall within the designated exceptions. This aims to ensure that the funds required to manage the portfolio's assets, as they continue to increase in value, do not compete with the general needs of the state government within its budgetary limits. Both resolutions remain in the 1<sup>st</sup> committee of referral.

SUBJECT: APFC IT UPDATE

ACTION:

DATE: May 26, 2026

INFORMATION:     X    

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### **APFC IT UPDATE**

- APFC IT just completed the bi-annual comprehensive Security Audits with 3<sup>rd</sup> party vendor. Report in Executive Session.
- APFC is now fully deployed to the cloud for our file systems, which allows Microsoft Copilot access across the organization’s assets. Final security testing prior to full Copilot implementation has been scheduled.
- APFC IT is currently deploying infrastructure updates across both JNU and ANC DR datacenters.
- The deployment of our new AI-OPS based security ecosystem is now complete, significantly advancing our ability to detect, respond to, and prevent threats through automation, autonomous monitoring and intelligence.
- Windows 11 deployment is scheduled to coincide with workstation fleet refresh in August with user training to follow.
- APFC IT has requested approval to start recruitment for an IT Systems Engineer. The recruitment has been approved internally and is awaiting Governor’s office approval to proceed.



**Investment Referral Tracking Log FY 26 Q3**  
**January 1 - March 30, 2026**

<b>Referred from</b>	<b>Name/Company</b>	<b>Date of referral</b>	<b>Action taken</b>	<b>Follow-up Date</b>
Chair Jason Brune	Glenfarne	2/23/2026	Marcus met with Glenfarne	3/19/2026
Chair Jason Brune	Shadowbox Logistics	2/23/2026	Real Estate has reached out	5/11/2026

SUBJECT: FY26 Year-to-Date Financial Update ACTION: \_\_\_\_\_

DATE: May 26, 2026 INFORMATION: \_\_\_\_\_ X \_\_\_\_\_

KEY TAKEAWAYS:

- Total return for the third quarter of FY26 of -0.16%. Year-to-date, total fund underperformed the performance benchmark by 65 basis points and outperformed the passive benchmark by 91 basis points.
- Accounting net income year-to-date of \$4.8 billion, a gain of \$9 million for the third quarter
- Realized (statutory) net income year-to-date of \$5.6 billion, tracking above Callan's high-point projection of \$5.3 billion
- Total net asset value as of March 31<sup>st</sup> of \$86.4 billion, an increase of \$1.3 billion fiscal year to date
- Three transfers totaling \$690 million to the General Fund during the quarter, leaving \$689 million to be transferred during the last quarter of the fiscal year
- \$331 million of mineral deposits transferred in during the fiscal year to date, slightly behind the Spring Revenue Forecast
- Committed Earnings Reserve balance of \$4.0 billion, including \$4.0 billion for FY27 General Fund transfers and \$28 million for transfer to the ACIF
- \$8.0 billion in uncommitted realized earnings at the end of March
- Inflation rate for FY26 is final at 2.6%, which results in an estimated statutory inflation proofing calculation of \$1.6 billion, however inflation proofing was not appropriated as part of the FY26 budget so no transfer will be made.

Financial results for the third quarter of FY26 were reflective of the volatility experienced in the public markets. Gains were recorded in most asset classes during the first two months of the quarter, most significantly in public equities. Losses experienced in March more than zeroed out the gains for the quarter, with private equity being the only asset class with a gain for the month. Overall, the portfolio lost \$669 million in value between the end of December and the end of March.

Net assets increased by \$1.3 billion fiscal year-to-date through March. This is a result of net income of \$4.8 billion and \$331 million received in mineral royalty deposits offset by the FY26 POMV transfer to the General Fund in the amount of \$3.8 billion. Corporate operating expenses and other appropriations for the quarter totaled \$76 million.

There were three transfers to the General Fund during the third quarter of FY26 totaling \$690 million. The remaining \$689 million is scheduled to transfer throughout the remainder of the fiscal year. Staff is in communication with the cash managers at the Department of Revenue to ensure that amounts designated for the General Fund remain invested in the Fund as long as possible, while being available to meet the liquidity needs of the State.



**Financial Report  
March 31, 2026**

**Fiscal Year 2026 Net Assets**

Balances through March 31, 2026

(in millions)

Total assets	\$ 88,306.8
Less liabilities	(1,922.7)
Net assets	<u>\$ 86,384.1</u>
Fund Balances:	
Non-spendable	
Permanent Fund corpus—contributions and appropriations	59,185.6
Not in spendable form—unrealized appreciation on invested assets	12,622.3
Total non-spendable fund balance	<u>\$ 71,807.9</u>
Committed	
General Fund Commitment	3,996.9
Current FY inflation proofing	-
Current FY Alaska Capital Income Fund	27.9
Committed fund balance	<u>\$ 4,024.8</u>
Assigned for future appropriations	
Realized earnings	7,989.2
Unrealized appreciation on invested assets	2,562.2
Total assigned fund balance	<u>10,551.4</u>
Total fund balances	<u><u>\$ 86,384.1</u></u>

**Fiscal Year 2026 Income**

For the nine months ending March 31, 2026

(in millions)

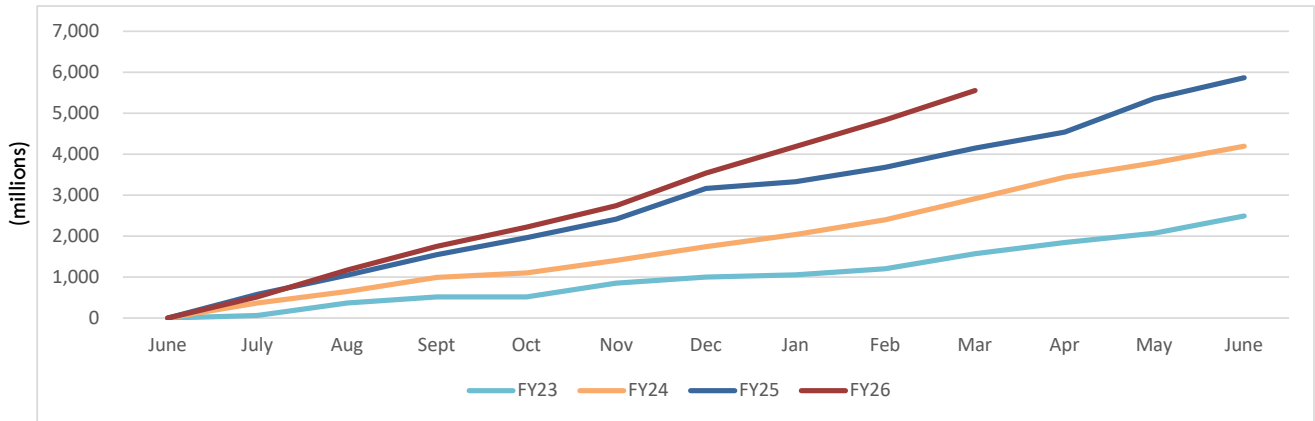
**Statutory (Realized) Net Income**

Interest, dividends, real estate, and other income	\$ 1,475.0
Realized gains on the sale of invested assets	4,255.9
Less operating expenses/legislative appropriations	(149.4)
Less Alaska Capital Income Fund committed realized earnings	(27.9)
Statutory net income	<u>\$ 5,553.6</u>

**GAAP (Accounting) Net Income**

Statutory net income	\$ 5,553.6
Unrealized loss on invested assets	(829.4)
Alaska Capital Income Fund committed realized earnings	27.9
Accounting net income	<u>\$ 4,752.1</u>

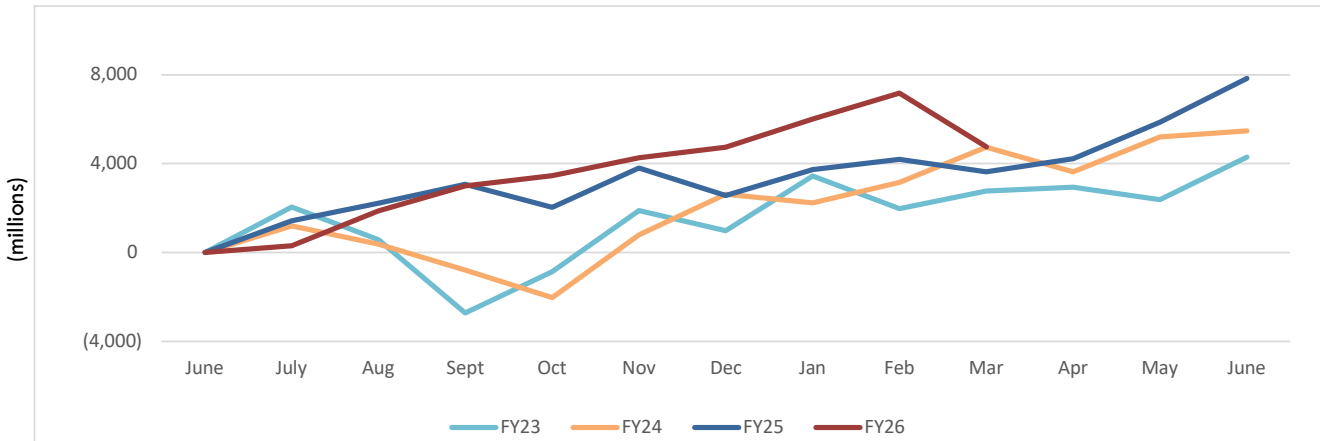
## **Statutory Net Income, Fiscal Years 2023 - 2026**



- 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.

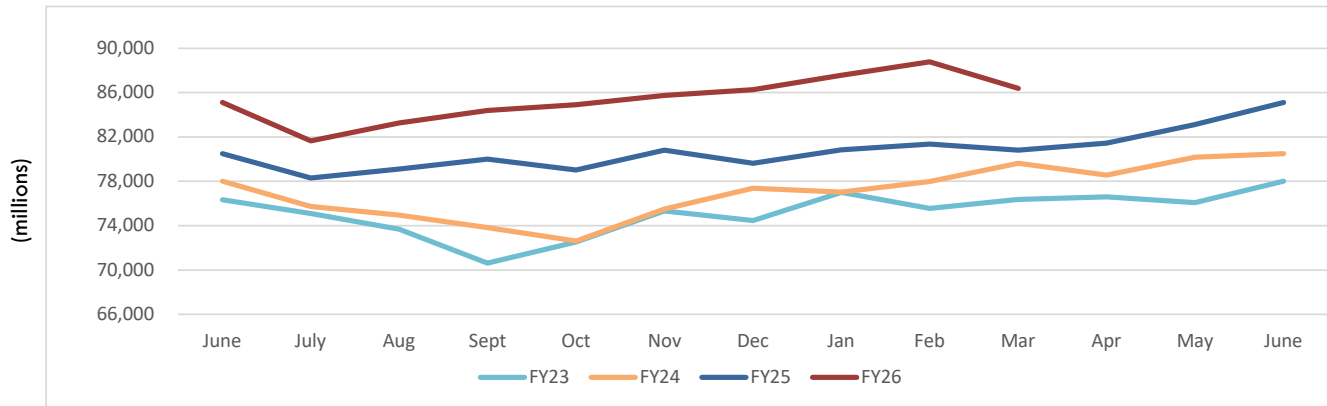
- FY23 statutory net income was \$2,491.1 million.
- FY24 statutory net income was \$4,195.5 million.
- FY25 statutory net income was \$5,865.8 million.
- FY26 statutory net income is \$5,553.6 million to date.

## **GAAP Accounting Net Income, Fiscal Years 2023 - 2026**



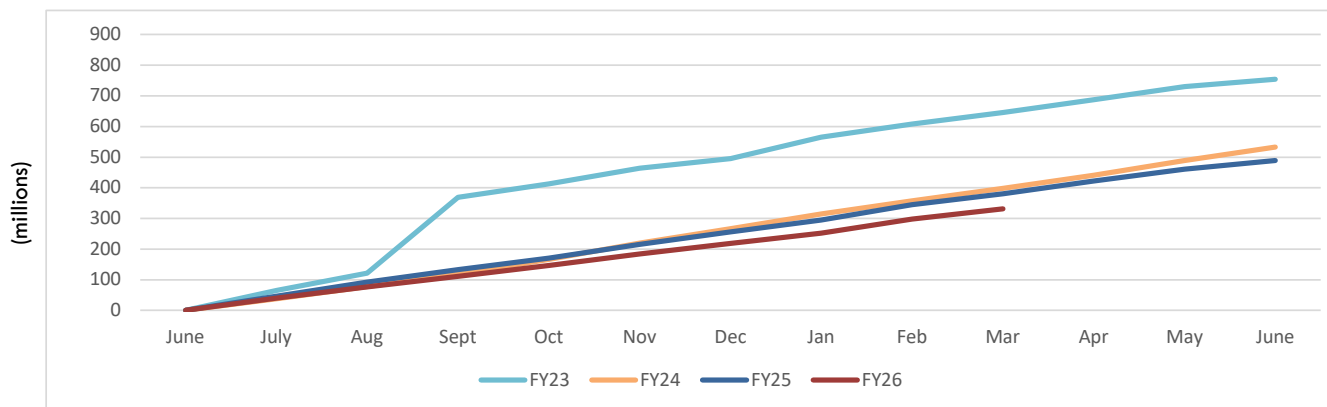
- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY23 was \$4,295.9 million.
- Accounting net income for FY24 was \$5,467.9 million.
- Accounting net income for FY25 was \$7,836.9 million.
- Accounting net income for FY26 is \$4,752.1 million to date.

## Market Value of Fund Net Assets, Fiscal Years 2023 - 2026



- FY23 net assets as of June 2023 were \$78 billion, an increase of \$1.7 billion over the FY22 ending balance.
- FY24 net assets as of June 2024 were \$80.5 billion, an increase of \$2.5 billion over the FY23 ending balance.
- FY25 net assets as of June 2025 were \$85.1 billion, an increase of \$4.6 billion from the FY24 ending balance.
- FY26 net assets as of March 2026 were \$86.4 billion, an increase of \$1.3 billion from the FY25 ending balance.

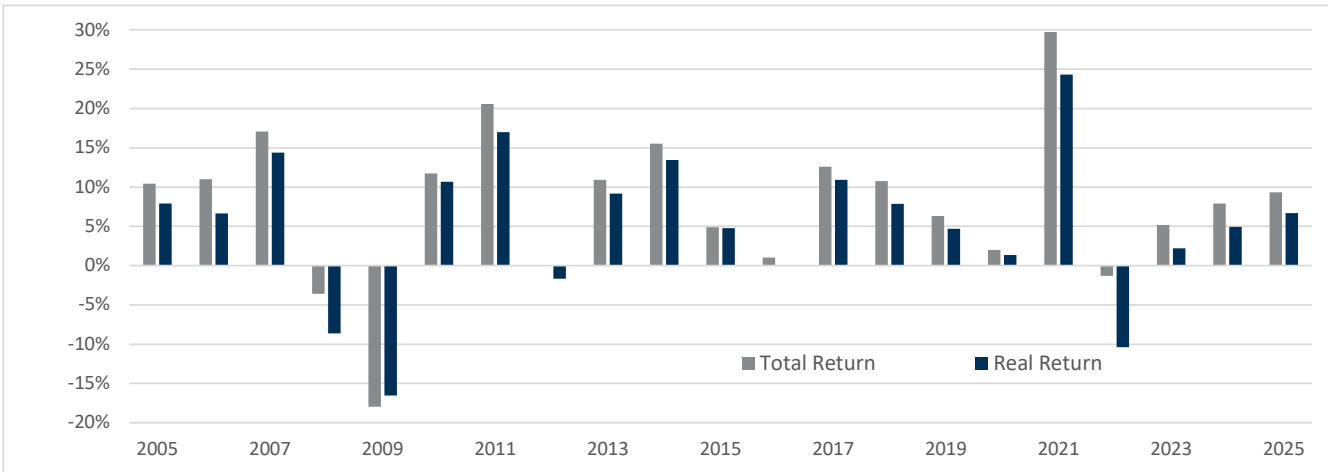
## Dedicated Mineral Revenues, Fiscal Years 2023 - 2026



- FY23 mineral revenue was \$753.6 million.
- FY24 mineral revenue was \$532.6 million.
- FY25 mineral revenue was \$488.7 million.
- FY26 mineral revenue is \$331.1 million to date.

## Alaska Permanent Fund Historical Returns, Fiscal Years 2005 - 2025

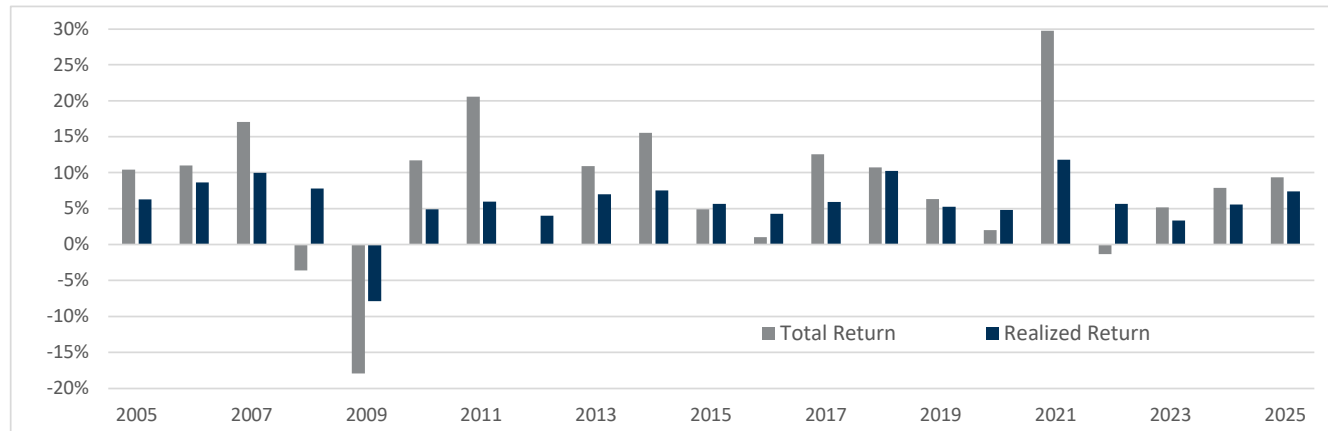
**Total return minus inflation equals real return**



- Total return annualized over 41 years is 8.8%
- Real return annualized over 41 years is 6%

## Alaska Permanent Fund Historical Returns, Fiscal Years 2005 - 2025

**Total return minus unrealized gains/losses equals realized return**



- Total return annualized over 41 years is 8.8%
- Realized return annualized over 41 years is 7.34%



ALASKA PERMANENT  
FUND CORPORATION

## Board of Trustees - APFC Transfers - January 1, 2026 through March 31, 2026

<u>Type of Transfer</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>Total</u>
<b>Public Equities</b>	(1,001,630,019)	(1,526,536)	(1,368,067)	(1,004,524,622)
<b>Fixed Income</b>	999,985,307	(278,828)	249,980,422	1,249,686,901
<b>Private Equity</b>	(37,390,938)	(154,452,925)	(67,899,166)	(259,743,029)
<b>Real Estate</b>	46,510,801	(59,214,001)	10,125,243	(2,577,958)
<b>Private Income</b>	(92,869,757)	(358,636,252)	(131,025,979)	(582,531,988)
<b>Absolute Return</b>	(4,201,186)	(3,536,189)	48,280,837	40,543,462
<b>Tactical Opportunities</b>	(1,365,380)	-	18,430,407	17,065,026
<b>Total Fund Cash</b>	(150,948,052)	364,064,299	(334,675,322)	(121,559,075)
<b>Net Transfers</b>	<b>(241,909,225)</b>	<b>(213,580,433)</b>	<b>(208,151,625)</b>	<b>(663,641,283)</b>

**Board of Trustees - APFC Transfers - January 2026**

Description	Total Fund Cash	Public Equities	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Tactical Opportunities	Net
<b>State of Alaska &amp; Administrative</b>									
Mineral revenue	37,147,258								37,147,258
AIM STIF interest	1,718,765								1,718,765
Commission recapture proceeds	17,321								17,321
General Fund Transfer	(230,000,000)								(230,000,000)
PCE Contribution	84,451								84,451
Corporate expenses	(50,877,019)								(50,877,019)
<b>Public Equities</b>									
APF SPDR Low Vol	25,000,000	(25,000,000)							-
APF SPDR Momentum	20,000,000	(20,000,000)							-
APF SPDR Yield	25,000,000	(25,000,000)							-
Arrowstreet Global Equity	100,000,000	(100,000,000)							-
CastleArk Growth LC	65,000,000	(65,000,000)							-
DFA Intl Small Company	25,000,000	(25,000,000)							-
DFA Small Cap EM	25,000,000	(25,000,000)							-
DFA Value EM	25,000,000	(25,000,000)							-
DSM Growth LC	65,000,000	(65,000,000)							-
Eagle Asset Management, Inc.	20,000,000	(20,000,000)							-
Hardman Johnston Global	25,000,000	(25,000,000)							-
Jennison Associates LLC	20,000,000	(20,000,000)							-
JP Morgan Intl EQ	25,000,000	(25,000,000)							-
LSV Value LC	40,000,000	(40,000,000)							-
Lyrical Value LC	25,000,000	(25,000,000)							-
Mellon MSCI World Ex-US	150,000,000	(150,000,000)							-
Mellon S&P 400	20,000,000	(20,000,000)							-
Public EQ Securities Lending	1,630,019	(1,630,019)							-
RBC Asset Management, Inc.	20,000,000	(20,000,000)							-
SSGA Domestic EQ	25,000,000	(25,000,000)							-
SSGA EM	50,000,000	(50,000,000)							-
SSGA LC	70,000,000	(70,000,000)							-
T. Rowe Price Value SC	20,000,000	(20,000,000)							-
Voya LC	70,000,000	(70,000,000)							-
William Blair EM	45,000,000	(45,000,000)							-
<b>Fixed Income</b>									
APF China Bond Market	(55,081,502)		55,081,502						-
APF Dom Struc Prod	(115,000,000)		115,000,000						-
APF Global Rates	(319,918,498)		319,918,498						-
APF IG Corporate Bonds	(300,000,000)		300,000,000						-
APF TIPS	(85,000,000)		85,000,000						-
APF US AGG	(125,000,000)		125,000,000						-
FI Securities Lending	14,693		(14,693)						-
<b>Private Equity</b>									
Private Equity distributions	165,943,307			(165,943,307)					-
Private Equity capital calls	(128,552,369)			128,552,369					-
<b>Real Estate</b>									
Direct Real Estate distributions	11,630,538				(11,630,538)				-
Direct Real Estate capital calls	(9,363,582)				9,363,582				-
Real Estate Funds distributions	287,553				(287,553)				-
Real Estate Funds capital calls	(49,065,309)				49,065,309				-
<b>Private Income</b>									
Infrastructure distributions	89,463,898					(89,463,898)			-
Infrastructure capital calls	(40,129,386)					40,129,386			-
Private Credit distributions	25,023,541					(25,023,541)			-
Private Credit capital calls	(6,664,688)					6,664,688			-
Private Income distributions	29,528,126					(29,528,126)			-
Private Income capital calls	(4,351,733)					4,351,733			-
<b>Absolute Return</b>									
Absolute Return distributions	66,718,227						(66,718,227)		-
Absolute Return capital calls	(62,517,041)						62,517,041		-
<b>Tactical Opportunities</b>									
APF Tactical Opps Private distributions	1,365,380							(1,365,380)	-
<b>Net Transfers</b>	<b>(150,948,052)</b>	<b>(1,001,630,019)</b>	<b>999,985,307</b>	<b>(37,390,938)</b>	<b>46,510,801</b>	<b>(92,869,757)</b>	<b>(4,201,186)</b>	<b>(1,365,380)</b>	<b>(241,909,225)</b>



ALASKA PERMANENT  
FUND CORPORATION

**Board of Trustees - APFC Transfers - February 2026**

Description	Total Fund Cash	Public Equities	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Net
<b>State of Alaska &amp; Administrative</b>								
Mineral revenue	50,629,680							50,629,680
AIM STIF interest	1,682,028							1,682,028
Commission recapture proceeds	84,359							84,359
AMHT Draw	(14,678,455)							(14,678,455)
General Fund Transfer	(230,000,000)							(230,000,000)
Corporate expenses	(21,298,046)							(21,298,046)
<b>Public Equities</b>								
MEASA	25,000,000	(25,000,000)						-
Public EQ Securities Lending	1,526,536	(1,526,536)						-
SSGA MSCI ACWI IMI	(25,000,000)	25,000,000						-
<b>Fixed Income</b>								
APF FI Plus Holding	252,976		(252,976)					-
FI Securities Lending	25,852		(25,852)					-
<b>Private Equity</b>								
Private Equity distributions	206,365,248			(206,365,248)				-
Private Equity capital calls	(51,912,323)			51,912,323				-
<b>Real Estate</b>								
Direct Real Estate distributions	40,576,128				(40,576,128)			-
Direct Real Estate capital calls	(57,217)				57,217			-
Real Estate Funds distributions	18,695,091				(18,695,091)			-
<b>Private Income</b>								
Infrastructure distributions	327,467,692					(327,467,692)		-
Infrastructure capital calls	(12,276,110)					12,276,110		-
Private Credit distributions	45,767,291					(45,767,291)		-
Private Credit capital calls	(10,024,393)					10,024,393		-
Private Income distributions	7,701,772					(7,701,772)		-
<b>Absolute Return</b>								
Absolute Return distributions	3,536,189						(3,536,189)	-
<b>Net Transfers</b>	<b>364,064,299</b>	<b>(1,526,536)</b>	<b>(278,828)</b>	<b>(154,452,925)</b>	<b>(59,214,001)</b>	<b>(358,636,252)</b>	<b>(3,536,189)</b>	<b>(213,580,433)</b>

### Board of Trustees - APFC Transfers - March 2026

Description	Total Fund Cash	Public Equities	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Tactical Opportunities	Net
<b>State of Alaska &amp; Administrative</b>									
Mineral revenue	33,473,049								33,473,049
AIM STIF interest	1,415,496								1,415,496
Commission recapture proceeds	29,874								29,874
Class action proceeds	1,104								1,104
AMHT Contribution	750,000								750,000
General Fund Transfer	(230,000,000)								(230,000,000)
PCE Draw	(10,000,000)								(10,000,000)
Corporate expenses	(3,821,148)								(3,821,148)
<b>Public Equities</b>									
ACI US Value Yield	12,500,000	(12,500,000)							-
APF SPDR Low Vol	12,500,000	(12,500,000)							-
APF SPDR Yield	12,500,000	(12,500,000)							-
DFA Intl Small Cap Value	12,500,000	(12,500,000)							-
DFA Intl Small Company	12,500,000	(12,500,000)							-
Eagle Asset Management, Inc.	7,500,000	(7,500,000)							-
Hardman Johnston Global	12,500,000	(12,500,000)							-
Jennison Associates LLC	7,500,000	(7,500,000)							-
LSV Intl EQ	12,500,000	(12,500,000)							-
LSV Value LC	25,000,000	(25,000,000)							-
Lyrical Value LC	12,500,000	(12,500,000)							-
Nomura EM	12,500,000	(12,500,000)							-
Mellon FTSE RAFI US Large	12,500,000	(12,500,000)							-
Mellon MSCI World Ex-US	12,500,000	(12,500,000)							-
Public EQ Securities Lending	1,368,067	(1,368,067)							-
Pzena Investment Management LLC	7,500,000	(7,500,000)							-
RBC Asset Management, Inc.	7,500,000	(7,500,000)							-
Schroders Intl EQ	12,500,000	(12,500,000)							-
SSGA Domestic EQ	12,500,000	(12,500,000)							-
SSGA MSCI ACWI IMI	(250,000,000)	250,000,000							-
SSGA R1000 Low Vol	12,500,000	(12,500,000)							-
T. Rowe Price Value SC	7,500,000	(7,500,000)							-
William Blair EM	12,500,000	(12,500,000)							-
<b>Fixed Income</b>									
APF Dom Struc Prod	(100,000,000)		100,000,000						-
APF FI Cash	(44,401,608)		44,401,608						-
APF FI Overlay	(5,598,392)		5,598,392						-
APF IG Corporate Bonds	(50,000,000)		50,000,000						-
APF US AGG	(50,000,000)		50,000,000						-
FI Securities Lending	19,579		(19,579)						-
<b>Private Equity</b>									
Private Equity distributions	139,400,011			(139,400,011)					-
Private Equity capital calls	(71,500,845)			71,500,845					-
<b>Real Estate</b>									
Direct Real Estate distributions	4,368,686				(4,368,686)				-
Direct Real Estate capital calls	(14,493,929)				14,493,929				-
<b>Private Income</b>									
Infrastructure distributions	156,169,178					(156,169,178)			-
Infrastructure capital calls	(23,523,286)					23,523,286			-
Private Credit distributions	24,277,703					(24,277,703)			-
Private Credit capital calls	(26,799,553)					26,799,553			-
Private Income distributions	7,381,076					(7,381,076)			-
Private Income capital calls	(6,479,139)					6,479,139			-
<b>Absolute Return</b>									
Absolute Return distributions	1,719,163						(1,719,163)		-
Absolute Return capital calls	(50,000,000)						50,000,000		-
<b>Tactical Opportunities</b>									
APF Tactical Opps Private capital calls	(18,430,407)							18,430,407	-
<b>Net Transfers</b>	<b>(334,675,322)</b>	<b>(1,368,067)</b>	<b>249,980,422</b>	<b>(67,899,166)</b>	<b>10,125,243</b>	<b>(131,025,979)</b>	<b>48,280,837</b>	<b>18,430,407</b>	<b>(208,151,625)</b>

# ALASKA PERMANENT FUND FUND FINANCIAL HISTORY & PROJECTIONS as of March 31, 2026

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

FY	Nonspendable Fund Balance - Principal							Assigned Fund Balance - Earnings Reserve										TOTAL FUND FY-End Balance
	FY-Begin Contrib. Balance	Dedicated State Revenues	Inflation Proofing & Special Approp.	FY-End Balance	Unrealized Gain (Loss) FY-End Balance	FY-End Non-spendable Balance	Statutory Net Income	Distributions			FY-End Balance	Unrealized Gain (Loss) FY-End Balance	FY-End Assigned Balance	FY				
								Div/POMV Transfer	Inflation Prfg & Spec Approp.	ACIF					Committed	Realized		
77-16	0	16,173	23,275	39,448	4,750	44,198	51,912	23,699	19,977	555	7,649	921	8,571	77-16	52,769			
17	39,448	365	0 <sup>(5)</sup>	39,813	7,155	46,968	3,214	0 <sup>(4)</sup>	0 <sup>(5)</sup>	25	10,863	1,952	12,816	17	59,784			
18	39,813	353	0 <sup>(5)</sup>	40,166	5,863	46,030	6,324	726	0 <sup>(5)</sup>	43	2,723	13,739	2,403	18,864	18	64,894		
19	40,166	385	989	41,541	6,278	47,820	3,305	2,723	989	22	5,933	10,122	2,426	18,482	19	66,300		
20	41,541	319	4,758 <sup>(7)</sup>	46,618	5,789	52,407	3,106	2,933	4,758 <sup>(7)</sup>	21	3,091	8,379	1,424	12,894	20	65,302		
21	46,618	320	0 <sup>(5)</sup>	46,938	13,810	60,748	7,962	3,091	0 <sup>(5)</sup>	50	7,069	9,272	4,807	21,148	21	81,897		
22	46,938	549	4,000 <sup>(5)(7)</sup>	51,487	8,700	60,187	4,544	3,069	4,000 <sup>(5)(7)</sup>	24	3,361	10,455	2,334	16,150	22	76,337		
23	51,487	754	4,179	56,420	11,100	67,520	2,491	3,361	4,179	14	3,526	5,241	1,725	10,491	23	78,012		
24	56,420	533	1,413	58,366	12,373	70,739	4,195	3,526	1,413	24	3,799	4,366	1,701	9,724	24	80,463		
25	58,366	489	0 <sup>(5)</sup>	58,855	13,642	72,497	5,866	3,657	0 <sup>(5)</sup>	31	3,799	6,432	2,372	12,603	25	85,100		
Lo	58,855	474	0 <sup>(5)</sup>	59,328	11,809	71,137	6,511	3,799	0 <sup>(5)</sup>	21	3,997	8,947	2,576	15,519	26	86,656		
Mid	58,855	474	0 <sup>(5)</sup>	59,328	12,687	72,015	6,760	3,799	0 <sup>(5)</sup>	26	3,997	9,196	2,821	16,013	26	88,028		
Hi	58,855	474	0 <sup>(5)</sup>	59,328	13,491	72,819	7,092	3,799	0 <sup>(5)</sup>	33	3,997	9,528	3,075	16,599	26	89,419		
27	59,328	531	1,496	61,356	13,621	74,976	5,079	3,997	1,496	26	4,058	8,720	2,837	15,614	27	90,590		
28	61,356	491	1,546	63,392	14,582	77,974	5,227	4,058	1,546	26	4,201	8,200	2,852	15,252	28	93,227		
29	63,392	472	1,597	65,461	15,586	81,047	5,379	4,201	1,597	26	4,353	7,629	2,853	14,834	29	95,881		
30	65,461	479	1,648	67,588	16,638	84,227	5,531	4,353	1,648	26	4,507	7,005	2,834	14,345	30	98,572		
31	67,588	502	1,702	69,793	17,741	87,534	5,686	4,507	1,702	26	4,642	6,347	2,793	13,781	31	101,316		
32	69,793	536	1,758	72,088	18,892	90,980	5,845	4,642	1,758	26	4,775	5,659	2,734	13,168	32	104,147		
33	72,088	554	1,816	74,458	20,091	94,548	6,009	4,775	1,816	26	4,910	4,942	2,658	12,510	33	107,005		
34	74,458	586	1,876	76,920	21,338	98,258	6,178	4,910	1,876	26	5,049	4,196	2,564	11,808	34	110,066		
35	76,920	618	1,938	79,476	22,637	102,113	6,353	5,049	1,938	26	5,190	3,419	2,452	11,061	35	113,174		
<b>Cumulative Totals</b>																		
<b>Proj. for FY26-FY35</b>		<b>5,242</b>	<b>15,379</b>				<b>58,047</b>	<b>44,290</b>	<b>15,379</b>	<b>263</b>								

Assumptions:	Total Return - Inflation = Total Real Return	Statutory Return			
Lo FY26 <sup>(2)</sup>	1.00%	2.50%	-1.50%	Lo	4.90%
Mid FY26 <sup>(2)</sup>	7.60%	2.50%	5.10%	Mid	6.10%
Hi FY26 <sup>(2)</sup>	14.30%	2.50%	11.80%	Hi	7.70%
<b>FY26-FY35<sup>(3)</sup></b>	<b>7.30%</b>	<b>2.50%</b>	<b>4.80%</b>		<b>6.20%</b>

**Notes related to financial history and projections:**

(1) Dedicated State Revenues in current and future fiscal years are based on the Spring 2026 Department of Revenue forecast.

(2) Current year returns are based on 2025 Callan capital market assumptions and actual results through the report date. The inflation amount is as appropriated.

(3) Future returns are based on 2025 Callan capital market assumptions and median expected returns (the mid case). Actual results will vary.

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

(5) There was no appropriation for inflation proofing in FY16, FY17, FY18, FY21, FY22, FY25 and FY26. An amount less than the statutory amount was appropriated in FY24.

(6) Per AS 37.13.140, beginning in FY19, transfers are based on a percent of market value (POMV) calculation and are to the General Fund. In previous years, transfers were based on an earnings calculation and were to the Dividend Fund.

(7) In FY20 and FY22, an additional \$4 billion was appropriated from the ERA to principal.

(8) All transfers out of the Earnings Reserve are subject to Legislative appropriation.

**Income Year-to-Date as of March 31, 2026**

FY26 YTD Statutory Net Income	
Interest, dividends, real estate & other income	\$ 1,475.0
Realized gains (losses) on the sale of assets	4,255.9
Less operating expenses	(149.4)
Less AK Capital Income Fund realized earnings	(27.9)
	<b>\$ 5,553.6</b>

FY26 YTD Accounting (GAAP) Net Income	
Statutory net income (loss)	\$ 5,553.6
Unrealized gains (losses) on invested assets	(829.4)
AK Capital Income Fund realized earnings	27.9
Accounting (GAAP) net income (loss)	<b>\$ 4,752.1</b>

FY26 POMV Distribution (actual) <sup>(8)</sup>	FY26 Statutory Dividend Transfer (actual) <sup>(8)</sup>
Ending Fund Value (ex Am Hess)	Statutory Net Income
FY24 \$ 80,038.5	FY25 \$ 5,865.8
FY23 77,587.5	FY24 4,195.0
FY22 75,912.8	FY23 2,491.0
FY21 81,472.8	FY22 4,544.0
FY20 64,877.8	FY21 7,962.0
Average \$ 75,977.9	Avail for Dist (21%) \$ 5,262.1
Statutory Distribution \$ 3,798.9	Statutory Trnsfr Amt \$ 2,631.1

FY27 POMV Distribution (actual) <sup>(8)</sup>	FY27 Statutory Dividend Transfer (projected) <sup>(8)</sup>
Ending Fund Value (ex Am Hess)	Statutory Net Income
FY25 \$ 84,675.1	FY26 \$ 6,759.9
FY24 80,038.5	FY25 5,865.8
FY23 77,587.5	FY24 4,195.0
FY22 75,912.8	FY23 2,491.0
FY21 81,472.8	FY22 4,544.0
Average \$ 79,937.3	Avail for Dist (21%) \$ 5,009.7
Statutory Distribution \$ 3,996.9	Statutory Trnsfr Amt \$ 2,504.8



**FY 2026 Fees & Expenses by Funding Source\***

Report Date	March 31, 2026
Total Fund Balance	88,175,256,000
FYTD Change in Total Fund Balance (Net of Transfers)	4,161,985,000

***Investment Management Fees***

	Paid from Investments	Paid from Investment Management Appropriation	Paid from Operations Appropriations	Total	Basis Points
Public Equity	1,908,000	45,943,000	1,804,000	49,655,000	6
Fixed Income	0	3,083,000	6,239,000	9,322,000	1
Absolute Return	77,271,000	544,000	797,000	78,612,000	9
Private Equity & Special Opps	100,604,000	23,135,000	3,988,000	127,727,000	14
Private Income	57,762,000	2,693,000	1,601,000	62,056,000	7
Real Estate	37,183,000	3,487,000	3,369,000	44,039,000	5
Tactical Opps	1,405,000	0	0	1,405,000	0
<b>Total Investment Management Fees</b>	<b>276,133,000</b>	<b>78,885,000</b>	<b>17,798,000</b>	<b>372,816,000</b>	
<b>Basis Points</b>	<b>31</b>	<b>9</b>	<b>2</b>	<b>42</b>	

***Profit Sharing/Performance***

	Paid from Investments	Paid from Investment Management Appropriation	Paid from Operations Appropriations	Total	Basis Points
Public Equity	0	44,738,000	0	44,738,000	5
Absolute Return	127,012,000	0	0	127,012,000	14
Private Equity & Special Opps	178,794,000	0	0	178,794,000	20
Private Income	40,101,000	0	0	40,101,000	5
Real Estate	3,887,000	0	0	3,887,000	1
Tactical Opps	591,000	0	0	591,000	0
<b>Total Profit Sharing/Performance</b>	<b>350,385,000</b>	<b>44,738,000</b>	<b>0</b>	<b>395,123,000</b>	
<b>Basis Points</b>	<b>40</b>	<b>5</b>	<b>0</b>	<b>45</b>	

\* All amounts presented, including fund balances and change net of transfers, are in USD and consist of APF, AMHT, and PCE combined.



**Budget-to-Actuals Through March 31, 2026**

<b>Operations</b>	<b>FY2026 Authorized Budget</b>	<b>FYTD Actuals &amp; Encumbrances</b>	<b>Remaining Budget</b>
Personal Services	\$ 23,881,800	\$ 14,736,780	\$ 9,145,020
Staff	\$ 20,620,800	\$ 13,364,042	\$ 7,256,758
Incentive Compensation	\$ 3,245,000	\$ 1,366,283	\$ 1,878,717
Board: Honoraria	\$ 16,000	\$ 6,455	\$ 9,545
Travel	\$ 1,025,000	\$ 442,917	\$ 582,083
Staff	\$ 627,000	\$ 258,011	\$ 368,989
Trustees	\$ 18,000	\$ 14,317	\$ 3,683
Moving and Non-Employee	\$ 130,000	\$ 6,285	\$ 123,715
Third Party Reimbursed	\$ 250,000	\$ 164,304	\$ 85,696
Contractual Services	\$ 3,076,500	\$ 1,771,733	\$ 1,304,767
Audit, Legal, Consulting	\$ 733,000	\$ 93,786	\$ 639,214
Public Communications	\$ 547,997	\$ 359,236	\$ 188,761
Board Support and Meetings	\$ 97,400	\$ 29,119	\$ 68,281
Information Technology	\$ 1,282,400	\$ 1,082,996	\$ 199,404
HR and Recruitment	\$ 101,200	\$ 57,797	\$ 43,403
Training and Conferences	\$ 102,003	\$ 43,794	\$ 58,209
Office Support	\$ 212,500	\$ 105,004	\$ 107,496
<b>Juneau Operations Allocation</b>	<b>\$ 27,983,300</b>	<b>\$ 16,951,430</b>	<b>\$ 11,031,870</b>
<b>Facilities Rent Allocation</b>	<b>\$ 618,000</b>	<b>\$ 534,532</b>	<b>\$ 83,468</b>
<b>Juneau Operations Total</b>	<b>\$ 28,601,300</b>	<b>\$ 17,485,962</b>	<b>\$ 11,115,338</b>

<b>Investment Management</b>			
Due Diligence & Custody	\$ 8,313,400	\$ 3,765,692	\$ 4,547,708
Investment Due Diligence	\$ 5,813,400	\$ 2,286,085	\$ 3,527,315
Custody Fees	\$ 2,500,000	\$ 1,479,607	\$ 1,020,393
Investment Manager Fees	\$ 178,251,000	\$ 115,304,894	\$ 62,946,106
Public Equities	\$ 139,157,000	\$ 90,082,408	\$ 49,074,593
Real Estate	\$ 3,594,000	\$ 1,513,783	\$ 2,080,217
Office Support	\$ 35,500,000	\$ 23,708,704	\$ 11,791,296
<b>Investment Management total</b>	<b>\$ 186,564,400</b>	<b>\$ 119,070,586</b>	<b>\$ 67,493,814</b>

<b>IT and Software Licensing</b>			
Investment Systems	\$ 11,877,700	\$ 4,802,170	\$ 7,075,530
Commodities	\$ 145,000	\$ 109,378	\$ 35,622
Equipment	\$ 443,000	\$ 438,691	\$ 4,309
<b>IT and Software Licensing Total</b>	<b>\$ 12,465,700</b>	<b>\$ 5,350,239</b>	<b>\$ 7,115,461</b>

<b>TOTAL</b>	<b>\$ 227,631,400</b>	<b>\$ 141,906,787</b>	<b>\$ 85,724,613</b>
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SUBJECT: Chief Investment Officer’s Report

ACTION: \_\_\_\_\_

DATE: May 26, 2026

INFORMATION:  X

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BACKGROUND:

The Chief Investment Officer’s report provides an overview of Fund performance, private market cash flow management, the Absolute Return portfolio, investment actions taken during the quarter, and other current topics in the Investment Department. The report also contains analyses on peer groups and portfolio liquidity.

STATUS:

Marcus Frampton, CIO, will present on the topics described above.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# CIO Report

*May 26, 2026*

# Executive Summary

- **Performance**

- FYTD March 2026 performance is the subject of this Board meeting; notably (i) with private markets at over 40% of portfolio and calendar year-end marks current for March (with lag), there is higher variability of preliminary numbers vs. final than normal, (ii) GP's typically have 120 days to finalize year-end marks vs. 90 days accounting cut-off
- For December 31 valuations, only ~54% of GP marks are included in benchmark figures and ~85% in APFC portfolio data; this quarter typically has more movement than others as it is the one quarter that is audited for private funds financial reporting and is generally the timing with which GPs “sharpen their pencil” on portfolio valuations
- With elevated market volatility and a material number of GPs not reporting by accounting cut-off, high variability in Q4's numbers will have a major impact on whether APFC beats its performance benchmark for the second year in a row in FY 2026
- Strong absolute performance returns – through May 8<sup>(1)</sup> the Fund is up 10.68% FYTD; if the fiscal year ended at this level, it would be the highest annual return in past five years and fourth highest in past ten years

- **Initiatives/KPI's Away from Headline Performance Numbers**

- Peer group commentary
- Private markets cash flow management
- Managing risk profile of public equities
- Long-term performance context
- Expense profile of the Fund

- **Absolute Return Portfolio Context**

- **Appendices: (A) Portfolio Liquidity Analysis, (B) Investment Actions, (C) Performance Detail**

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ALASKA PERMANENT FUND CORPORATION

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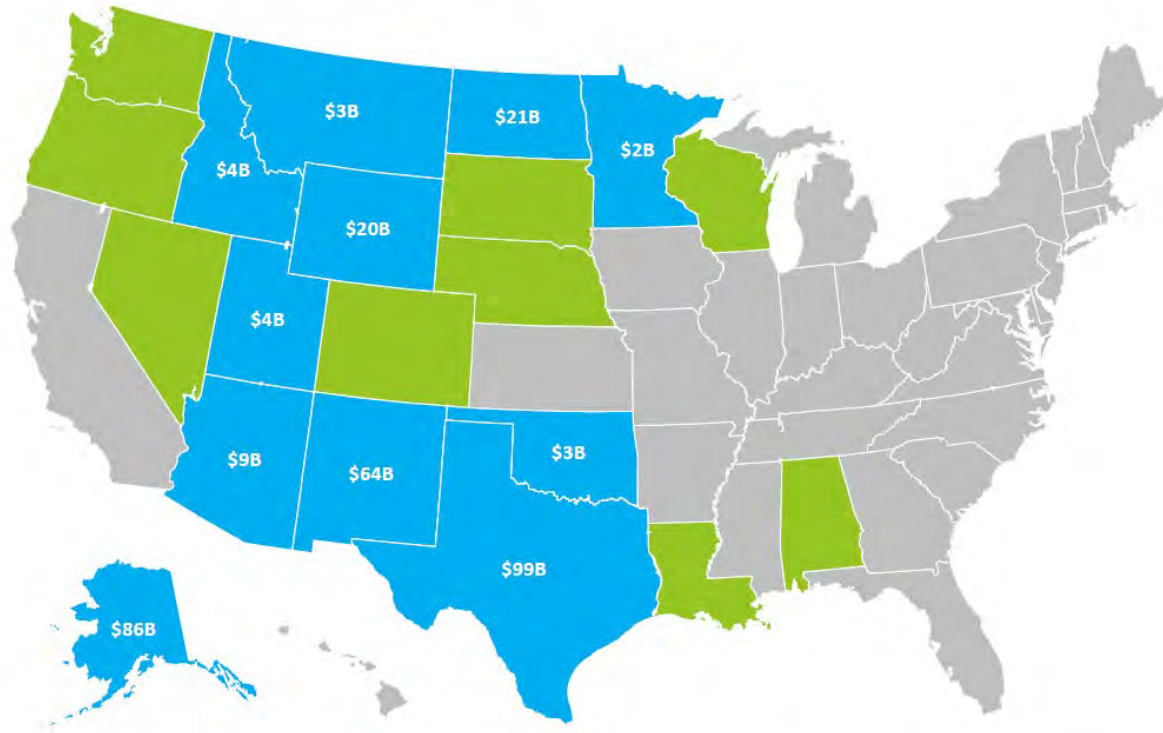
1. Adjusts returns for subsequent performance of known Public Equity and Fixed Income asset classes.

# Initiatives / KPI's Away from Recent Headline #'s

- Peer group comparisons; Domestic Sovereign Wealth Fund peer group
- Expense profile of the fund
- Managing cash flow profile / exposure of private market portfolio
- Managing risk profile of public equity portfolio
  - Need to monitor ebb and flow of performance through volatility phases as we step down tracking error
- Long-term performance context

# RVK: 2025 Survey of US Sovereign Wealth Funds

## US Sovereign Wealth Fund Landscape



■ SWF Survey Participants ■ Other SWF States

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Asset values shown reflect long-term permanent fund assets and are aggregated for states in which there are multiple permanent funds.

Source: RVK 2025 Survey of U.S. Sovereign Wealth Funds released April 2026.

# Peer Group Characteristics



	APFC	Domestic SWF <sup>(1)</sup>	Large Public <sup>(2)</sup>	Univ. Endwmnts <sup>(3)</sup>
Public Equity	32.0%	34.0%	44.4%	24.6%
Fixed Income	20.0%	25.0%	24.4%	8.2%
<b>Traditional Assets</b>	<b>52.0%</b>	<b>59.0%</b>	<b>68.9%</b>	<b>32.8%</b>
Private Equity	18.0%	9.0%	11.7%	33.9%
Real Estate	11.0%	9.0%	7.4%	11.1%
Priv. Inc./Real Assets	10.0%	13.0%	5.4%	0.0%
ARS/Hedge Funds	7.0%	7.0%	5.2%	17.4%
Other Alternatives/Cash	2.0%	3.0%	1.5%	4.8%
<b>Alts/Private/Other<sup>(4)</sup></b>	<b>48.0%</b>	<b>41.0%</b>	<b>31.1%</b>	<b>67.2%</b>

1. Source: RVK 2025 survey of U.S. Sovereign Wealth Funds released April 2026.
2. Source: Callan Associates data as of Q1 2026.
3. Source: 2025 NACUBO -Commonfund Study of Endowments. Over \$5 bn category.
4. Other Alternatives/Cash used as plug in instances where figures are off due to rounding.



Note: Figures shown represent median for Domestic SWF and Large Public Funds and dollar weighted by endowment size average for university endowments.

*There are two major differences to be aware of in considering the peer return data on the following pages (“Domestic SWF”) in contrast to the regular peer analysis done at APFC quarterly Board meetings (“Regular Analysis”)*

## 1. Fees

- Domestic SWF – gross returns for all constituents 
- Regular Analysis – APFC net returns vs. gross returns for peers 

## 2. Asset Allocation

- Domestic SWF – peer group median similar to APFC asset allocation 
- Regular Analysis – differences between APFC asset allocation and peers’ asset allocation drives conclusion for any time period 

# Rolling 5-Year Returns: Annual Ranking

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Idaho	Montana	Idaho	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500
Montana	BB US Agg	Minnesota	Utah	Utah	Utah	Utah	Arizona	Minnesota	Minnesota	Idaho	Alaska	Alaska	Arizona	Alaska
BB US Agg	Idaho	S&P 500	Idaho	Idaho	Arizona	Arizona	Alaska	Alaska	Idaho	Alaska	Texas PSF	Texas PSF	Alaska	Utah
Idaho	Minnesota	Arizona	NM LGPF	Arizona	Minnesota	Idaho	Idaho	Arizona	Arizona	Arizona	NM LGPF	Arizona	WY PMTF	WY PMTF
WY CSPLF	Arizona	Idaho	Texas PSF	NM LGPF	Idaho	NM LGPF	Utah	Idaho	Alaska	Texas PSF	Idaho	Idaho	Idaho	Arizona
WY PMTF	WY CSPLF	Montana	Idaho	Minnesota	Texas PSF	Alaska	Texas PSF	NM LGPF	Texas PSF	Minnesota	Arizona	NM LGPF	Texas PSF	NM LGPF
Minnesota	Idaho	Utah	NM ST	NM ST	NM LGPF	Minnesota	NM LGPF	Texas PSF	ND Legacy	NM LGPF	Minnesota	Minnesota	Minnesota	Texas PSF
Texas PSF	WY PMTF	ND SLB	Arizona	Texas PSF	Alaska	NM ST	Minnesota	NM ST	NM LGPF	ND Legacy	NM ST	WY PMTF	NM LGPF	Idaho
Utah	ND SLB	Texas PSF	Minnesota	Alaska	NM ST	Texas PSF	NM ST	ND Legacy	NM ST	NM ST	WY PMTF	NM ST	Utah	ND SLB
Arizona	Utah	BB US Agg	ND SLB	ND SLB	Idaho	Idaho	ND Legacy	Utah	Montana	WY PMTF	Utah	Utah	ND Legacy	ND Legacy
ND SLB	Texas PSF	WY CSPLF	Alaska	Idaho	ND SLB	ND SLB	ND SLB	WY CSPLF	WY CSPLF	Utah	ND Legacy	WY CSPLF	WY CSPLF	Minnesota
Alaska	Alaska	NM LGPF	WY CSPLF	WY CSPLF	WY CSPLF	WY CSPLF	WY CSPLF	WY PMTF	WY PMTF	ND SLB	ND SLB	ND SLB	ND SLB	WY CSPLF
NM LGPF	NM LGPF	WY PMTF	WY PMTF	WY PMTF	WY PMTF	WY PMTF	WY PMTF	ND SLB	BB US Agg	Idaho	WY CSPLF	ND Legacy	NM ST	Idaho
NM ST	S&P 500	Alaska	Montana	Montana	Montana	ND Legacy	Idaho	Idaho	ND SLB	WY CSPLF	Idaho	Idaho	Idaho	NM ST
S&P 500	NM ST	NM ST	BB US Agg	BB US Agg	BB US Agg	Montana	Montana	Montana	Idaho	Montana	Montana	Montana	Montana	Montana
						BB US Agg	BB US Agg	BB US Agg	Utah	BB US Agg	BB US Agg	BB US Agg	BB US Agg	BB US Agg

Source: RVK 2025 Survey of U.S. Sovereign Wealth Funds released April 2026.

# Rolling 10-Year Returns: Annual Ranking

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
WY CSPLF	Montana	Idaho	Idaho	Idaho	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500	S&P 500
Montana	S&P 500	S&P 500	Utah	Utah	Utah	Minnesota	Idaho	Idaho	Idaho	Idaho	Alaska	Alaska	Alaska	Alaska
Montana	Idaho	Montana	S&P 500	S&P 500	Minnesota	Idaho	Minnesota	Utah	Minnesota	Arizona	Idaho	Arizona	Arizona	Arizona
WY PMTF	Montana	Texas PSF	Montana	Montana	Idaho	Utah	Utah	Minnesota	Utah	Minnesota	Arizona	Idaho	Minnesota	Idaho
Idaho	Texas PSF	NM LGPF	Texas PSF	Minnesota	Montana	Montana	Montana	NM LGPF	Alaska	Alaska	Texas PSF	Texas PSF	Idaho	Minnesota
Alaska	WY CSPLF	Alaska	NM LGPF	Texas PSF	Montana	Montana	Texas PSF	Texas PSF	Texas PSF	Texas PSF	NM LGPF	NM LGPF	Texas PSF	Texas PSF
Texas PSF	Alaska	ND SLB	Minnesota	NM LGPF	Texas PSF	Texas PSF	Alaska	Alaska	NM LGPF	Utah	Utah	Minnesota	NM LGPF	NM LGPF
BB US Agg	Minnesota	Minnesota	Alaska	Alaska	WY CSPLF	WY CSPLF	NM LGPF	NM ST	NM ST	NM LGPF	Minnesota	NM ST	ND Legacy	ND Legacy
ND SLB	WY PMTF	NM ST	WY CSPLF	WY CSPLF	WY PMTF	Alaska	ND SLB	Montana	WY CSPLF	NM ST	NM ST	Utah	WY PMTF	WY PMTF
S&P 500	NM LGPF	WY CSPLF	ND SLB	WY PMTF	NM LGPF	NM LGPF	NM ST	ND SLB	ND SLB	WY PMTF	WY PMTF	WY PMTF	Utah	Utah
NM LGPF	ND SLB	WY PMTF	WY PMTF	ND SLB	Alaska	ND SLB	WY CSPLF	WY CSPLF	WY PMTF	ND SLB	ND SLB	WY CSPLF	NM ST	NM ST
Minnesota	BB US Agg	Montana	NM ST	NM ST	ND SLB	WY PMTF	WY PMTF	WY PMTF	Montana	Montana	WY CSPLF	ND SLB	WY CSPLF	ND SLB
NM ST	NM ST	BB US Agg	Montana	Montana	BB US Agg	BB US Agg	Montana	Montana	Montana	Montana	WY CSPLF	Montana	ND Legacy	ND SLB
			BB US Agg	BB US Agg	NM ST	NM ST	BB US Agg	BB US Agg	BB US Agg	BB US Agg	Montana	ND Legacy	Montana	Montana
											BB US Agg	Montana	Montana	Montana
											BB US Agg	BB US Agg	BB US Agg	BB US Agg

Source: RVK 2025 Survey of U.S. Sovereign Wealth Funds released April 2026.

# Domestic Sovereign Wealth Fund's Fee Profile

Among domestic sovereign wealth funds, APFC's fees relative to private markets and alternative exposure is on the efficient end of the spectrum.

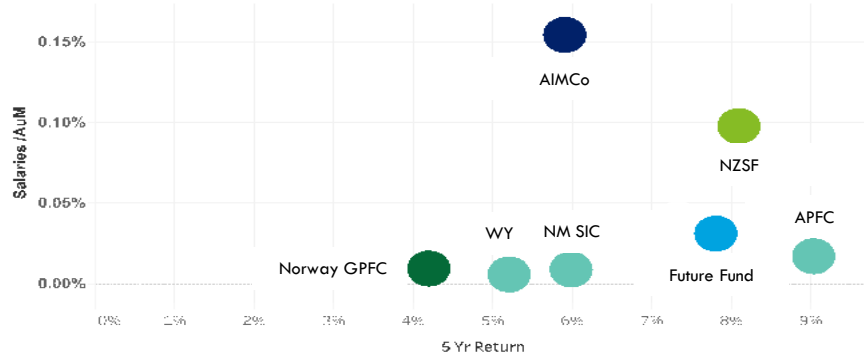
	<u>BPS</u>	<u>PM + Alts %</u>	<u>BPS / (PM + Alts)</u>
<b>APFC</b>	<b>103</b>	<b>46%</b>	<b>224</b>
<b>ND SLB</b>	121	53%	228
<b>Montana</b>	39	17%	229
<b>Texas PSF</b>	90	37%	243
<b>Average</b>	<b>69</b>	<b>29%</b>	<b>302</b>
<b>Idaho</b>	33	10%	330
<b>OK</b>	28	5%	560

Average PM + Alts across all comparable entities: 25%

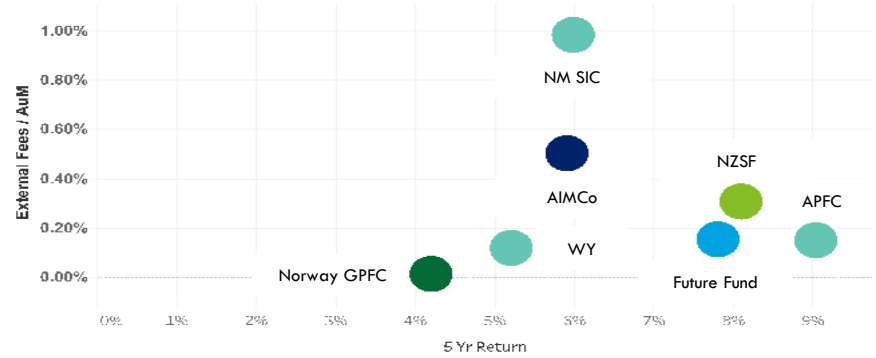
Source: Data from public filings and disclosures compiled and analyzed by APFC Investment Department.

# Intl. Sovereign Wealth Fund's Fee Profile (2023 IFSWF Study)

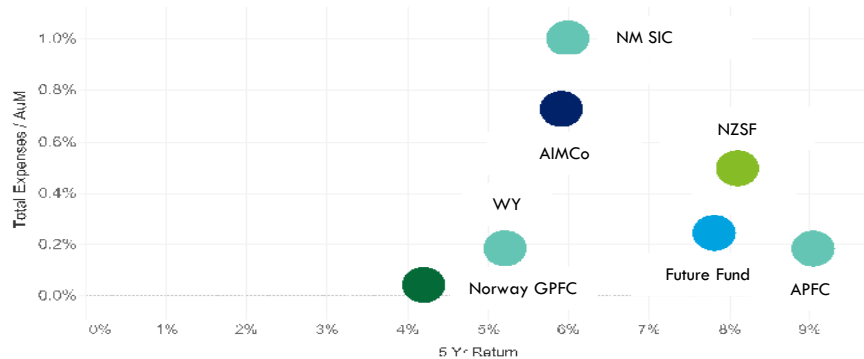
### In-house Salaries vs Performance



### External Fees vs Performance



### Cost vs Performance



- The funds included in this study represent a wide variety of cost, talent, outsourcing, and investment approaches
- AIMCo in Alberta is the only outlier in terms of in-house salaries. Similarly to other Canadian pension funds it pays in line with the private sector to compete for talent
- Norway and New Mexico rely a lot on external managers. New Mexico's expenses are relatively higher compared to its size
- While ability to pay salary or external fees does not guarantee performance, the potential benefit of outperformance so greatly exceeds the cost that trying to outperform is a risk worth taking

# APFC Relative Efficiency

- While APFC fees are more fully and prominently disclosed than peers, on an apples-to-apples basis, **our approach to private markets and alternatives investing is relatively efficient**
- A recent paper published by Richard Ennis summarizes fee and expense loads for the few public pension funds he could find that fully discloses these items
- The source paper in its entirety may be found at the following link:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5163511](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5163511)

## Private / Alternatives Allocation and Cost for Nine Public Pension Plans

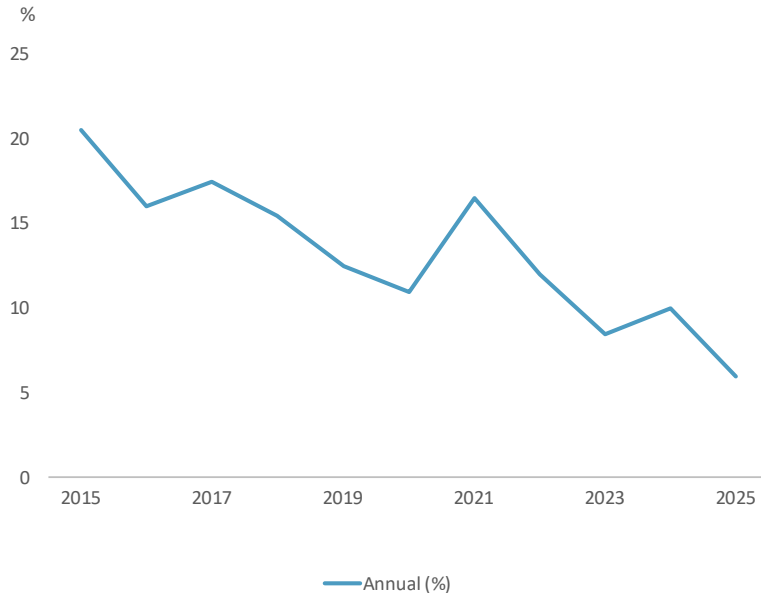
Pension Plan	Private / Alts Allocation	Estimated Reported Annual Total Cost
1	0%	0.10%
2	29%	1.50%
3	30%	1.10%
4	38%	1.90%
5	38%	1.90%
6	39%	1.20%
7	43%	1.60%
8	43%	1.00%
9	49%	2.00%
Peer Average (Plans 2-9)	39%	1.53%
APFC	46%	1.03%

Source: Pension fund peers from Ennis (2025). APFC data is per June 2025 “Fees & Expenses” report.

# Management of Private Market Cash Flows

## Private Markets Are Facing Ongoing Liquidity Constraints

Buyout Fund Distributions as a Share of Assets Under Management<sup>a</sup>  
2015-2025, %



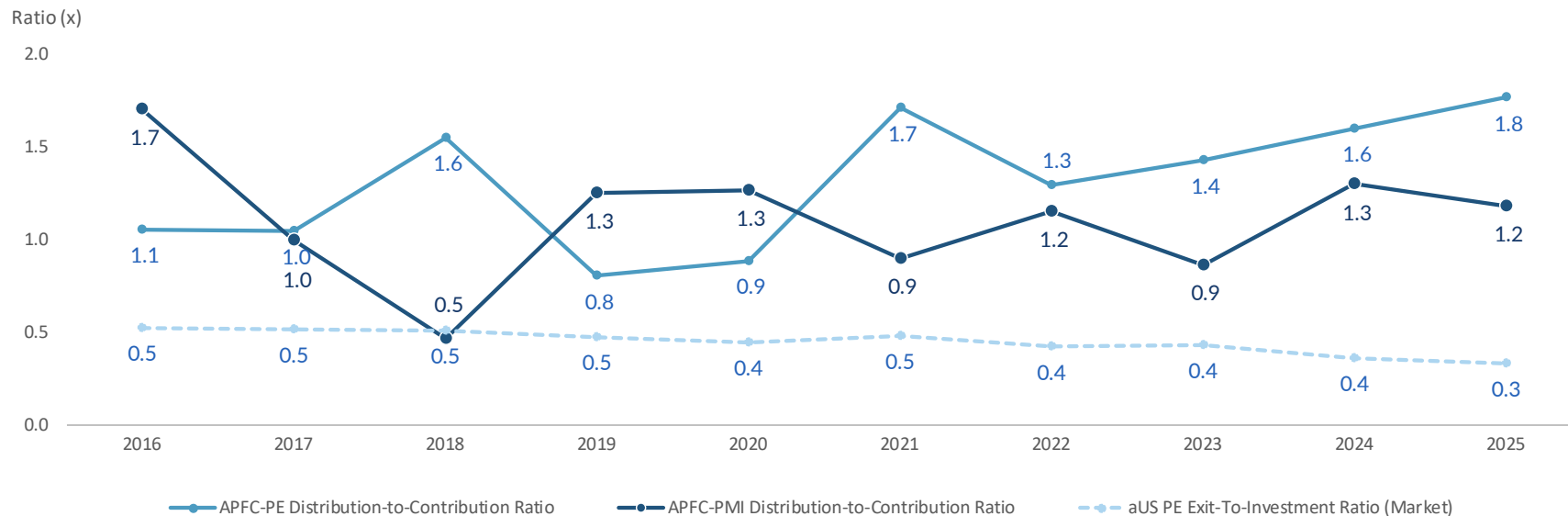
SOURCE: McKinsey & Company. NOTES: <sup>a</sup>Annual numbers reflect 12-month trailing averages. 2025 value is as of June 2025; all other values are as of December of that year.

- Private equity distributions have declined to near multi-decade lows, reflecting a sustained slowdown in exit activity
- Many LPs continue to experience negative net cash flows, with capital calls exceeding distributions
- As a result, institutional portfolios remain liquidity constrained and often over-allocated, limiting flexibility and new commitment capacity

# Management of Private Market Cash Flows

## Private Equity Liquidity: APFC Portfolios vs. Market

### Distribution-to-Contribution Ratios



SOURCE: PitchBook Data, Inc. NOTES: As of December 31, 2025.

\*The US PE Exit-To-Investment ratio reflects total private equity exit activity relative to investment activity by year, based on PitchBook Data.

# Public Equity - Tracking Error Step Down Performance Context

**Following an in-depth review in December 2024, the APFC Investment Committee elected to pursue a two-year step down of tracking error in our public equity portfolio**

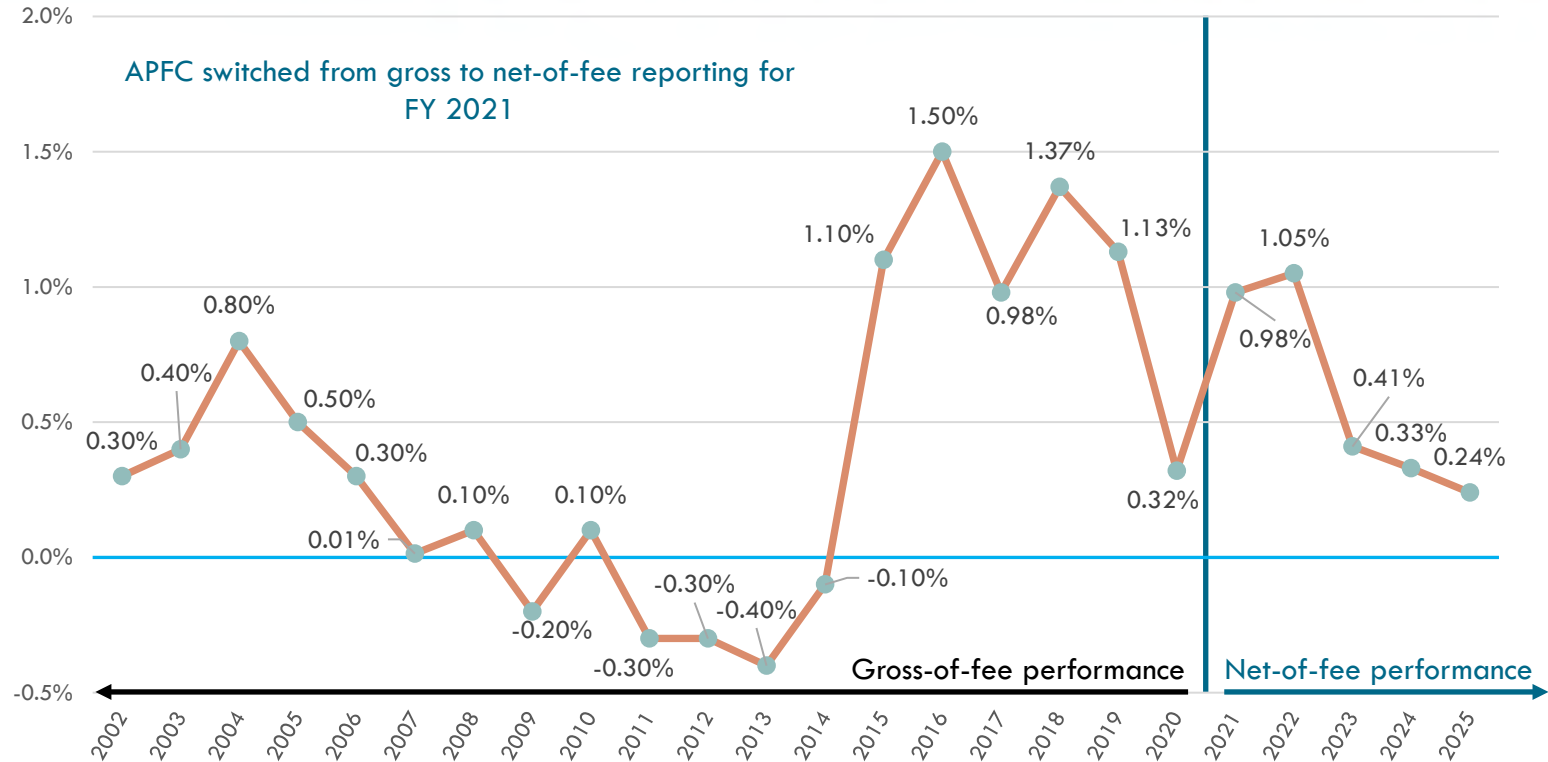
- This decision was in recognition of the difficulty in short-term forecasting around the factor and geographic positioning that made up the majority of our tracking error contribution
- The “Phase 1” period (FY 2020 – CY 2024) while APFC had an elevated (by industry standards) volatility appetite, our public equity portfolio had strong performance towards the beginning and weak performance towards the end
- The “Phase 2” period (January 2025 – December 2026) while APFC has been stepping down tracking error that has featured mixed performance, in spite of significant volatility it has been almost exactly in-line with benchmark through the 16.25-month period ending May 8, 2026
- The “Phase 3” period (January 2027 onward) will begin at the end of CY 2026 and will feature a more industry standard 100 bps TE limit

# Public Equity - Tracking Error Step Down Performance Context (continued)

- As the early strong years from phase 1 roll out of the five-year performance figures, APFC's own five-year numbers will be under pressure versus benchmark
- Cumulatively, APFC beat its benchmark for the public equity portfolio in "Phase 1" and the asset class is in line with benchmark phase 2 to date

	Phase 1 - High Tracking Error Limit						Phase 2 - Tracking Error Step Down							
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	6 Mo. 12/31/2024	Cumulative Annualized	3 Mo. 3/31/2025	3 Mo. 6/30/2025	3 Mo. 9/30/2025	3 Mo. 12/31/2025	3 Mo. 3/31/2026	~1.25 Mo. 5/8/2026	Cumulative Annualized
Tracking Error Limit (bps)	400	400	400	400	400	400		300	275	250	220	200	175	
Public Equity	0.40%	46.92%	(14.32%)	14.16%	16.06%	4.80%	10.77%	1.17%	9.49%	7.04%	2.95%	(1.74%)	11.90%	24.36%
Benchmark	1.17%	40.94%	(16.52%)	16.14%	18.40%	5.52%	10.45%	(1.61%)	11.62%	7.67%	3.22%	(2.75%)	13.08%	24.36%
Out (Under) Performance	(0.77%)	5.98%	2.20%	(1.98%)	(2.34%)	(0.72%)	0.32%	2.78%	(2.13%)	(0.63%)	(0.27%)	1.01%	(1.18%)	0.00%

# Rolling 5-Year Relative Performance

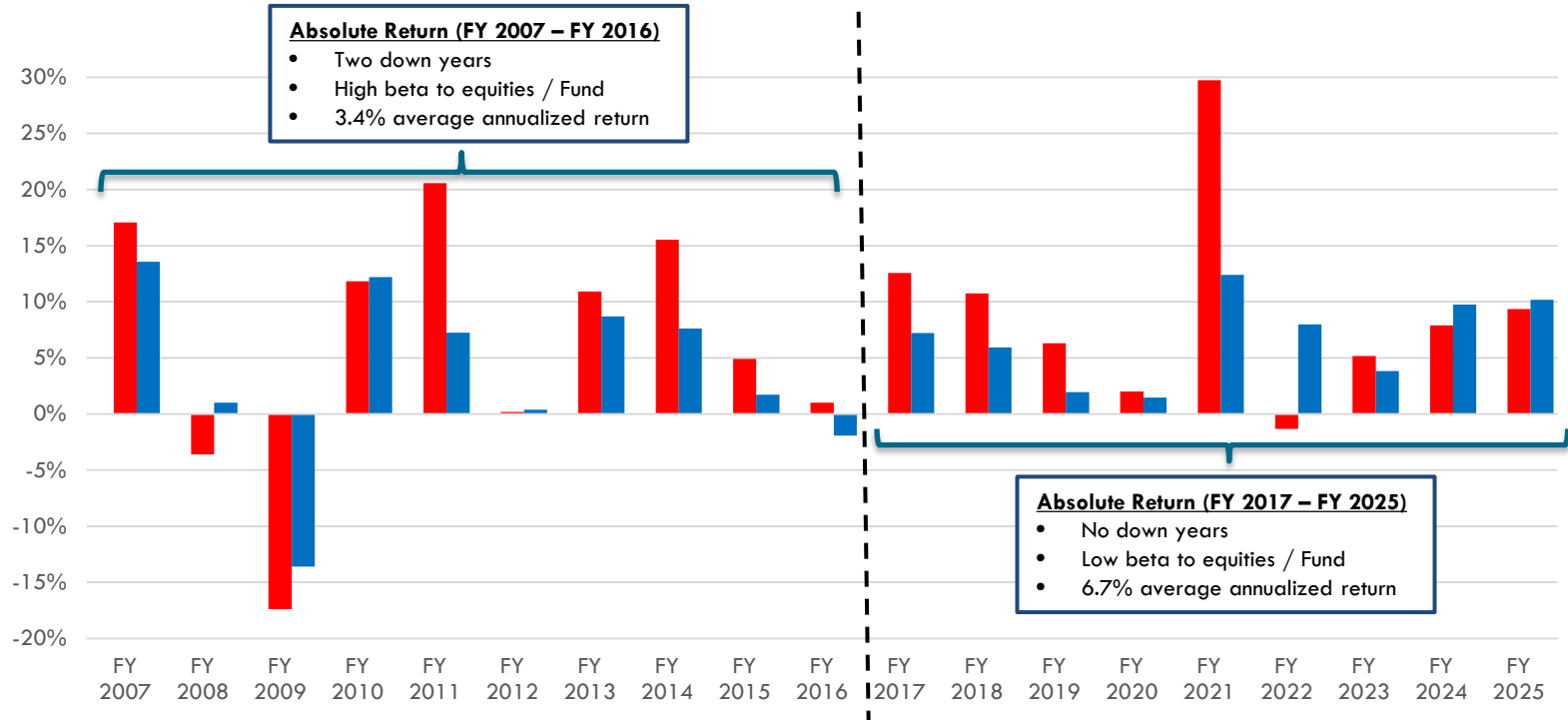


# Initiatives / KPIs - Summary

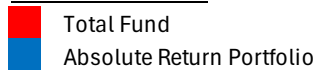
- Given the high number of valuations that were not received in time for accounting cut-off, March FYTD performance figures should be viewed as preliminary
- Alaska has been the top performing domestic sovereign wealth fund as measured on rolling 5- and 10-year returns for the past several years
  - Methodology in third party study looks at fees on an apples-to-apples basis among constituents in contrast to our normal quarterly peer analysis that compares APFC's net-of-fee returns to the gross-of-fee returns of peers
  - APFC's asset allocation more closely resembles the median domestic sovereign wealth fund than it does the median large public fund or university endowment, which are the basis for the normal quarterly peer analysis
- APFC's management of cash flows in our private markets programs has been outstanding and our cash flow positive private equity program stands in sharp contrast to industry averages where 30 cents of distributions are received for every dollar of capital called, which has resulted in major cash flow and exposure management issues at some peer plans
- Staff has been focused on judiciously managing down tracking error in our public equity program
  - We have exited a multi-year period of very high tracking error – in that period we had very high positive returns in the first part and poor, volatile returns in the back half
- As the back half of the high public equity tracking error period rolls through the five-year numbers, we may have some periods with weak benchmark relative performance on a five-year basis
- While APFC has enjoyed strong five-year rolling performance versus benchmark for the past ten years; in the period from 2002-2015 there were many years of weak performance on a rolling five-year Total Fund versus Performance Benchmark basis

# Absolute Return – Historical Context

- In 2016, Staff restructured the Absolute Return strategy and moved away from external fund-of-fund managers to internal manager selection
- This move (i) saved ~50 bps of annual fee load, (ii) improved performance, (iii) tightened up investment strategy (low beta, absolute return orientation)

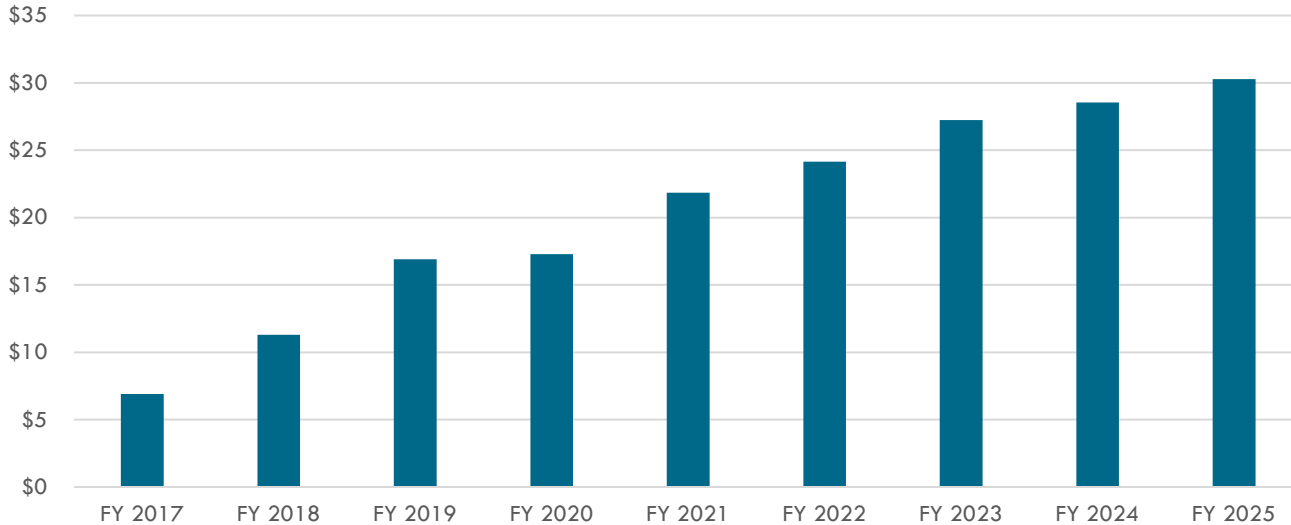


## Fiscal Year Returns



# Absolute Return – Fee Savings

*Fiscal Year Annual Fee Savings  
(\$ in millions)*



Cumulative fee savings FY '17 – Present (internal vs. 3<sup>rd</sup> party allocation model): **\$184 million**

# Absolute Return – Asset Class Assumptions

- APFC Staff and Consultants generally use industry-wide asset class assumptions for asset allocation review exercises
- In all cases, Staff seeks to outperform the industry averages (alpha); Absolute Return is an instance where the focus on outperforming risk assumptions (correlation and volatility) is also a prominent objective

Metric	Callan (Feb. 2026)	APFC Portfolio
Annualized Return	5.7%	7.6%
Volatility	8.2%	3.5%
Correlation to Stocks	0.618	-0.09 (10-year lookback per Aladdin risk system)

Source: Callan Associates' December 31, 2025 Executive Summary & Aladdin risk analytics

# Absolute Return – Aladdin Output

Green Package													
Matrix Report for TE, Correlation and Beta 3/31/2026 ▾													
Portfolio		Exposure Date		Exposure Hierarchy				Purpose				NAV	
APFC_GP		3/31/2026		WRLDA				^WRLDA				88,791,516,212	
				Position Correlation									
<input type="checkbox"/>	Cusip	Weight	Risk Contrib	Stand Alone Risk Line Scaled	APFC_GP	AF1_AR	AF1_FIP	AF1_IPCIO	AF1_PEGO	AF1_PUEQ	AF1_RE1	AF1_TACOPS	AF1_TFCASH
<input type="checkbox"/>	APFC_GP	100.00%	1,099.29	1099	1.00	-0.15	0.62	0.89	0.94	0.98	0.88	0.94	0.20
<input checked="" type="checkbox"/>	AF1_AR	7.33%	-2.78	261	-0.15	1.00	-0.47	-0.08	-0.16	-0.09	-0.17	-0.07	-0.29
<input type="checkbox"/>	AF1_FIP	21.65%	63.21	469	0.62	-0.47	1.00	0.50	0.49	0.58	0.58	0.54	0.58
<input type="checkbox"/>	AF1_IPCIO	8.40%	91.08	1217	0.89	-0.08	0.50	1.00	0.77	0.88	0.83	0.80	0.09
<input type="checkbox"/>	AF1_PEGO	16.98%	353.06	2210	0.94	-0.16	0.49	0.77	1.00	0.88	0.78	0.86	0.14
<input type="checkbox"/>	AF1_PUEQ	31.90%	494.64	1579	0.98	-0.09	0.58	0.88	0.88	1.00	0.84	0.96	0.17
<input type="checkbox"/>	AF1_RE1	9.43%	83.89	1013	0.88	-0.17	0.58	0.83	0.78	0.84	1.00	0.79	0.18
<input type="checkbox"/>	AF1_TACOPS	1.08%	16.12	1594	0.94	-0.07	0.54	0.80	0.86	0.96	0.79	1.00	0.13
<input type="checkbox"/>	AF1_TFCASH	3.24%	0.08	12	0.20	-0.29	0.58	0.09	0.14	0.17	0.18	0.13	1.00
<input type="checkbox"/>													

Time Frame: 10-year lookback period

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# Appendix A – Portfolio Liquidity Analysis

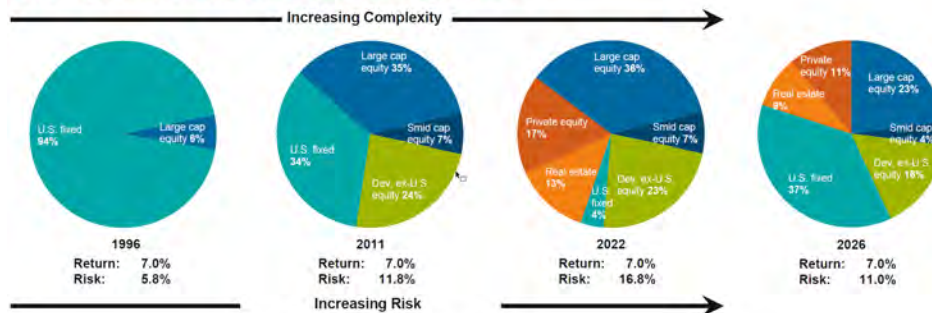
# Portfolio Liquidity Analysis

- Perhaps the single largest difference between traditional public markets (stocks and bonds) and private markets is the difference in liquidity
- In technical finance terms, liquidity refers to the ability of an investor to buy or sell an asset, in meaningful size, and at low cost without materially affecting its price
  - Investors who subject their capital investment to illiquidity in areas like private equity, private credit, private infrastructure, and real estate, if they are rational, must demand an illiquidity premium in compensation
  - Other factors that lead to rational investors requiring an illiquidity premium in these areas include high fees, mis-aligned interests, difficulty in assessing performance (valuation uncertainty), lack of robust regulatory framework, among other factors
  - For each of the private markets areas (private equity, private infrastructure, private credit, and private real estate) one can objectively measure the valuation differential between comparable listed and private assets – the measurable and very material shrinking of this differential across the board in recent years leads us to question if investors are receiving an adequate illiquidity premium in today’s market
  - The more an investor allocates capital to illiquid assets in bull markets (which tend to have low illiquidity premia), the more they lose their optionality / flexibility to take advantage of market environments with more adequate compensation for accepting illiquidity
- The asset allocation implications of the illiquidity of sizable private markets allocations are illustrated and discussed on the following page
- When we are talking about illiquidity in the context of asset allocation, we are **not** discussing the following:
  1. The Fund’s overall ability to fulfill required calls on its capital from stakeholders – with over half the fund invested in stocks and bonds, Staff could free up tens of billions of liquidity in a matter of days with limited market impact
  2. Adequacy of accounting balances in ERA relative to forecasted POMV draws

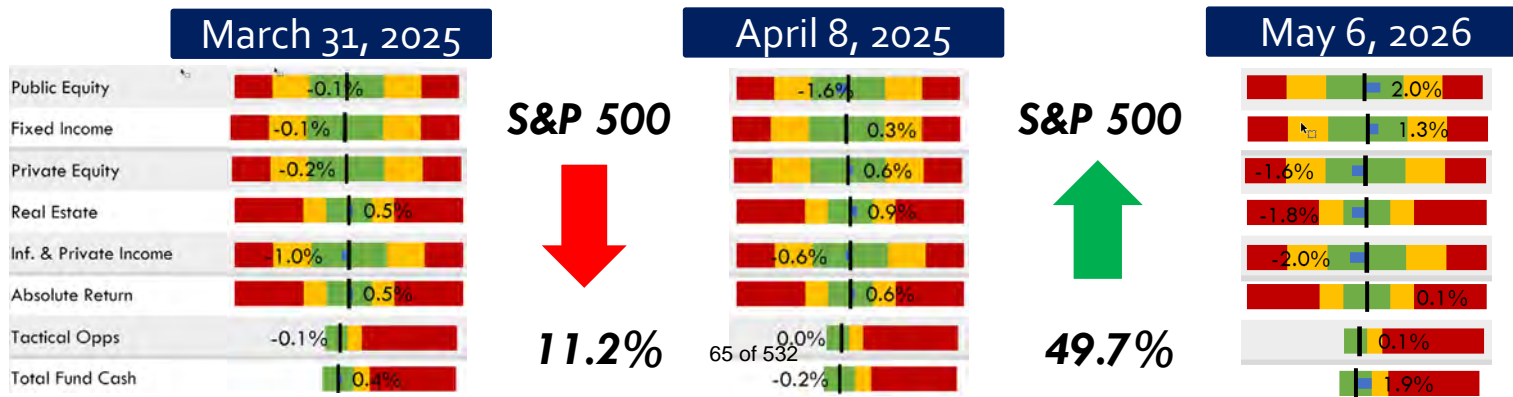
# Asset Allocation / Rebalancing Liquidity

- The ability to move assets around recognizing that market outlooks can move materially in short periods of time...

## 7% Expected Returns Over Past 30 Years



- ...a major move in stock indices has material implications to % private exposures...



# Appendix B – Investment Actions

# Investment Actions

## Quarter-to-Date Ending June 30, 2026

### Public Equity

During the quarter, Staff took the following investment actions:

- April 16<sup>th</sup>: Rebalanced **\$500 million** between Public Equity accounts

#### April 16<sup>th</sup>:

Transfer Account	Amount
Schroders INTL Value	-\$25 million
LSV INTL Value	-\$25 million
Hardman INTL Growth	-\$25 million
DFA INTL SC	-\$25 million
DFA INTL SCV	-\$25 million
SSGA EM Index	-\$25 million
William Blair EM	-\$25 million
JPM EM	-\$25 million
Mondrian EM	-\$25 million
ACI US Value Yield	-\$25 million
Jennison US SC	-\$10 million
RBC US SCG	-\$10 million
Eagle US SCG	-\$10 million

(1/2) Rebalance of **\$500 million**

#### April 16<sup>th</sup>:

Transfer Account	Amount
TRowe US SCV	-\$10 million
Pzena US SCV	-\$10 million
APF SPDR Yield	-\$25 million
APF SPDR Low Vol	-\$25 million
Lyrical US LCV	-\$25 million
LSV US LCV	-\$25 million
SSGA R1000V Low Vol	-\$25 million
SSGA R1000 Low Vol	-\$25 million
Mellon FTSE RAFI	-\$25 million
SSGA Domestic Low P/E	-\$25 million

SSGA MSCI ACWI IMI Index +\$500 million

(2/2) Rebalance of **\$500 million**

# Investment Actions (continued)

## Quarter-to-Date Ending June 30, 2026

### Public Equity

During the quarter, Staff took the following investment actions:

- May 7<sup>th</sup>: Rebalanced **\$600 million** between Public Equity accounts

**May 7<sup>th</sup>:**

Transfer Account	Amount
Schroders	-\$25 million
LSV INTL Value	-\$25 million
DFA INTL LC	-\$25 million
DFA INTL SC	-\$25 million
Hardman INTL Growth	-\$25 million
Trustbridge China	-\$15 million
Allspring China	-\$10 million
Mondrian EM	-\$25 million
Longview Global	-\$100 million
CDAM Global	-\$50 million
ACI US Value Yield	-\$20 million
Jennison US SC	-\$15 million
Eagle US SCG	-\$15 million

(1/2) Rebalance of **\$600 million**

**May 7<sup>th</sup>:**

Transfer Account	Amount
RBC US SCG	-\$15 million
Pzena US SCV	-\$15 million
TRowe US SCV	-\$15 million
Lyrical US LCV	-\$20 million
LSV US LCV	-\$20 million
SKBA US LCV	-\$20 million
SSGA R1000V Low Vol	-\$20 million
SSGA Domestic	-\$20 million
Mellon FTSE RAFI	-\$20 million
APF SPDR Yield	-\$20 million
APF SPDR Low Vol	-\$20 million
SSGA R1000 Low Vol	-\$20 million

68 of 532

SSGA MSCI ACWI IMI Index

+\$600 million

(2/2) Rebalance of **\$600 million**

# Investment Actions (continued)

## Quarter-to-Date Ending June 30, 2026

### Public Equity

During the quarter, Staff took the following investment actions:

- May 12<sup>th</sup>: Rebalanced **\$500 million** between Public Equity accounts
- May 13<sup>th</sup>: Transferred **\$300 million** from Public Equity to Total Fund Cash

#### May 12<sup>th</sup>:

Transfer Account	Amount
APF SPDR Yield	-\$50 million
APF SPDR Low Vol	-\$50 million
ACI Value Yield	-\$50 million
SSGA R1000 Low Vol	-\$50 million
SSGA R1000 Value Low Vol	-\$50 million
Lyrical Value	-\$25 million
SKBA Value	-\$50 million
LSV US Value	-\$25 million
SSGA Domestic Low PE	-\$50 million
Jennison	-\$20 million
RBC Global	-\$20 million
Eagle	-\$20 million
TRowe	-\$20 million
Pzena	-\$20 million

(1/2) Rebalance of **\$500 million**

#### May 12<sup>th</sup>:

Transfer Account	Amount
DSM	+\$125 million
CastleArk	+\$125 million
Voya	+\$125 million
SSGA US LCG	+\$125 million

(2/2) Rebalance of **\$500 million**

#### May 13<sup>th</sup>:

Transfer Account	Amount
Arrowstreet	-\$150 million
SSGA Russell Fundamental	-\$75 million
RBA / Janus Henderson Global Equities	-\$75 million
Total Fund Cash	+\$300 million

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Transfer of **\$300 million**

# Investment Actions (continued)

## *Quarter-to-Date Ending June 30, 2026*

### Private Equity

- **\$30 million** to late-stage venture capital fund
- **\$15 million** to small buyout fund

**Commitment Total: \$45 million**

### Real Estate

- **\$25 million** hedge for a European sale-leaseback fund
- **\$100 million** sale of industrial portfolio
- **\$52 million** hospital portfolio loan payoff
- **\$45 million** sale of industrial asset

**Investment Action Total: \$222 million**

### Private Income

- **\$100 million** to Asian infrastructure fund
- **\$5 million** to energy single asset co-investment follow-on
- **\$100 million** to European infrastructure fund

**Investment Action Total: \$205 million**

### Absolute Return

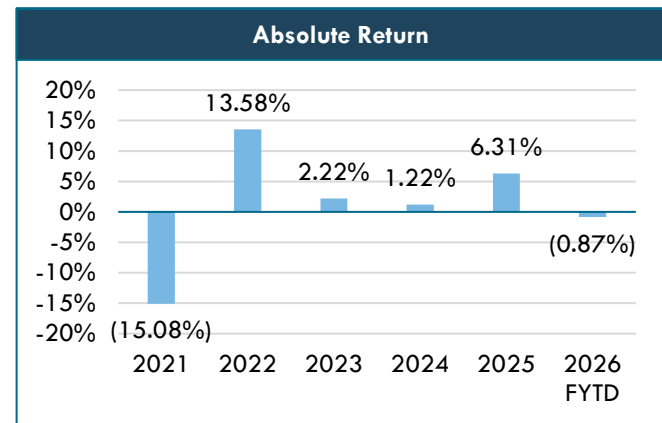
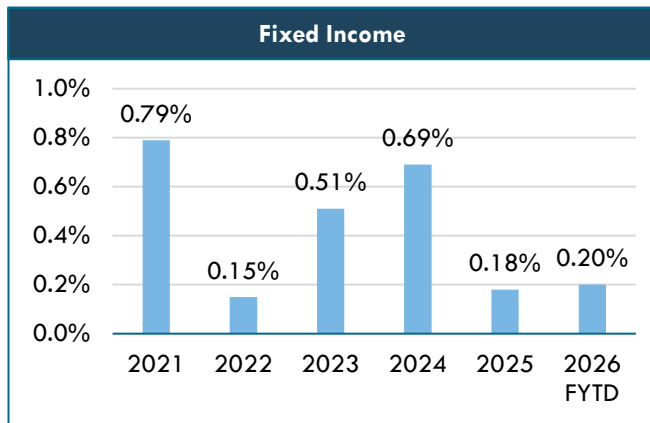
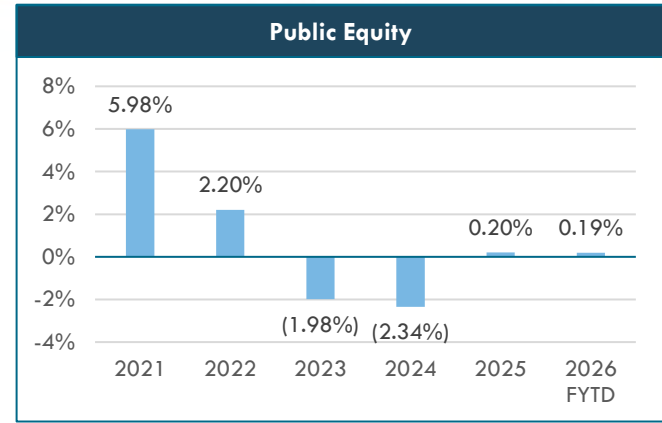
- **\$50 million** subscription to quantitative sub-strategy

**Investment Action Total: \$50 million**

# Appendix C – Performance Detail

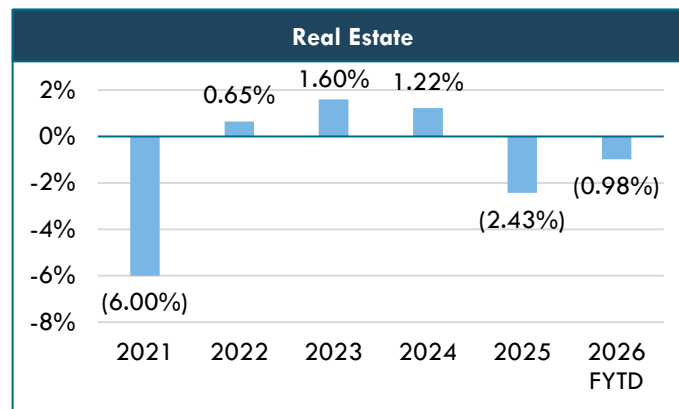
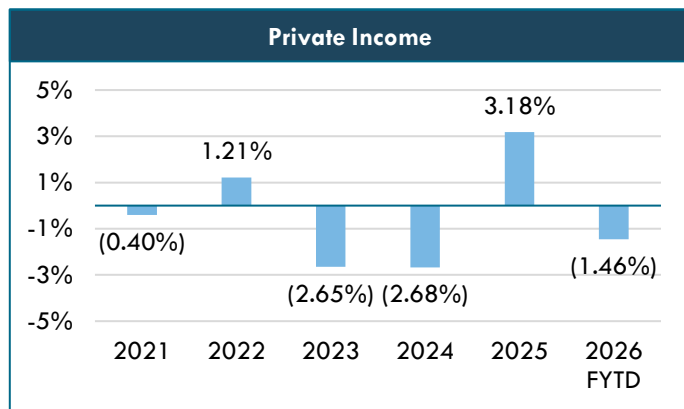
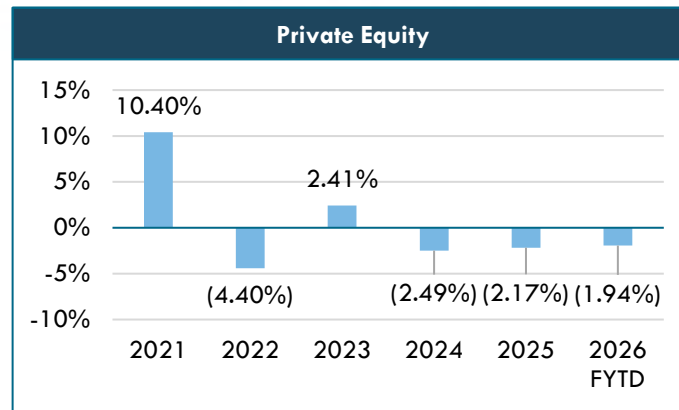
# Public Markets vs. Benchmark (As of March 31, 2026)

Annualized Returns			
	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>
Public Equity	(2.08%)	(1.31%)	(0.38%)
Fixed Income	0.28%	0.42%	0.37%
Absolute Return	1.53%	2.41%	4.27%



# Private Markets vs. Benchmark (As of March 31, 2026)

Annualized Returns			
	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>
Private Equity	(2.97%)	(2.76%)	(1.82%)
Private Income	(1.10%)	(1.01%)	(0.72%)
Real Estate	(0.62%)	(0.12%)	(0.21%)



# Asset Class Performance Detail (As of March 31, 2026)

## Annualized Returns

Public Equity	1-Year	3-Year	5-Year
Return	18.56%	14.93%	8.65%
Benchmark	20.64%	16.24%	9.03%
Performance	(2.08%)	(1.31%)	(0.38%)

Fixed Income	1-Year	3-Year	5-Year
Return	4.73%	4.83%	1.33%
Benchmark	4.45%	4.41%	0.96%
Performance	0.28%	0.42%	0.37%

Absolute Return	1-Year	3-Year	5-Year
Return	12.86%	10.36%	8.63%
Benchmark	11.33%	7.95%	4.36%
Performance	1.53%	2.41%	4.27%

Private Equity	1-Year	3-Year	5-Year
Return	10.08%	5.60%	8.31%
Benchmark	13.05%	8.36%	10.13%
Performance	(2.97%)	(2.76%)	(1.82%)

Private Income	1-Year	3-Year	5-Year
Return	9.29%	8.85%	9.76%
Benchmark	10.39%	9.86%	10.48%
Performance	(1.10%)	(1.01%)	(0.72%)

Real Estate	1-Year	3-Year	5-Year
Return	4.32%	0.49%	4.28%
Benchmark	4.94%	0.61%	4.49%
Performance	(0.62%)	(0.12%)	(0.21%)

Total Fund	1-Year	3-Year	5-Year
Return	11.10%	8.63%	6.58%
Benchmark	12.39%	9.66%	6.82%
Performance	(1.29%)	(1.03%)	(0.24%)

## Fiscal Year Annual Returns

Public Equity	2021	2022	2023	2024	2025	'26 FYTD
Return	46.92%	(14.32%)	14.16%	16.06%	16.09%	8.28%
Benchmark	40.94%	(16.52%)	16.14%	18.40%	15.89%	8.09%
Performance	5.98%	2.20%	(1.98%)	(2.34%)	0.20%	0.19%

Fixed Income	2021	2022	2023	2024	2025	'26 FYTD
Return	3.68%	(10.82%)	1.63%	4.93%	6.67%	2.95%
Benchmark	2.89%	(10.97%)	1.12%	4.24%	6.49%	2.75%
Performance	0.79%	0.15%	0.51%	0.69%	0.18%	0.20%

Absolute Return	2021	2022	2023	2024	2025	'26 FYTD
Return	12.40%	7.98%	3.84%	9.74%	10.18%	9.27%
Benchmark	27.48%	(5.60%)	1.62%	8.52%	3.87%	10.14%
Performance	(15.08%)	13.58%	2.22%	1.22%	6.31%	(0.87%)

Private Equity	2021	2022	2023	2024	2025	'26 FYTD
Return	64.61%	17.60%	(2.08%)	2.51%	4.13%	8.79%
Benchmark	54.21%	22.00%	(4.49%)	5.00%	6.30%	10.73%
Performance	10.40%	(4.40%)	2.41%	(2.49%)	(2.17%)	(1.94%)

Private Income	2021	2022	2023	2024	2025	'26 FYTD
Return	18.06%	16.20%	4.20%	6.55%	11.50%	6.18%
Benchmark	18.46%	14.99%	6.85%	9.23%	8.32%	7.64%
Performance	(0.40%)	1.21%	(2.65%)	(2.68%)	3.18%	(1.46%)

Real Estate	2021	2022	2023	2024	2025	'26 FYTD
Return	1.41%	23.41%	(2.47%)	(3.28%)	1.57%	2.65%
Benchmark	7.41%	22.76%	(4.07%)	(4.50%)	4.00%	3.63%
Performance	(6.00%)	0.65%	1.60%	1.22%	(2.43%)	(0.98%)

Total Fund	2021	2022	2023	2024	2025	'26 FYTD
Return	29.73%	(1.32%)	5.18%	7.90%	9.35%	6.44%
Benchmark	27.75%	(3.24%)	5.74%	9.49%	9.29%	7.08%
Performance	1.98%	1.92%	(0.56%)	(1.59%)	0.06%	(0.64%)

SUBJECT: Risk &amp; Compliance Overview

ACTION: \_\_\_\_\_

DATE: May 26, 2026

INFORMATION:   X  

---

**BACKGROUND:**

The Risk & Compliance Report provides an overview of historical and forward-looking measures of risk for the Total Fund and its underlying asset classes. The report also includes a summary of the compliance monitoring activity.

**STATUS:**

The current report contains the following parts:

- **Part-1 [Information]:** covers the main measures of risk for the Fund. Aggregate fund risk compared to approved risk appetite is a key strategic metric. Others include Value at Risk (VaR) on a standalone and relative-to-benchmark basis, tracking error, statistics that measure realized volatility and Sharpe ratios, asset class and factor contributions to risk and risk scenarios. It also covers Geographic, Currency, and Liquidity risks for the Total Fund.
- **Part-2 [Information]:** includes a summary of the compliance monitoring activity for the quarter ended March 31<sup>st</sup>, 2026.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# Risk & Compliance Overview



# Part 1:

Key Risk Metrics  
as of March 31, 2026

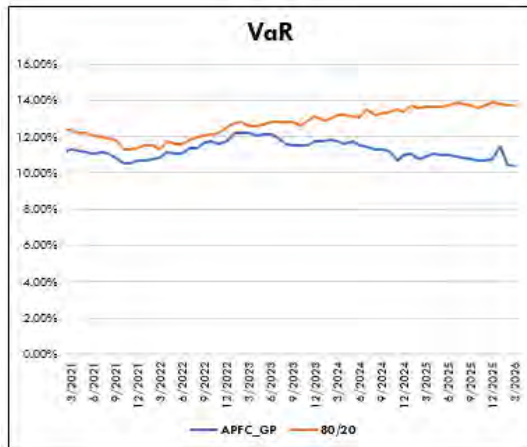
# Fund Risk: relative to approved risk appetite

Risk appetite reflects the 80/20 equity/bond Risk Tolerance Portfolio (RTP)

## Value at Risk (VaR): Max

1 year, 1SD, 10-year monthly historical data  
equally weighted

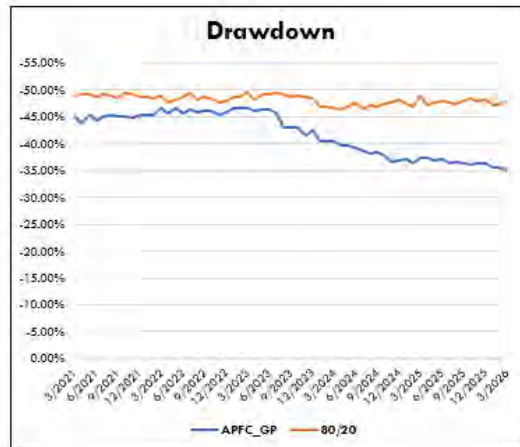
As of Date	Total Fund	Risk Appetite	
3/31/2026	10.4%	13.7%	✓



## Drawdown Stress PnL: Max

Stress scenario simulating the GFC – Dec  
2007 to Mar 2009

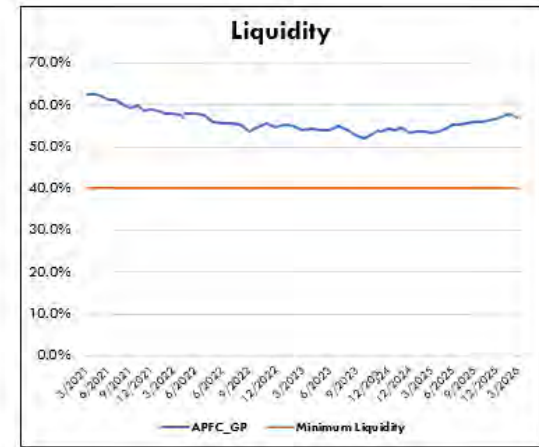
As of Date	Total Fund	Risk Appetite	
3/31/2026	(35.2%)	(47.7%)	✓



## Liquidity Level: Min

Public Equities, Fixed Income and Cash, as a  
% of total fund

As of Date	Total Fund	Risk Appetite	
3/31/2026	56.9%	40%	✓



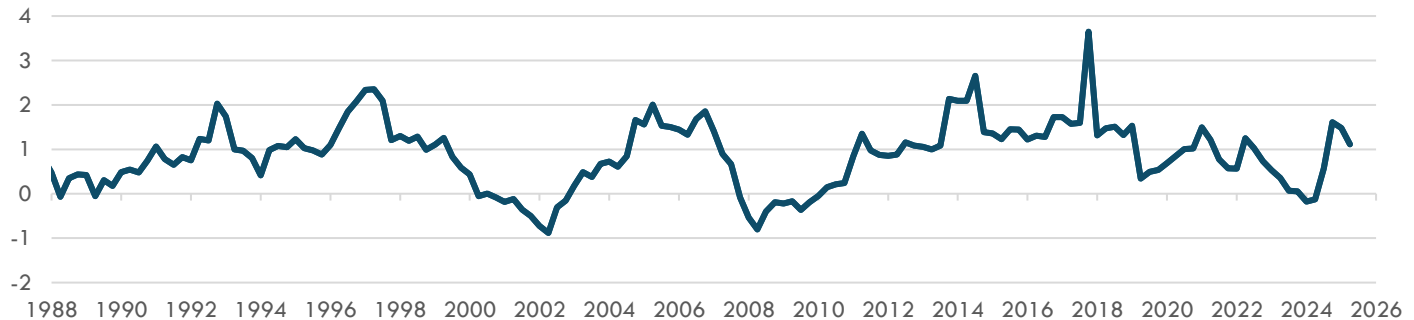
# Total Fund: realized volatility & Sharpe ratio

Realized Volatility and Sharpe ratio computations graphed below are based on observed actual historical returns. They reflect the variability of such historical returns and not the forward-looking estimates of risk (volatility).

Realized Fund  
Volatility



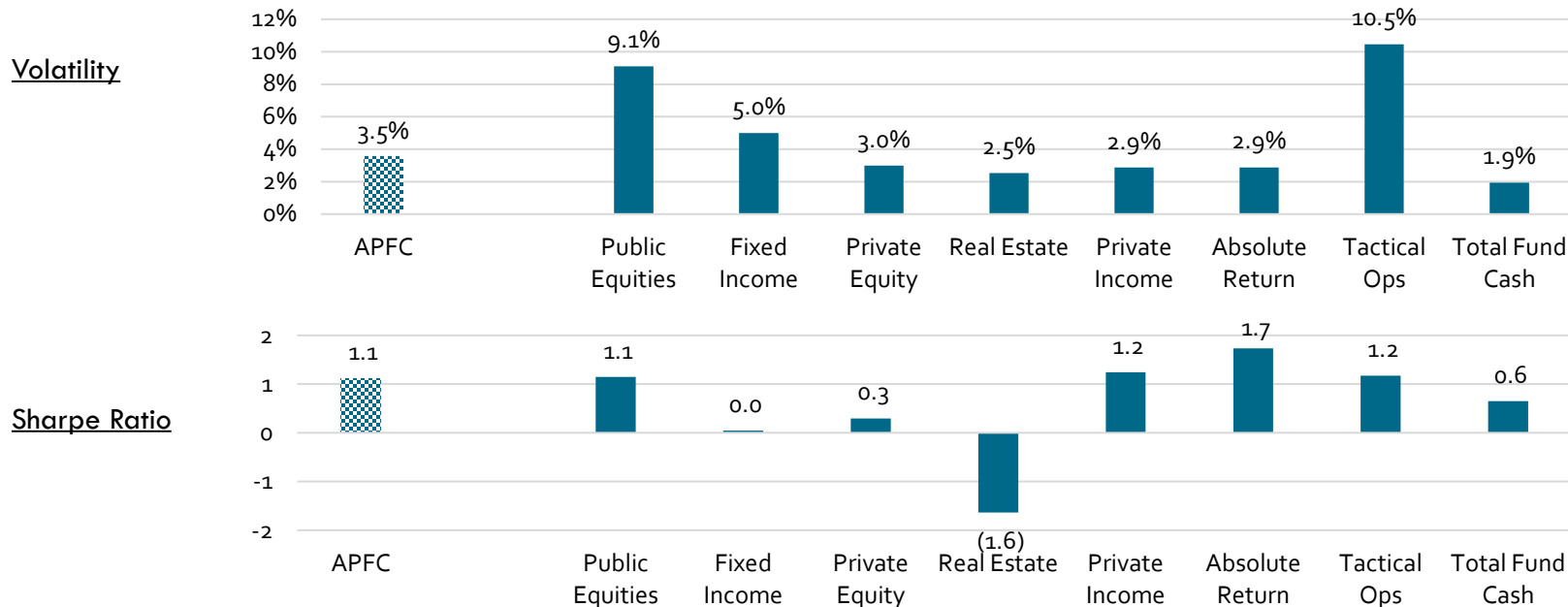
Realized Fund  
Sharpe Ratio



Volatility (standard deviation) and Sharpe ratio have been computed based on rolling 3 year quarterly returns for the Total Fund

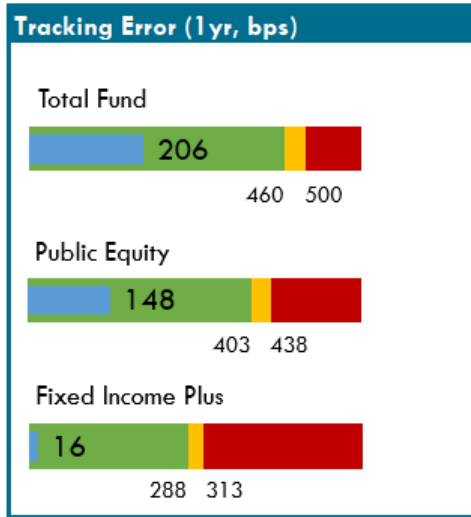
# Fund & Constituents: realized volatility & Sharpe ratio

Realized Volatility and Sharpe ratio computations graphed below are based on observed actual historical returns. They reflect the variability of such historical returns and not the forward-looking estimates of risk (volatility).

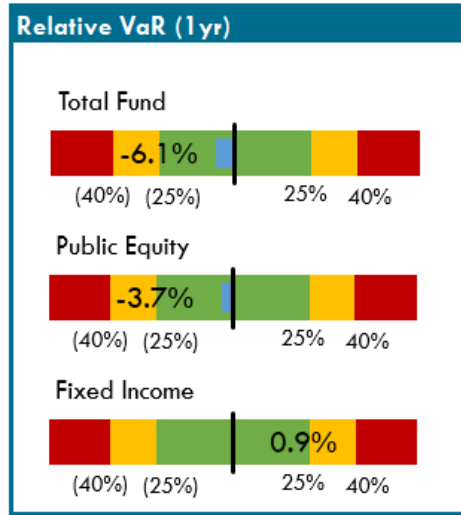


Volatility (standard deviation) and Sharpe Ratio have been computed based on historical 3 year quarterly returns

# Tracking Error and VaR vs. Limits



- Tracking error is an indicator of performance relative to benchmark
- It represents the deviation of portfolio returns from benchmark returns
- It is directionally agnostic and does not indicate over or underperformance



- VaR is an estimate of value decline, based on a 97.5% confidence level and 1 year holding period
- The above chart reflects the Relative VaR of the portfolio versus respective benchmark

# Liquidity Limits: Private Assets

## Private Assets: Investments Vs Targets

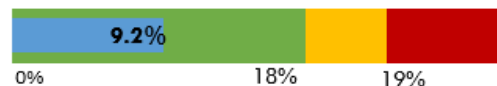
	\$ Billion	% of Total Fund		
		Actual	Target	Actual (Vs) Target
Private Equity	15.1	17.0%	18.0%	-1.0%
Private Income	7.5	8.4%	10.0%	-1.6%
Real Estate	8.4	9.4%	11.0%	-1.6%
Tactical Ops	1.0	1.1%	1.0%	0.1%
<b>Total</b>	<b>31.9</b>	<b>35.9%</b>	<b>40.0%</b>	

## Private Assets: Future Commitments Vs Targets

	\$ Billion	% of Total Fund		
		Actual	Target	Actual (Vs) Target
Private Equity	4.7	5.3%	7.0%	-1.7%
Private Income	2.7	3.0%	5.0%	-2.0%
Real Estate	0.8	0.9%	3.0%	-2.1%
Tactical Ops	0.0	0.0%	0.5%	-0.5%
<b>Total</b>	<b>8.2</b>	<b>9.2%</b>	<b>15.5%</b>	

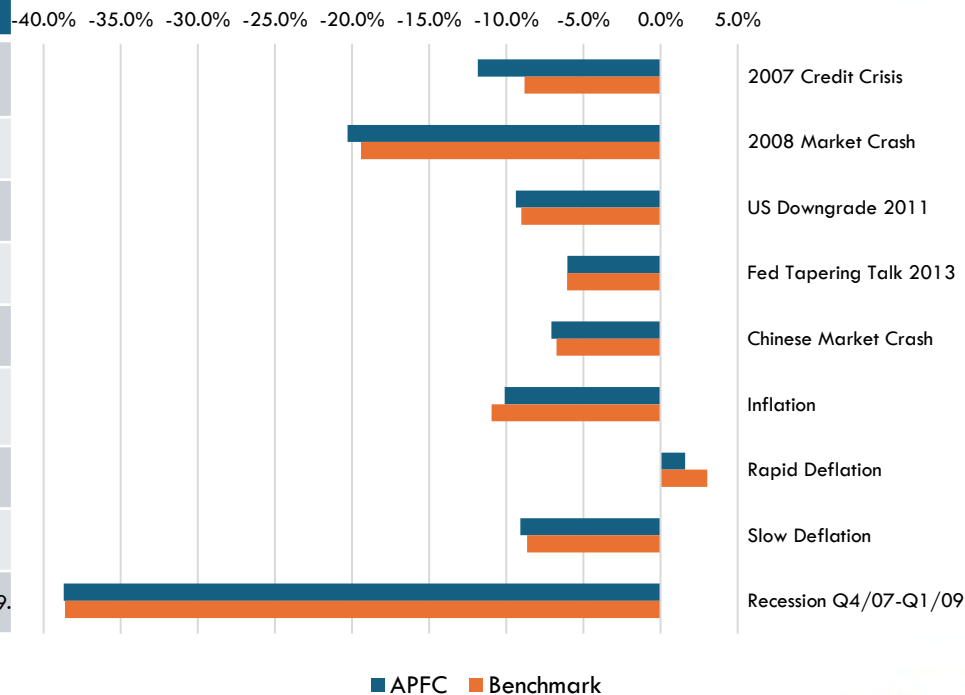
## Future Commitments Limits

\$8.2 Billion Unfunded Commitments to Managers



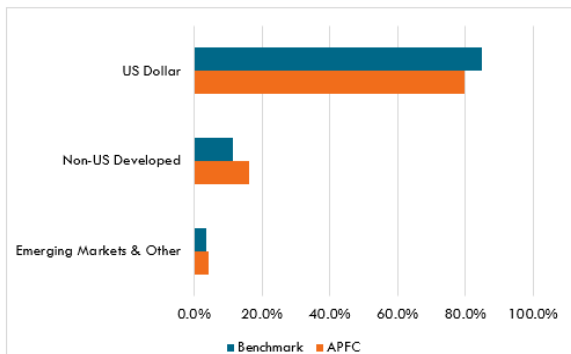
# Tail Risk: Current portfolio during extreme events

Scenario	Definition
2007 Credit Crisis	Credit & liquidity crisis stemming from a severe slowdown in the housing market causing significant widening of credit spreads, higher 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
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, 2015.
Inflation Overshoot	Economic recovery, pent-up demand, supply chain bottlenecks, and fiscal stimulus cause a surge in inflation, prompting higher interest rates in a taper tantrum-style sell-off.
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.
Recession Q4/07-Q1/09	Recent recessionary period starting Dec 3, 2007, and ending March 9, 2009.



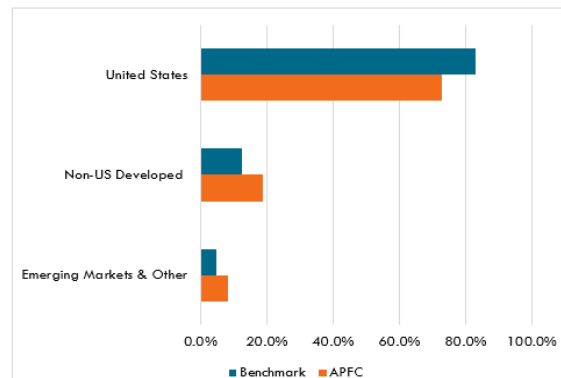
# Geography & Currency breakdowns

Currency breakdown



Currency Name	Exposure (\$ 000's)
Euro	\$5,944,154
British Pound	\$2,347,716
Japanese Yen	\$1,886,276
Canadian Dollar	\$1,048,027
Hong Kong Dollar	\$818,546
Australian Dollar	\$483,805
<b>Sub-Total</b>	<b>12,528,525 (14.1% of NAV)</b>
<b>Total Non-US DM Exposure</b>	<b>14,193,646 (16.0% of NAV)</b>

Country breakdown



Country Name	Exposure (\$ 000's)
China	1,532,970
Korea (South), Republic of	892,219
Taiwan	769,815
India	540,895
Brazil	352,398
Mexico	191,882
<b>Sub-Total</b>	<b>4,290,178 (4.8% of NAV)</b>
<b>Total EM Exposure</b>	<b>5,237,771 (5.9% of NAV)</b>

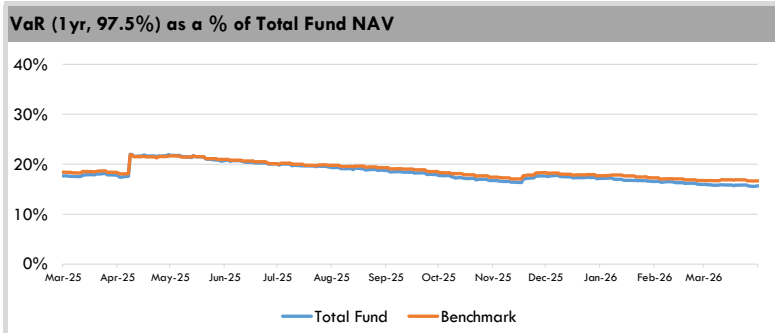
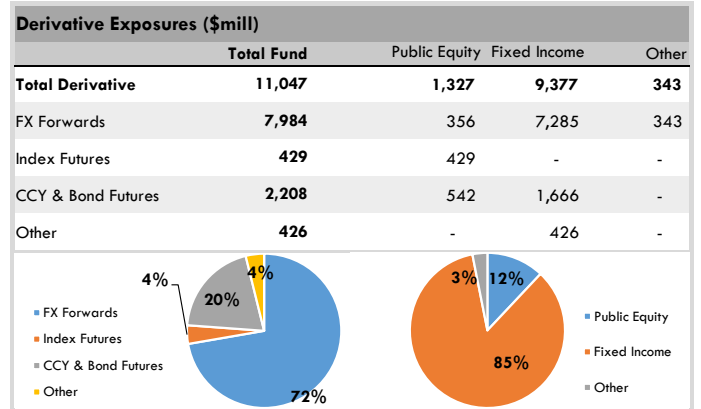
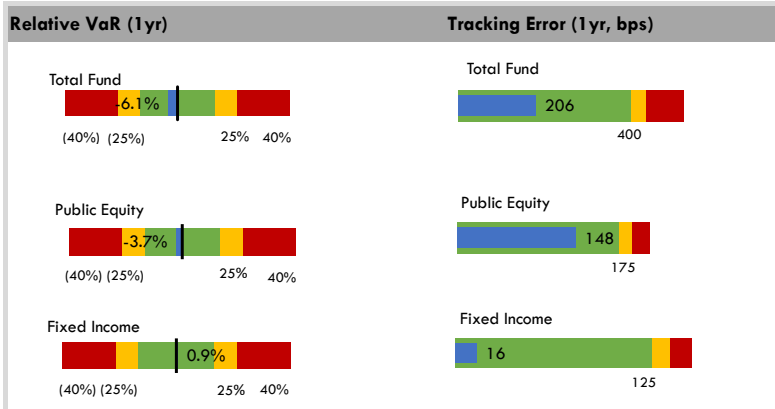
# Daily Dashboard - March 31, 2026

NAV : \$ 88,608,935,901



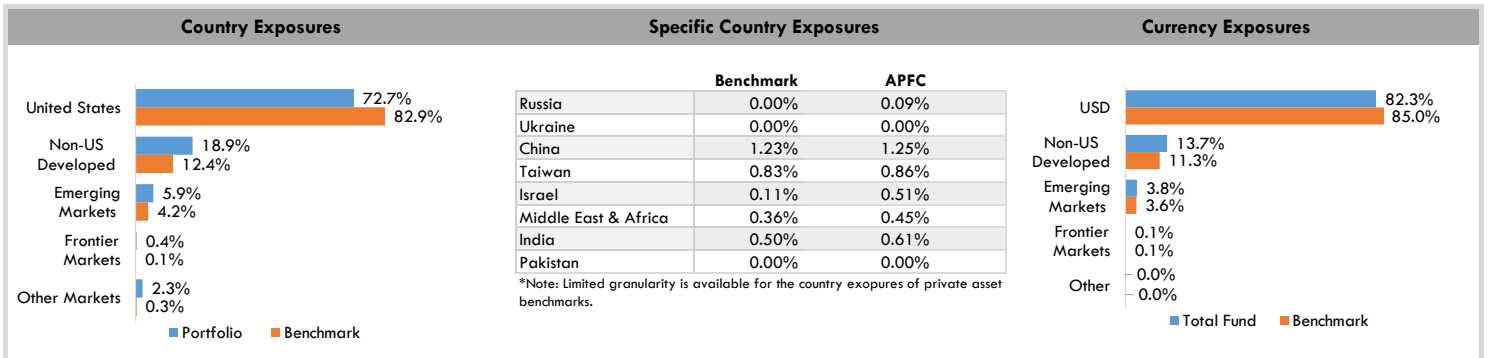
Permanent Fund:	98%	\$ 86,774,730,928
AMHT + PCE:	2%	\$ 1,834,204,973

Risk Asset Class	Performance (%)							Asset Allocation				
	1 SD	Rel VaR	TE	MTD	FYTD	CYTD	1 Year	NAV (\$mill)	NAV	Target	Compliance	Under/Over
<b>Total Fund</b>	<b>8.0%</b>	<b>-6.1%</b>	<b>2.1%</b>	<b>-2.9</b>	<b>6.2</b>	<b>-0.2</b>	<b>11.1</b>	<b>88,609</b>				
Public Equity	12.3%	-3.7%	1.5%	-7.2	8.6	-1.6	19.2	28,327	32.0%	32%	Green	0.0%
Fixed Income	3.3%	0.9%	0.2%	-1.7	2.9	-0.1	4.7	19,226	21.7%	20%	Green	1.7%
Private Equity	17.6%	-2.3%	11.8%	-0.1	7.0	1.0	8.7	14,925	16.8%	18%	Green	-1.2%
Real Estate	6.7%	-13.9%	4.1%	-0.3	1.8	-0.3	3.7	8,402	9.5%	11%	Green	-1.5%
Inf. & Private Income	9.1%	76.4%	6.6%	-0.5	5.3	0.3	11.1	7,394	8.3%	10%	Green	-1.7%
Absolute Return	2.8%	-20.7%	3.1%	-0.3	11.1	3.1	13.0	6,506	7.3%	7%	Green	0.3%
Tactical Opps	12.4%	-9.4%	1.4%	-4.9	6.5	-3.9	16.1	955	1.1%	1%	Green	0.1%
Total Fund Cash	0.1%	-19.8%	0.1%	0.3	3.0	0.9	4.1	2,873	3.2%	1%	Yellow	2.2%



**Economic Indicators**

	3/31/26	3/30/26	% Change
VIX	25.25	30.61	-17.5%
U.S. Dollar/Euro	1.16	1.15	0.8%
Credit Index OAS	0.83	0.85	-2.4%
Crude Oil (WTI) (\$)	101.38	102.88	-1.5%
10-Year Treasury Yield	4.32	4.35	-0.7%
30-Year Treasury Yield	4.91	4.91	0.0%
S&P 500	6,528.52	6,343.72	2.9%
MSCI ACWI	3,496.29	3,432.09	1.9%





## Part 2:

Compliance Monitoring  
as of March 31, 2026

# Regulatory/Legal Compliance

Task	Description	Total completed for the quarter ending 3/31/26
SEC 13 F Filing	The Securities & Exchange Commission's (SEC) Form 13F is a quarterly filing required of all institutional investors with >\$100 million in assets. It discloses their public equity holdings and external managers.	1
SEC 13 H Filing	Form 13H is required for large traders whose exchange-listed equity securities equal or exceed 2 mill shares or \$20 mill during any calendar day, or 20 mill shares or \$200 million during any calendar month.	1
U.S. KYC	Know Your Customer (KYC) is a process by which financial institutions verify their customers' identity and assess the risks associated with them. APFC must provide notarized passports and utility bills, bylaws, certify authorized signatories and more.	11
Tax Documentation Request	Form W-9 Request for Taxpayer Identification Number	2

# Regulatory/Legal Compliance

Task	Description	Total completed for the quarter ending 3/31/26
Sanctions Questionnaire	As a matter of due diligence, counterparties assess whether clients have business dealings in or with sanction targets.	1
Institutional Suitability Certificate FINRA 2111	Financial Industry Regulatory Authority (FINRA) requires investors to certify that they are capable of independently evaluating investment risk and will exercise independent judgement.	1
Redemption Verification	APFC may submit redemption requests to external managers, who may require various verifications to complete the redemption.	2
IPO Eligibility Confirm	FINRA Rule 5130 & 5131 establish eligibility to purchase new issues and rules for allocation of IPOs.	2
Beneficial Ownership Certification	APFC must verify that the Fund is wholly owned by the state, with no individual beneficial owners.	3

# Regulatory/Legal Compliance

Task	Description	Total completed for the quarter ending 3/31/26
AML Questionnaire	Anti-money laundering (AML) efforts consist of the laws, regulations and procedures that are designed to prevent criminals from exchanging money obtained through illegal activities.	1
NFA Affirmation	CFTC rules require an annual affirmation for the National Futures Association.	1
Secondary Sale Verifications	APFC may make participate in secondary sales, which may require various verifications to complete the transaction.	1
Luxembourg Regulatory Application	Foreign nations may require disclosures related to APFC's investments within their country.	1

# Investment Policy (IPS) Compliance

IPS Section VII.G.Table-3 provides asset allocation target levels to ensure proper diversification of the Fund. In the table below, green indicates compliance to these limits. The values reflect the permissible largest concentrations for each matrix parameter, for informational purposes

	Public Equity	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Tactical Opportunities	Cash	Total Fund
<b>Future Outstanding Commitments<sup>1</sup></b>	0.0%	0.0%	7.0%	3.0%	5.0%	2.0%	0.0%	0.0%	17.0%
<b>Benchmark</b>	M684204USN	BBGEMBUS22	CAME_PE	RE_2021	CAM_PI	HFRIFRKY23	SNP500	LEH3MO_TB	LHJPMUSY2
<b>Tracking Error</b>	See III.A.5 See III.B.5								4.0%
<b>Relative VaR<sup>2</sup></b>	100.0%	100.0%							100.0%
<b>% of Asset Allocation</b>									
Single Name / Issuer <sup>3</sup>	4%	4%	2%	10%	2%	n/a	n/a	n/a	
Single Sub- Industry <sup>4</sup>	20%	20%	30%	n/a	30%	n/a	n/a	n/a	
Single Country - EX US	10%	10%	20%	20%	20%	n/a	n/a	n/a	
Total EX US	50%	30%	50%	50%	50%	n/a	n/a	n/a	
Single Fund Investment <sup>5</sup>	5%	10%	10%	10%	10%	15%	n/a	n/a	
Proportion of Ownership <sup>6</sup>	5%	n/a	n/a	5%	5%	n/a	n/a	n/a	
Rating - Below Inv Grade	n/a	25%	n/a	n/a	n/a	n/a	n/a	n/a	0%
Rating - Below A- & Unrated	n/a	50%	n/a	n/a	n/a	n/a	n/a	n/a	0%
Rating - Unrated	n/a	5%	n/a	n/a	n/a	n/a	n/a	n/a	0%
FX - Proportion Unhedged	50%	30%	50%	50%	50%	n/a	n/a	n/a	
Liquidity - Proportion w/o Weekly Liq	10%	10%	100%	100%	100%	100%	n/a	n/a	5%
Liquidity - Proportion w/o Monthly Liq	2%	2%	100%	100%	100%	100%	n/a	n/a	0%
Liquidity - Proportion w/o Quarterly Liq	0%	0%	100%	100%	100%	40%	n/a	n/a	0%
Cash & Equivalents	2%	10%	5%	5%	5%	n/a	n/a	n/a	100%
<b>MINIMUM Cash &amp; Equivalents</b>	0%	0%	0%	0%	0%	n/a	n/a	n/a	30%

All Targets are Maximum Permitted except-Minimum Cash

## Notes:

- 1 % of Total Fund
- 2 Ratio of Portfolio VaR to Benchmark VaR
- 3 Single Name / Issuer: represents security level exposure to single entity or operating company.  
US Treasury & Govt Agencies are exempt. For Private Assets, the limit applies at the time of investment or cost basis.
- 4 Definition: GICS Sub-Industry
- 5 Single Fund Investment: represents exposure to an external fund or external strategy based vehicle.  
Excludes passive/index-based strategies.
- 6 Proportion of Ownership: For Real Estate and Private Income, the limit is only applicable to the REIT and listed infrastructure portfolios

# Investment Policy Compliance

Asset Class	Parameter	Limit	Actual	Compliance Status
PUEQ	The internally managed public equity transitional account shall not exceed 3% of overall pueq NAV and shall only hold ETFs or cash.	3%	0.01%	✓
PE	No more than 20% of the PE asset class shall be invested in public holdings.	<20%	6%	✓
PE	Following the public listing of any shares held by an APFC controlled vehicle, such shares shall be liquidated within 18 months.	18 months	1 month	✓
PE	No more than 30% of the PE portfolio may be invested with a single manager.	30%	5%	✓
PE	The PE portfolio shall be invested within the following strategy diversification ranges: venture 10-45%, growth equity 0-25%, buyouts 25-75%, specialized funds 0-50%.	Strategy Mix	27% VC, 10% Growth, 56% buyout, 7% specialized	✓
IPCIO	No more than 30% of the IPCIO portfolio may be invested with a single manager.	30%	14%	✓
AR	APFC shall not constitute more than 30% of a manager's AUM	30%	13%	✓
AR	The AR portfolio shall follow these strategy restrictions: relative value managers 0-75%, event driven managers 0-50%, tactical managers 0-75%.	Strategy Mix of 532	55% relative value, 14% event driven, 31% directional	✓

# Investment Policy Compliance

Asset Class	Parameter	Limit	Actual	Compliance Status
RE	No more than 35% of the RE portfolio may be invested with a single manager.	35%	17%	✓
RE	No more than 60% of the directly-held RE portfolio shall be invested in non-core holdings.	60%	20%	✓
RE	The RE portfolio property type mix is measured against a composite benchmark of 15% REIT plus 85% NCREIF. The portfolio property type weights shall not exceed 1.5x the benchmark or 5%, whichever is higher.	1.5xBM or 5%	<limit	✓
RE	RE Portfolio-wide leverage shall not exceed 50% and individual property level leverage are limited to 65%.	50%	21%	✓
TFCASH	Authorized investments within the TFCASH asset class include cash and the following cash equivalents: US treasuries with a max maturity of 24 months, IG corp bonds, reverse repos, money market funds, gold-backed ETFs, AAA rated asset backed securities, or other cash equivalents approved by the CRO and ED	asset type	cash & cash equivalents only	✓
TFCASH	At any point, min 80% of the TFCASH portfolio should be invested in instruments with a final maturity less than 181 days	80%	88%	✓

-end-

The logo for APFC (Alaska Permanent Fund Corporation) is displayed in white serif font on a dark teal rectangular background. The background of the entire slide is a semi-transparent blue overlay of a financial trading interface, showing various data tables, charts, and technical indicators.

ALASKA PERMANENT  
FUND CORPORATION

SUBJECT: Private Markets Overview

ACTION:

DATE: May 26, 2026

INFORMATION: X

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**BACKGROUND:**

The presentation provides an overview of APFC's Private Markets portfolios, including Private Equity, Private Income and Real Estate.

**STATUS:**

Allen Waldrop, Deputy CIO-Private Markets, will present an update on the performance, liquidity, recent investment activity and pacing of the various Private Markets portfolios.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# Private Markets Update

# Contents

- I. **Private Equity**
- II. Private Income
- III. Real Estate
- IV. Appendix – Strategy Summaries

# Highlights

- Allocation of 16.8% (consistent with prior quarter) remains under target of 18% as total asset continue to increase (NAV remains at ~\$15bn)
- Deployment target remains consistent at \$1.5bn annually
- FYTD, 1-year and 3-year performance increased on an absolute basis but lags benchmarks
- Closed on 10 opportunities during Q1 2026, bringing the total to 28 in FY26 (\$1.1bn of commitments)
- Portfolio generating significant positive net cash flows – \$1.1bn YTD through Q3 FY26
- Team is fully staffed and no changes

# Performance

Portfolio Performance (%)	FYTD	1-year	3-year	5-year
Private Equity	8.79	10.08	5.60	8.31
Benchmark	10.73	13.05	8.36	10.13
Over / (Under) performance	(1.94)	(2.97)	(2.76)	(1.82)

Sub-Portfolio Performance (%)	FYTD	1-year	3-year	5-year
Private Equity Total	8.79	10.08	5.60	8.31
Private Equity	9.17	11.13	7.50	11.61
Special Opportunities	7.52	6.84	0.73	1.58
In State Emerging Managers	11.21	13.76	1.75	6.05

SOURCE: Callan Monthly Performance report for March 31, 2026

NOTES: Returns and benchmarks are time-weighted and lagged by one quarter

- FYTD, 1-year and 3-year performance continues to improve on an absolute basis but lags the benchmark
- All sub-portfolios recovered on an absolute basis in the FYTD and 1-year periods
- Special Opportunities and In State portfolios continue to significantly underperform in the 3- and 5-year periods

# Portfolio Composition

Strategy	Commit. Amount <sup>a</sup>	Total Contrib.	Total Distrib.	Market Value	% of MV	Total Value	Gain/Loss	TVPI	DPI	IRR
Buyouts	\$14,123.0	\$12,036.1	\$12,078.8	\$8,433.3	55%	\$20,512.1	\$8,475.9	1.70x	1.00x	13.7%
Venture Capital	4,832.6	4,416.0	6,093.9	4,176.1	27%	10,270.0	5,854.0	2.33x	1.38x	21.7%
Growth Equity	2,129.3	1,771.2	1,857.9	1,613.7	11%	3,471.6	1,700.4	1.96x	1.05x	20.5%
Energy	1,956.0	1,843.0	1,704.8	805.2	5%	2,510.0	667.0	1.36x	0.93x	6.0%
Debt	1,299.1	1,329.6	1,414.3	374.2	2%	1,788.5	458.9	1.35x	1.06x	9.8%
<b>Total</b>	<b>\$24,340.0</b>	<b>\$21,396.0</b>	<b>\$23,149.7</b>	<b>\$15,402.5</b>	<b>100%</b>	<b>\$38,552.2</b>	<b>\$17,156.2</b>			

NOTES: Represents since-inception returns (2004 through December 31, 2025). 14.7% of the portfolio's market value reflects roll-forward values, and therefore, market value is subject to change. Amounts may not foot due to rounding.  
<sup>a</sup>Commitments to non-USD-denominated investments are calculated using exchange rates at the time of commitment.

Annual Commitments  
(\$ millions)



# Benchmark Comparison

Asset Class	APFC Total Commitments	Cambridge Total Capitalization	OW/UW
Buyout	57.9%	53.7%	4.2%
Venture Capital	19.9%	14.3%	5.6%
Growth Equity	8.8%	12.3%	-3.5%
Energy	8.0%	0.0%	8.0%
Debt	5.3%	19.6%	-14.3%

APFC Market Value	Cambridge Market Value	OW/UW
54.8%	49.8%	5.0%
27.1%	20.1%	7.0%
10.5%	15.6%	-5.1%
5.2%	0.0%	5.2%
2.4%	14.6%	-12.2%

NOTES: Investment strategies reflect APFC's custom classifications. 14.7% of the portfolio's market value reflects roll-forward values and is subject to change. APFC and Cambridge values are based on net fund-level data. Cambridge Global Private Equity (based on Callan's classification) benchmarks, as of December 31, 2025.

Region	APFC Total Cost	Cambridge Total Capitalization	OW/UW
U.S.	72.4%	67.6%	4.9%
Europe	16.1%	18.6%	-2.5%
Asia	4.4%	8.3%	-4.0%
Other/Unknown	7.2%	5.5%	1.6%

APFC Market Value	Cambridge Market Value	OW/UW
72.2%	70.9%	1.4%
16.7%	16.5%	0.2%
4.4%	9.1%	-4.7%
6.7%	3.6%	3.1%

NOTES: APFC values are based on gross company-level data while Cambridge values are based on net fund-level data. Cambridge Global Private Equity (based on Callan's classification) benchmarks, as of December 31, 2025.

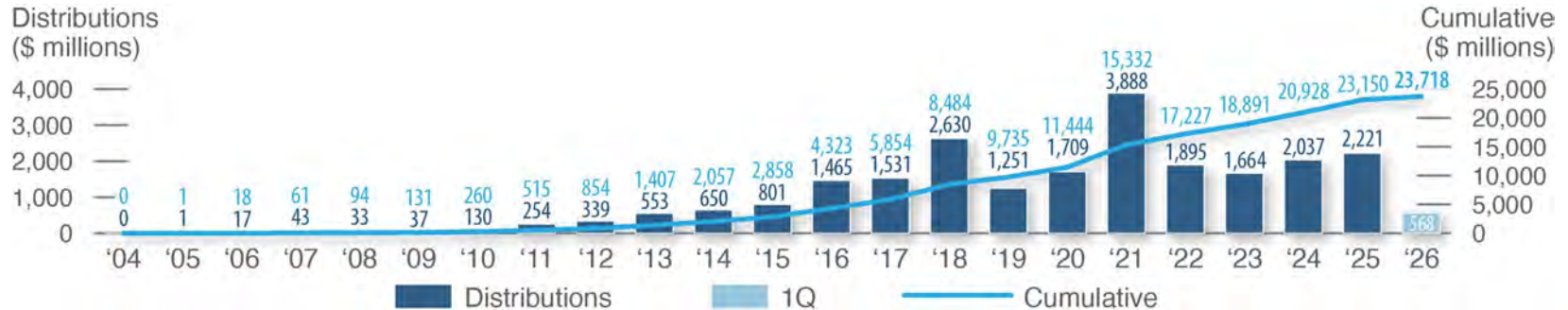
- Strategy classifications differences driven by Energy (included in our strategy but excluded from the benchmark and Debt (excluded from our strategy but included in the benchmark)
- Regional differences driven by an under allocation to Asia and a higher allocation to Latin America (in "Other")

# Cash Flows

## CONTRIBUTIONS

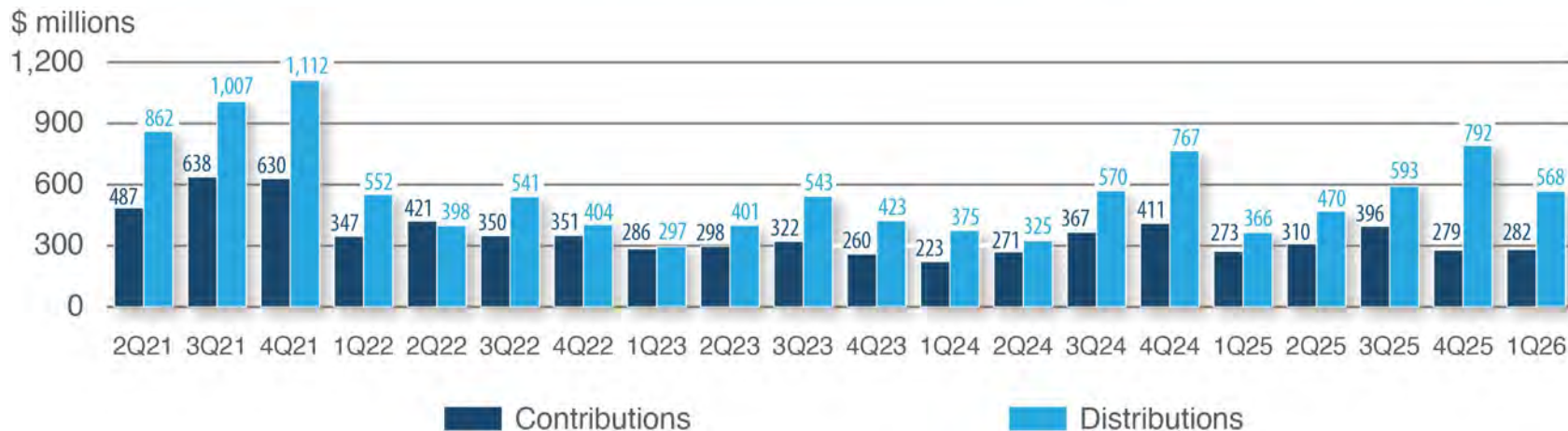


## DISTRIBUTIONS



NOTES: As of March 31, 2026. Amounts may not foot due to rounding.

# Cash Flows - Quarterly



NOTE: As of March 31, 2026.

- Liquidity position continues to be strong as the portfolio is generating significant net positive cash flows (more distributions than contributions)
  - \$1.1bn net positive cash flow YTD in FY 2026
- YTD FY26 distributions total \$2.2bn, exceeding the \$2.1bn total in FY25

# Investment Activity and Pacing

## FY 2026 COMMITMENTS

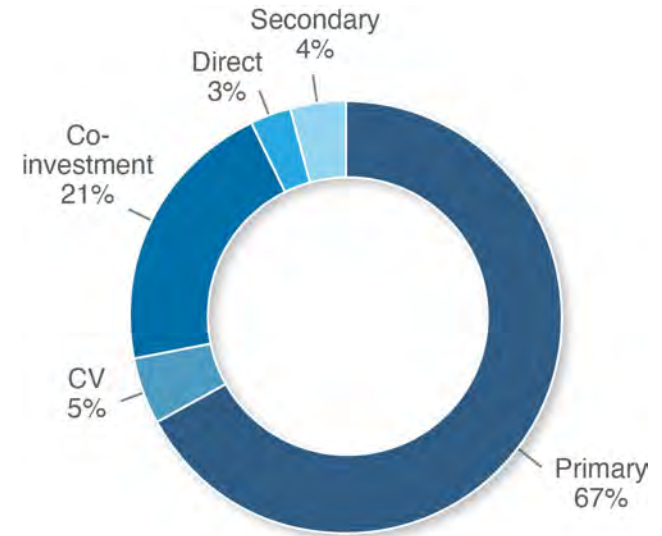
(\$ in millions)

Category	Closed	Target	Percentage
APFC	\$818	\$1,200	68%
APFC-PCM	277	300	92%
<b>Total</b>	<b>\$1,095</b>	<b>\$1,500</b>	<b>73%</b>

NOTES: Represents activity from July 1, 2025, through March 31, 2026. Amounts may not foot due to rounding.

- Activity comprises 15 primary funds, 9 co-investments, 2 secondary investments, 1 CV, and 1 direct investment
- Expect another \$300m to close in Q4 FY26 bringing the total to \$1.4bn - \$1.5bn (commitment pacing target is \$1.5bn)

## FY 2026 COMMITMENT ACTIVITY BY INVESTMENT TYPE



# Contents

- I. Private Equity
- II. Private Income**
- III. Real Estate
- IV. Appendix – Strategy Summaries

# Highlights

- Allocation fell to 8.3% from 8.4% last quarter, under target of 10%
- Deployment target remains consistent at \$1.3bn annually, but expect to come in around \$1bn due to a slower market
- Overall performance is slightly underperforming benchmarks across all time periods, driven by a decline in Infrastructure returns and underperformance of the Income Opportunities portfolio
- Portfolio was cash flow positive in 2024 and 2025, and is generating significant positive cash flows YTD 2026
- Analyst / Associate candidate selected by APFC team, waiting for approval from Governor's office for ability to hire

# Performance

<b>Portfolio Performance (%)</b>	<b>FYTD</b>	<b>1-year</b>	<b>3-year</b>	<b>5-year</b>
Private Income	6.18	9.29	8.85	9.76
Benchmark	7.64	10.39	9.86	10.48
Over / (Under) performance	(1.46)	(1.10)	(1.01)	(0.72)
<b>Sub-Portfolio Performance (%)</b>	<b>FYTD</b>	<b>1-year</b>	<b>3-year</b>	<b>5-year</b>
<b>Infrastructure</b>	6.83	10.28	10.23	12.59
Benchmark	8.07	11.13	9.17	10.13
Over / (Under) performance	(1.24)	(0.85)	1.06	2.46
<b>Private Credit</b>	7.44	9.74	7.66	8.69
Benchmark	6.99	9.28	10.90	11.00
Over / (Under) performance	0.45	0.46	(3.24)	(2.31)
<b>Income Opportunities</b>	(0.21)	3.06	4.69	3.67
Benchmark	7.64	10.39	9.86	10.48
Over / (Under) performance	(7.85)	(7.33)	(5.17)	(6.81)

SOURCE: Callan Monthly Performance report for March 31, 2026  
 NOTES: Returns and benchmarks are time-weighted and lagged by one quarter

- Performance declined on an absolute and relative basis on the 1-, 3- and 5-year periods driven by a decline in Infrastructure (1-year declined from 14.1% to 10.3%)
- Income Opportunities which include a broad range of strategies (mineral royalties, agricultural, timber, aircraft leasing and other yield focused) has underperformed but is smallest component (~10%) of Private Income

# Portfolio Composition

Strategy	Commit. Amount <sup>a</sup>	Total Contrib.	Total Distrib.	Market Value	% of MV	Total Value	Gain/Loss	TVPI	DPI	IRR
Private Credit	\$6,276.7	\$5,639.6	\$5,226.5	\$2,050.7	26%	\$7,277.1	\$1,637.6	1.29x	0.93x	7.1%
Infrastructure	7,932.2	7,262.6	6,179.3	5,073.0	64%	11,252.3	3,989.7	1.55x	0.85x	10.8%
Income Opps	1,501.3	2,281.0	1,900.6	835.5	10%	2,736.1	455.1	1.20x	0.83x	5.4%
<b>Total</b>	<b>\$15,710.1</b>	<b>\$15,183.2</b>	<b>\$13,306.4</b>	<b>\$7,959.2</b>	<b>100%</b>	<b>\$21,265.6</b>	<b>\$6,082.4</b>			

NOTE: As of December 31, 2025, 9.1% of the portfolio's market value reflects roll-forward values; therefore, performance is subject to change. Amounts may not foot due to rounding.

<sup>a</sup>Commitments to non-USD-denominated investments are calculated using exchange rates at the time of commitment. Commitments to AK Credit Co-Investment Fund represent underlying asset-level commitments.

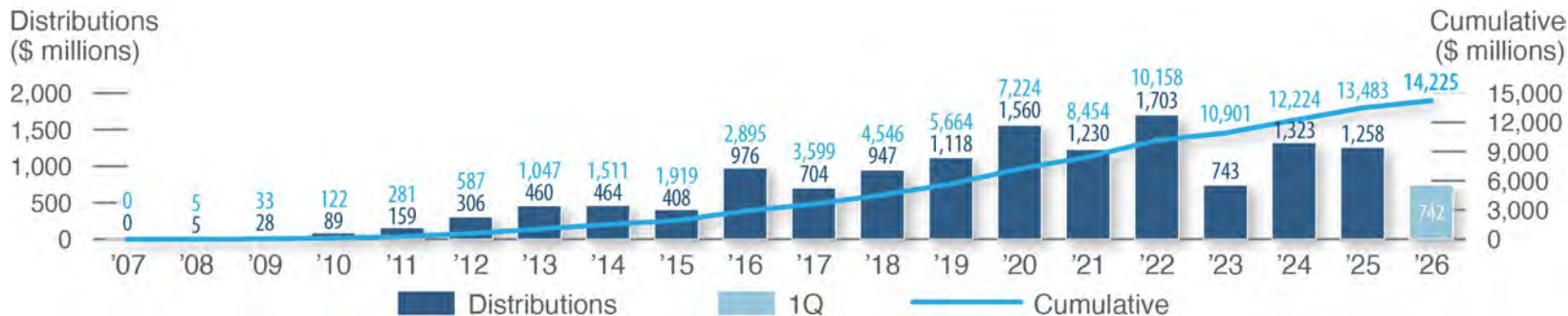


# Cash Flows

## CONTRIBUTIONS



## DISTRIBUTIONS



NOTES: As of March 31, 2026. Represents cash-flow activity at the investment level and excludes investments that have been terminated or transferred out of AK Credit Opportunities.

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# Investment Activity and Pacing

## FY 2026 COMMITMENTS

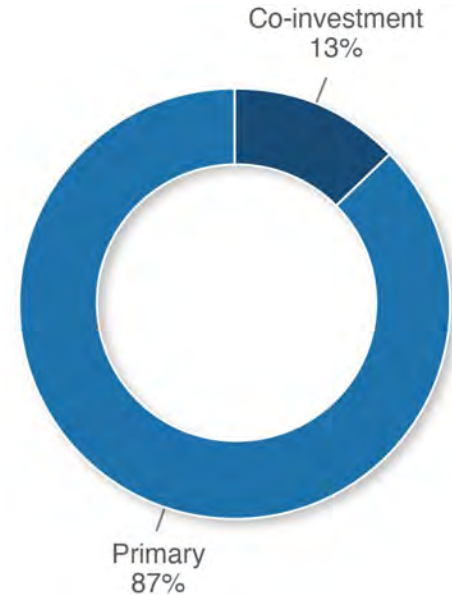
(\$ in millions)

Category	Closed	Target	Percentage
Private Credit	\$188	\$520	36%
Infrastructure	100	780	13%
<b>Total</b>	<b>\$288</b>	<b>\$1,300</b>	<b>22%</b>

NOTE: Represents activity from July 1, 2025, through March 31, 2026. Amounts may not foot due to rounding.

- Activity includes 3 primary investments and 4 co-investments
- Three additional opportunities closed in April 2026 bringing total commitments to \$500m
- Pipeline includes ~\$600m targeted for completion over the next two months

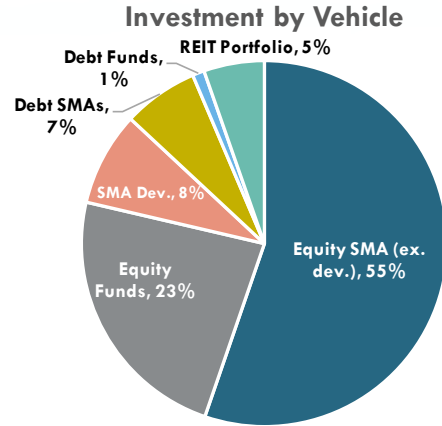
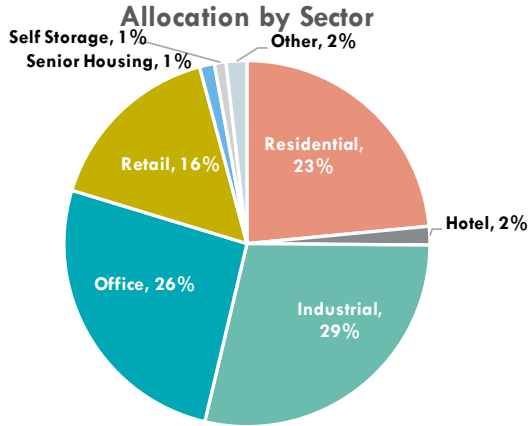
## FY 2026 COMMITMENT ACTIVITY BY INVESTMENT TYPE



# Contents

- I. Private Equity
- II. Private Income
- III. Real Estate**
- IV. Appendix – Strategy Summaries

# Portfolio Overview



## Key Portfolio Metrics

Portfolio	NAV (\$M)
Equity SMA (incl. dev.)	5,403
Equity Funds	1,985
Debt (Funds & SMAs)	655
REIT Portfolio	455
<b>Total</b>	<b>8,498</b>

\*figures as of 4Q25

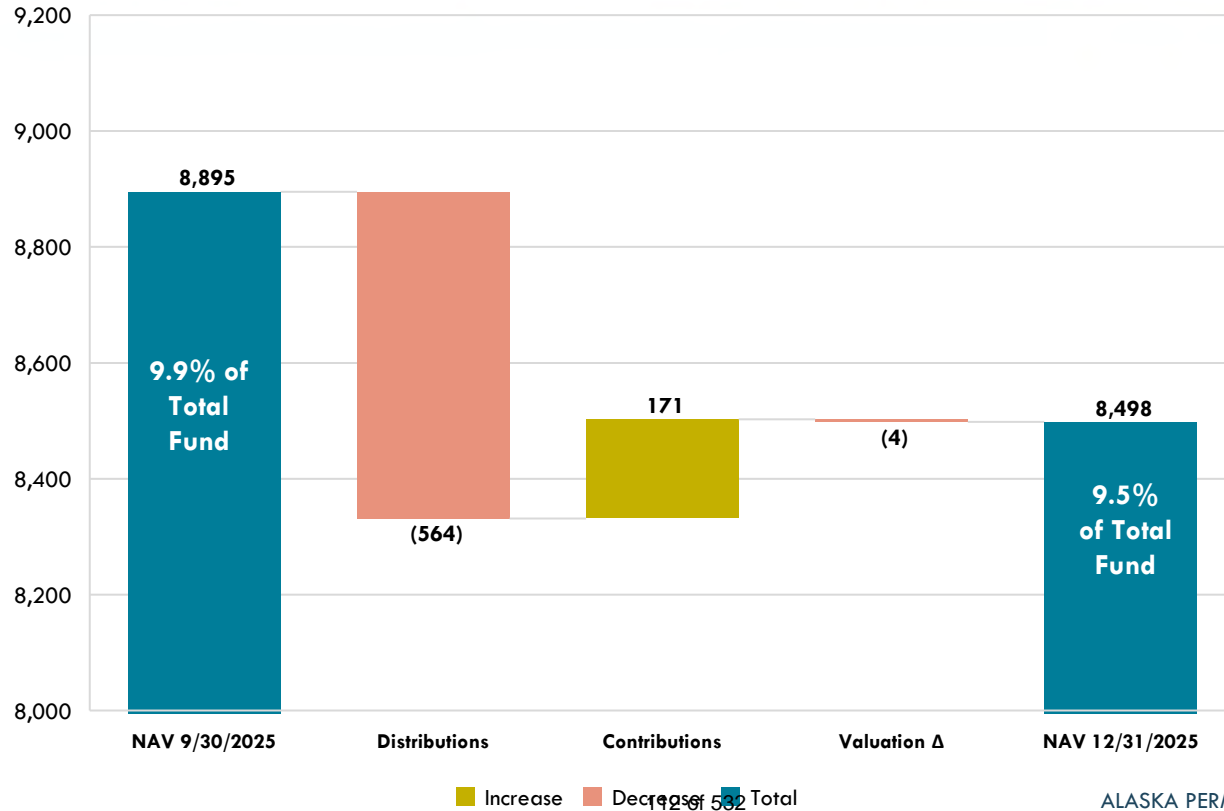
## Equity SMA Metrics

SMA GAV (\$M)	7,188
SMA Leverage	24.8%
# SMA Assets	71
SMA Occupancy	78%

## Quarterly Highlights (1Q26)

- Team had 25 in-person and 165 virtual meetings with managers
- Received loan payoffs from debt SMAs totaling \$131m
- Approved one debt fund commitment and two equity fund commitments totaling \$570m
- Received \$35m in sale proceeds from disposition of two retail assets
- Continued review of industrial and residential fund investment opportunities

# Allocation / NAV Changes



# Performance

	NAV (\$M)	Returns				Over / (Under) Performance			
		1 Quarter	1 Year	3 Year	5 Year	1 Quarter	1 Year	3 Year	5 Year
<b>Total Portfolio vs. Custom Benchmark</b>									
Custom Benchmark	-	1.14%	4.94%	0.61%	4.49%	-	-	-	-
APFC Real Estate	8,498	-0.04%	4.32%	0.49%	4.28%	-1.18%	-0.62%	-0.12%	-0.21%
<b>Total Portfolio vs. NCREIF Benchmark</b>									
NCREIF Total Index	-	1.14%	4.96%	-1.00%	3.80%	-	-	-	-
APFC Real Estate	8,498	-0.04%	4.32%	0.49%	4.28%	-1.18%	-0.64%	1.49%	0.48%
<b>APFC Vehicle vs. Benchmark</b>									
REITs Portfolio	455	-1.42%	2.29%	8.75%	7.25%	-2.56%	-2.65%	8.14%	2.76%
Equity Funds Portfolio	1,985	0.14%	5.18%	1.87%	8.49%	-1.00%	0.24%	1.26%	4.00%
Debt Funds / SMA Portfolio	655	1.86%	8.35%	8.40%	10.05%	0.72%	3.41%	7.79%	5.56%
SMA Portfolio	4,698	0.23%	4.88%	-2.64%	1.58%	-0.91%	-0.06%	-3.25%	-2.91%
Development Portfolio	705	-3.41%	-3.93%	-2.15%		-4.55%	-8.87%	-2.76%	
<b>APFC SMA vs. NCREIF Sector Benchmark<sup>1</sup></b>									
SMA Industrial Portfolio (incl. dev.)	978	-1.13%	2.65%	-0.10%	18.39%	-2.29%	-1.89%	-1.06%	7.37%
SMA Residential Portfolio (incl. dev.)	1,145	-0.79%	1.22%	-2.30%	5.87%	-1.87%	-4.05%	-2.04%	0.90%
SMA Retail Portfolio (incl. dev.)	1,273	1.42%	4.17%	-2.07%	-1.69%	-0.18%	-2.61%	-5.75%	-5.24%
SMA Office Portfolio (incl. dev.)	1,940	-0.70%	4.34%	-3.09%	-1.16%	-1.51%	0.96%	4.19%	2.64%
SMA Hotel Portfolio (incl. dev.)	66	0.52%	0.46%	3.52%	4.40%	-0.80%	-3.57%	-3.39%	-2.84%

\*1Q lag; periods ended 12/31/2025

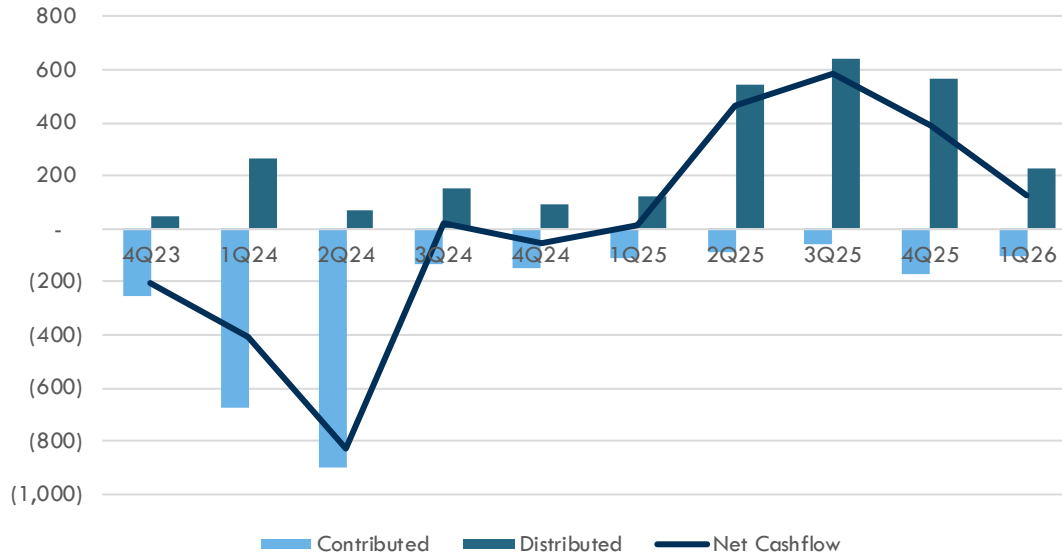
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ALASKA PERMANENT FUND CORPORATION

<sup>1</sup> Calculated internally

# Liquidity

## CASHFLOW ACTIVITY



- While approximately \$1 bn has been committed in FY26, the contribution pace has slowed as a result of a shift to closed-end funds and away from direct investments
- Distributions have continued, but the pace has slowed as loans made in 2024 pay off
- Net cashflow became positive again in 3Q-24, and has remained so for 6 of the last 7 quarters

# Benchmark Comparison

RE Portfolio Sector Allocation <sup>1</sup>					
Total Portfolio Exposure			NCREIF	Difference (+/-) <sup>2</sup>	Upper Limit
Residential	1,990,240,884	23.5%	29.1%	(5.6%)	43.7%
Hotel	139,419,964	1.6%	0.3%	1.4%	5.0%
Industrial	2,421,933,086	28.6%	33.7%	(5.1%)	50.5%
Office	2,203,753,063	26.0%	18.0%	8.0%	27.1%
Retail	1,324,324,168	15.6%	12.7%	2.9%	19.1%
Senior Housing	111,497,615	1.3%	1.5%	(0.2%)	5.0%
Self Storage	86,757,844	1.0%	2.7%	(1.6%)	5.0%
Other	197,586,107	2.3%	2.0%	0.4%	5.0%
<b>Total</b>	<b>\$8,475,512,730</b>	<b>100.0%</b>	<b>100.0%</b>		

## Key Considerations

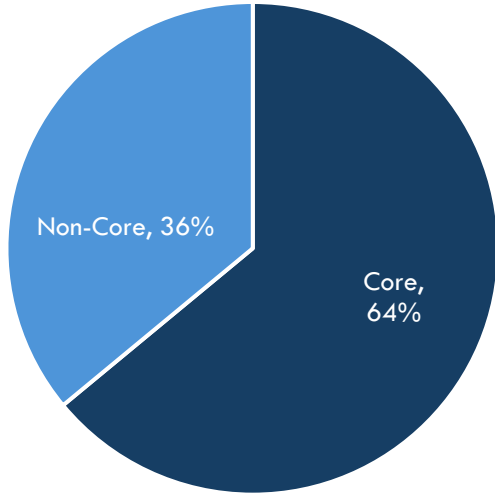
- Sector underweight to Residential (-5.6%), Industrial (-5.1%), and Self Storage (-1.6%); overweight Office (8.0%), Retail (3.4%), and Hotel (1.4%) with Senior Housing and Other roughly equivalent to the NCREIF Expanded NPI benchmark

<sup>1</sup>Calculated internally

<sup>2</sup>Sector under/overweight versus NCREIF may not sum precisely due to rounding

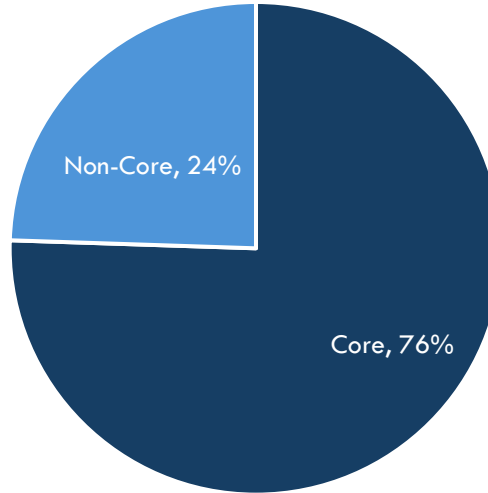
# Risk Categorization

Direct Portfolio Strategy †



† 41% of Non-Core bucket represents Build-to-Core developments not yet stabilized; If recategorized to Core, the direct portfolio shows a Core allocation of 79% using current NAVs

Equity Funds Portfolio Strategy



Total Portfolio Strategy \*‡



\* Exclusive of Debt & REITS  
‡ Recategorizing Build-to-Core developments as Core yields a Core allocation of 79% on a total portfolio basis using current NAVs

# Key Initiatives / Activity

## Investments

- \$120m committed to a European net lease-focused fund to increase exposure to the industrial sector
- \$150m committed to a US logistics fund
- \$300m committed to a debt fund targeting construction finance
- \$955m committed fiscal year to date (through 3/31/26) towards \$1bn pacing target

## Dispositions / Proceeds

- Received \$35m Portuguese mall (\$28m) and Seattle retail (\$7m)
- Eight assets currently in the disposition process that are anticipated to generate \$~250m in proceeds during 2026, with another six assets expected to generate ~\$750m of proceeds in 2027
- Received \$131m from repayment of industrial construction loans

## Areas of Interest

- Residential – Student Housing/Apartments
- Industrial – Infill with strong demand and supply dynamics
- Net Lease – Strong cashflow with good credit underwriting
- Credit – Strong cashflow in more senior positions as many banks remain cautious

# Contents

- I. Private Equity
- II. Private Income
- III. Real Estate
- IV. Appendix – Strategy Summaries**

# Private Markets – Overview

**Allen Waldrop**  
Deputy CIO – Private Markets  
(Sacramento)

**Allen Waldrop**  
Director  
(Sacramento)

**Ross Alexander**  
Senior Portfolio Mgr  
(Juneau)

**Eric Ritchie**  
Senior Portfolio Mgr  
(Juneau)

**Josh Ungar**  
Senior Portfolio Mgr  
(Boston)

**Steven Gagliardo**  
Portfolio Manager  
(Anchorage)

**Vacant**  
Portfolio Manager  
(TBD)

**Ed Rime**  
Portfolio Manager  
(Juneau)

**Steve Adams**  
Senior Portfolio Mgr  
(Temecula)

**Lara Pollock**  
Associate  
(Anchorage)

**Ian Horwood**  
Associate  
(Juneau)

**Terek Rutherford**  
Associate  
(Anchorage)

**Henry Lloyd**  
Analyst  
(Juneau)

**Matt Sykes**  
Analyst  
(Juneau)

**Lillie Haggard**  
Analyst  
(Anchorage)

# Private Equity – Strategy Summary

**Allen Waldrop**  
Director  
(Sacramento)

**Josh Ungar**  
Senior Portfolio Mgr  
(Boston)

**Steven Gagliardo**  
Portfolio Manager  
(Anchorage)

**Lara Pollock**  
Associate  
(Anchorage)

**Ian Horwood**  
Associate  
(Juneau)

**Lillie Haggard**  
Analyst  
(Anchorage)

- Team includes six professionals
- Focus primarily on fund investments, but also covers co-investments and other projects

- New hires have enhanced our in-house capabilities
- Current deployment pace is \$1.5bn annually, consistent with prior year
- Target 50% - 75% of annual capital deployment into funds annually, focusing on our best existing relationships and select new relationships
- Increase co-investment activity to get capital deployed in a more attractive investment environment, drive stronger returns / asset growth and reduce fees
- Targeted 200 bps outperformance of median Cambridge benchmarks on a rolling 5-year basis
- PE team leverages several third-parties for market research, deal sourcing, deal evaluation / due diligence, legal assistance, financial and tax accounting, distribution management and post investment monitoring and reporting

# Private Income – Strategy Summary

**Ross Alexander**  
**Senior Portfolio Mgr**  
**(Juneau)**

**Vacant**  
**Portfolio Manager**  
**(TBD)**

**Terek Rutherford**  
**Associate**  
**(Anchorage)**

- Current team includes two professionals with one vacancy

- Focus is on fund investments and co-investments
- Current deployment pace is \$1.3bn annually, consistent with prior year
- Target 60% - 75% of annual capital deployment into funds annually
- Team is working to increase co-investment deal flow and commitments to enhance returns from best ideas in lower fee structures
- Across PI, targeting 50 bps outperformance versus composite benchmark consisting of 60% Cambridge Global Private Infra (lagged) and 40% Cliffwater Direct Lending Index
- PI team leverages several third-parties to supplement deal sourcing, due diligence, and post-investment monitoring and reporting

# Private Income – Strategy Summary (2)

- Private Credit

- US-focused, with selective investments in Europe and Rest of World
- Portfolio is concentrated in senior loans to mid-sized companies with returns primarily from current yield
- Continuing to back top-tier managers focused on capital preservation and low loss ratios across cycles
- Concentrating fund commitments to generate increased co-investment deal flow
- Building co-investment book to 25-35% of private credit to generate enhanced returns from reduced fee drag; currently at ~15%

- Infrastructure

- Diversified across strategy, sector, and geography
- Primarily invest through funds in core-plus and value-add strategies to achieve attractive returns mainly from capital appreciation
- OECD bias with limited emerging market exposure
- Continuing to back top-tier managers for funds
- Focusing on mid-market and specialist funds for new commitments
- Proactively increasing co-investment deal flow and commitments to enhance returns
- Co-investments are in best ideas across sectors and geographies

- Income Opps

- Opportunities that have similar characteristics to infra or private credit, but do not fit those mandates
- High bar for new commitments
- Likely to remain less than 15% of Private Income NAV + unfunded going forward
- Focused on opportunities that primarily provide significant current yield and return enhancement due to market inefficiencies and niche strategies

# Real Estate – Strategy Summary

**Eric Ritchie**  
Senior Portfolio Mgr  
(Juneau)

**Ed Rime**  
Portfolio Manager  
(Juneau)

**Steve Adams**  
Senior Portfolio Mgr  
(Temecula)

**Henry Lloyd**  
Analyst  
(Juneau)

**Matt Sykes**  
Analyst  
(Juneau)

- Current focus on fund investments, co-investments, and strategic direct / SMA portfolio dispositions (reduction target of 50%)
- New investments focused on high cash yield (4% to 6%) and total risk adjusted returns (8%-10%)
- Staff development through industry / technical trainings as well as development of specific goals and objectives
- Will add new debt managers to diversify the debt investment program with the aim to continue to generate outsized returns throughout all market cycles
- The RE team leverages, several third-parties for market research, deal sourcing, deal evaluation / due diligence, legal assistance, financial, property, and tax accounting
- APFC's Real Estate portfolio is comprised of over 100 different investment vehicles and ~2,000 assets across the globe

# Real Estate – Strategy Summary (2)

## Direct Investments

- Focus direct investments on stabilized core and core+ assets in major markets with stable fundamentals and growth tailwinds
- Increase reliance on SMAs for property-level decisions such as leasing, maintenance, improvements
- Routine evaluation of asset performance and business plan progress to optimize exit timing and returns
- Sale of non-strategic assets to reduce risk positions and optimize portfolio composition

## Development Projects

- Limit development as a percent of total RE portfolio and through annual commitment limits
- Focus development on certain sectors and markets (e.g. Develop to Core, Multi-Family)

## Fund Investments

- Focus fund commitments on higher-risk strategies (value-added and opportunistic) and international markets
- Utilize a mix of closed-end and open-ended funds to balance capital flows across different market environments
- Provide co-investment opportunities to gain additional exposures and manage capital flows and reduce fee impacts <sup>124 of 532</sup>

## Debt

- Maintain the sizing of the debt program at ~10% of RE NAV and tranche it over a longer periods to diversify across different economic and interest rate environments, and to smooth cash flow demands
- Increase the use of specialized real estate debt managers (via SMAs or commingled funds) to reduce staff burden
- Improve alignment with managers through GP commitments and refined fee structures

## REITs

- Shifted from completion to tactical strategy
- Leveraging strategy to gain access to high quality managers and assets in the public market

The logo for APFC (Alaska Permanent Fund Corporation) is displayed in white serif font on a dark teal rectangular background. The background of the entire slide is a blue-tinted image of a financial trading interface, showing various data tables, charts, and a 'Related Functions Menu' at the bottom left. The interface includes a list of stock prices on the left, a summary box for a specific stock on the right, and a line chart at the bottom with volume bars.

APFC

ALASKA PERMANENT  
FUND CORPORATION

Integrity • Stewardship • Passion



SUBJECT: Public Markets Overview

ACTION:

DATE: May 26, 2026

INFORMATION: X

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BACKGROUND:

The Public Markets presentation provides information on the APFC Public Equities, Fixed Income, and Cash Portfolio.

STATUS:

At this meeting, Deputy CIO/Director of Fixed Income, Jim Parise, will present key elements of APFC Public Markets allocation and performance.



ALASKA PERMANENT  
FUND CORPORATION

# Public Markets Board Presentation

May 2026

## Public Equities

- \$28.3 billion portfolio
- Nearly 100% of Portfolio is externally managed

## Fixed Income

- \$19.2 billion portfolio
- 100% of Portfolio is internally managed
- Primary strategies are relative value and reversion to the mean

# Public Equities FY26 Performance

Attribution (bps)	FY26 Q3	FY26 Q2	FY26 Q1	FY26
<b>Active Selection</b>	<b>-38</b>	<b>-14</b>	<b>-78</b>	<b>-130</b>
External Active Managers	-38	-14	-78	-130
<b>Active Allocation</b>	<b>+139</b>	<b>-13</b>	<b>+15</b>	<b>+141</b>
Factor-based External and Internal strategies	+78	-8	-21	+49
Positioning across External Managers *	+61	-5	+36	+92
FY Adjustment *				<b>+8</b>
<b>Performance</b>	<b>+101</b>	<b>-27</b>	<b>-63</b>	<b>+19</b>

Active allocation was a significant positive contributor, supported by factor-based strategies such as domestic low volatility and overweights to international value, domestic and international small caps, and emerging markets.

\* Plug figure

# Public Equities FY26 Q3 Overview

Factor	Positioning
Market Cap	Overweight to Small and Mid
Value vs Growth	Overweight to Value
Developed vs Emerging Market (EM)	Overweight to Emerging Market

## Market Cap

Mid and small caps  
outperformed large cap

	FY26 Q3	1 Yr
S&P 500	-4.3%	17.8%
Mid Cap Core	1.3%	16%
Small Cap Core	0.9%	25.7%

## Value vs Growth

Value outperformed growth

	FY26 Q3	1 Yr
Large Cap Value	2.1%	15.9%
Large Cap Growth	-9.8%	18.8%
Mid Cap Value	3.7%	17.6%
Mid Cap Growth	-6.3%	9.6%
Small Cap Value	5.0%	28.1%
Small Cap Growth	-2.8%	23.6%

## Developed vs Emerging

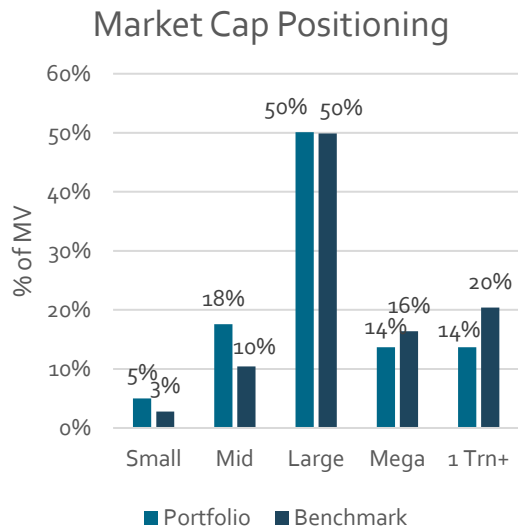
EM outperformed DM

	FY26 Q3	1 Yr
S&P 500	-4.3%	17.8%
MSCI EM	-0.2%	29.6%

# Public Equities Factor Positioning

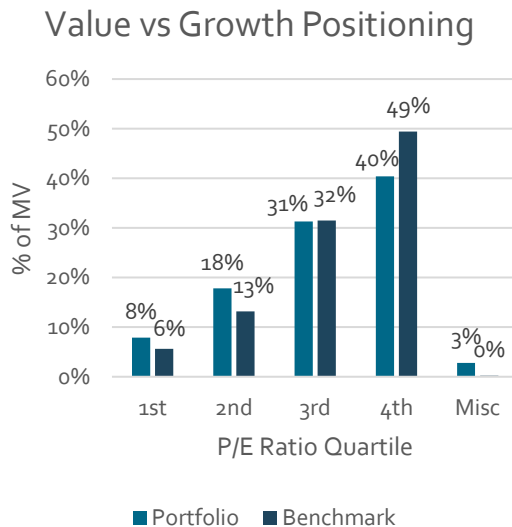
## Market Cap

Mid and small caps  
outperformed large cap



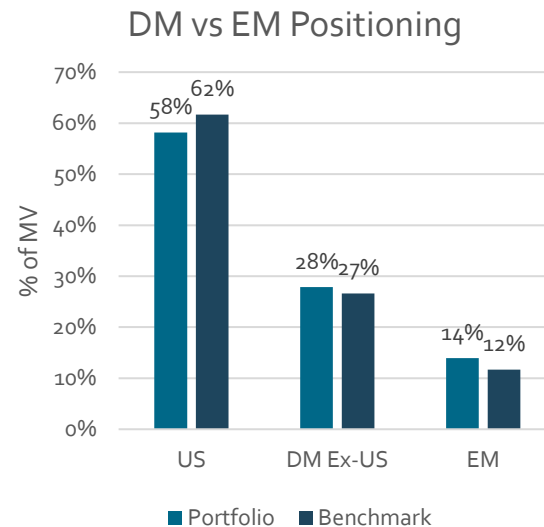
## Value vs Growth

Value outperformed growth

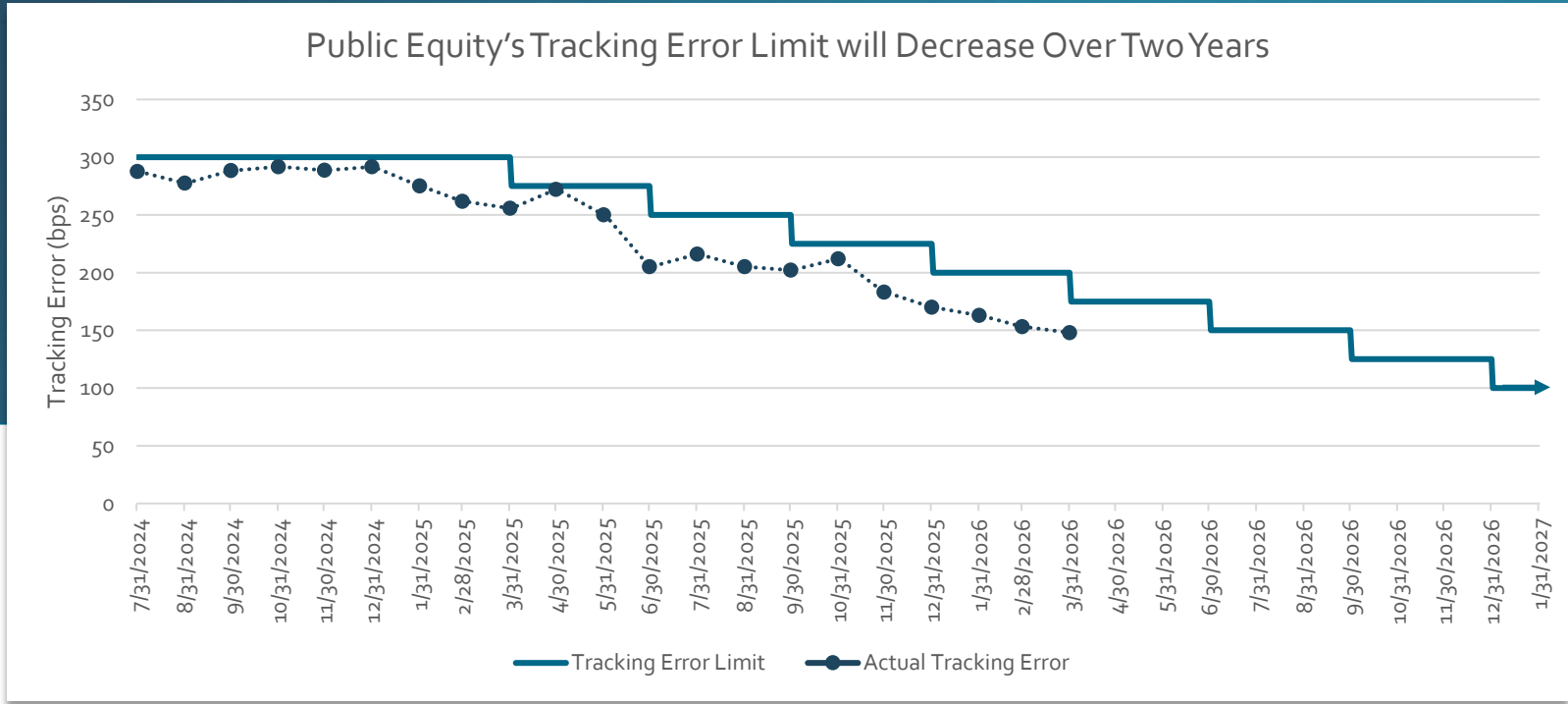


## Developed vs Emerging

EM outperformed DM

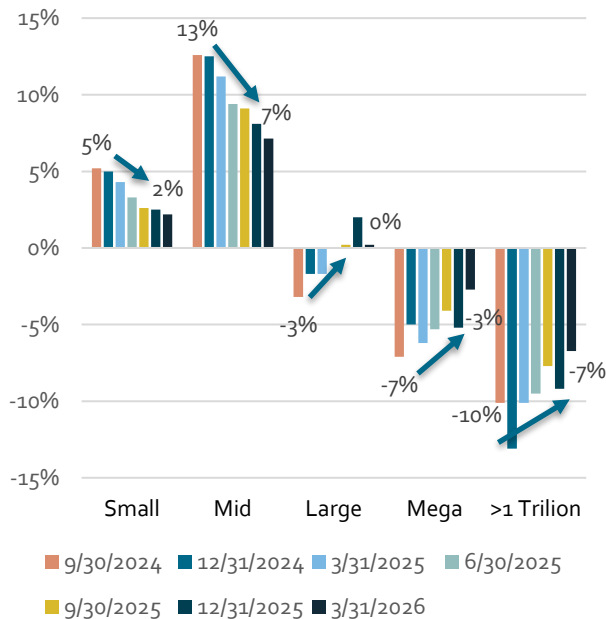


# Public Equity Tracking Error

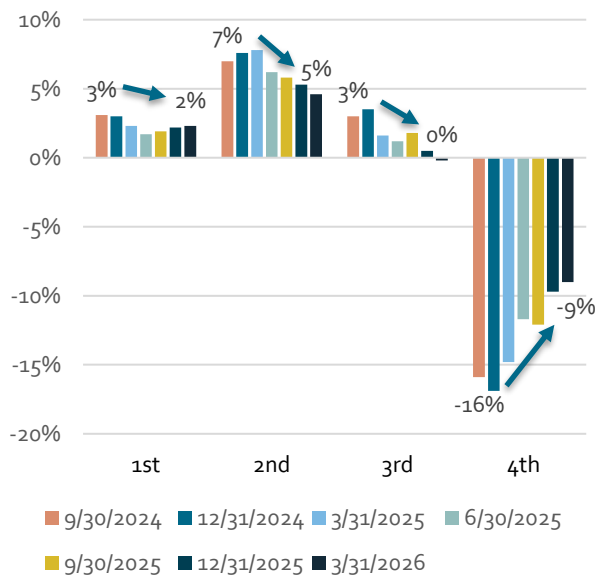


# Positioning Trending Closer to Benchmark

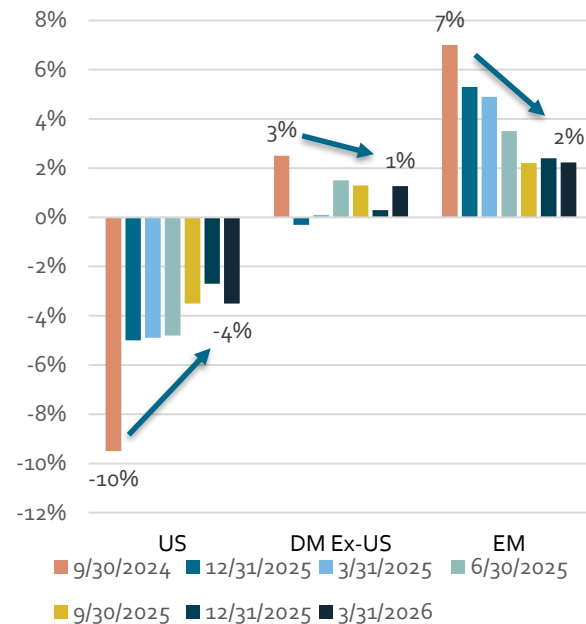
## Active Market Cap Positioning (%MV)



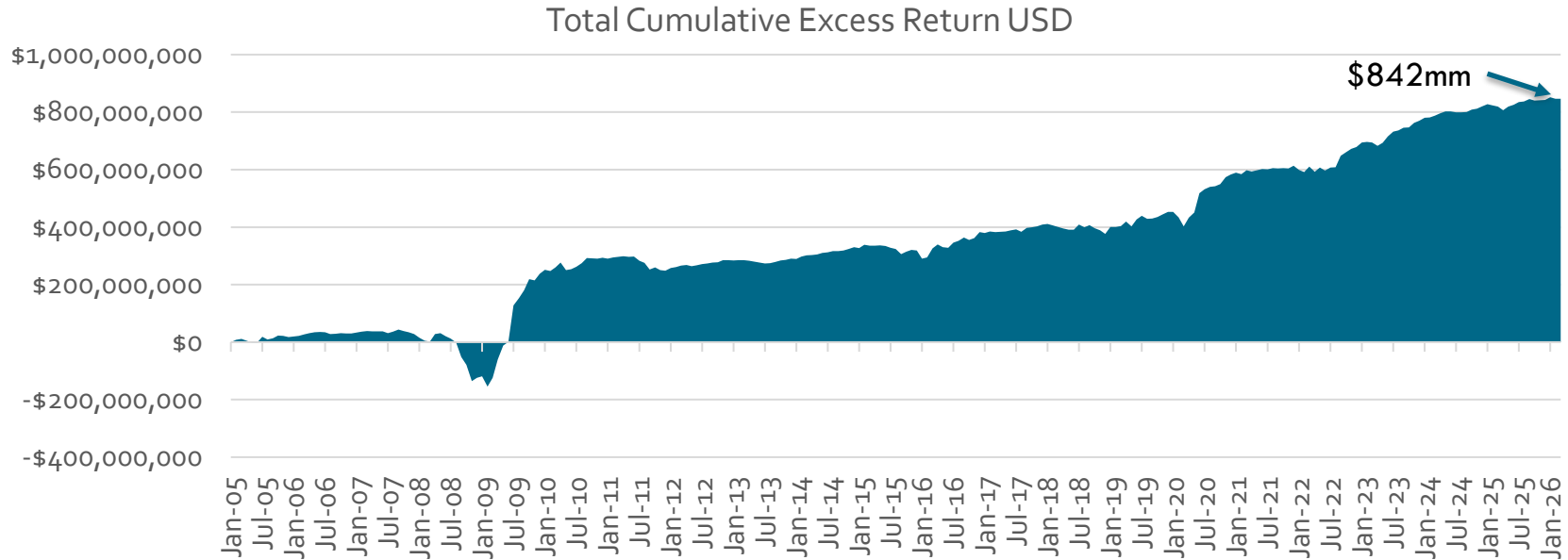
## Active Value vs Growth Positioning by Price/Earnings Quartile (%MV)



## Active US, DM, and EM Positioning (%MV)



# Fixed Income Dollars Added over Benchmark



**Internal Fixed Income team has beaten its primary benchmark every year since 2013.**

# Fixed Income Returns

	FY26 Q3	1 yr	3yr	5yr
Fixed Income Plus (\$19,226mm)	-0.13%	4.73%	4.83%	1.33%
<i>Custom Index</i>	-0.16%	4.45%	4.41%	0.96%
US Aggregate (\$5,271mm)	-0.07%	4.61%	4.10%	0.69%
<i>Bloomberg US Aggregate Bond Index</i>	-0.05%	4.35%	3.63%	0.31%
US Corporate (\$5,231mm)	-0.56%	4.88%	5.08%	1.14%
<i>Bloomberg Investment Grade Corporate Index</i>	-0.54%	4.78%	4.70%	0.76%
High Yield (\$2,167mm)	0.02%	7.56%	8.66%	4.44%
<i>Bloomberg Corporate High Yield BB (Ba) Index</i>	-0.28%	7.12%	7.63%	3.65%
Non-US Rates (\$2,555mm)	-0.40%	2.07%	3.59%	0.68%
<i>Bloomberg Global Treasury ex-US (USDH) Index</i>	-0.43%	2.02%	3.48%	0.62%
Securitized (\$2,023mm)	0.40%	5.74%	4.21%	0.46%
<i>Bloomberg US Securitized Index</i>	0.40%	5.75%	4.26%	0.54%
TIPS (\$950mm)	0.31%	3.20%	3.41%	1.82%
<i>Bloomberg US Treasury: US TIPS Index</i>	0.26%	3.00%	3.18%	1.48%
Cash (\$1,018mm)	0.89%	4.22%	4.88%	3.47%
<i>90 Day T-Bills Index</i>	0.85%	4.00%	4.74%	3.34%

As of 3/31/2026

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# Fixed Income FY26 Q3 Performance

Portfolio	Portfolio Weights	Portfolio Returns	Benchmark Returns	Portfolio		Total Return Contribution
				Allocation Excess Contribution	Portfolio Return Excess Allocation	
US Aggregate	27.4%	-0.07%	-0.05%	0.00%	-0.01%	-0.01%
US Corporate	27.2%	-0.56%	-0.54%	0.00%	-0.01%	-0.01%
High Yield	11.3%	0.02%	-0.28%	0.00%	0.03%	0.03%
Securitized	10.5%	0.40%	0.40%	0.00%	0.00%	0.00%
Non-US Rates	13.3%	-0.40%	-0.43%	0.00%	0.01%	0.01%
TIPS	4.9%	0.31%	0.26%	0.00%	0.00%	0.00%
Cash	5.3%	0.89%	0.85%	0.01%	0.00%	0.01%
<b>Total</b>	<b>100%</b>	<b>-0.13%</b>	<b>-0.16%</b>	<b>0.01%</b>	<b>0.02%</b>	<b>0.03%</b>

# Fixed Income Overview

	Portfolio		Benchmark		Active		Alloc Change FY26 Q2 to FY26 Q3
	%	Market Value	%	Market Value	%	Market Value	
US Aggregate	27.4%	\$ 5,270,732,941	27.5%	\$ 5,287,107,077	-0.1%	\$ (16,374,136)	-0.9%
US Corporate	27.2%	\$ 5,230,931,703	27.5%	\$ 5,287,107,077	-0.3%	\$ (56,175,374)	-0.1%
High Yield	11.3%	\$ 2,166,501,457	10.0%	\$ 1,922,584,392	1.3%	\$ 243,917,065	-0.7%
Securitized	10.5%	\$ 2,022,643,545	10.0%	\$ 1,922,584,392	0.5%	\$ 100,059,153	0.5%
Non-US Rates	13.3%	\$ 2,555,308,040	15.0%	\$ 2,883,876,587	-1.7%	\$ (328,568,547)	1.1%
TIPS	4.9%	\$ 950,463,638	5.0%	\$ 961,292,196	-0.1%	\$ (10,828,558)	0.1%
Cash	5.3%	\$ 1,017,803,773	5.0%	\$ 961,292,196	0.3%	\$ 56,511,577	0.0%

Returns:	FY26 Q3 1 Year		Spread (bps)			Change in Spread (bps)			
			3/31/2026	2/28/2026	9/30/2025	3/31/2025	3/31/2024	3/31/2023	3/31/2022
US Aggregate	-0.07%	4.61%	30	2	2	-5	-9	-27	-11
US Corporate	-0.56%	4.88%	89	5	15	-5	-1	-49	-27
High Yield	0.02%	7.56%	196	21	29	-21	12	-90	-33
Securitized	0.40%	5.74%	13	3	0	-1	-4	-6	-4
Non-US Rates	-0.40%	2.07%	27	3	-6	-13	-24	-41	-1
TIPS	0.31%	3.20%	53	4	4	-7	-2	-32	-4
Cash	0.89%	4.22%	24	3	-7	-12	-25	-39	0
			71	3	-4	-17	-25	-71	-14

As of 3/31/2026

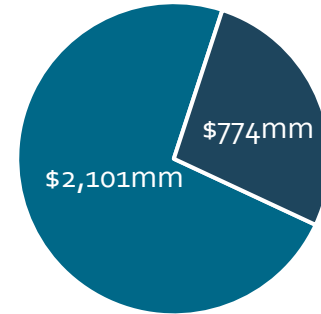
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ALASKA PERMANENT FUND CORPORATION

11

# Cash Management Overview

\$2,875mm Cash at Q3



■ Internal Cash ■ Operational Cash

- Internal Cash (\$2,101mm)
  - Internally managed
  - Short-dated bills, treasuries, commercial paper, repo, and asset-backed securities
  - Most assets held to maturity
- Operational Cash (\$774mm)
  - Invested in overnight STIF (short-term investment fund)
  - 100% of portfolio is immediately liquid
- Liquidity enables the Fund to meet operational needs, capital calls, and appropriations to the State

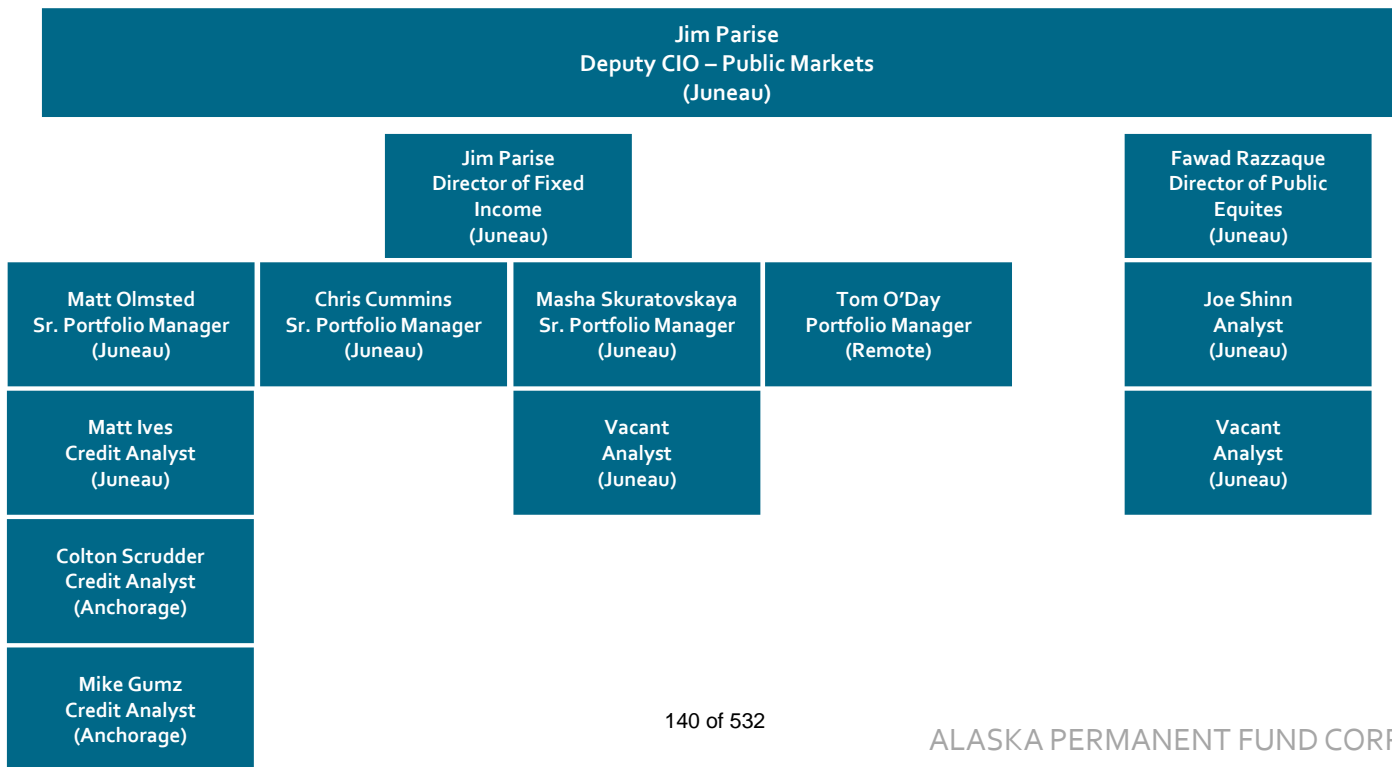
## Notable Q3 Transfers

- \$1,250mm from cash and public equities to fixed income
- \$121mm DNR Royalties received
- \$932mm net positive cash flow from private markets



# Appendix

# Public Markets – Overview



# Public Equity – Strategy Summary

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Fawad Razzaque  
Director of Public  
Equities  
(Juneau)

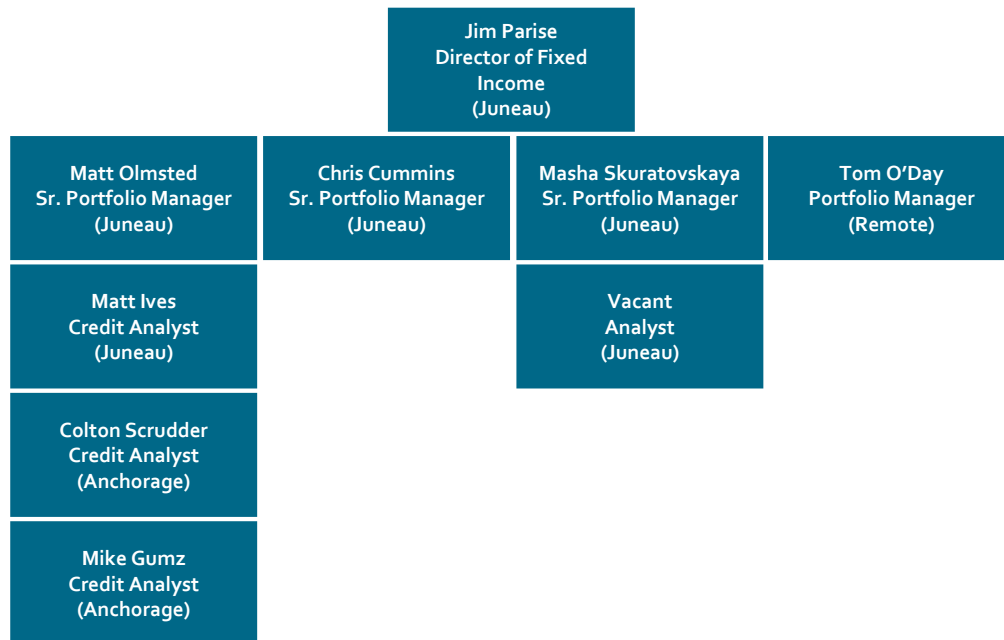
Joe Shinn  
Analyst  
(Juneau)

Vacant  
Analyst  
(Juneau)

- Current team includes 2 professionals (1 Vacancy)
- \$28.3 billion portfolio
- Nearly 100% of Portfolio is outside managers

- Current Strategy
  - Long-standing Value and geographic tilt toward EM
- Future Strategy
  - Reduce tracking error closer to industry standard
  - Tracking error reduced over time to allow for tilts to manifest
  - Eliminate internally managed portfolio to focus on outside managers
  - Align overall benchmark to match mandate and portfolio structure

# Fixed Income – Strategy Summary



- Current Strategy
  - 100% internally managed across seven portfolios
  - Relative value and reversion to the mean are primary strategies
- Future Strategy
  - Reduce tracking error closer to industry standard
  - Recruit analyst for Global Rates Portfolio

SUBJECT: Fund Performance Review  
Greg Allen, Callan CEO & Chief Research Officer  
Steve Center, Callan Senior VP

ACTION:

DATE: May26, 2026

INFORMATION: X

---

BACKGROUND:

Callan 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 provides an extensive review of the Fund's performance as well as updates on market conditions. Greg Allen, Chief Executive Officer and Chief Research Officer, and Steven Center, Senior Vice President, will be the presenters at this meeting.



May 26, 2026

**Alaska Permanent Fund  
Corporation**

1<sup>st</sup> Quarter 2026

Capital Markets and Performance  
Review

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**Greg Allen**

CEO and Chief Research Officer

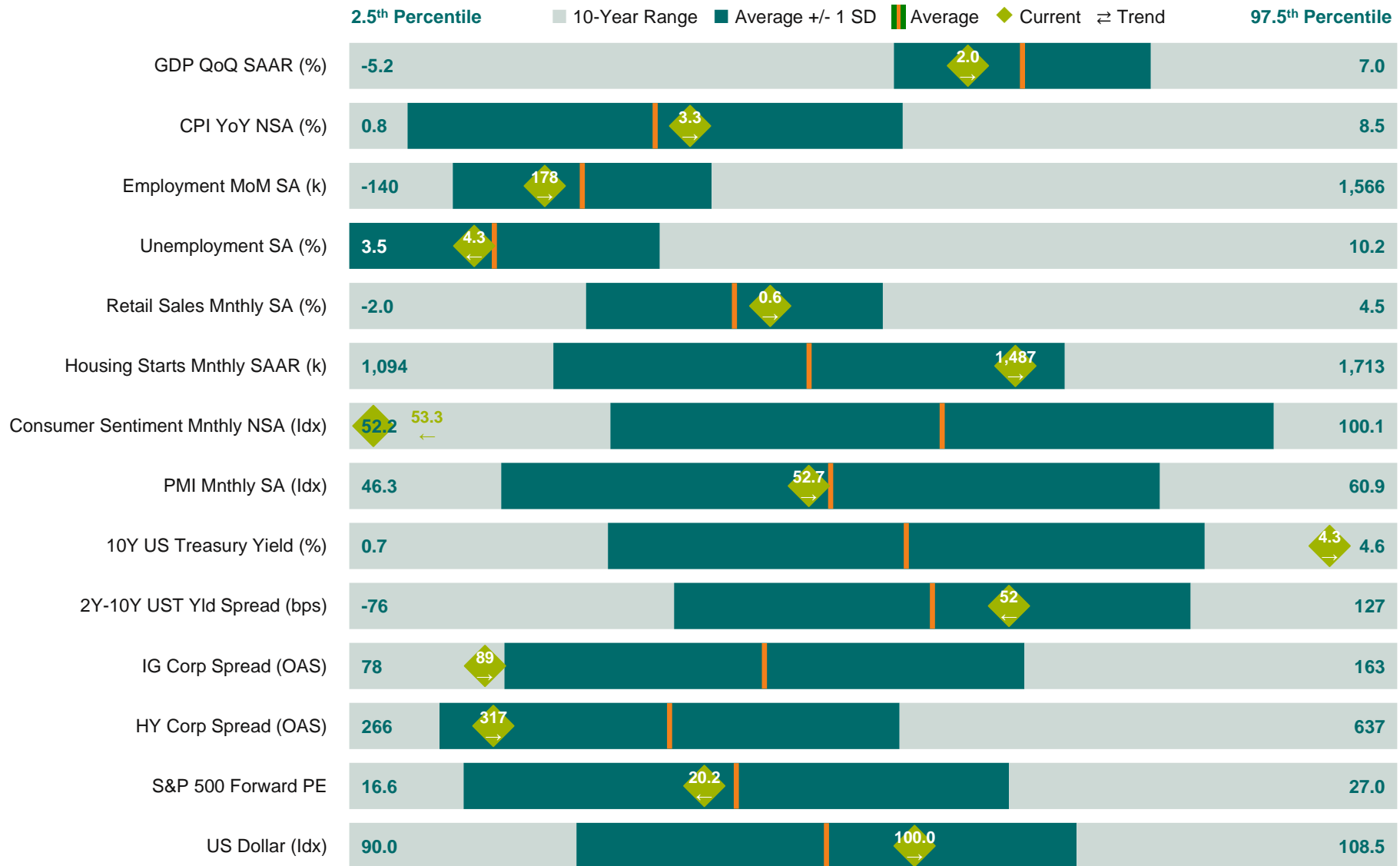
**Steven Center, CFA**

Senior Vice President

**Alexa Pilgrim**

Assistant Vice President

# EconIndicators



Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, U.S. Census Bureau, U.S. Department of Housing and Urban Development, University of Michigan, Institute of Supply Management, S&P Global, Bloomberg, U.S. Treasury, Standard & Poor's, Callan.

Acronyms: Seasonally Adjusted Annualized Rate (SAAR), Seasonally Adjusted (SA), Non-Seasonally Adjusted (NSA), basis points (bps), Option-Adjusted Spread (OAS), Diffused Index (Idx).

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## EconIndicators

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EconIndicators is a monthly collection of 14 key measures of economic and capital markets activity, placed in the context of recent experience. The purpose of the chart is to show current activity, a comparison to recent history, and the direction of change for each measure.

We use 10 years of monthly data for all indicators except GDP, which is reported quarterly. We calculate one- and two- standard deviation ranges for each measure's 10-year history, and the average value within the two-standard deviation range. We have limited the observations to two standard deviations to avoid the severe outliers in many economic indicators that appeared during the supply chain shock of the 2020–23 pandemic period.

Within each horizontal segment of the chart, which represents one of the 14 measures, we show:

1. The two standard deviation range of the 10-year historical data, identified by the endpoint values on the left and right edge of the display
2. The one standard deviation range identified by the shaded dark green region
3. The average value of the indicator over the last 10 years, and
4. The current value for the measure.
5. Under the current measure, we use an arrow to show direction of change.

---

# Does the Military Action in Iran and the Region Change the 10-year Outlook?

---

## **Uncertainty about:**

- The actual events within Iran and the region; reporting is restricted
- How long the action will continue
- The goal of the U.S. and Israeli actions
- The path to an exit

## **The current assessment of the most likely impacts on the global economy includes:**

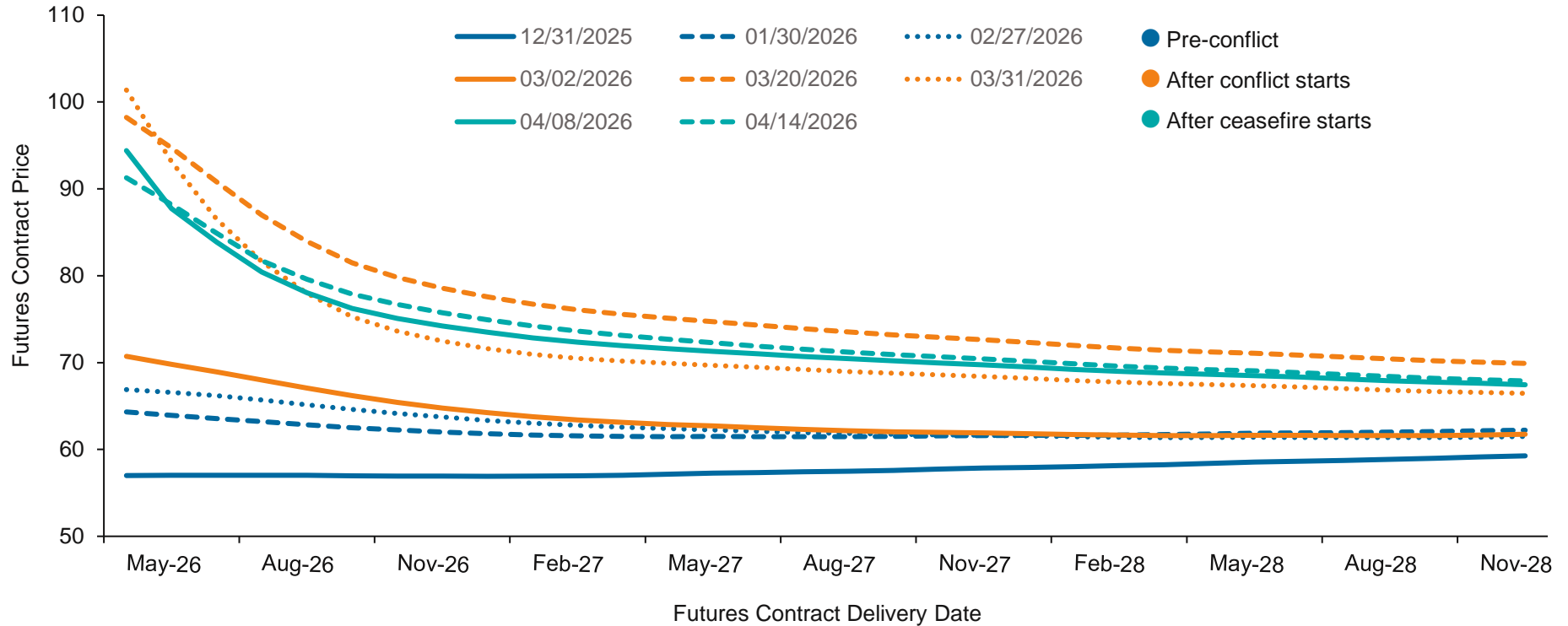
- The disruption of petroleum supplies and shipments through the Strait of Hormuz, through which 20% of global petroleum transits
- Energy prices: oil prices surged 40% (WTI), as did gasoline prices
- Inflation and interest rate policy
- Destruction of energy infrastructure in the Persian Gulf and the longer-term impact on supply

## **Macro rule of thumb on oil price spikes:**

- Each \$10 increase in the price of oil costs the U.S. economy 20 bps of potential GDP growth.
- Oil's rise from \$60 at the start of the year to \$100 could reduce GDP growth by approximately 80 bps.
- The longer the price remains elevated at  $\geq$ \$100, the greater the potential for the GDP impact to extend over multiple quarters.

# Oil as an Indicator of the Military Action's Economic Impact

WTI Crude Oil Futures Prices



## Oil futures contracts went from pricing in a relatively short-term shock to pricing in longer-term impacts.

- The first trading day after the Iran conflict started, March 2, had oil prices starting at \$70/bbl and leveling out by early 2027.
- By mid-March, near-term prices were up to \$100/bbl or more and projected to stay at or above \$70/bbl at least through 2028.
- After the ceasefire, prices came down but are still projected to stay above \$70/bbl through at least 2027.

Source: N.Y. Mercantile Exchange

# Markets Pull Back Amid Uncertainty

Broad stock and bond markets down globally in the quarter

## Small cap, non-U.S. top U.S. large cap

- S&P 500 dropped 4.3% while U.S. small caps gained 0.9%. Developed ex-U.S. stocks fell 0.9% and emerging markets slipped only 0.2%.

## Fixed income down as rates rise

- The Bloomberg Aggregate posted a small loss of 5 basis points while long duration lost 0.8% and global ex-U.S. declined almost 1.9%. Cash outperformed, gaining 0.9%.
- Headline CPI-U rose 3.3% (year-over-year) through March as energy climbed 12.5%, hit by supply constraints from the Iran conflict. The core index rose by a more modest 2.6%, in line with the prior quarter.

## Dislocation in economic growth measures

- The job market has slowed while GDP growth has remained resilient. The supply of workers is receding as job growth cools, clouding the true impact of the job market changes on the economy.
- Bifurcation between the wealthy, who are propping up consumer spending, and the average consumer is evident.

Returns for Periods ended 3/31/26

	Quarter	1 Year	3 Years	5 Years	10 Years	25 Years
<b>U.S. Equity</b>						
Russell 3000	-3.96	18.09	17.86	10.87	13.72	9.25
S&P 500	-4.33	17.80	18.32	12.06	14.16	9.18
Russell 2000	0.89	25.72	13.05	3.77	9.88	8.54
<b>Global ex-U.S. Equity</b>						
MSCI World ex USA	-0.94	22.99	14.30	8.40	8.66	6.14
MSCI Emerging Markets	-0.17	29.55	14.84	3.69	7.80	8.73
MSCI ACWI ex USA Small Cap	-0.48	27.82	13.67	5.66	8.01	8.55
<b>Fixed Income</b>						
Bloomberg Aggregate	-0.05	4.35	3.63	0.31	1.70	3.65
90-day T-Bill	0.85	4.00	4.74	3.34	2.26	1.81
Bloomberg Long Gov/Credit	-0.76	2.17	0.90	-2.93	1.18	4.86
Bloomberg Global Agg ex-US	-1.87	4.18	1.62	-2.90	-0.42	3.09
<b>Real Estate</b>						
NCREIF Property	1.19	4.82	-0.01	3.69	4.74	7.24
FTSE Nareit Equity	4.80	6.84	9.10	5.82	5.57	9.13
<b>Alternatives</b>						
Cambridge Private Equity*	3.09	13.08	8.34	10.19	14.04	11.34
Cambridge Senior Debt*	1.27	11.41	8.67	7.49	8.10	5.26
HFRI Fund Weighted	1.05	14.06	10.03	6.12	6.79	5.92
Bloomberg Commodity	24.41	32.29	13.88	14.04	8.02	2.80
Gold Spot Price	7.77	48.51	33.05	22.22	14.24	12.27
<b>Inflation: CPI-U</b>	1.90	3.26	3.04	4.51	3.32	2.54

\*Cambridge Private Equity and Cambridge Senior Debt data as of 4Q25.

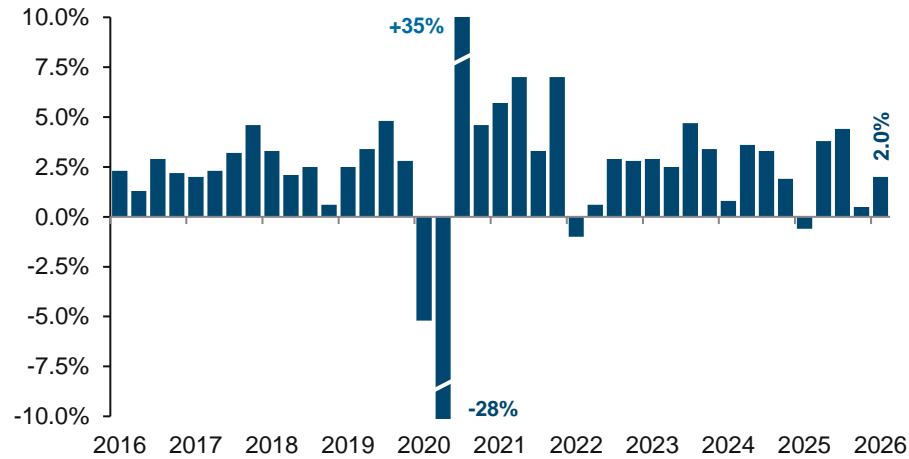
Returns greater than one year are annualized.

Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

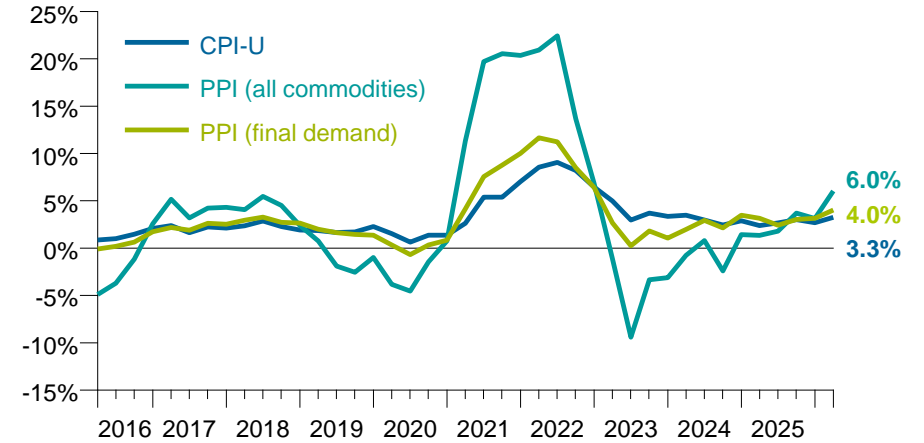
# U.S. Economy—Summary

For periods ended 3/31/26

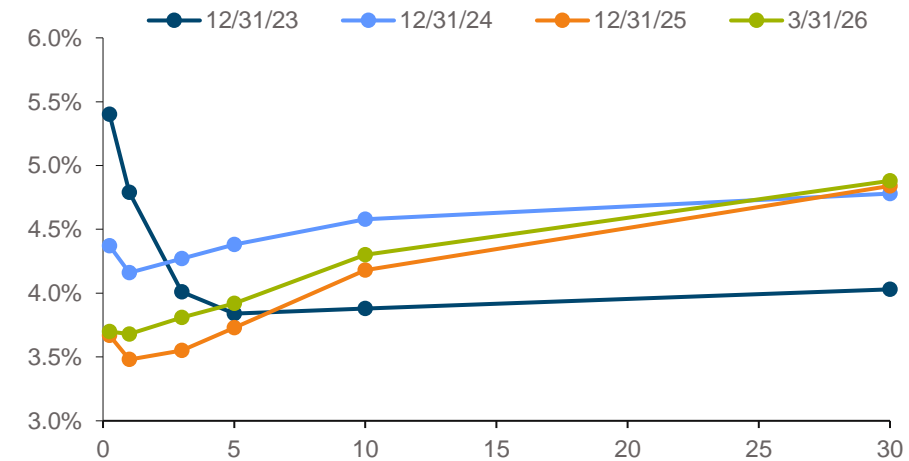
Quarterly Real GDP Growth



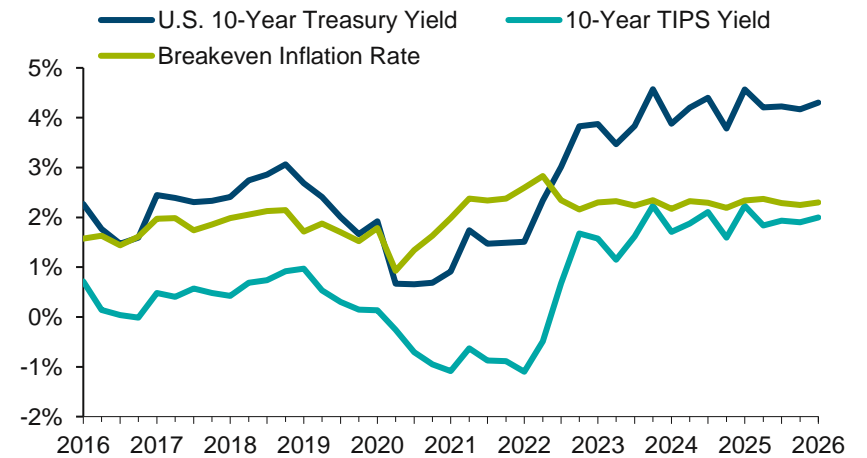
Inflation Year-Over-Year



U.S. Treasury Yield Curves



Historical 10-Year Yields



Sources: Bureau of Labor Statistics, Callan, Federal Reserve.

# The Fed's 'Dot Plot'

## Federal Open Market Committee (FOMC) participants' assessments of appropriate monetary policy

**Fed Funds Rate remains in a target range of 3.5% – 3.75%**

11 of the 12 voting members of the FOMC agreed on holding the rate steady at the March meeting.

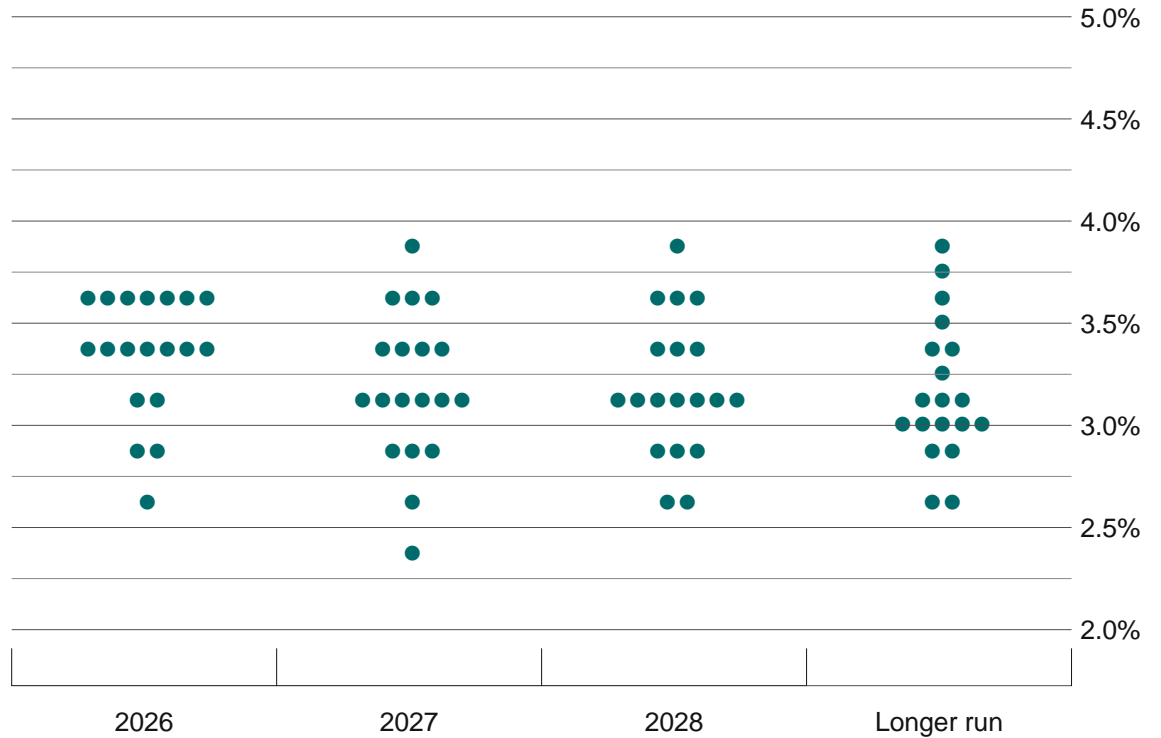
One member wanted to lower the rate by 0.25%.

**Wide dispersion of views among all 19 participants for 2026 and beyond**

**“Longer run” median up to 3.1% from 3.0%**

– Does this outcome suggest a shift in longer-run expectations for inflation?

Bias is toward higher rates; lower bound is 2.6% but higher bound is 3.9%.

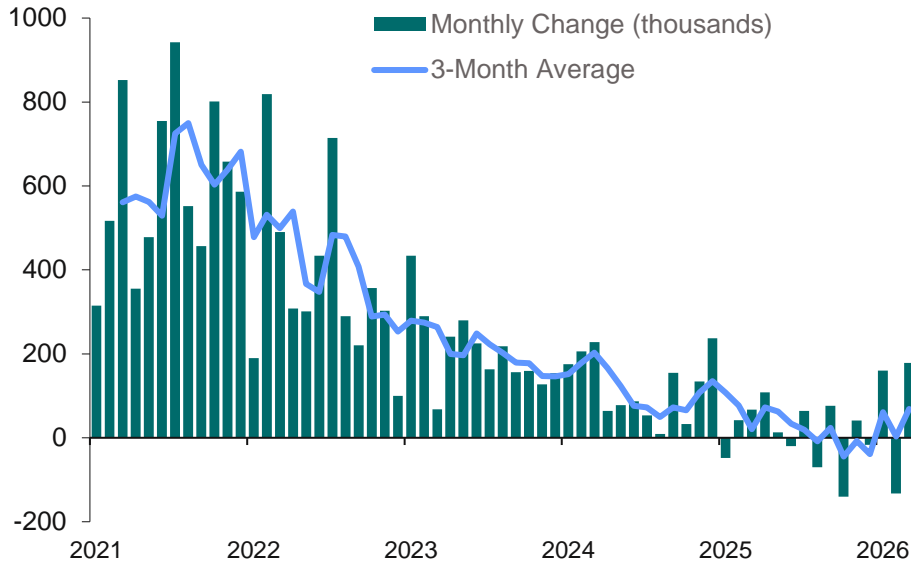


Source: Federal Reserve; as of 3/18/26

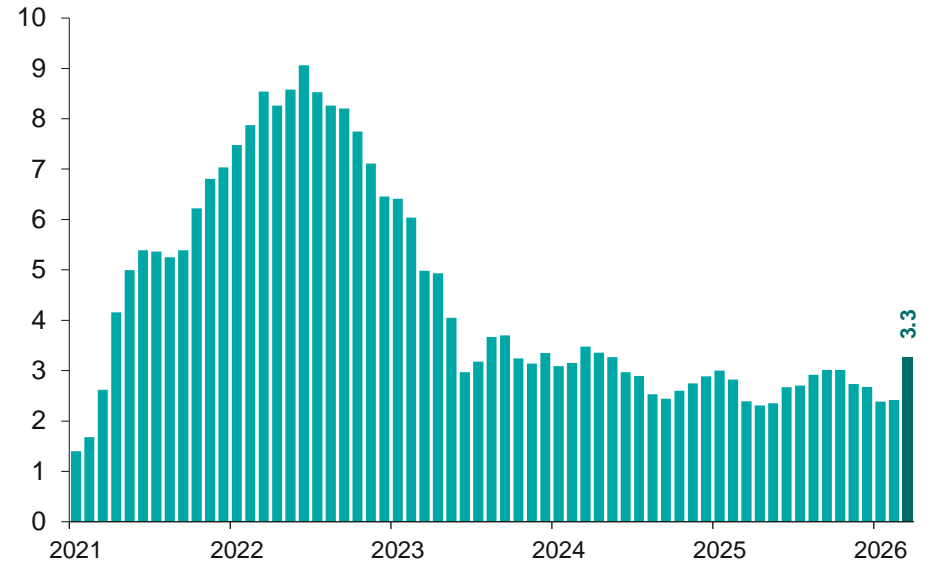
# Dueling Mandates

The Fed's dilemma: focus on employment or inflation mandate?

Non-Farm Employment



Consumer Price Index: All Items for U.S. YOY Change (%)



The job market has shown a marked slowdown after a strong multi-year recovery coming out of the pandemic.

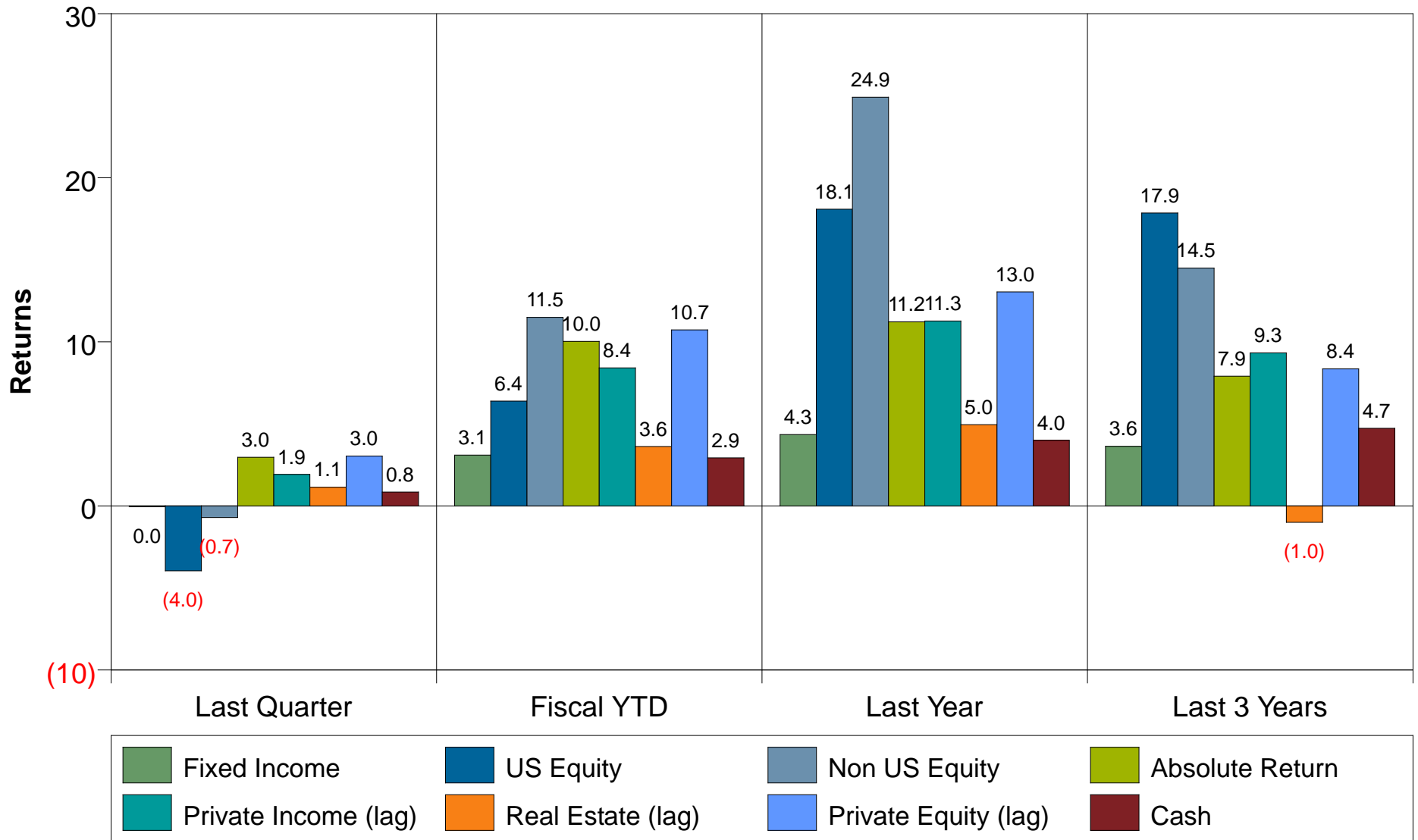
Meanwhile, inflation has been frustratingly sticky. Higher oil prices will likely keep inflation higher rather than lower.

As the Fed balances which mandate to focus on—supporting jobs or controlling price inflation—this dynamic bears watching.

Source: Federal Reserve

# Capital Market Performance

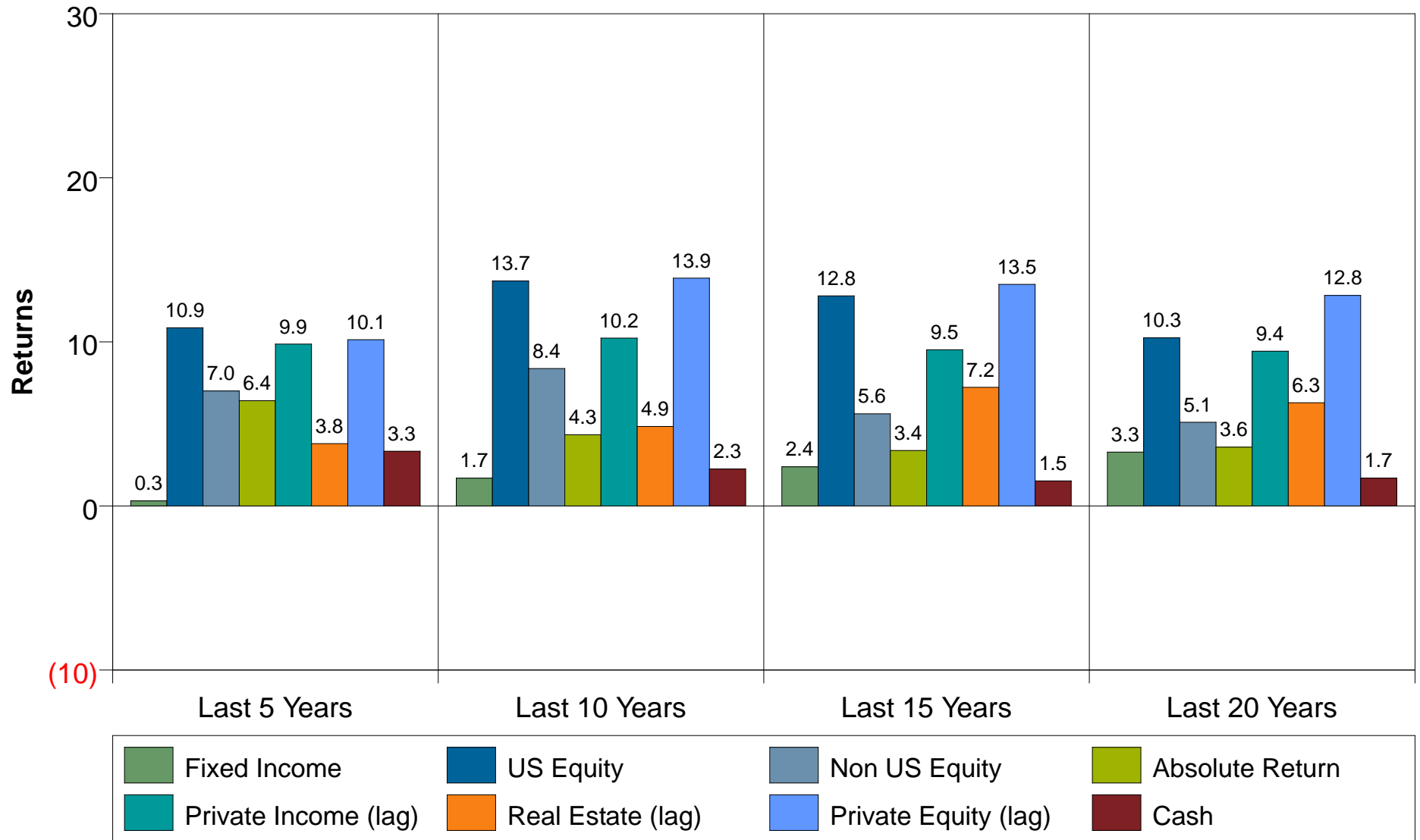
Periods ended March 31, 2026



Fixed Income: Bloomberg Aggregate; US Equity: Russell 3000; Non-US Equity: MSCI ACWI x-US; Absolute Return: HFRI Total Fund Composite; Private Income: 60% Cambridge Infrastructure, 40% Cambridge Private Credit (lagged); Real Estate: NCREIF ODCE (lagged); Private Equity: Cambridge Private Equity (lagged); Cash: 3-month T-Bills.

# Capital Market Performance

Periods ended March 31, 2026



Fixed Income: Bloomberg Aggregate; US Equity: Russell 3000; Non-US Equity: MSCI ACWI x-US; Absolute Return: HFRI Total Fund Composite; Private Income: 60% Cambridge Infrastructure, 40% Cambridge Private Credit (lagged); Real Estate: NCREIF ODCE (lagged); Private Equity: Cambridge Private Equity (lagged); Cash: 3-month T-Bills.

# Callan Periodic Table of Investment Returns (Calendar Years)

## Returns for Asset Class Indices

2017	2018	2019	2020	2021	2022	2023	2024	2025	1 Qtr. 2026
Non US Equity 27.19%	Private Equity (lag) 17.93%	US Equity 31.02%	US Equity 20.89%	Private Equity (lag) 53.06%	Real Estate (lag) 16.08%	US Equity 25.96%	US Equity 23.81%	Non US Equity 32.39%	Private Equity (lag) 3.04%
US Equity 21.13%	Private Income (lag) 10.84%	Non US Equity 21.51%	Private Equity (lag) 20.21%	US Equity 25.66%	Private Income (lag) 6.82%	Non US Equity 15.62%	Private Income (lag) 11.97%	US Equity 17.15%	Absolute Return 2.97%
Private Equity (lag) 16.17%	Real Estate (lag) 7.16%	Private Equity (lag) 10.56%	Non US Equity 10.65%	Private Income (lag) 18.20%	Absolute Return 5.07%	Private Income (lag) 10.25%	Private Equity (lag) 8.22%	Private Equity (lag) 10.57%	Private Income (lag) 1.92%
Private Income (lag) 11.74%	Cash 1.87%	US Fixed Income 8.72%	US Fixed Income 7.51%	Real Estate (lag) 12.15%	Cash 1.46%	US Fixed Income 5.53%	Absolute Return 7.97%	Absolute Return 9.04%	Real Estate (lag) 1.14%
Real Estate (lag) 6.89%	US Fixed Income 0.01%	Private Income (lag) 6.49%	Private Income (lag) 5.35%	Non US Equity 7.82%	Private Equity (lag) -3.92%	Cash 5.01%	Non US Equity 5.53%	Private Income (lag) 8.44%	Cash 0.85%
US Fixed Income 3.54%	Absolute Return -2.53%	Real Estate (lag) 6.24%	Absolute Return 2.61%	Absolute Return 7.40%	US Fixed Income -13.01%	Private Equity (lag) 3.82%	Cash 5.25%	US Fixed Income 7.30%	US Fixed Income -0.05%
Absolute Return 3.54%	US Equity -5.24%	Absolute Return 4.41%	Real Estate (lag) 2.00%	Cash 0.05%	Non US Equity -16.00%	Absolute Return 2.79%	US Fixed Income 1.25%	Real Estate (lag) 4.71%	Non US Equity -0.71%
Cash 0.86%	Non US Equity -14.20%	Cash 2.28%	Cash 0.67%	US Fixed Income -1.54%	US Equity -19.21%	Real Estate (lag) -8.39%	Real Estate (lag) -3.47%	Cash 4.18%	US Equity -3.96%

Fixed Income: Bloomberg Aggregate; US Equity: Russell 3000; Non-US Equity: MSCI ACWI x-US; Absolute Return: HFRI Total Fund Composite; Private Income: 60% Cambridge Infrastructure, 40% Cambridge Private Credit (lagged); Real Estate: NCREIF ODCE (lagged); Private Equity: Cambridge Private Equity (lagged); Cash: 3-month T-Bills.

# Callan Periodic Table of Investment Returns (3-Year Periods)

## Returns for Asset Class Indices

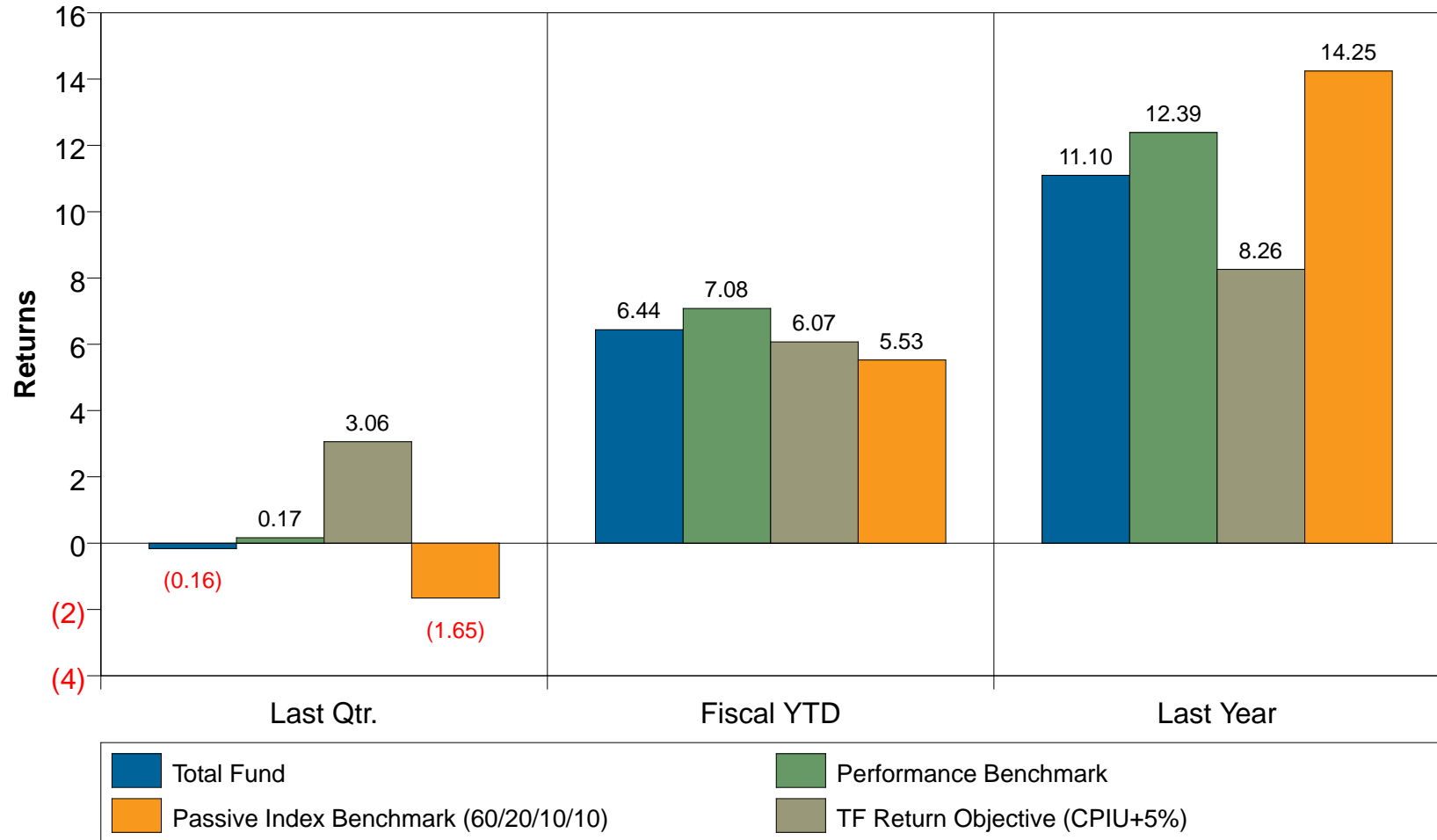
Three Years ended Q1 99	Three Years ended Q1 02	Three Years ended Q1 05	Three Years ended Q1 08	Three Years ended Q1 11	Three Years ended Q1 14	Three Years ended Q1 17	Three Years ended Q1 20	Three Years ended Q1 23	Three Years ended Q1 26
Private Equity (lag) 26.26%	Private Equity (lag) 19.24%	Non US Equity 12.64%	Private Equity (lag) 25.25%	US Fixed Income 5.30%	US Equity 14.61%	Real Estate (lag) 11.02%	Private Equity (lag) 16.14%	Private Equity (lag) 18.91%	US Equity 17.86%
US Equity 25.01%	Real Estate (lag) 10.27%	Real Estate (lag) 10.02%	Private Income (lag) 18.47%	US Equity 3.42%	Private Equity (lag) 14.35%	Private Equity (lag) 10.12%	Private Income (lag) 10.68%	US Equity 18.48%	Non US Equity 14.49%
Real Estate (lag) 13.46%	Absolute Return 9.67%	Private Income (lag) 9.87%	Real Estate (lag) 17.48%	Absolute Return 2.07%	Real Estate (lag) 11.92%	US Equity 9.76%	Real Estate (lag) 6.70%	Non US Equity 11.80%	Private Income (lag) 9.33%
Absolute Return 10.44%	US Fixed Income 6.49%	Private Equity (lag) 9.78%	Non US Equity 16.01%	Private Equity (lag) 1.20%	Private Income (lag) 9.54%	Private Income (lag) 7.56%	US Fixed Income 4.82%	Private Income (lag) 10.54%	Private Equity (lag) 8.36%
Non US Equity 8.47%	Cash 4.93%	Absolute Return 6.79%	Absolute Return 7.72%	Private Income (lag) 0.93%	Non US Equity 4.15%	US Fixed Income 2.68%	US Equity 4.00%	Real Estate (lag) 8.06%	Absolute Return 7.91%
US Fixed Income 7.75%	Private Income (lag) 1.16%	US Fixed Income 5.99%	US Equity 6.10%	Cash 0.51%	US Fixed Income 3.75%	Absolute Return 2.52%	Cash 1.83%	Absolute Return 5.61%	Cash 4.74%
Cash 5.23%	US Equity -1.10%	US Equity 3.69%	US Fixed Income 5.48%	Non US Equity -0.85%	Absolute Return 0.38%	Non US Equity 0.56%	Absolute Return 0.70%	Cash 0.89%	US Fixed Income 3.63%
Private Income (lag) -0.27%	Non US Equity -4.31%	Cash 1.47%	Cash 4.41%	Real Estate (lag) -4.18%	Cash 0.08%	Cash 0.17%	Non US Equity -1.96%	US Fixed Income -2.77%	Real Estate (lag) -1.00%

Fixed Income: Bloomberg Aggregate; US Equity: Russell 3000; Non-US Equity: MSCI ACWI x-US; Absolute Return: HFRI Total Fund Composite; Private Income: 60% Cambridge Infrastructure, 40% Cambridge Private Credit (lagged); Real Estate: NCREIF ODCE (lagged); Private Equity:: Cambridge Private Equity (lagged); Cash: 3-month T-Bills.

# APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets (Net of Fees)

Returns for Periods Ending March 31, 2026

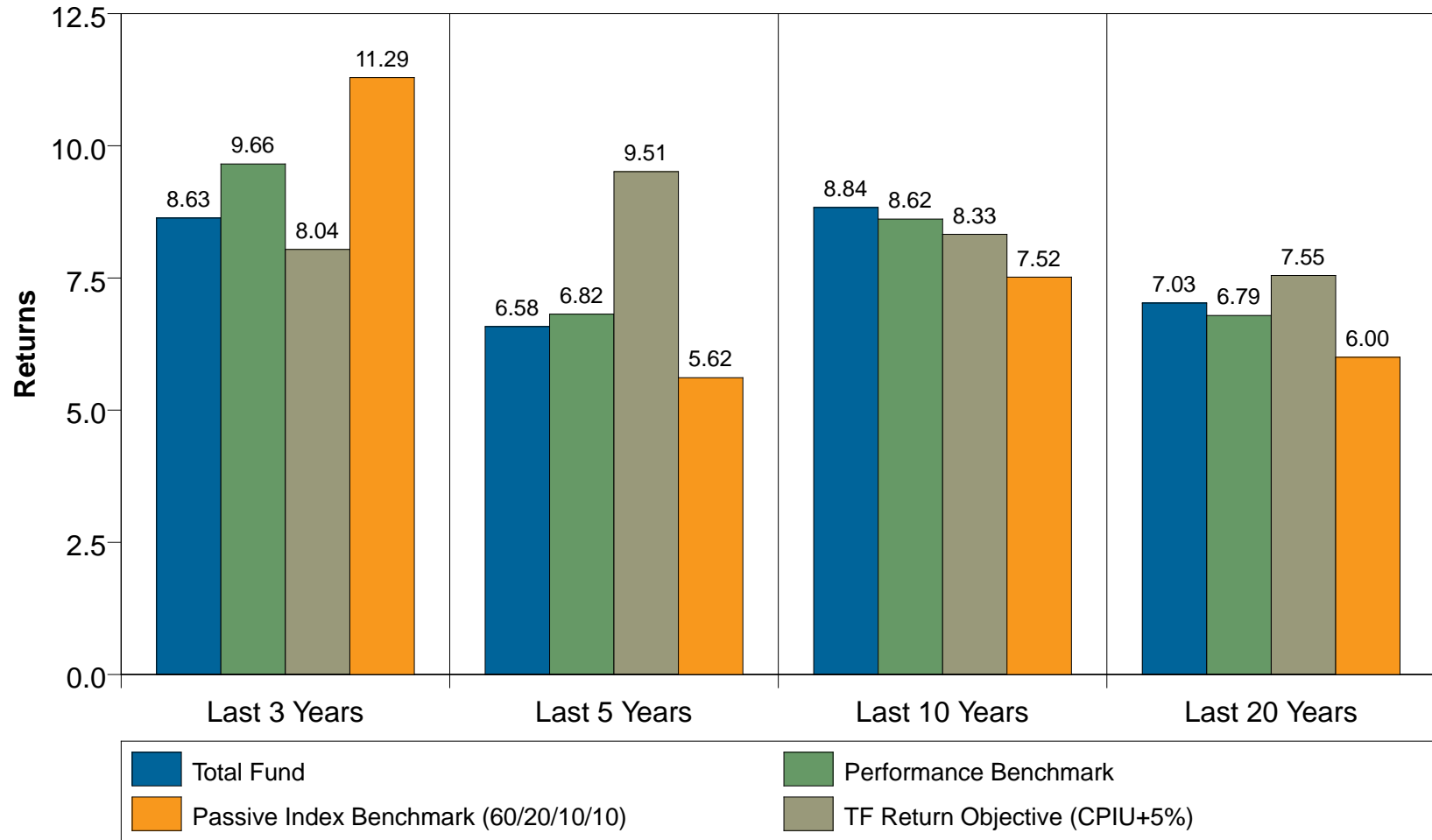


Benchmark (FY25-FY26) = 32% MSCI ACWI IMI, 1.0% 90 Day T-Bills, 1.0% BB US TIPS, 5.5% BB Agg, 5.5% BB Corp IG, 3.0% BB Global Treasury xUS Hdgd, 2.0% BB US BB HY, 2.0% BB US Securitized, 18% Cambridge PE (lagged), 11% NCREIF Expanded Property Index (lagged), 6.0% Cambridge Global Pvt. Infrastructure (lagged), 4.0% Cliffwater Direct Lending TR (lagged), 3.5% HFRI EH Equity Market Neutral, 3.5% HFRI Macro, 1% 90 Day T-Bills, and 1% S&P 500 Index.

# APFC Total Fund Cumulative Returns

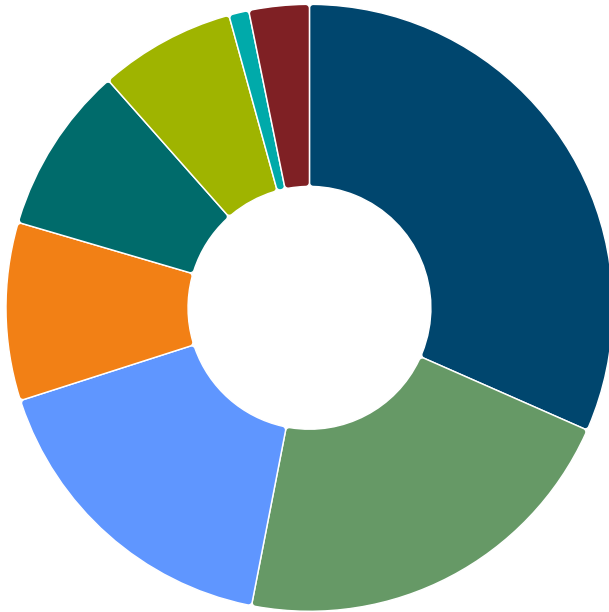
Total Fund versus Total Fund Targets (Net of Fees)

Returns for Periods Ending March 31, 2026



Benchmark (FY25-FY26) = 32% MSCI ACWI IMI, 1.0% 90 Day T-Bills, 1.0% BB US TIPS, 5.5% BB Agg, 5.5% BB Corp IG, 3.0% BB Global Treasury xUS Hdgd, 2.0% BB US BB HY, 2.0% BB US Securitized, 18% Cambridge PE (lagged), 11% NCREIF Expanded Property Index (lagged), 6.0% Cambridge Global Pvt. Infrastructure (lagged), 4.0% Cliffwater Direct Lending TR (lagged), 3.5% HFRI EH Equity Market Neutral, 3.5% HFRI Macro, 1% 90 Day T-Bills, and 1% S&P 500 Index.

# APFC Asset Allocation as of March 31, 2026



Asset Class	Assets	Weight	Target	Difference
Public Equity	\$28,315,908,309	31.60%	32.00%	-\$356,911,966
Fixed Income <sup>1</sup>	\$19,225,843,916	21.46%	20.00%	\$1,305,331,244
Private Equity <sup>2</sup>	\$15,230,761,231	17.00%	18.00%	-\$897,700,174
Real Estate <sup>3</sup>	\$8,498,050,511	9.48%	11.00%	-\$1,358,231,459
Private Income <sup>4</sup>	\$8,005,362,252	8.93%	10.00%	-\$954,894,084
Absolute Return	\$6,496,586,401	7.25%	7.00%	\$224,406,966
Tactical Opportunities	\$955,248,131	1.07%	1.00%	\$59,222,497
Total Fund Cash	\$2,874,802,608	3.21%	1.00%	\$1,978,776,975
<b>Total Fund<sup>5</sup></b>	<b>\$89,602,563,359</b>	<b>100.00%</b>	<b>100.00%</b>	<b>-</b>

- Overweight Public Fixed Income and Cash
- Underweight Real Estate, Private Equity, and Private Income
- Mildly defensive posture with bias towards liquidity.

<sup>1</sup> Includes Listed Infrastructure and REITs from 9/30/2016 through 6/30/2020

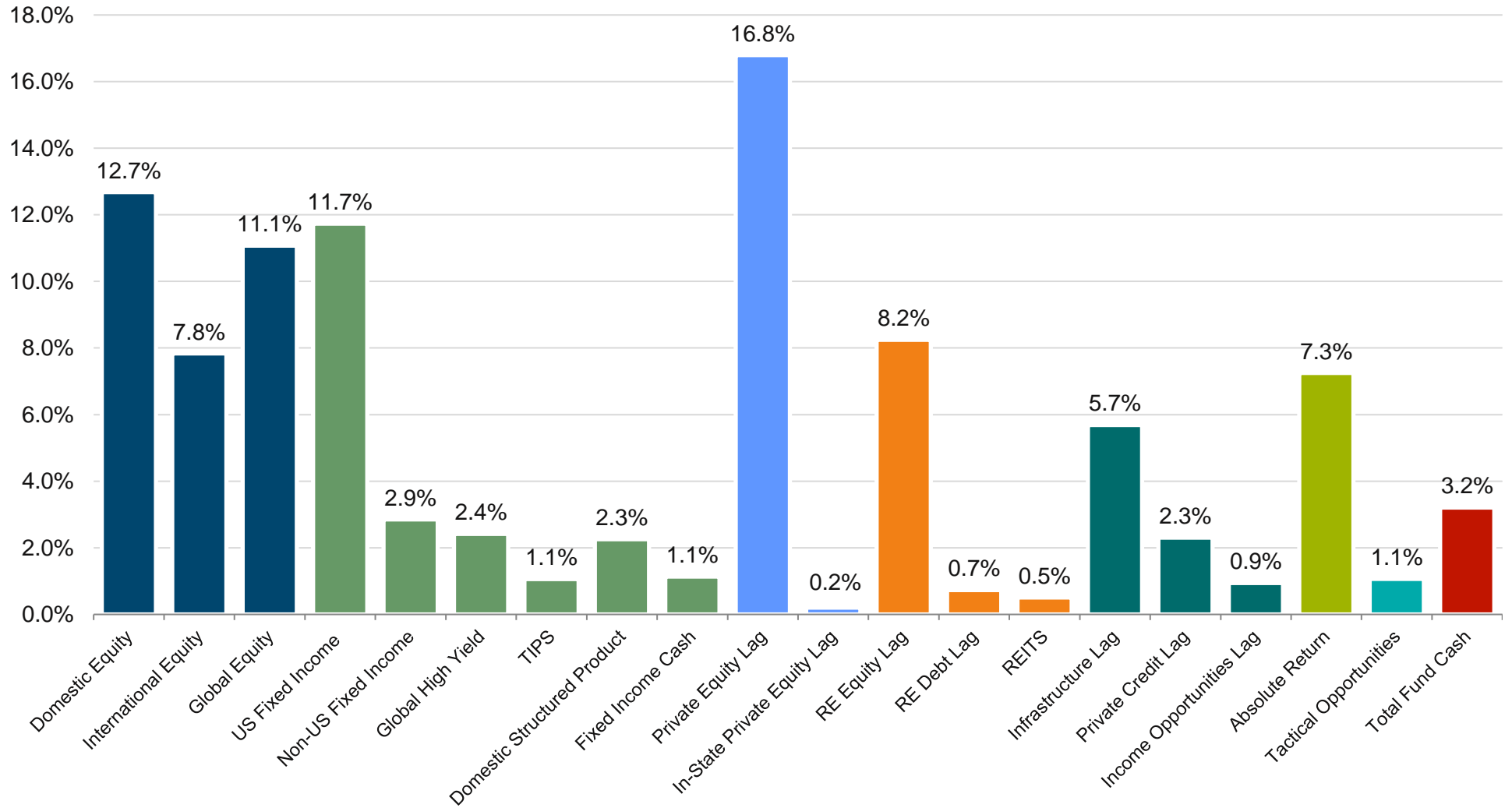
<sup>2,4</sup> Assets and performance lagged one quarter

<sup>3</sup> Assets and performance lagged one quarter, includes REITs until 9/30/2016, which returned to this asset class as of 6/30/2020

<sup>5</sup> Total Fund assets and performance are a blend of current public asset classes and lagged private asset classes.

# Total Fund Strategy Allocation

Periods Ended March 31, 2026



# Attribution as of March 31, 2026

## 1 Quarter Relative Attribution Effects

Asset Class	Effective Weight	Benchmark Weight	Return	Benchmark Return	Manager Effect	Allocation Effect	Relative Return
Public Equity	32.88%	32.00%	-1.74%	-2.75%	0.34%	-0.03%	0.31%
Fixed Income	20.59%	20.00%	-0.13%	-0.16%	0.00%	0.01%	0.01%
Private Equity	16.98%	18.00%	1.58%	3.04%	-0.24%	-0.04%	-0.28%
Real Estate	9.48%	11.00%	-0.04%	1.14%	-0.11%	-0.03%	-0.14%
Private Income	8.74%	10.00%	0.52%	1.77%	-0.11%	-0.02%	-0.13%
Absolute Return	7.06%	7.00%	1.21%	2.97%	-0.12%	0.00%	-0.12%
Tactical Opportunities	1.08%	1.00%	-3.80%	-4.33%	0.01%	-0.00%	0.00%
Total Fund Cash	3.20%	1.00%	0.87%	0.85%	0.00%	0.02%	0.02%
<b>Total Fund</b>	<b>100.00%</b>	<b>100.00%</b>	<b>-0.16%</b>	<b>0.16%<sup>1</sup></b>	<b>-0.23%</b>	<b>-0.09%</b>	<b>-0.32%</b>

- In Q1 2026, the Total Fund underperformed the Performance Benchmark by 32 basis points.
- Manager effects in Private Equity, Real Estate, Private Income and Absolute Return were detractors of relative returns.
- Manager effect in Public Equity contributed positively by protecting in the down market.

<sup>1</sup> Benchmark (FY25-FY26) = 32% MSCI ACWI IMI, 1.0% 90 Day T-Bills, 1.0% BB US TIPS, 5.5% BB Agg, 5.5% BB Corp IG, 3.0% BB Global Treasury xUS Hdgd, 2.0% BB US BB HY, 2.0% BB US Securitized, 18% Cambridge PE (lagged), 11% NCREIF Expanded Property Index (lagged), 6.0% Cambridge Global Pvt. Infrastructure (lagged), 4.0% Cliffwater Direct Lending TR (lagged), 3.5% HFRI EH Equity Market Neutral, 3.5% HFRI Macro, 1% 90 Day T-Bills, and 1% S&P 500 Index.

## Attribution as of March 31, 2026

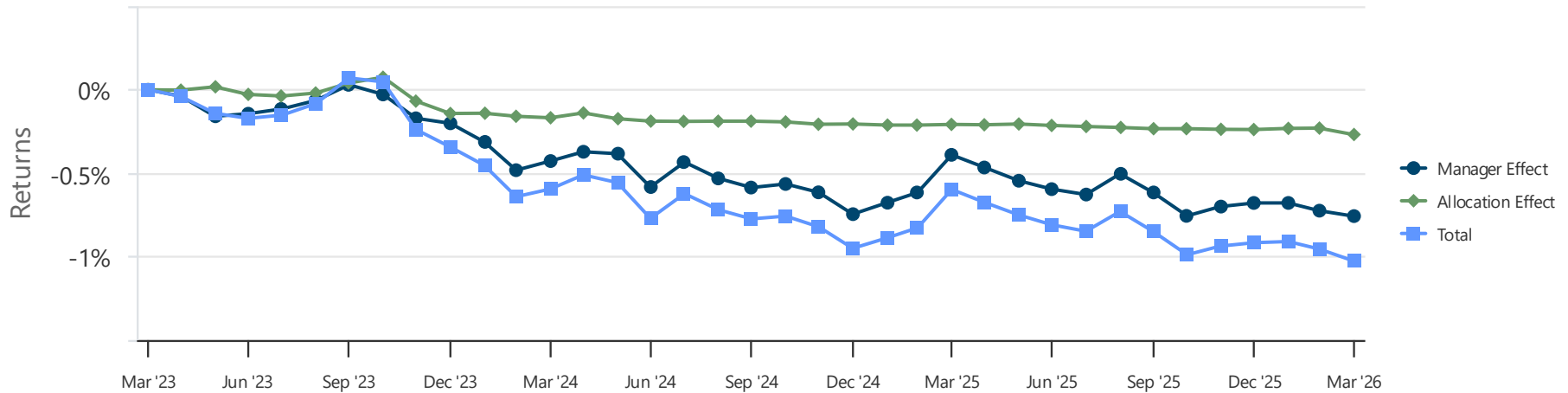
### Fiscal YTD Relative Attribution Effects

Asset Class	Effective Weight	Benchmark Weight	Return	Benchmark Return	Manager Effect	Allocation Effect	Relative Return
Public Equity	32.54%	32.00%	8.28%	8.09%	0.07%	-0.03%	0.04%
Fixed Income	20.13%	20.00%	2.95%	2.75%	0.04%	0.01%	0.06%
Private Equity	17.18%	18.00%	8.79%	10.73%	-0.32%	-0.04%	-0.37%
Real Estate	10.21%	11.00%	2.65%	3.63%	-0.09%	-0.02%	-0.11%
Private Income	8.93%	10.00%	6.18%	7.64%	-0.13%	-0.01%	-0.14%
Absolute Return	7.01%	7.00%	9.27%	10.03%	-0.05%	0.00%	-0.05%
Tactical Opportunities	1.04%	1.00%	6.56%	6.18%	0.00%	-0.01%	-0.00%
Total Fund Cash	2.96%	1.00%	3.01%	2.93%	0.00%	-0.06%	-0.06%
<b>Total Fund</b>	<b>100.00%</b>	<b>100.00%</b>	<b>6.44%</b>	<b>7.08%</b>	<b>-0.48%</b>	<b>-0.16%</b>	<b>-0.64%</b>

- Over the Fiscal year-to-date period, the Total Fund underperformed the Performance Benchmark by 64 basis points.
- Manager effects in Private Equity, Real Estate, Private Income and Absolute Return detracted from relative performance.
- Manager effects in Public Equity and Fixed Income contributed positively to relative performance.
- Overweight to cash detracted from relative performance.

# Attribution as of March 31, 2026

## 3 Year Relative Attribution Effects

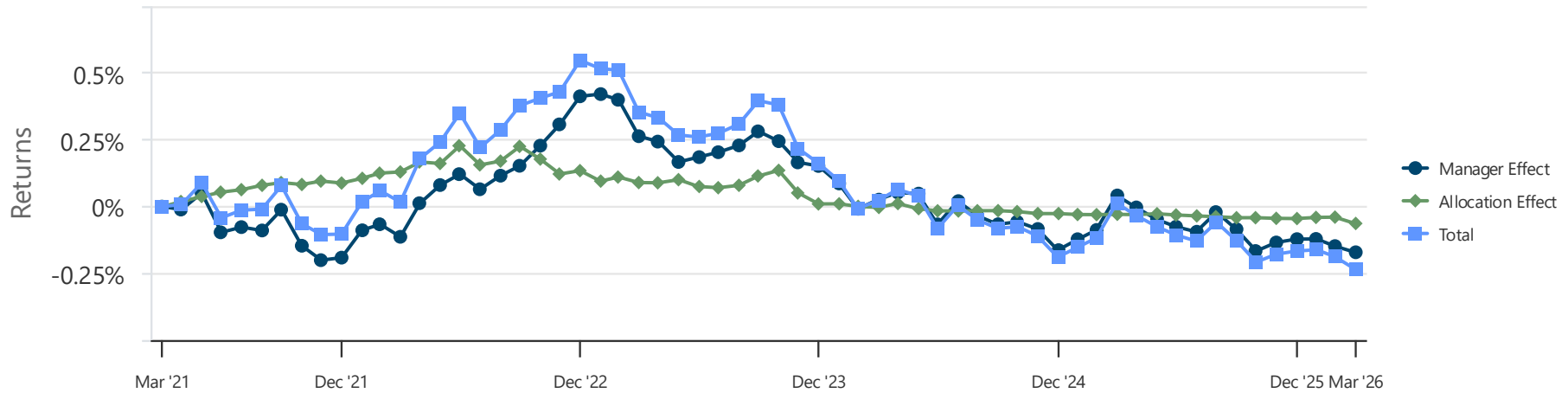


## 3 Years Relative Attribution Effects

Asset Class	Effective Weight	Benchmark Weight	Return	Benchmark Return	Manager Effect	Allocation Effect	Relative Return
Public Equity	32.71%	33.00%	14.93%	16.24%	-0.41%	-0.10%	-0.51%
Fixed Income	19.28%	20.00%	4.83%	4.41%	0.08%	0.05%	0.13%
Private Equity	18.30%	17.25%	5.60%	8.36%	-0.51%	-0.07%	-0.59%
Real Estate	10.55%	10.50%	0.49%	0.61%	-0.02%	-0.04%	-0.07%
Private Income	8.83%	9.58%	8.85%	9.86%	-0.09%	-0.01%	-0.09%
Absolute Return	7.18%	6.92%	10.36%	7.91%	0.18%	-0.02%	0.16%
Tactical Opportunities	0.86%	1.25%	-	-	0.01%	-0.05%	-0.05%
Total Fund Cash	2.27%	1.42%	5.84%	4.74%	0.02%	-0.04%	-0.02%
Multi-Asset Risk Parity	0.02%	0.08%	-	-	-0.00%	0.01%	0.01%
<b>Total Fund</b>	<b>100.00%</b>	<b>100.00%</b>	<b>8.63%</b>	<b>9.66%</b>	<b>-0.76%</b>	<b>-0.27%</b>	<b>-1.02%</b>

# Attribution as of March 31, 2026

## 5 Year Relative Attribution Effects



## 5 Years Relative Attribution Effects

Asset Class	Effective Weight	Benchmark Weight	Return	Benchmark Return	Manager Effect	Allocation Effect	Relative Return
Public Equity	33.97%	34.75%	8.65%	9.03%	-0.13%	-0.06%	-0.19%
Fixed Income	19.34%	20.05%	1.33%	0.96%	0.07%	0.03%	0.11%
Private Equity	18.81%	16.85%	8.31%	10.13%	-0.32%	0.08%	-0.24%
Real Estate	9.53%	9.60%	4.28%	4.49%	-0.02%	-0.03%	-0.05%
Private Income	8.42%	9.35%	9.76%	10.48%	-0.07%	-0.03%	-0.10%
Absolute Return	6.82%	6.55%	8.63%	4.34%	0.28%	-0.02%	0.27%
Tactical Opportunities	0.52%	0.75%	-	-	0.00%	-0.03%	-0.03%
Total Fund Cash	2.33%	1.65%	4.23%	3.34%	0.01%	-0.03%	-0.02%
Multi-Asset Risk Parity	0.27%	0.45%	-	-	0.00%	0.02%	0.02%
<b>Total Fund</b>	<b>100.00%</b>	<b>100.00%</b>	<b>6.58%</b>	<b>6.82%</b>	<b>-0.17%</b>	<b>-0.06%</b>	<b>-0.23%</b>

# Callan Periodic Table of Investment Returns Calendar Years

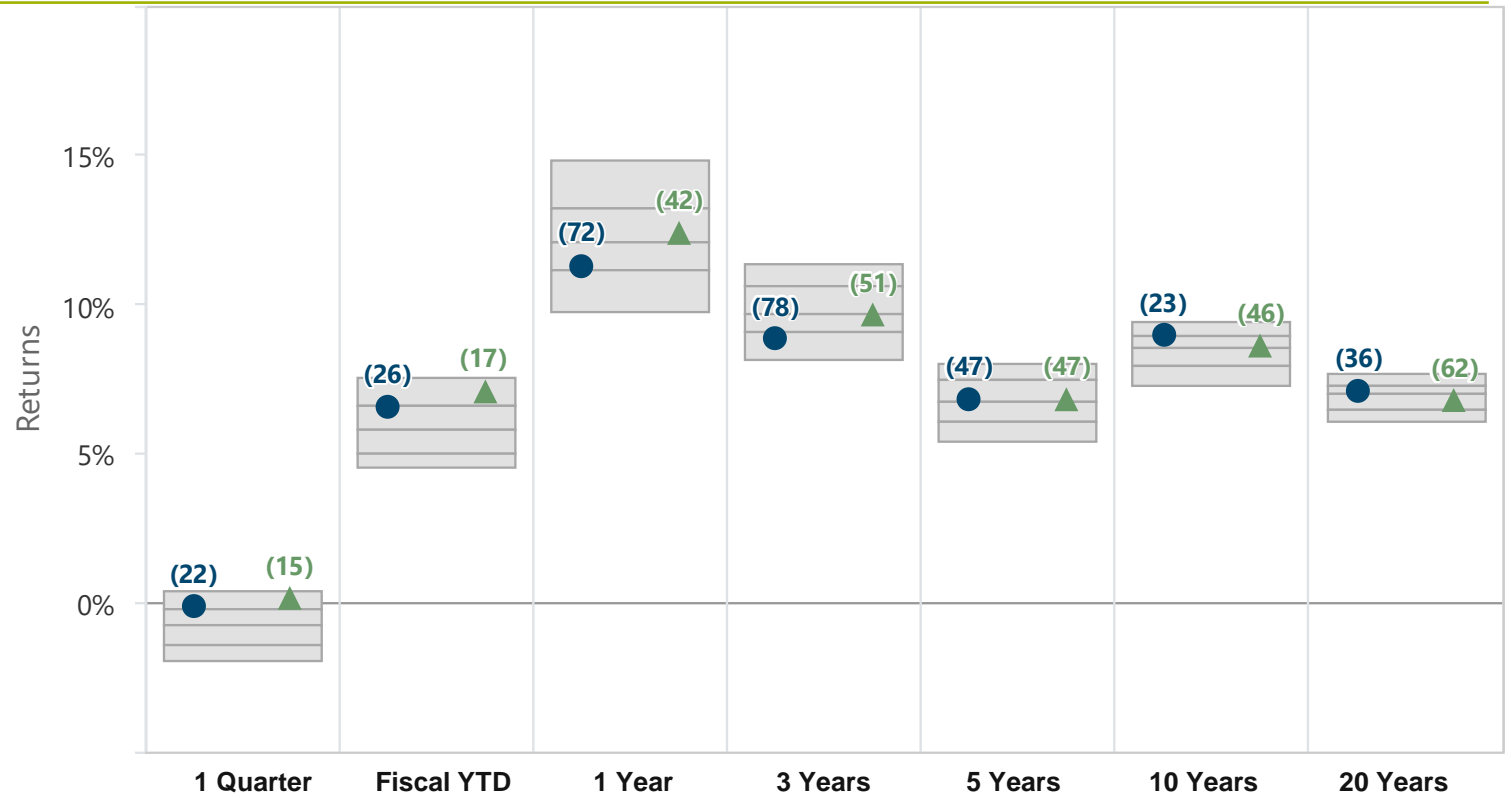
## Returns for Asset Class Indices and APFC Total Fund

2017	2018	2019	2020	2021	2022	2023	2024	2025	1 Qtr. 2026
Global Equity 23.95%	Private Equity (lag) 17.93%	Global Equity 26.35%	Private Equity (lag) 20.21%	Private Equity (lag) 53.06%	Real Estate (lag) 16.08%	Global Equity 21.58%	Global Equity 16.37%	Global Equity 22.06%	Private Equity (lag) 3.04%
APFC Total Fund 16.24%	Private Income (lag) 10.84%	APFC Total Fund 15.70%	Global Equity 16.25%	APFC Total Fund 19.04%	Private Income (lag) 6.82%	Private Income (lag) 10.25%	Private Income (lag) 11.97%	APFC Total Fund 12.64%	Absolute Return 2.97%
Private Equity (lag) 16.17%	Real Estate (lag) 7.16%	Private Equity (lag) 10.56%	APFC Total Fund 12.49%	Global Equity 18.22%	Absolute Return 5.07%	APFC Total Fund 8.59%	APFC Total Fund 8.22%	Private Equity (lag) 10.57%	Private Income (lag) 1.92%
Private Income (lag) 11.74%	Cash 1.87%	US Fixed Income 8.72%	US Fixed Income 7.51%	Private Income (lag) 18.20%	Cash 1.46%	US Fixed Income 5.53%	Private Equity (lag) 8.22%	Absolute Return 9.04%	Real Estate (lag) 1.14%
Real Estate (lag) 6.89%	US Fixed Income 0.01%	Private Income (lag) 6.49%	Private Income (lag) 5.35%	Real Estate (lag) 12.15%	Private Equity (lag) -3.92%	Cash 5.01%	Absolute Return 7.97%	Private Income (lag) 8.44%	Cash 0.85%
US Fixed Income 3.54%	APFC Total Fund -1.10%	Real Estate (lag) 6.24%	Absolute Return 2.61%	Absolute Return 7.40%	APFC Total Fund -6.08%	Private Equity (lag) 3.82%	Cash 5.25%	US Fixed Income 7.30%	US Fixed Income -0.05%
Absolute Return 3.54%	Absolute Return -2.53%	Absolute Return 4.41%	Real Estate (lag) 2.00%	Cash 0.05%	US Fixed Income -13.01%	Absolute Return 2.79%	US Fixed Income 1.25%	Real Estate (lag) 4.71%	APFC Total Fund -0.12%
Cash 0.86%	Global Equity -10.08%	Cash 2.28%	Cash 0.67%	US Fixed Income -1.54%	Global Equity -18.40%	Real Estate (lag) -8.39%	Real Estate (lag) -3.47%	Cash 4.18%	Global Equity -2.75%

Fixed Income: Bloomberg Aggregate; US Equity: Russell 3000; Non-US Equity: MSCI ACWI x-US; Absolute Return: HFRI Total Fund Composite; Private Income: 60% Cambridge Infrastructure, 40% Cambridge Private Credit (lagged); Real Estate: NCREIF ODCE (lagged); Private Equity: Cambridge Private Equity (lagged); Cash: 3-month T-Bills.

# Performance Comparison as of March 31, 2026

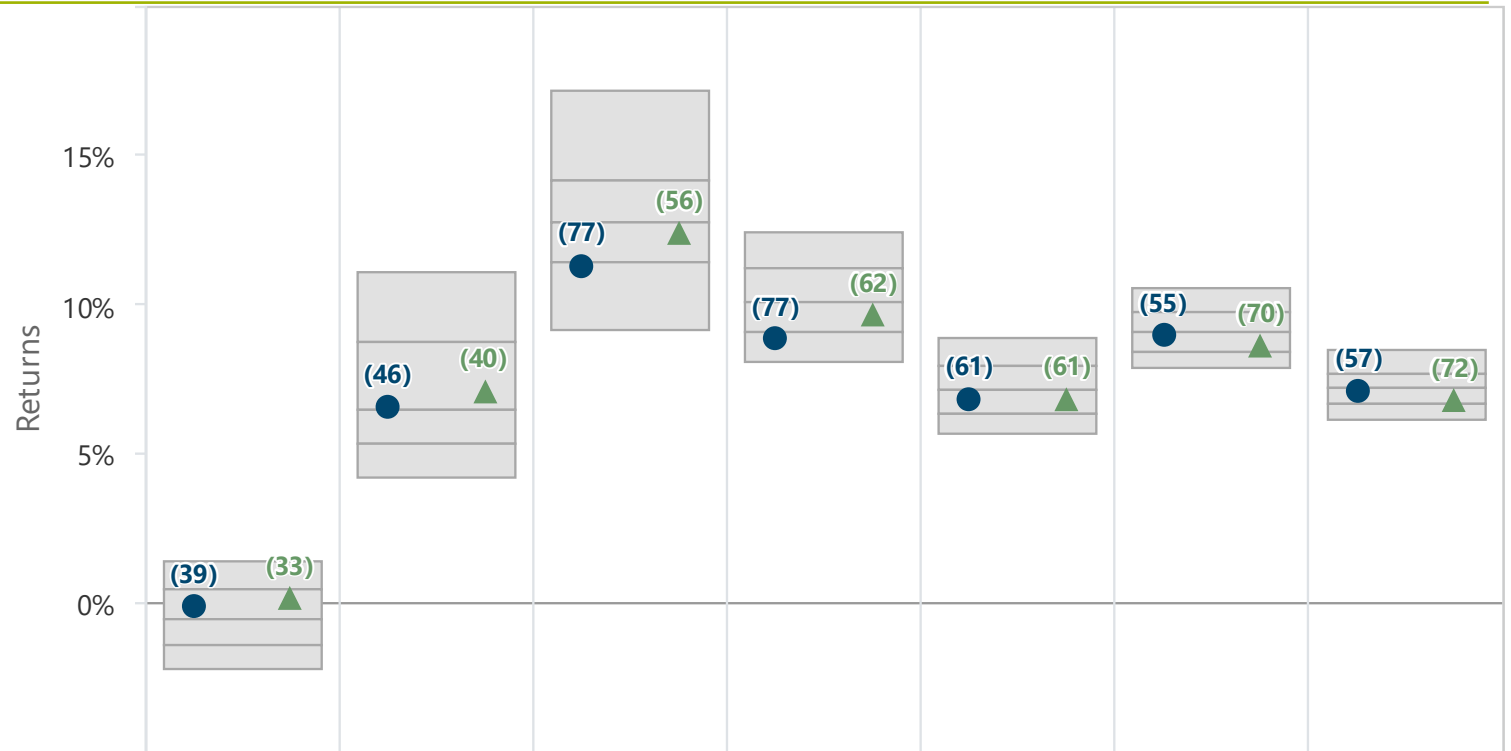
Performance vs Callan **Large Public Fund** Database (Gross)



	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years
10th Percentile	0.38	7.52	14.83	11.31	8.03	9.43	7.67
25th Percentile	-0.22	6.59	13.22	10.62	7.47	8.96	7.28
Median	-0.78	5.78	12.06	9.70	6.73	8.53	7.00
75th Percentile	-1.40	5.01	11.15	9.09	6.05	7.94	6.48
90th Percentile	-1.96	4.55	9.75	8.11	5.37	7.27	6.07
<b>Total Fund ●</b>	<b>-0.12</b>	<b>6.56</b>	<b>11.28</b>	<b>8.86</b>	<b>6.82</b>	<b>8.98</b>	<b>7.10</b>
<b>Performance Benchmark ▲</b>	<b>0.16</b>	<b>7.08</b>	<b>12.39</b>	<b>9.66</b>	<b>6.82</b>	<b>8.62</b>	<b>6.79</b>

# Performance Comparison as of March 31, 2026

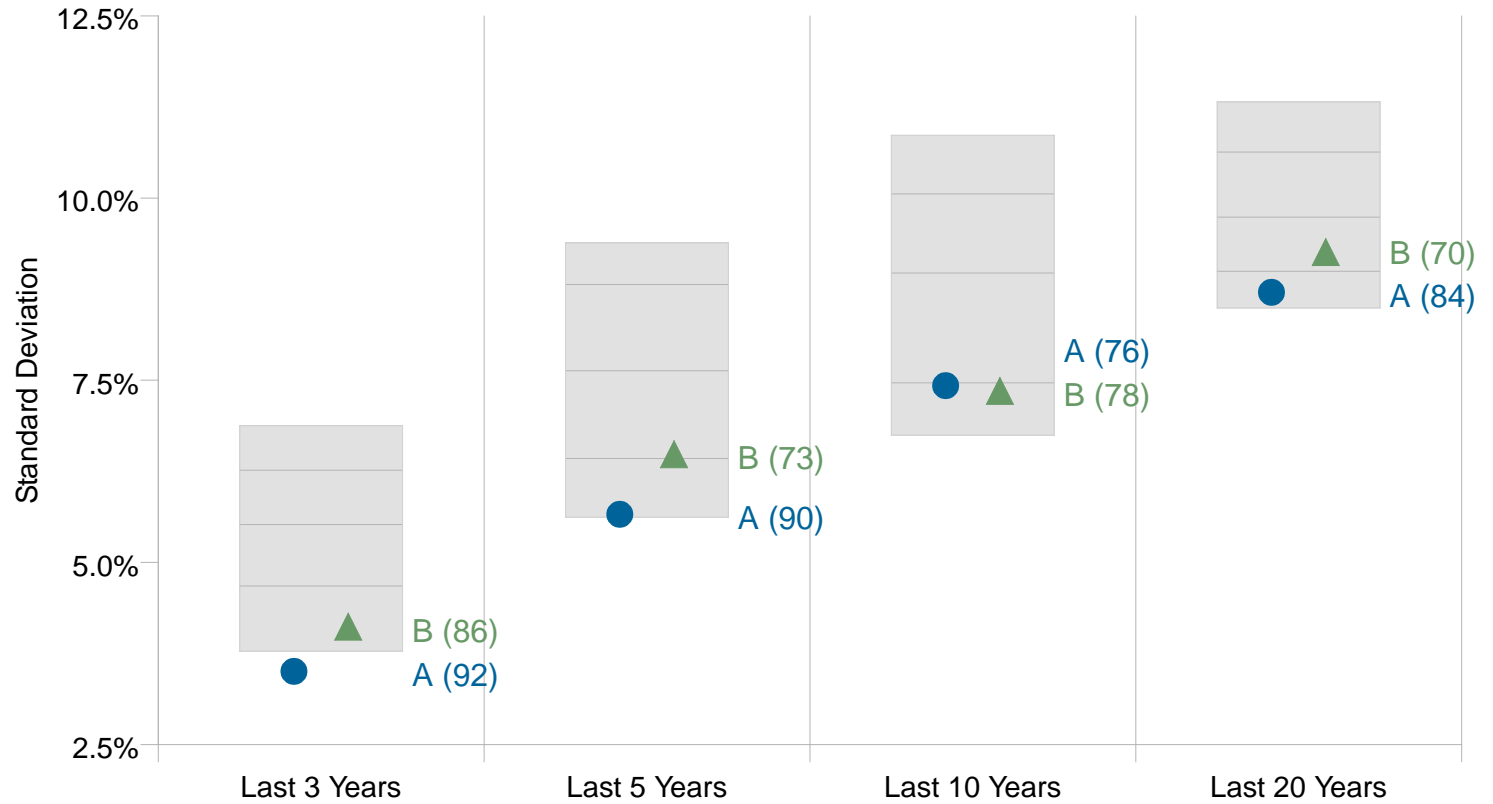
Performance vs Callan **Large Endowment Foundation** Database (Gross)



	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	20 Years
10th Percentile	1.41	11.04	17.17	12.39	8.86	10.56	8.45
25th Percentile	0.42	8.76	14.12	11.19	7.97	9.77	7.67
Median	-0.53	6.45	12.75	10.07	7.11	9.08	7.20
75th Percentile	-1.45	5.32	11.44	9.07	6.34	8.43	6.65
90th Percentile	-2.22	4.20	9.16	8.08	5.68	7.86	6.10
<b>Total Fund ●</b>	<b>-0.12</b>	<b>6.56</b>	<b>11.28</b>	<b>8.86</b>	<b>6.82</b>	<b>8.98</b>	<b>7.10</b>
<b>Performance Benchmark ▲</b>	<b>0.16</b>	<b>7.08</b>	<b>12.39</b>	<b>9.66</b>	<b>6.82</b>	<b>8.62</b>	<b>6.79</b>

# Risk Comparison as of March 31, 2026

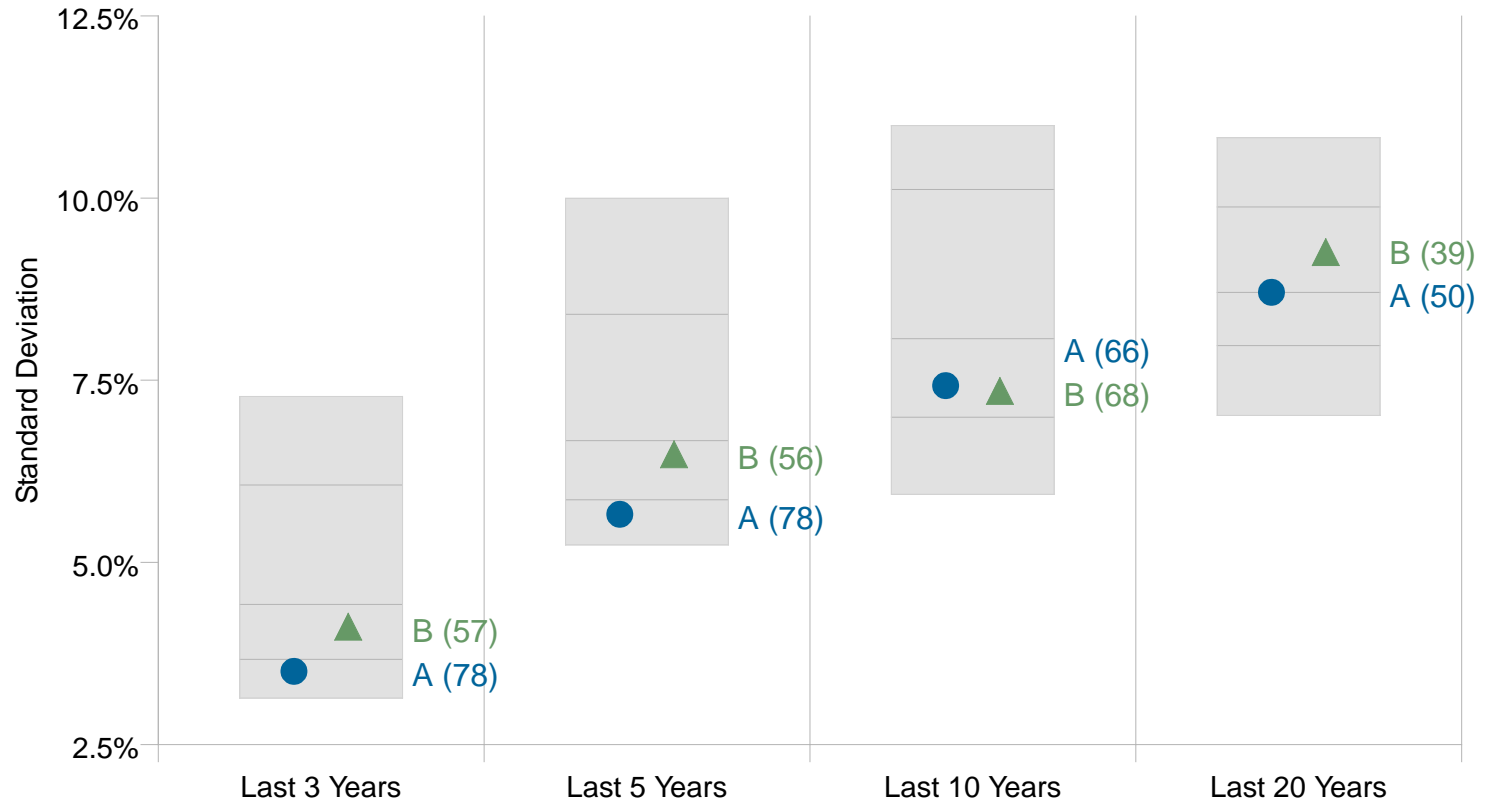
Standard Deviation vs Callan Large Public Fund Database (Gross)



10th Percentile	6.88	9.39	10.86	11.32
25th Percentile	6.27	8.82	10.06	10.63
Median	5.52	7.63	8.97	9.74
75th Percentile	4.68	6.43	7.47	9.00
90th Percentile	3.78	5.62	6.75	8.49
APFC Total Fund ● A	3.50	5.66	7.43	8.71
Performance Benchmark ▲ B	4.12	6.48	7.35	9.26

# Risk Comparison as of March 31, 2026

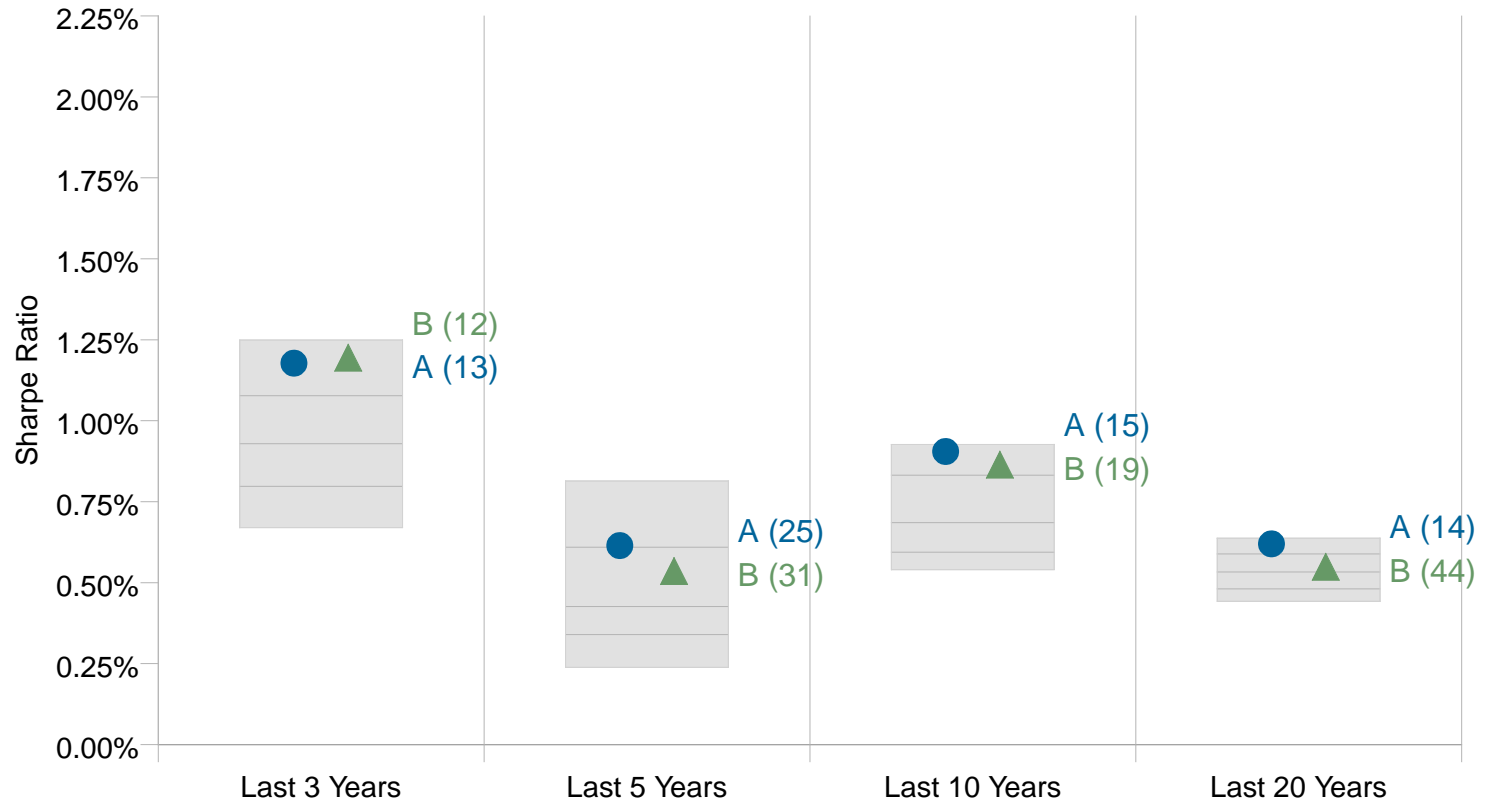
Standard Deviation vs Callan **Large Endowment Foundation** Database (Gross)



10th Percentile	7.28	10.00	11.00	10.83
25th Percentile	6.06	8.41	10.12	9.88
Median	4.42	6.67	8.07	8.71
75th Percentile	3.67	5.86	6.99	7.98
90th Percentile	3.14	5.24	5.94	7.02
APFC Total Fund ● A	3.50	5.66	7.43	8.71
Performance Benchmark ▲ B	4.12	6.48	7.35	9.26

# Risk Adjusted Performance Comparison as of March 31, 2026

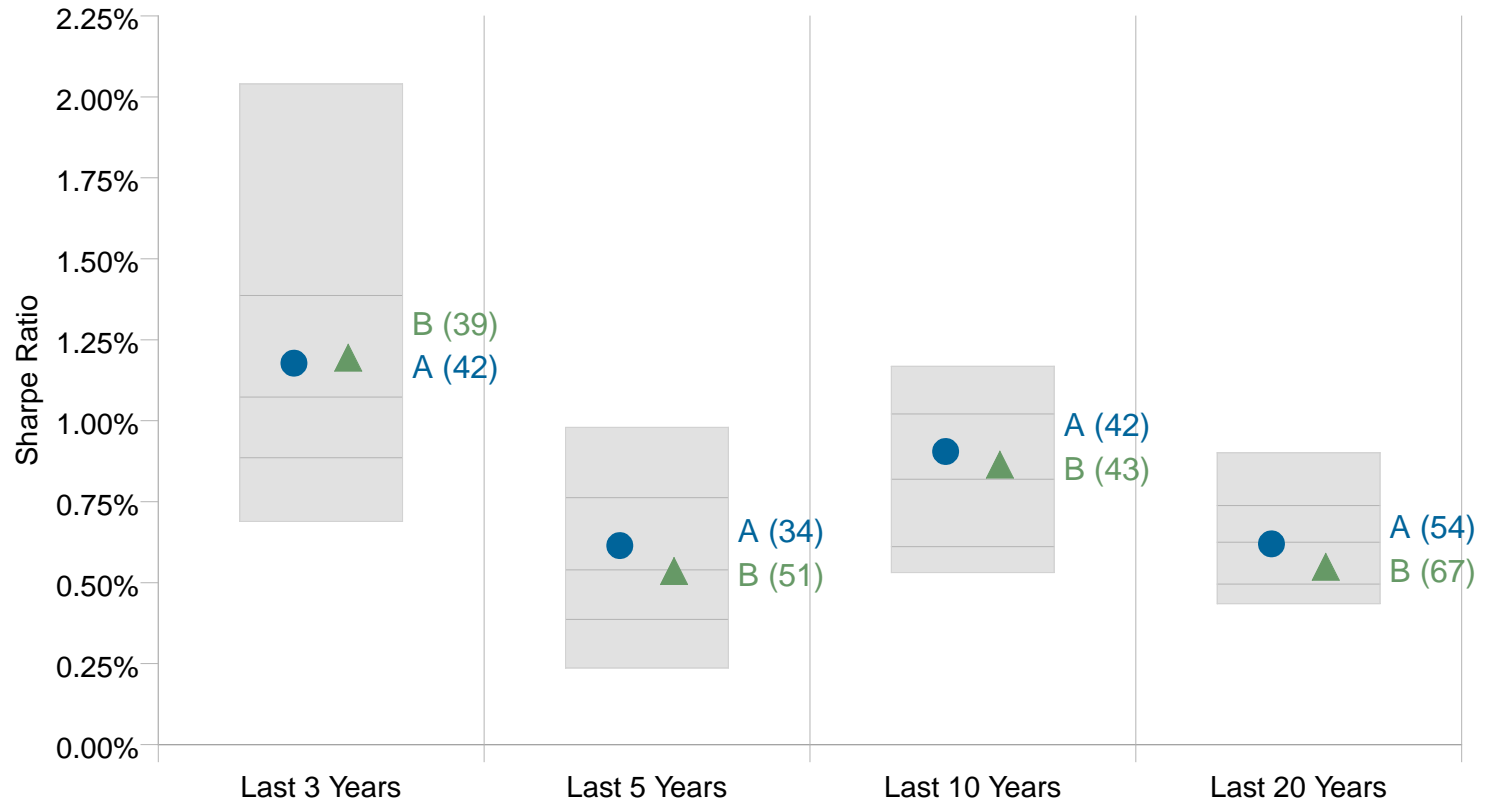
Sharpe Ratio vs Callan **Large Public Fund** Database (Gross)



10th Percentile	1.25	0.81	0.93	0.64
25th Percentile	1.08	0.61	0.83	0.59
Median	0.93	0.43	0.69	0.53
75th Percentile	0.80	0.34	0.59	0.48
90th Percentile	0.67	0.24	0.54	0.44
APFC Total Fund ● A	1.18	0.61	0.90	0.62
Performance Benchmark ▲ B	1.20	0.54	0.86	0.55

# Risk Adjusted Performance Comparison as of March 31, 2026

Sharpe Ratio vs Callan **Large Endowment Foundation** Database (Gross)



10th Percentile	2.04	0.98	1.17	0.90
25th Percentile	1.39	0.76	1.02	0.74
Median	1.07	0.54	0.82	0.63
75th Percentile	0.89	0.39	0.61	0.50
90th Percentile	0.69	0.24	0.53	0.44
APFC Total Fund ● A	1.18	0.61	0.90	0.62
Performance Benchmark ▲ B	1.20	0.54	0.86	0.55

Callan

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**Global Equity**

# Global/Global ex-U.S. Equity Performance: 1Q26

Relative resilience: Non-U.S. stocks lead in a down quarter

## Broad market

- Global ex-U.S. equities outpaced the U.S. in 1Q26.
- The MSCI EAFE Index declined slightly in 1Q26 following a period of strong performance in 2025, as modest gains in the U.K. and developed Pacific were offset by weakness across the euro zone.
- Within emerging markets, China lagged, reflecting weak consumer confidence and ongoing local government debt pressures. India also underperformed, facing valuation compression and energy-related headwinds as a net commodity importer amid geopolitical tensions involving Iran.
- Semiconductor-oriented markets such as Taiwan and South Korea supported results amid strong AI-driven demand. Latin America also outperformed, led by Brazil, benefiting from commodity strength and currency tailwinds.

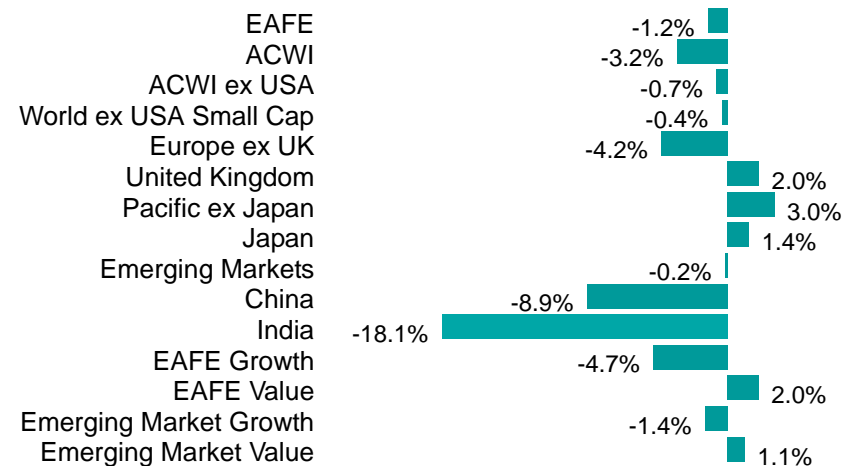
## Growth vs. value

- Value outperformed growth across EAFE and emerging markets in 1Q26, supported by strength in energy and other commodity-sensitive sectors following the Iran conflict.

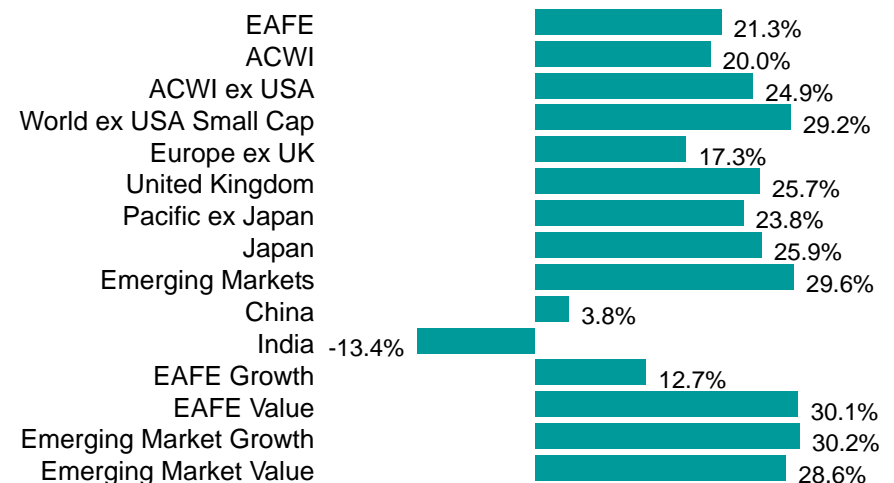
## U.S. dollar

- The U.S. dollar strengthened modestly during 1Q26 (+1.7%), acting as a slight headwind to global ex-U.S. equity returns.

## Global Equity Returns: Quarter Ended 3/31/26



## Global Equity Returns: One Year Ended 3/31/26



Source: MSCI

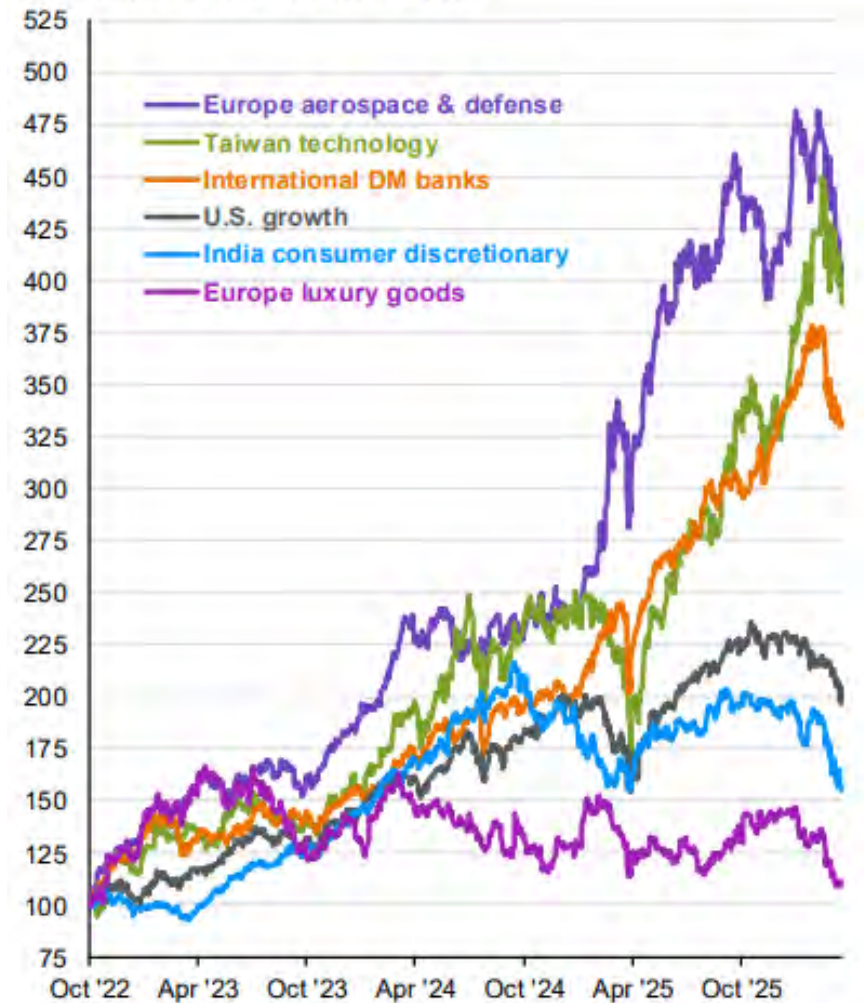
# Global ex-U.S. Thematic Leadership

## Strength has been thematic, not broad

- Performance in 1Q26 continued many of the same themes from calendar year 2025.
- Significant dispersion within Technology stocks continued as AI beneficiaries such as semiconductors, memory, etc., have seen remarkable strength, while potential AI losers like software continued their downtrends and experienced multiple contraction.
- Hard asset sectors that are deemed immune to AI concerns and AI beneficiaries such as Materials, Utilities, and Energy continued to perform well.
- Both Consumer Staples and Consumer Discretionary stocks remain under pressure as a variety of concerns around economic sensitivity, margin risk, valuations, etc., persist.
- Active manager relative performance has been very closely tied to the amount of exposure portfolios have to specific industries and themes.

Major Global Equity Investment Themes

Oct 12, 2022 = 100, total return, USD



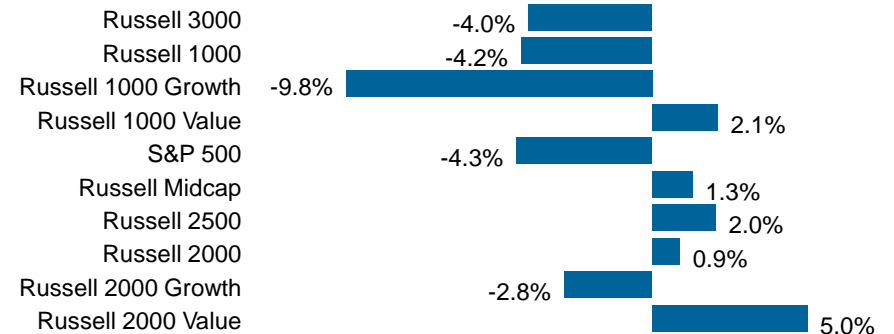
Sources: FactSet, J.P. Morgan, MSCI

# U.S. Equity Performance: 1Q26

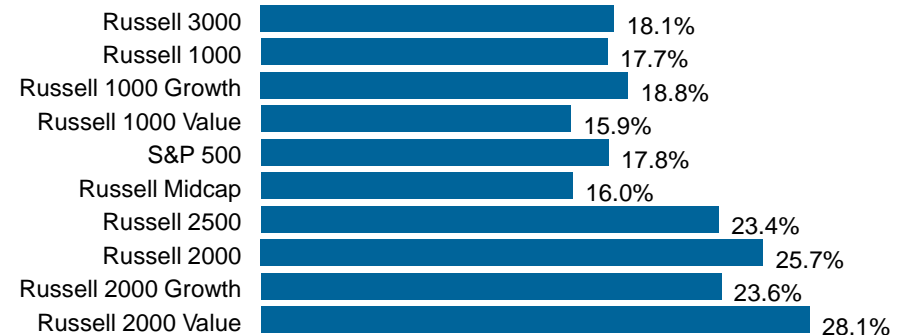
## The S&P 500 Index fell against a volatile market backdrop

- The S&P 500 Index was down 4.3% in 1Q26. Challenged results were driven by multiple factors, including geopolitical conflict exacerbating inflation fears, investor rotation out of stocks that have reached lofty valuations, and a shift within the Magnificent 7 as its components saw starkly different returns based on concerns around software and uncertainty around the benefits of AI capex to future revenue growth.
- Only 6 of the 11 S&P sectors posted gains. Energy (+38.2%!) was the best-performing sector followed by Materials (+9.7%) and Utilities (+8.3%). The worst-performing sectors were Information Technology, Financials, and Consumer Discretionary, all down over 9%.
- Small cap indices outperformed large cap indices and value outperformed growth across the market cap spectrum.

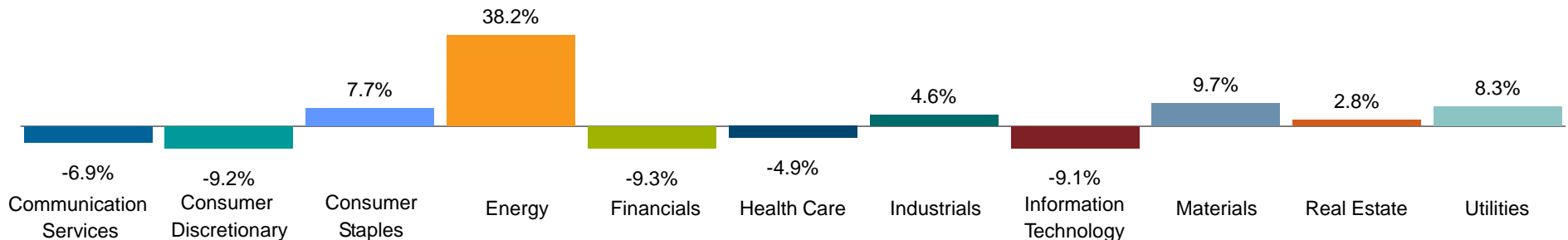
### U.S. Equity: Quarter Ended 3/31/26



### U.S. Equity: One Year Ended 3/31/26



### Industry Sector Quarterly Performance (S&P 500) as of 3/31/26



Sources: FTSE Russell, S&P Dow Jones Indices

# 1Q26: Another Quarter of ‘Two Halves’

Geopolitical disruption interrupts a strong start to the year for equities

## The Magnificent 7 Loses Ground to Small Caps



## Iran Conflict Marked Beginning of a Surge in Energy Performance



## Key characteristics of first half of quarter

- Fundamentals started to matter! A strong earnings season supported a broadening of market returns, and most notably, an extension of the outperformance in small caps that began in the latter half of 2025.
- Large cap performance meaningfully disaggregated, particularly within the Magnificent 7. Drivers of underperformance include investors’ concerns about peak valuations on the heels of high AI capex and displacement of software and other applications by AI.

## Key characteristics of second half of quarter

- U.S./Iran conflict began on Feb. 28, kicking off sharp equity declines through March 23.
- The Energy sector was up nearly 40% as fears of supply shortages pushed up crude oil prices. The sector also benefited from the “HALO” (hard assets, low obsolescence) trade as investors rotated from valuation-rich areas and those potentially displaced by AI.

Sources: Factset, Furey, Westfield

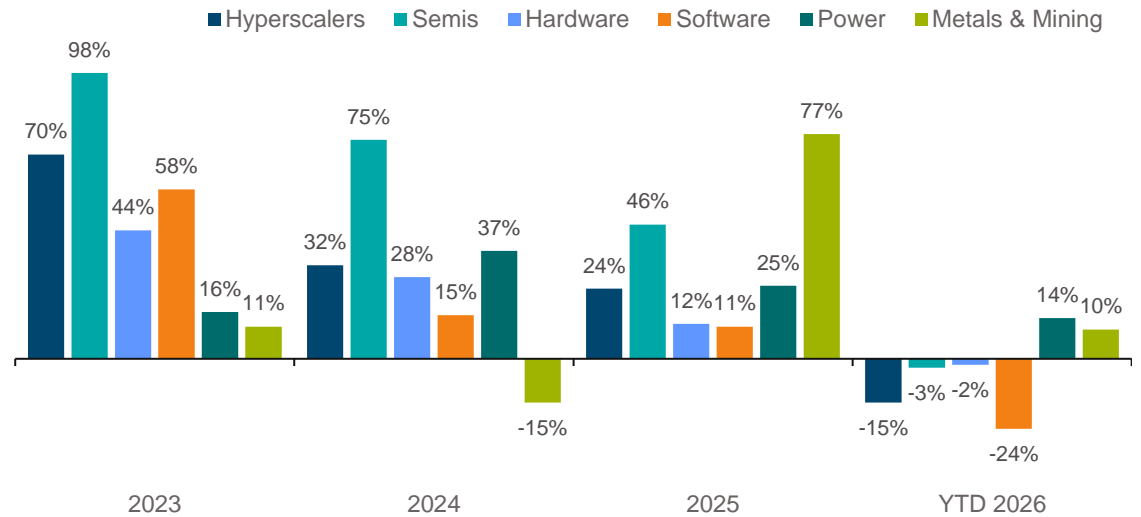
# What's Going on With AI?

## Exposure to AI in portfolios remains important, but stock selection within the AI cohort matters

- Since the release of ChatGPT, exposure to “anything AI”—ranging from hardware to infrastructure to applications—has generally been additive to managers’ excess returns. Hyperscalers, hardware, and infrastructure-related stocks have typically led the charge in terms of performance.
- 1Q26, however, marked more meaningful disaggregation of performance within AI-related and adjacent industries.
  - Software, which has been viewed as a subject of AI displacement and began its unraveling in 2025, solidified its role as an “AI loser” in 1Q26. However, we are starting to see some differentiation in returns between companies based on AI impacts.
  - Hyperscalers (e.g., the Mag 7) have struggled due to questions on future ROIC as a result of heavy capex.
  - Semiconductor performance has been boosted by memory stocks. The latter has outperformed on demand from the hyperscalers.
  - Power stocks have been boosted by continued infrastructure buildouts.

### Differentiation in Returns Between AI-adjacent Industries Begins to Emerge

AI-related industry performance



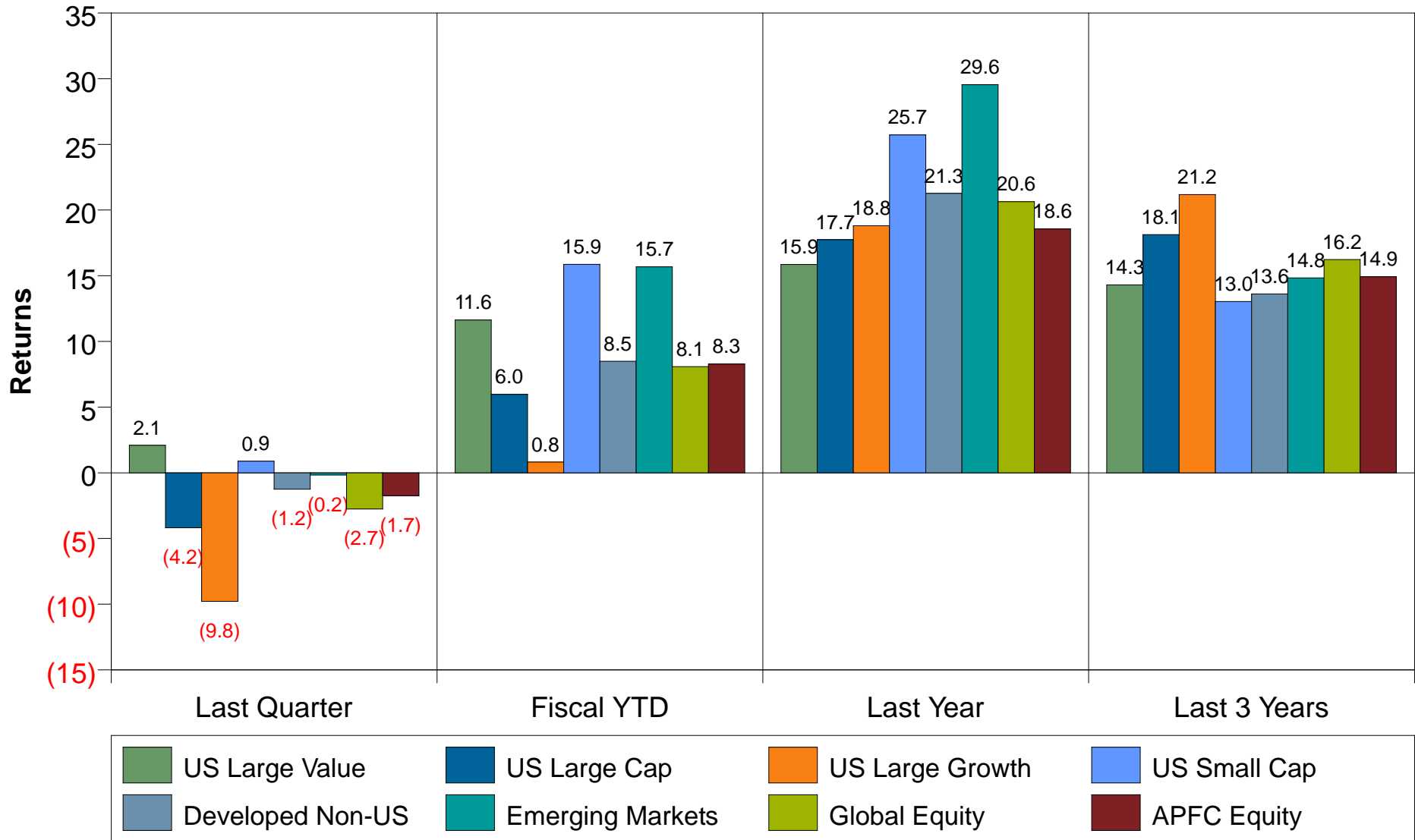
### Software Remains Structurally Challenged but Differentiation Is Emerging



Sources: JP Morgan, Westfield

# Public Equity Performance

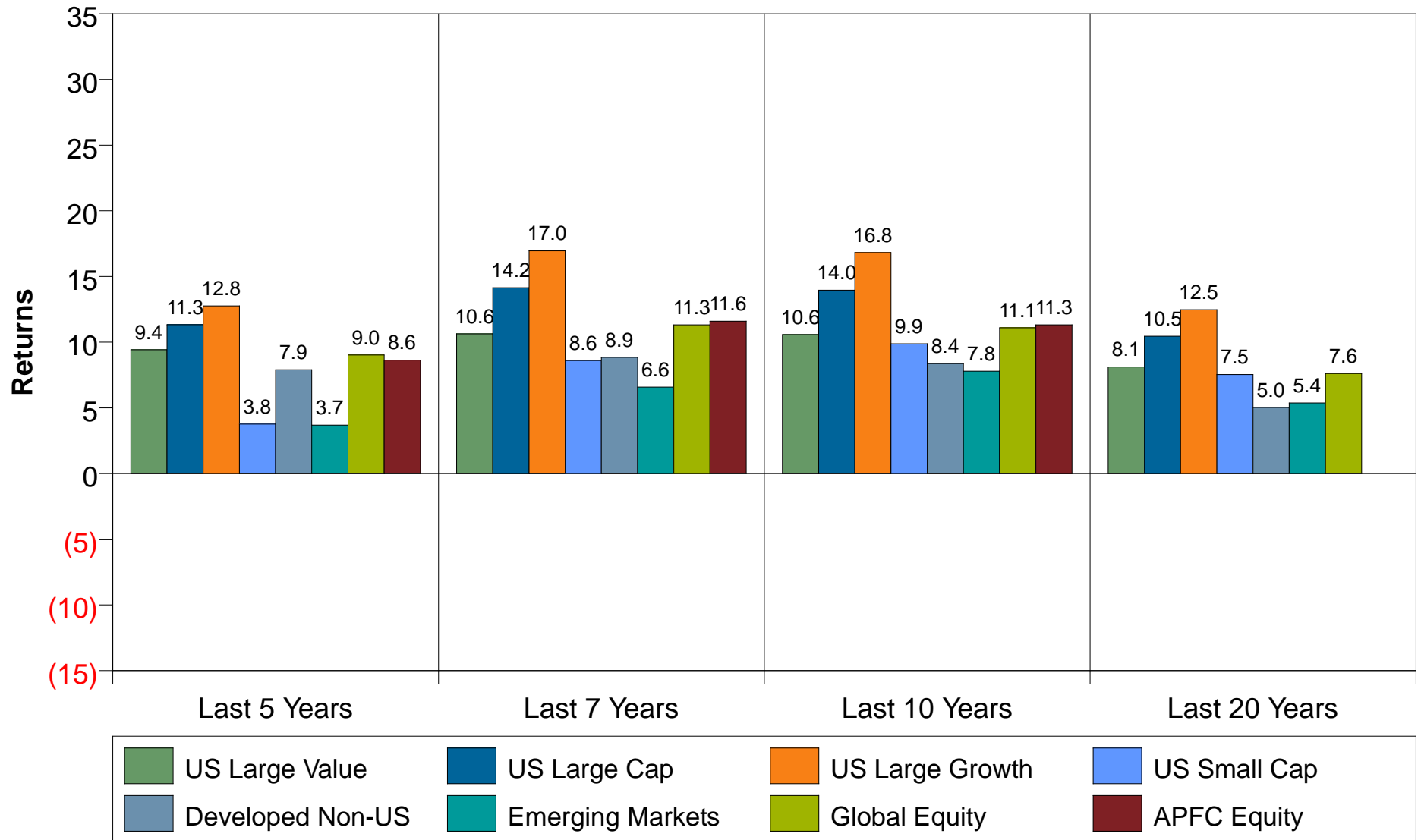
Periods ended March 31, 2026



US Large Cap: Russell 1000, US Large Growth: Russell 1000 Growth, US Large Value: Russell 1000 Value, US Small Cap: Russell 2000, Emerging Markets: MSCI Emerging Markets, Developed Non-US: MSCI EAFE, Global: MSCI ACWI IMI, APFC Public Equity: Total APFC Equity Composite (Net of fees).

# Public Equity Performance

Periods ended March 31, 2026



US Large Cap: Russell 1000, US Large Growth: Russell 1000 Growth, US Large Value: Russell 1000 Value, US Small Cap: Russell 2000, Emerging Markets: MSCI Emerging Markets, Developed Non-US: MSCI EAFE, Global: MSCI ACWI IMI, APFC Public Equity: Total APFC Equity Composite (Net of fees).

# Callan Periodic Table of Public Equity Returns (Calendar Years)

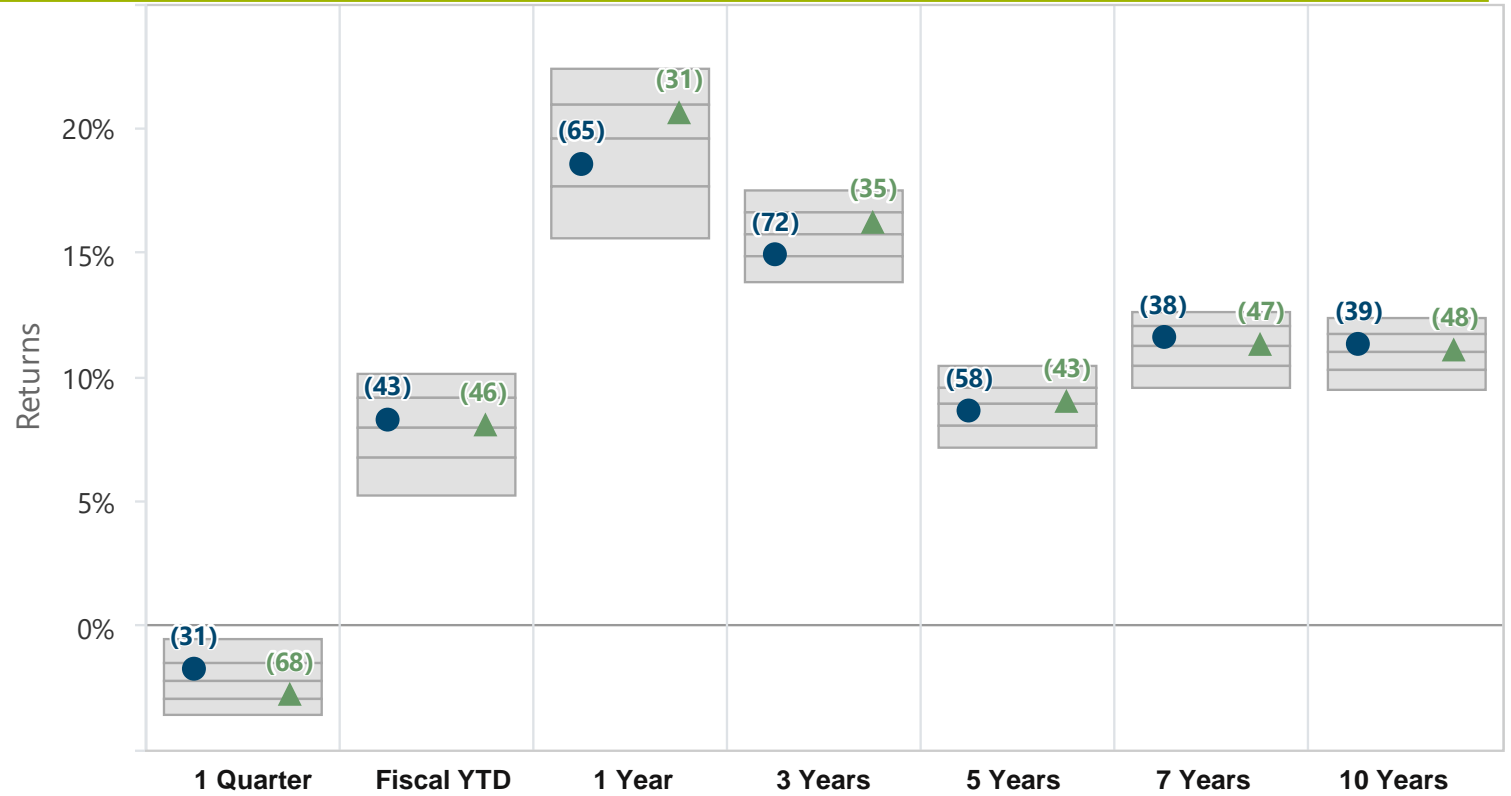
## Returns for Public Equity Indices

2017	2018	2019	2020	2021	2022	2023	2024	2025	1 Qtr. 2026
Emerging Markets 37.28%	US Large Growth -1.51%	US Large Growth 36.39%	US Large Growth 38.49%	US Large Growth 27.60%	US Large Value -7.54%	US Large Growth 42.68%	US Large Growth 33.36%	Emerging Markets 33.57%	US Large Value 2.10%
US Large Growth 30.21%	US Large Cap -4.78%	US Large Cap 31.43%	US Large Cap 20.96%	US Large Cap 26.45%	APFC Public Equity -14.30%	US Large Cap 26.53%	US Large Cap 24.51%	Global Public Equity 32.39%	US Small Cap 0.89%
Global Public Equity 27.19%	US Large Value -8.27%	US Large Value 26.54%	US Small Cap 19.96%	US Large Value 25.16%	Developed Non-US -14.45%	APFC Public Equity 18.34%	US Large Value 14.37%	Developed Non-US 31.22%	Emerging Markets -0.17%
APFC Public Equity 25.28%	US Small Cap -11.01%	APFC Public Equity 26.53%	Emerging Markets 18.31%	APFC Public Equity 20.78%	Global Public Equity -16.00%	Developed Non-US 18.24%	APFC Public Equity 13.16%	APFC Public Equity 22.32%	Global Public Equity -0.71%
Developed Non-US 25.03%	APFC Public Equity -11.06%	US Small Cap 25.52%	APFC Public Equity 16.88%	US Small Cap 14.82%	US Large Cap -19.13%	US Small Cap 16.93%	US Small Cap 11.54%	US Large Growth 18.56%	Developed Non-US -1.24%
US Large Cap 21.69%	Developed Non-US -13.79%	Developed Non-US 22.01%	Global Public Equity 10.65%	Developed Non-US 11.26%	Emerging Markets -20.09%	Global Public Equity 15.62%	Emerging Markets 7.50%	US Large Cap 17.37%	APFC Public Equity -1.69%
US Small Cap 14.65%	Global Public Equity -14.20%	Global Public Equity 21.51%	Developed Non-US 7.82%	Global Public Equity 7.82%	US Small Cap -20.44%	US Large Value 11.46%	Global Public Equity 5.53%	US Large Value 15.91%	US Large Cap -4.18%
US Large Value 13.66%	Emerging Markets -14.57%	Emerging Markets 18.44%	US Large Value 2.80%	Emerging Markets -2.54%	US Large Growth -29.14%	Emerging Markets 9.83%	Developed Non-US 3.82%	US Small Cap 12.81%	US Large Growth -9.78%

US Large Cap: Russell 1000, US Large Growth: Russell 1000 Growth, US Large Value: Russell 1000 Value, US Small Cap: Russell 2000, Emerging Markets: MSCI Emerging Markets, Developed Non-US: MSCI EAFE, Global: MSCI ACWI IMI, APFC Public Equity: Total APFC Equity Composite (Net of fees).

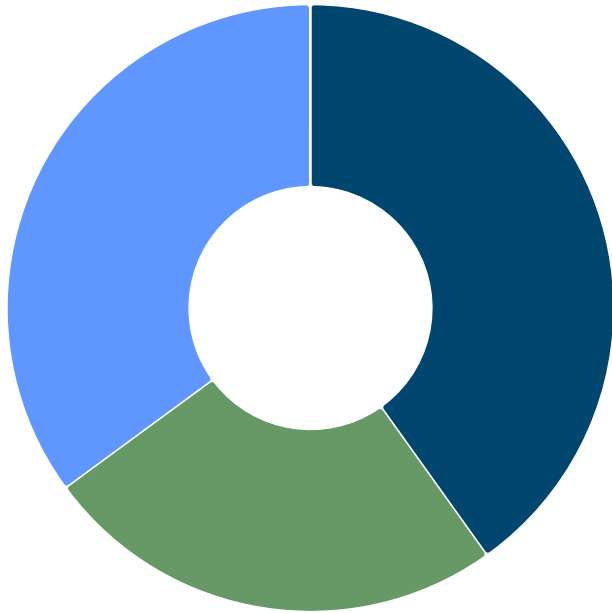
# Performance Comparison – Public Equity as of March 31, 2026

Public Equity Composite (Gross) vs Callan Total Fund Sponsor DB



	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	-0.57	10.10	22.43	17.53	10.41	12.63	12.37
25th Percentile	-1.52	9.15	20.98	16.58	9.56	12.06	11.75
Median	-2.26	7.91	19.62	15.71	8.88	11.24	11.04
75th Percentile	-2.98	6.78	17.69	14.82	8.04	10.48	10.30
90th Percentile	-3.61	5.26	15.56	13.83	7.17	9.55	9.44
Public Equity ●	-1.74	8.28	18.56	14.93	8.65	11.61	11.33
MSCI ACWI IMI (Net) ▲	-2.75	8.09	20.64	16.24	9.03	11.33	11.10

## APFC Public Equity Strategy Allocation as of March 31, 2026

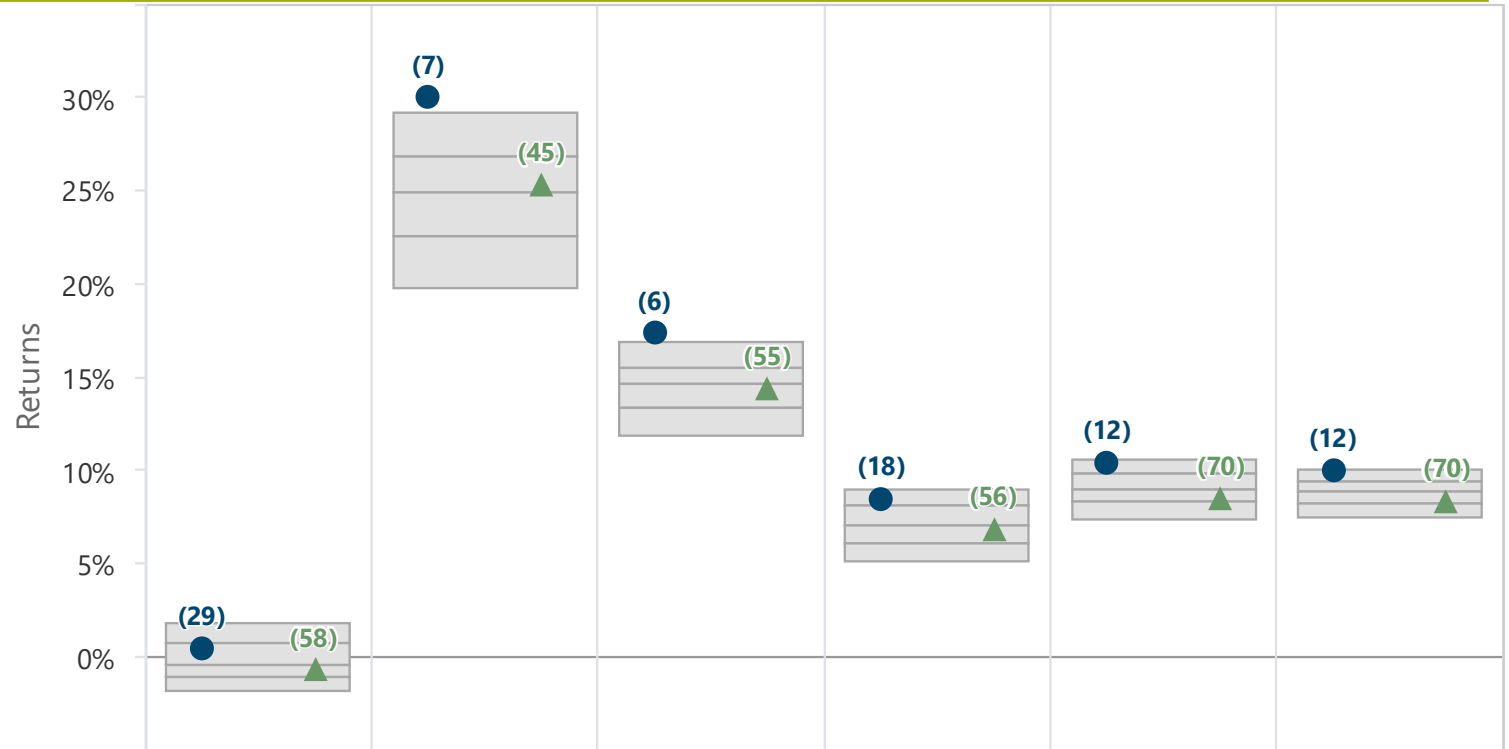


Asset Class	Assets	Weight
■ Domestic Equity	\$11,361,638,187	40.12%
■ International Equity	\$7,021,598,666	24.80%
■ Global Equity	\$9,922,173,210	35.04%
<b>Total Public Equity</b>	<b>\$28,315,908,309</b>	<b>100.00%</b>

- Public Equity portfolio comprised of three sleeves
- Domestic Equity, International Equity, and Global Equity specialists
- Mix of active and passive management
- Tilts towards value, small cap, and greater diversification relative to indices
- Tilt is particularly strong in US market (roughly 13% of Total Fund)

# Performance Comparison – International Equity as of March 31, 2026

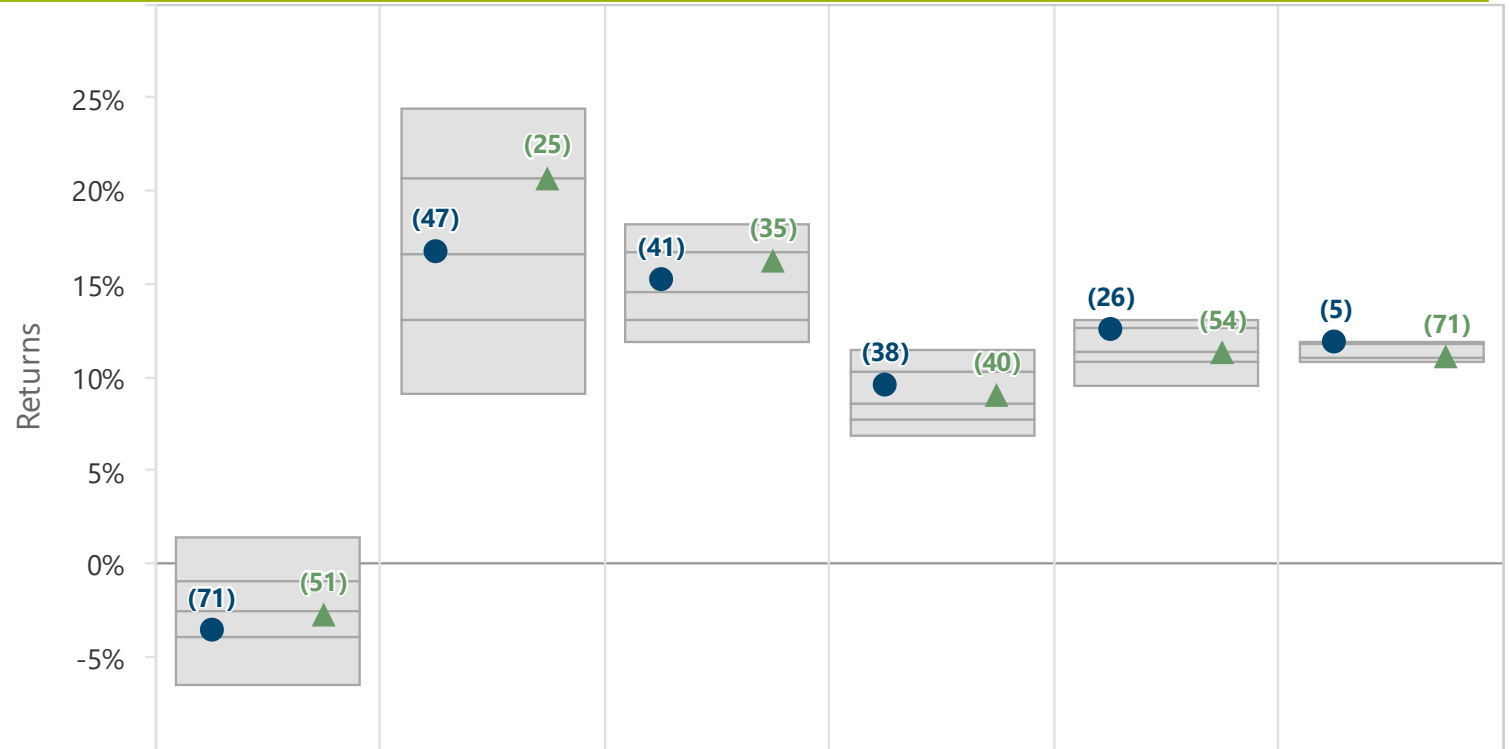
Intl Equity Composite (Gross) vs Callan Total Fund Sponsor DB



	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	1.82	29.20	16.92	8.92	10.57	10.06
25th Percentile	0.70	26.83	15.49	8.11	9.83	9.41
Median	-0.48	24.92	14.58	7.04	9.00	8.85
75th Percentile	-1.10	22.50	13.33	6.04	8.27	8.16
90th Percentile	-1.86	19.80	11.81	5.16	7.37	7.41
International Equity ●	0.44	30.02	17.38	8.44	10.39	9.99
MSCI ACWI xUS IMI (Net) ▲	-0.68	25.32	14.38	6.83	8.49	8.33

# Performance Comparison – Global Equity as of March 31, 2026

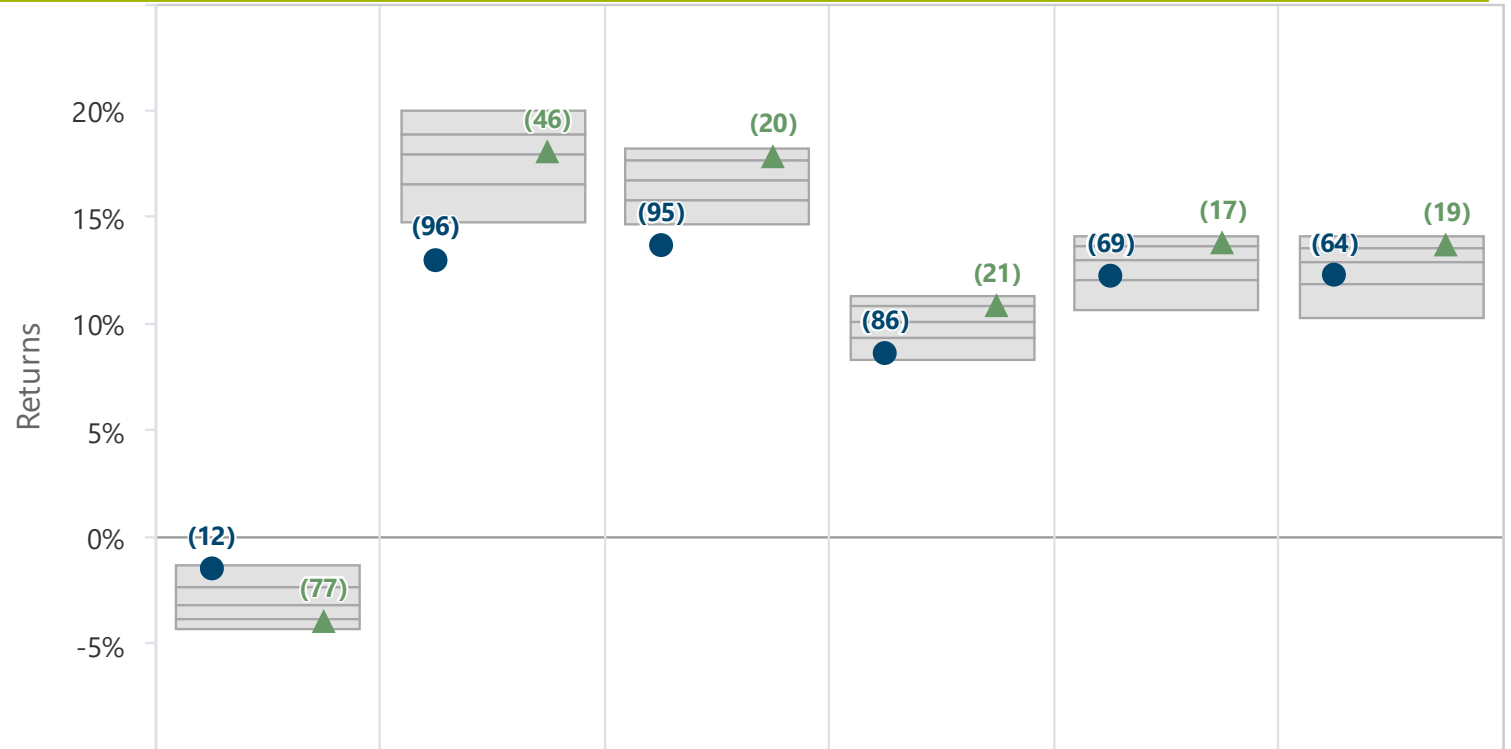
Global Equity Composite (Gross) vs Callan Total Fund Sponsor DB



	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	1.36	24.39	18.14	11.47	13.04	11.86
25th Percentile	-0.99	20.63	16.66	10.30	12.63	11.82
Median	-2.54	16.55	14.59	8.56	11.36	11.71
75th Percentile	-3.92	13.03	13.08	7.65	10.84	11.03
90th Percentile	-6.55	9.12	11.88	6.86	9.56	10.78
Global Equity ●	-3.56	16.74	15.24	9.59	12.57	11.90
MSCI ACWI IMI (Net) ▲	-2.75	20.64	16.24	9.03	11.33	11.10

# Performance Comparison – US Equity as of March 31, 2026

Domestic Equity Composite (Gross) vs Callan Total Fund Sponsor DB



	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	-1.31	19.99	18.22	11.28	14.11	14.07
25th Percentile	-2.38	18.86	17.67	10.80	13.63	13.54
Median	-3.24	17.93	16.76	10.08	12.94	12.89
75th Percentile	-3.88	16.51	15.81	9.31	12.00	11.84
90th Percentile	-4.33	14.74	14.68	8.29	10.63	10.30
Domestic Equity ●	-1.49	12.98	13.69	8.62	12.25	12.30
Russell 3000 Index ▲	-3.96	18.09	17.86	10.87	13.81	13.72

# Callan Periodic Table of Public US Equity Returns (Calendar Years)

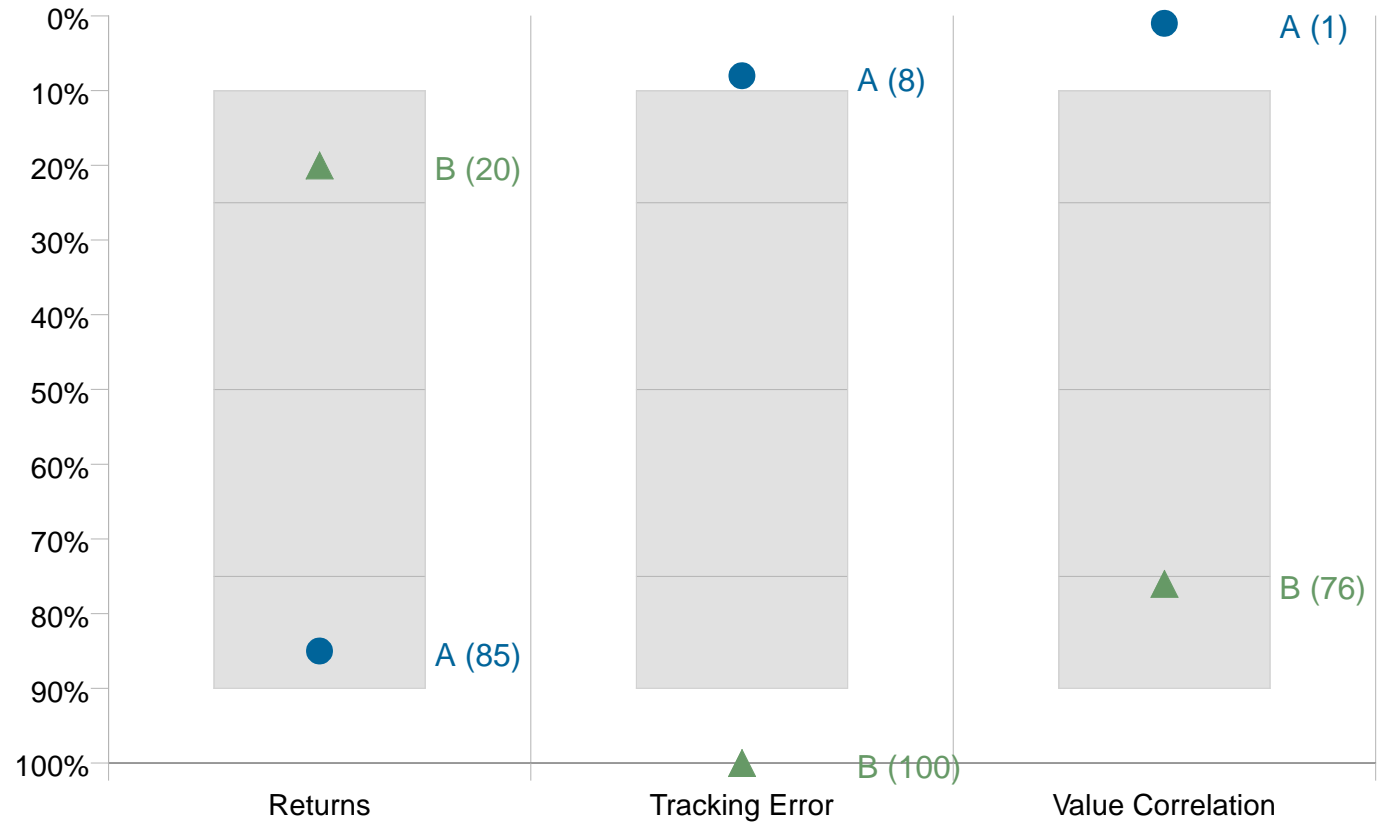
## Returns for US Public Equity Indices

2017	2018	2019	2020	2021	2022	2023	2024	2025	1 Qtr. 2026
Large Cap Growth 30.21%	Large Cap Growth -1.51%	Large Cap Growth 36.39%	Large Cap Growth 38.49%	APFC US Equity 30.70%	Large Cap Value -7.54%	Large Cap Growth 42.68%	Large Cap Growth 33.36%	Large Cap Growth 18.56%	Small Cap Value 4.96%
Small Cap Growth 22.17%	US Equity Index -5.24%	US Equity Index 31.02%	Small Cap Growth 34.63%	Small Cap Value 28.27%	Small Cap Value -14.48%	US Equity Index 25.96%	US Equity Index 23.81%	US Equity Index 17.15%	Large Cap Value 2.10%
APFC US Equity 21.25%	Large Cap Value -8.27%	APFC US Equity 30.04%	US Equity Index 20.89%	Large Cap Growth 27.60%	APFC US Equity -15.06%	APFC US Equity 19.11%	APFC US Equity 15.81%	Large Cap Value 15.91%	Small Cap 0.89%
US Equity Index 21.13%	APFC US Equity -8.77%	Small Cap Growth 28.48%	Small Cap 19.96%	US Equity Index 25.66%	US Equity Index -19.21%	Small Cap Growth 18.66%	Small Cap Growth 15.15%	Small Cap Growth 13.01%	APFC US Equity -1.49%
Small Cap 14.65%	Small Cap Growth -9.31%	Large Cap Value 26.54%	APFC US Equity 16.04%	Large Cap Value 25.16%	Small Cap -20.44%	Small Cap 16.93%	Large Cap Value 14.37%	Small Cap 12.81%	Small Cap Growth -2.81%
Large Cap Value 13.66%	Small Cap -11.01%	Small Cap 25.52%	Small Cap Value 4.63%	Small Cap 14.82%	Small Cap Growth -26.36%	Small Cap Value 14.65%	Small Cap 11.54%	Small Cap Value 12.59%	US Equity Index -3.96%
Small Cap Value 7.84%	Small Cap Value -12.86%	Small Cap Value 22.39%	Large Cap Value 2.80%	Small Cap Growth 2.83%	Large Cap Growth -29.14%	Large Cap Value 11.46%	Small Cap Value 8.05%	APFC US Equity 12.37%	Large Cap Growth -9.78%

US Equity Index: Russell 3000, Large Cap Growth: Russell 1000 Growth, Large Cap Value: Russell 1000 Value, Small Cap: Russell 2000, Small Cap Growth: Russell 2000 Growth, Small Cap Value: Russell 2000 Value, APFC US Equity: Total APFC US Equity Composite (Net of fees).

# Domestic Equity – Return, Tracking Error, and Value Correlation Rankings

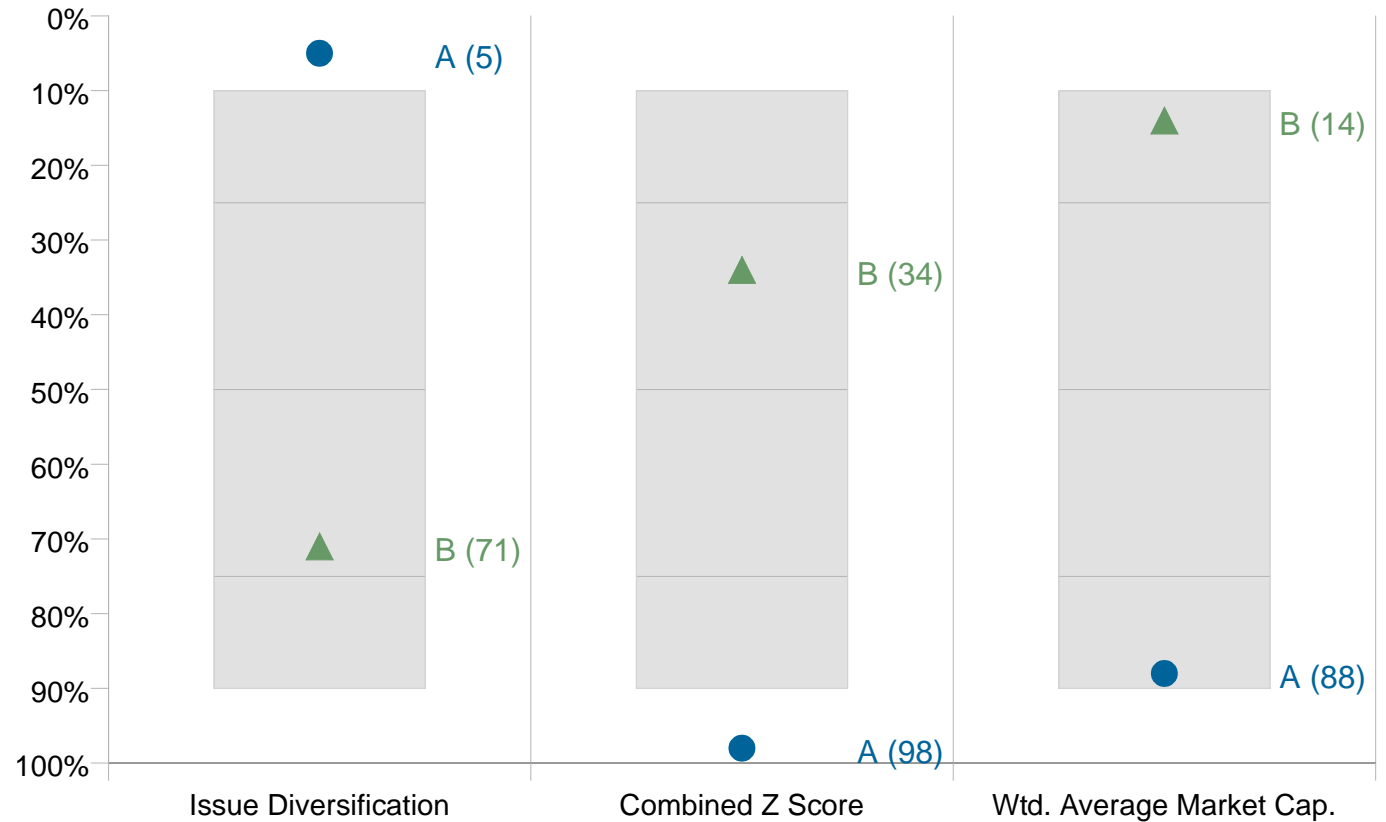
Five Years ended March 31, 2026 – Callan Total Plan Sponsor Database (US Equity)



10th Percentile	11.24	4.08	0.89
25th Percentile	10.79	2.85	0.86
Median	10.10	1.95	0.83
75th Percentile	9.28	1.20	0.81
90th Percentile	8.21	0.71	0.80
APFC US Equity Composite ● A	8.62	4.54	0.94
Russell:3000 Index ▲ B	10.87	0.00	0.81

# Domestic Equity – Portfolio Characteristics Rankings

Period ended March 31, 2026 – Callan Total Plan Sponsor Database US Equity



10th Percentile	89.23	0.05	1,034.78
25th Percentile	67.89	0.03	877.24
Median	48.66	(0.02)	811.39
75th Percentile	35.07	(0.09)	744.60
90th Percentile	25.92	(0.21)	456.46
APFC US Equity Composite ● A	132.64	(0.36)	511.63
Russell:3000 Index ▲ B	38.89	0.02	989.10

Callan

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**Fixed Income**

# U.S. Fixed Income Performance: 1Q26

## Mixed performance as volatility returns

### Macro environment

- Volatility picked up during the quarter, driven by the U.S./Israel strikes on Iran and renewed inflation concerns as oil prices moved higher.
- Treasury yields rose across most of the curve, with the largest increases in intermediate maturities, resulting in slight curve flattening with the 2s/10s spread narrowing 20 bps.
- The Fed held policy steady, while the latest dot plot reflected reduced expectations for easing and greater consensus among policymakers, with the majority signaling one cut or fewer.

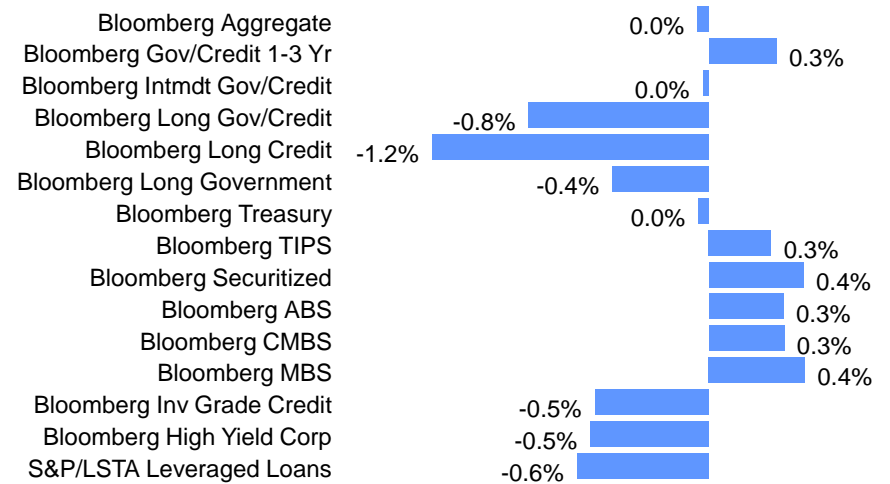
### Performance and drivers

- The Bloomberg US Aggregate Bond Index modestly declined 0.05%, driven by the rise in rates.
- Corporate credit underperformed Treasuries due to spread widening, with lower-quality segments lagging higher-quality.

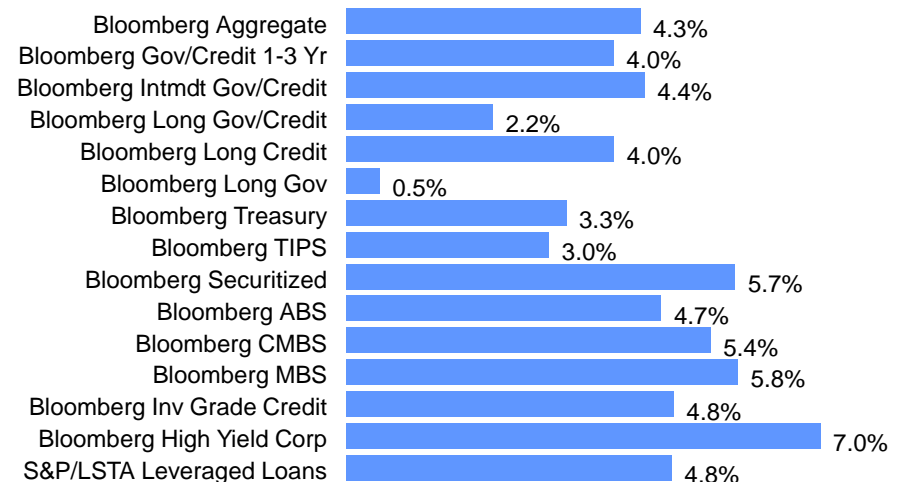
### Valuations

- Credit spreads were resilient early in the quarter but widened meaningfully into quarter-end amid software- and AI-related concerns.
- The quarter saw robust new issuance within investment grade corporate bonds, but valuations remained historically rich despite the elevated supply.

### U.S. Fixed Income Returns: Quarter Ended 3/31/26



### U.S. Fixed Income Returns: One Year Ended 3/31/26



Sources: Bloomberg, Callan, SIFMA Research, S&P Dow Jones Indices, U.S. Treasury

# Global Fixed Income Performance: 1Q26

## Weakness amid geopolitical uncertainty and a stronger dollar

### Macro environment: global central banks hold steady

- Global central banks struck a more cautious tone late in the quarter amid inflation concerns and rising geopolitical tensions, but largely held rates unchanged.
- Growth expectations began the quarter broadly stable, with early indicators pointing to continued expansion, but moderated into quarter-end as uncertainty increased. The ECB revised its near-term outlook down, citing weaker consumption and investment.
- Global fixed income returns were negative for the quarter, with developed markets, particularly in Europe, underperforming.

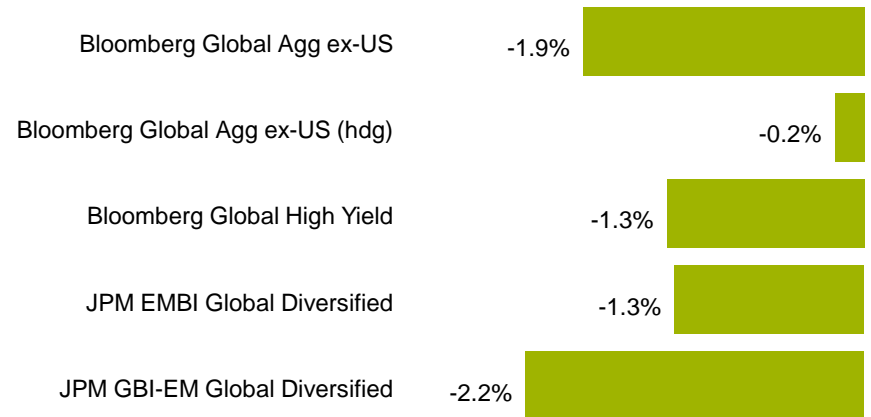
### U.S. dollar strengthens

- After initial weakening, the U.S. dollar rallied over the quarter as demand for safe-haven assets increased, benefiting hedged global returns relative to unhedged exposures.

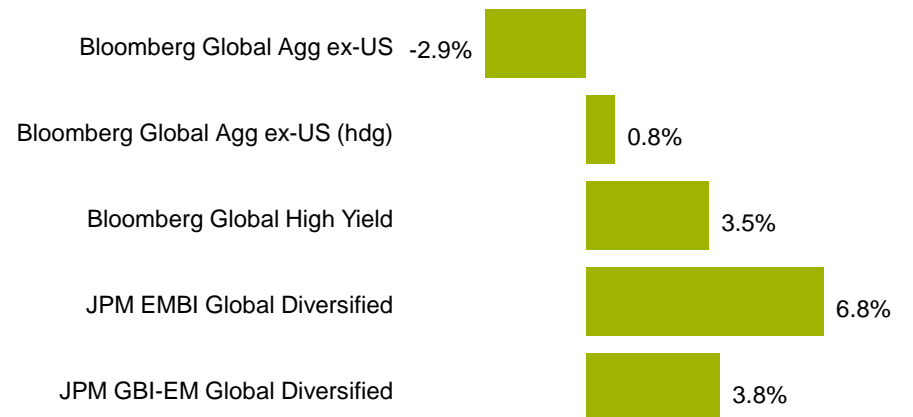
### Emerging market debt posts negative quarter

- Emerging market debt declined across both hard and local currency segments as rising global yields weighed on performance. Despite the near-term weakness, EMD performance remains positive over the past year.

### Global Fixed Income Returns: Quarter Ended 3/31/26



### Global Fixed Income Returns: One Year Ended 3/31/26



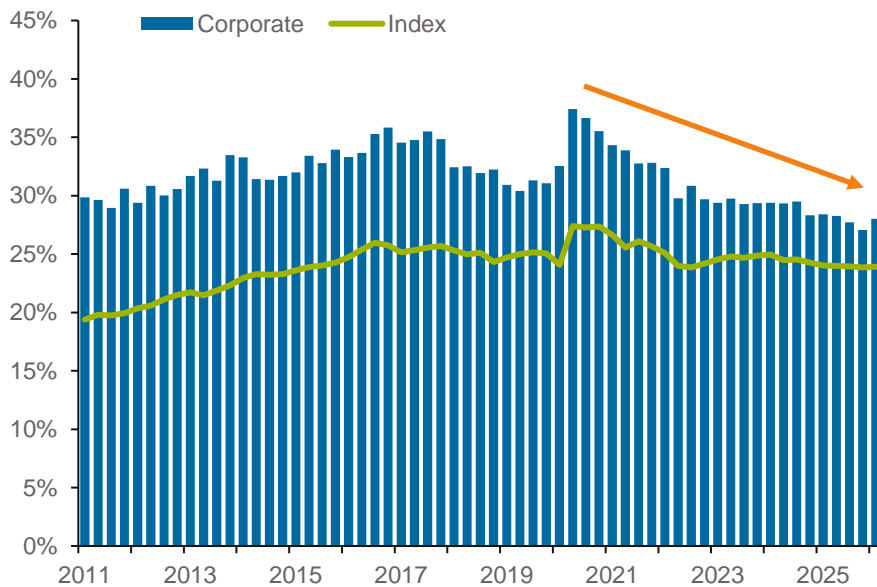
Sources: Bloomberg, ICE Data Indices, J.P. Morgan

# Fixed Income Themes

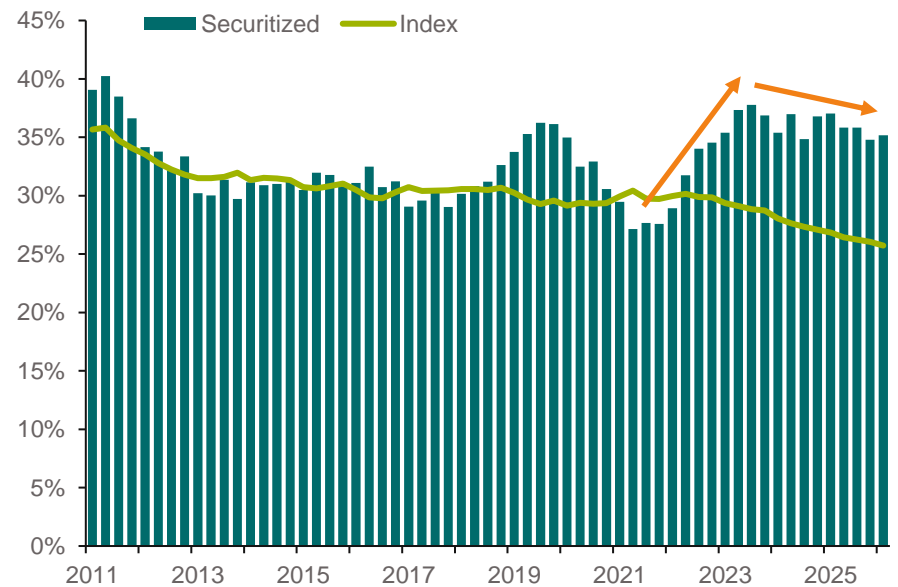
## Relative value favors securitized over corporate credit

- Rich valuations have reduced the attractiveness of credit, contributing to a steady decline in corporate allocations since late 2020 as managers have moved closer to neutral relative to the Bloomberg Agg.
- In contrast, securitized allocations increased meaningfully beginning in 2022 as improved risk/return characteristics and more attractive relative value supported a shift in positioning; allocations have largely plateaued more recently but remain elevated versus history.
- Relative to the Agg, the median manager’s corporate overweight has narrowed materially, while securitized has shifted from a modest underweight to a meaningful overweight, underscoring an ongoing preference for securitized over corporate risk.

Callan Core Bond Peer Group: Corporate Credit Allocation (Median)



Callan Core Bond Peer Group: Securitized Allocation (Median)



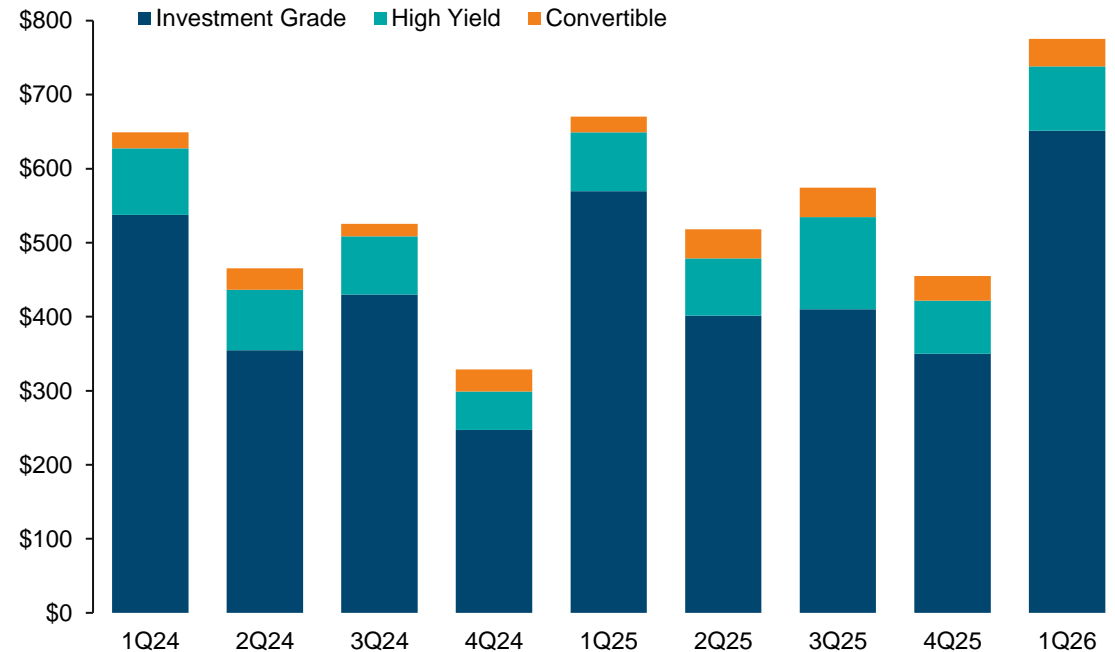
Sources: Bloomberg, Callan

## Fixed Income Themes

### AI-driven financing needs contribute to elevated new issuance

- Corporate bond issuance surged in 1Q26, marking the strongest quarter since 2Q20. Investment grade issuance was particularly robust, already reaching roughly 35% of 2020's record annual total and running 14% ahead of last year's pace, despite 2025 posting the second-largest annual issuance on record.
- Heavy supply was met with strong investor demand, with markets absorbing the higher issuance while corporate spreads remained tight. Financials, led by banks, represented the largest share of issuance.
- Technology was the largest non-financial issuing sector, driven by sizable issuance primarily for AI-related infrastructure spending. Hyperscalers, including Alphabet, Amazon, Meta, and Microsoft, are projected to spend \$650 billion in 2026.

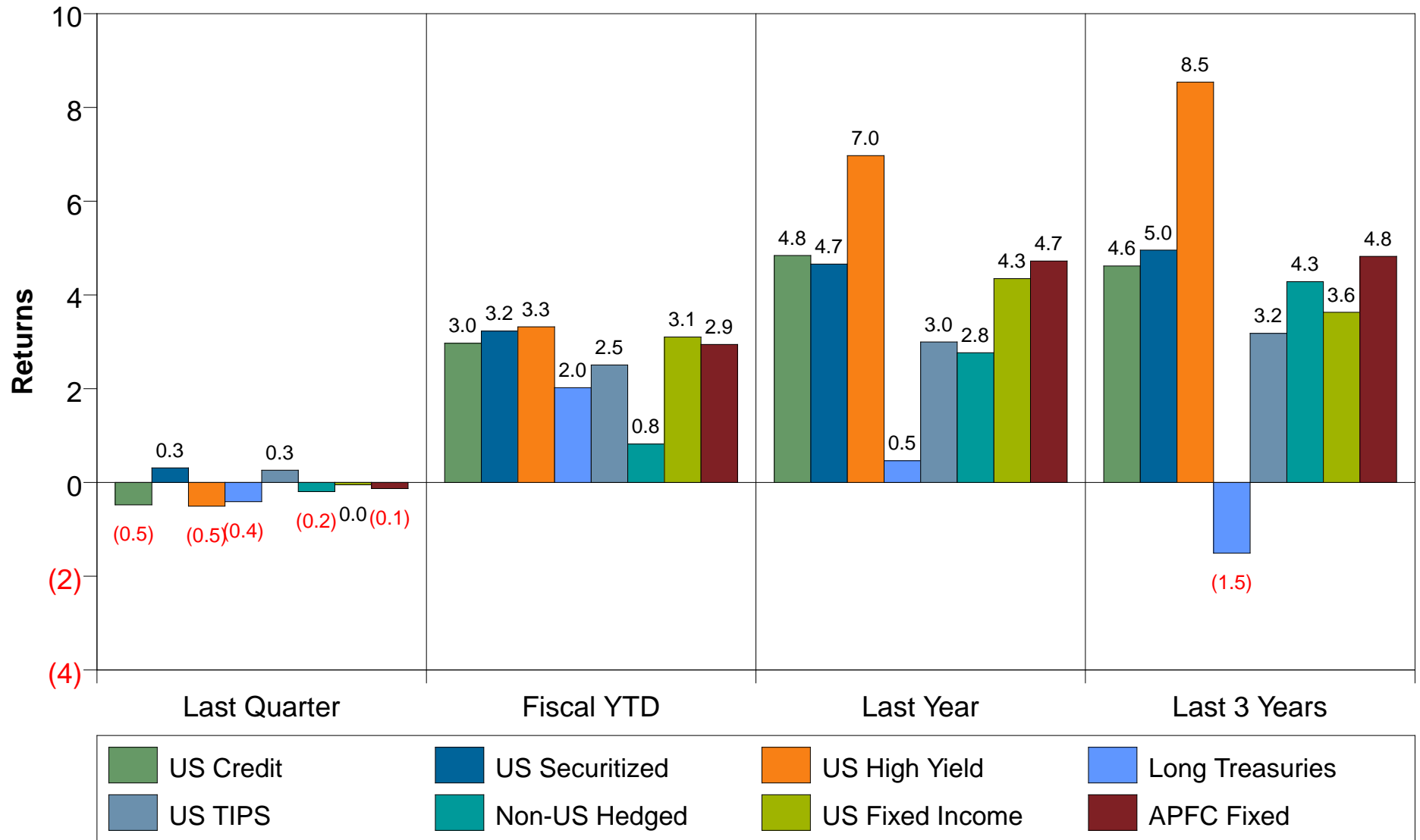
Investment Grade New Issuance (\$ billion)



Sources: Bloomberg, SIFMA

# Public Fixed Income Performance

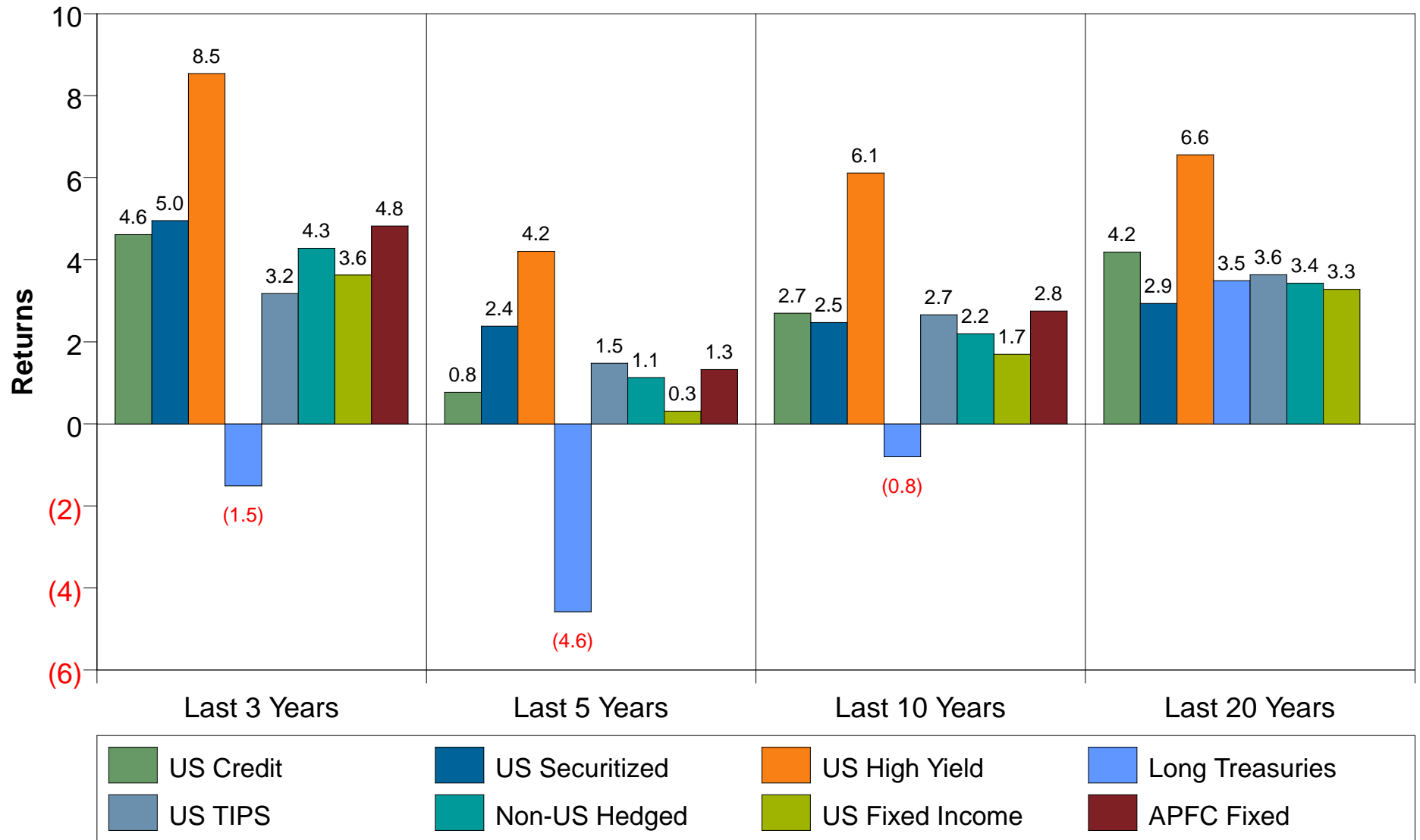
Periods ended March 31, 2026



US Credit: Bloomberg Credit, US Securitized: Bloomberg ABS, US High Yield: Bloomberg Corporate HY Cash Pay, US Long Treasuries: Bloomberg Long Treasury, US TIPS: Bloomberg TIPS, Non-US Hedged: Bloomberg Global Aggregate x-US Hedged, US Fixed Income: Bloomberg Aggregate, APFC Fixed Income: APFC Fixed Income Composite

# Public Fixed Income Performance

Periods ended March 31, 2026



US Credit: Bloomberg Credit, US Securitized: Bloomberg ABS, US High Yield: Bloomberg Corporate HY Cash Pay, US Long Treasuries: Bloomberg Long Treasury, US TIPS: Bloomberg TIPS, Non-US Hedged: Bloomberg Global Aggregate x-US Hedged, US Fixed Income: Bloomberg Aggregate, APFC Fixed Income: APFC Fixed Income Composite

# Callan Periodic Table of Public Fixed Income Returns (Calendar Years)

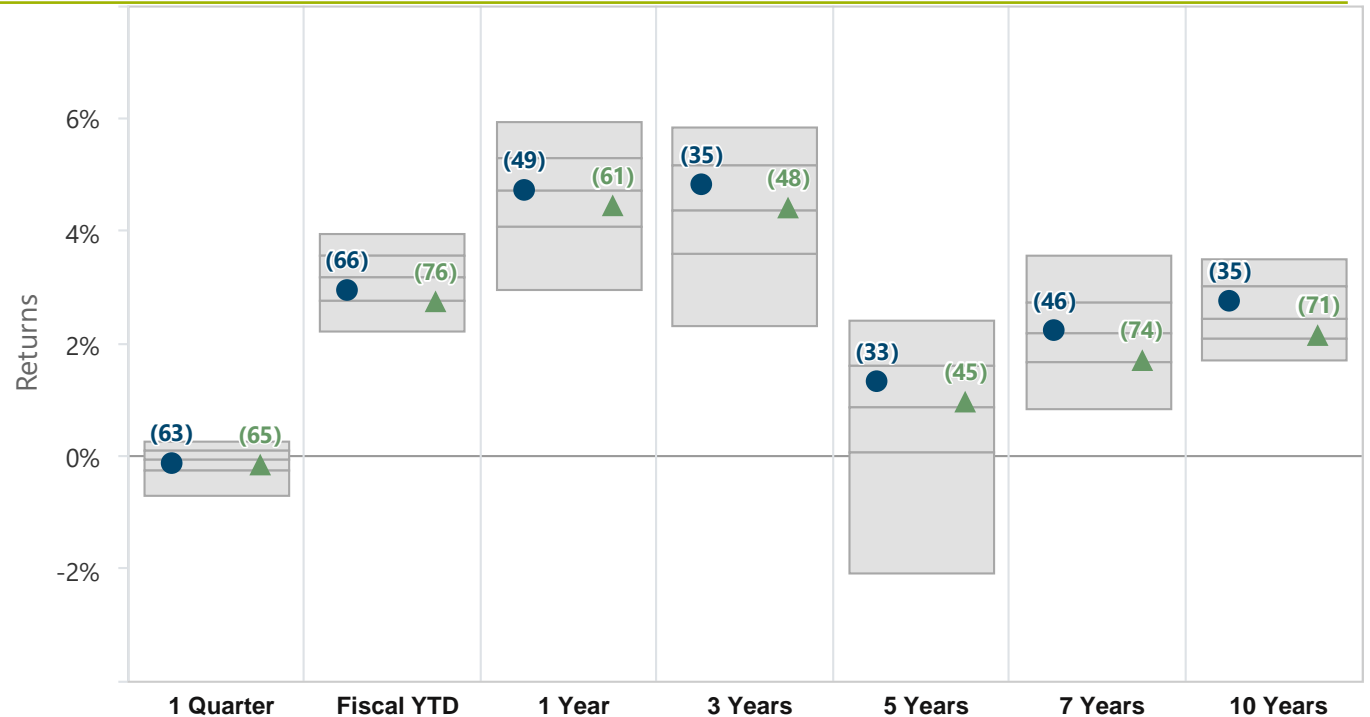
## Returns for Public Fixed Income Indices

2017	2018	2019	2020	2021	2022	2023	2024	2025	1 Qtr. 2026
US Long Treasuries 8.53%	Non-US Hedged 3.17%	US Long Treasuries 14.83%	US Long Treasuries 17.70%	US TIPS 5.96%	US Securitized -4.30%	US High Yield 13.45%	US High Yield 8.05%	US High Yield 8.60%	US Securitized 0.31%
US High Yield 7.49%	US Securitized 1.77%	US High Yield 14.33%	US TIPS 10.99%	US High Yield 5.30%	Non-US Hedged -9.76%	Non-US Hedged 8.32%	US Securitized 5.02%	US Credit 7.83%	US TIPS 0.26%
US Credit 6.18%	US Fixed Income 0.01%	US Credit 13.80%	US Credit 9.35%	US Securitized -0.34%	US High Yield -11.15%	US Credit 8.18%	Non-US Hedged 4.97%	APFC Fixed Income 7.55%	US Fixed Income -0.05%
APFC Fixed Income 3.75%	APFC Fixed Income -0.35%	APFC Fixed Income 9.66%	APFC Fixed Income 8.52%	US Credit -1.08%	US TIPS -11.85%	APFC Fixed Income 6.57%	US Credit 2.03%	US Fixed Income 7.30%	APFC Fixed Income -0.07%
US Fixed Income 3.54%	US TIPS -1.26%	US Fixed Income 8.72%	US Fixed Income 7.51%	APFC Fixed Income -1.32%	APFC Fixed Income -12.87%	US Securitized 5.54%	US TIPS 1.84%	US TIPS 7.01%	Non-US Hedged -0.19%
US TIPS 3.01%	US Long Treasuries -1.84%	US TIPS 8.43%	US High Yield 7.13%	Non-US Hedged -1.40%	US Fixed Income -13.01%	US Fixed Income 5.53%	APFC Fixed Income 1.64%	US Securitized 5.93%	US Long Treasuries -0.41%
Non-US Hedged 2.48%	US High Yield -2.08%	Non-US Hedged 7.57%	US Securitized 4.52%	US Fixed Income -1.54%	US Credit -15.26%	US TIPS 3.90%	US Fixed Income 1.25%	US Long Treasuries 5.59%	US Credit -0.48%
US Securitized 1.55%	US Credit -2.11%	US Securitized 4.53%	Non-US Hedged 3.94%	US Long Treasuries -4.65%	US Long Treasuries -29.26%	US Long Treasuries 3.06%	US Long Treasuries -6.41%	Non-US Hedged 2.80%	US High Yield -0.50%

US Credit: Bloomberg Credit, US Securitized: Bloomberg ABS, US High Yield: Bloomberg Corporate HY Cash Pay, US Long Treasuries: Bloomberg Long Treasury, US TIPS: Bloomberg TIPS, Non-US Hedged: Bloomberg Global Aggregate x-US Hedged, US Fixed Income: Bloomberg Aggregate, APFC Fixed Income: APFC Fixed Income Composite

# Performance Comparison – Fixed Income as of March 31, 2026

## Fixed Income Composite vs Callan Total Fund Sponsor DB



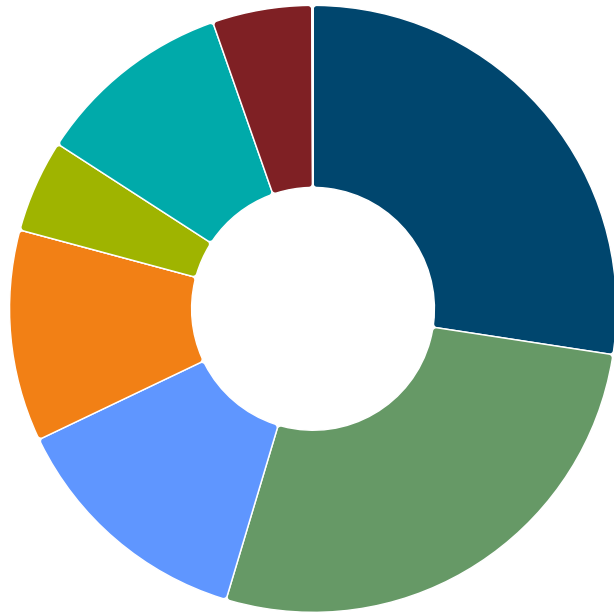
	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	0.24	3.93	5.94	5.82	2.39	3.56	3.50
25th Percentile	0.09	3.56	5.27	5.16	1.60	2.74	3.00
Median	-0.06	3.19	4.71	4.36	0.85	2.17	2.43
75th Percentile	-0.27	2.76	4.07	3.60	0.05	1.66	2.09
90th Percentile	-0.71	2.21	2.95	2.32	-2.08	0.83	1.68
Fixed Income ●	-0.13	2.95	4.73	4.83	1.33	2.23	2.76
Fixed Income Benchmark <sup>1</sup> ▲	-0.16	2.75	4.45	4.41	0.96	1.70	2.15

Fixed Income Benchmark components: 5% 90 Day T-Bills, 5% BB US TIPS, 25% BB US Agg, 25% BB US Corp Inv Grade TR, 10% GI Treas xUS Hdg, 2.5% JPM EMBI GI Div, 2.5% JPM GBI-EM GI Div, 10% BB US HY 2% Issuer, 10% S&P GI REIT & 5% S&P GI Listed Inf to 6/30/20.

5% 90 Day T-Bills, 5% BB US TIPS, 27.5% BB US Agg, 27.5% BB US Corp Inv Grade TR, 10% GI Treas xUS Hdg, 2.5% JPM EMBI GI Div, 2.5% JPM GBI-EM GI Div, 10% BB US HY 2% Issuer, and 10% BB US Sec Idx to 6/30/22.

5% 90 T-Bills, 27.5% BB US Corp Inv Gr TR, 15% GI Treas xUS Hdgd, 27.5% BB US Agg, 10% BB HY Corp Ba, 5% BB US TIPs, and 10% BB US Securitized Idx thereafter.

## APFC Fixed Income Strategy Allocation as of March 31, 2026



Asset Class	Assets	Weight
■ US Fixed Income Aggregate	\$5,270,732,941	27.41%
■ US Investment Grade Corporate	\$5,230,931,703	27.21%
■ Non-US Fixed Income	\$2,555,308,040	13.29%
■ US High Yield	\$2,166,501,457	11.27%
■ TIPS	\$950,463,638	4.94%
■ Domestic Structured Products	\$2,022,643,545	10.52%
■ Fixed Income Cash	\$1,017,803,773	5.29%
<b>Total Fixed Income</b>	<b>\$19,225,843,916</b>	<b>100.00%</b>

- Fixed Income portfolio allocated across six distinct strategies, plus a cash allocation
- All strategies internally managed

## Fixed Income Strategy Performance ended March 31, 2026

Performance for Periods Ended March 31, 2026	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years
<b>US Fixed Income Aggregate</b>	<b>-0.07%</b>	<b>3.20%</b>	<b>4.61%</b>	<b>4.10%</b>	<b>0.69%</b>	<b>2.16%</b>
<i>Bloomberg Aggregate</i>	-0.05%	3.10%	4.35%	3.63%	0.31%	1.70%
<b>US Investment Grade Corporate</b>	<b>-0.56%</b>	<b>2.94%</b>	<b>4.88%</b>	<b>5.08%</b>	<b>1.14%</b>	<b>3.36%</b>
<i>Bloomberg Corporate IG</i>	-0.54%	2.90%	4.78%	4.70%	0.76%	2.81%
<b>Non US Fixed Income</b>	<b>-0.40%</b>	<b>0.22%</b>	<b>2.07%</b>	<b>3.59%</b>	<b>0.68%</b>	<b>1.82%</b>
<i>Bloomberg Glb Treasury xHdg</i>	-0.43%	0.11%	2.02%	3.48%	0.62%	1.84%
<b>US High Yield</b>	<b>0.02%</b>	<b>4.08%</b>	<b>7.56%</b>	<b>8.66%</b>	<b>4.44%</b>	<b>5.83%</b>
<i>US High Yield Benchmark</i>	-0.28%	3.56%	7.12%	7.63%	3.65%	5.82%
<b>TIPS</b>	<b>0.31%</b>	<b>2.65%</b>	<b>3.20%</b>	<b>3.41%</b>	<b>1.82%</b>	<b>2.79%</b>
<i>Bloomberg TIPS</i>	0.26%	2.51%	3.00%	3.18%	1.48%	2.66%
<b>Domestic Structured Products</b>	<b>0.40%</b>	<b>4.55%</b>	<b>5.74%</b>	<b>4.21%</b>	<b>0.46%</b>	-
<i>Bloomberg Securitized</i>	0.40%	4.51%	5.75%	4.26%	0.54%	-
<b>Fixed Income Cash</b>	<b>0.89%</b>	<b>3.12%</b>	<b>4.22%</b>	<b>4.88%</b>	<b>3.47%</b>	-
<i>3-month Treasury Bill</i>	0.85%	2.93%	4.00%	4.74%	3.34%	-
<b>Total Fixed Income</b>	<b>-0.13%</b>	<b>2.95%</b>	<b>4.73%</b>	<b>4.83%</b>	<b>1.33%</b>	<b>2.76%</b>
<i>Fixed Income Benchmark</i>	-0.16%	2.75%	4.45%	4.41%	0.96%	2.15%

- Green highlighted cells indicate strategy outperformed benchmark for that period
- Over 90% outperformance for periods shown in this table

Callan

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## Private Equity

# Private Equity Trends

## Private equity sees steady gains quarter to quarter

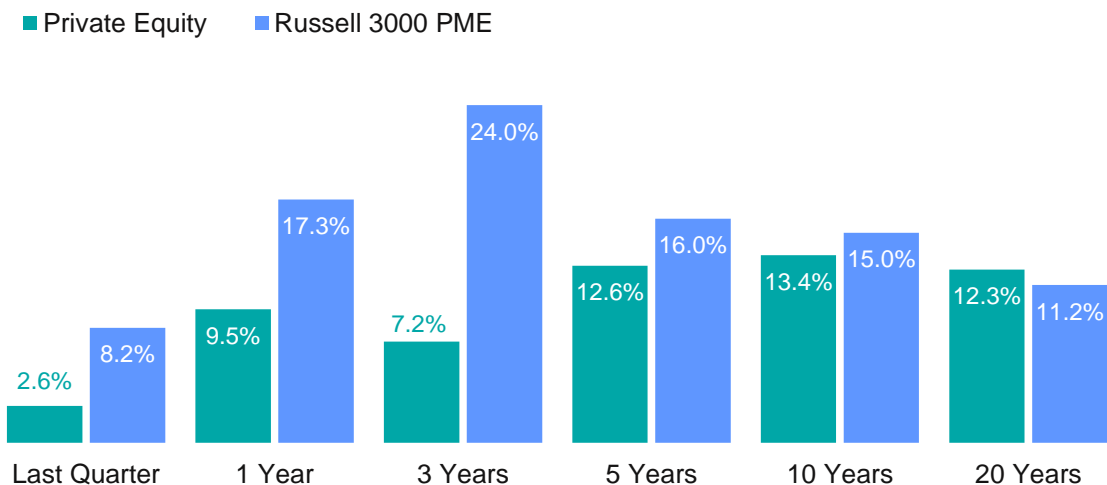
### Returns that lag public equity

- Private equity posted steady gains of 2.6%, although lagging public equity’s strong returns.
- Over the short-term, private equity’s often more conservative valuation policies mean that the asset class does not keep up when public equity posts such outsized returns.
- By strategy type, venture capital led performance, reflecting improved market conditions for growth assets and strong valuations within late-stage.

### Long-term performance

- Over the 3-year period, private equity returns remain pressured by the 2022-23 drawdown, resulting in a meaningful gap versus public equity.
- Over the 10-year period, private equity exhibited a 67% dispersion between the top and the bottom funds, highlighting significant opportunities for outperformance not reflected in the headline returns.

Net IRRs as of 9/30/25



Net IRRs by Strategy as of 9/30/25

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Venture Capital	5.4%	14.4%	2.6%	12.2%	13.6%	12.4%
Growth Equity	3.0%	10.9%	6.3%	11.1%	13.6%	12.9%
Buyouts	1.7%	8.3%	9.5%	13.6%	14.2%	12.8%
<b>Private Equity</b>	<b>2.6%</b>	<b>9.5%</b>	<b>7.2%</b>	<b>12.6%</b>	<b>13.4%</b>	<b>12.3%</b>

Source: Cambridge. PME: Public Market Equivalent

# Private Equity Trends

## A barbelled fundraising environment

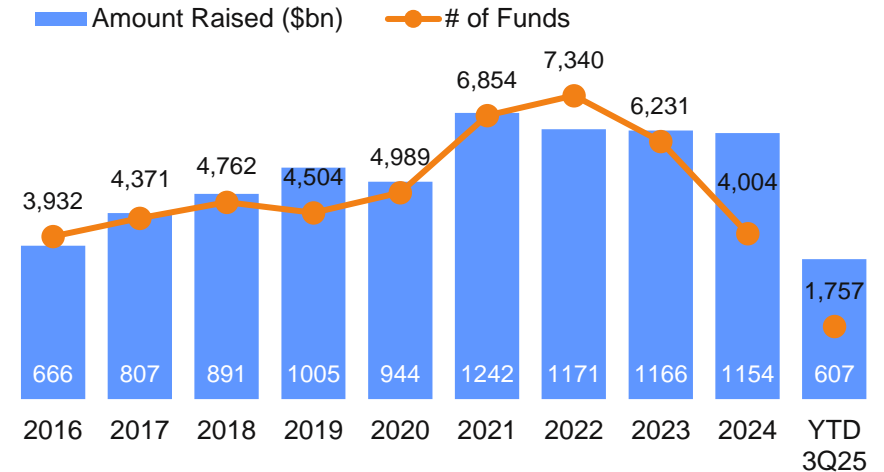
### Fundraising

- Fundraising for YTD 3Q25 declined by ~30% versus YTD 3Q24, across both volume and count. Persistent exit backlogs and limited distributions have constrained LP capacity for new commitments.
- Fundraising conditions have become barbelled: Top-tier funds are significantly oversubscribed, while the rest of the market faces a challenging environment.
- Stronger deal activity and improved exit tailwinds (including lower borrowing costs and less market uncertainty) may support a recovery in fundraising, though impacts may not be seen until later in the year.

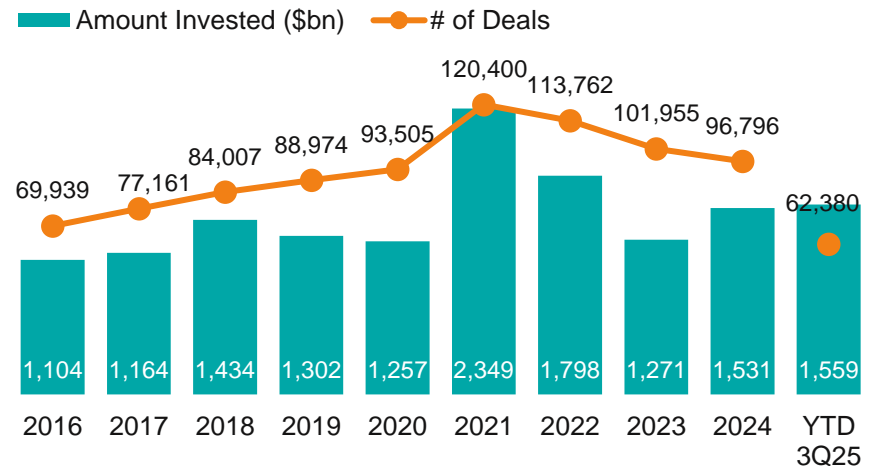
### Deal activity

- Deal volume rebounded sharply during the quarter, rising 80% versus 2Q25 and returning to levels last seen in 2021.
- Deal activity is sensitive to interest rates; the Fed rate cuts during the quarter, combined with strong public markets performance, resulted in greater optimism and confidence in deal execution.
- Deal count continues to drop, however, falling an additional 6% this quarter. The divergence between rising deal volume and declining deal count has persisted throughout the year, reflecting the continued concentration of capital in larger transactions.

### Annual Fundraising



### Annual Deal Activity



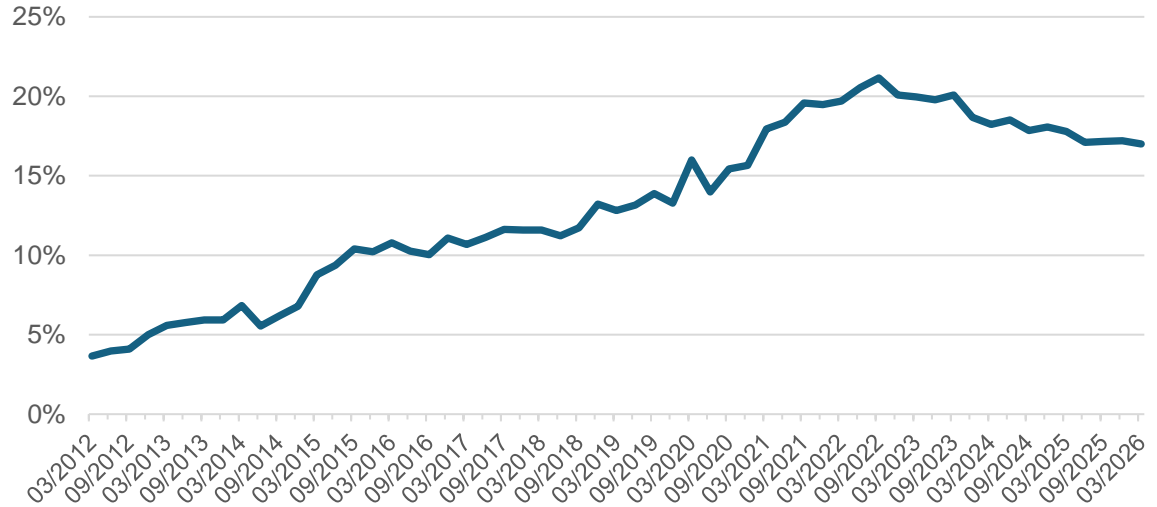
Source: PitchBook

# APFC Private Equity Allocation Growth (1Q LAG)

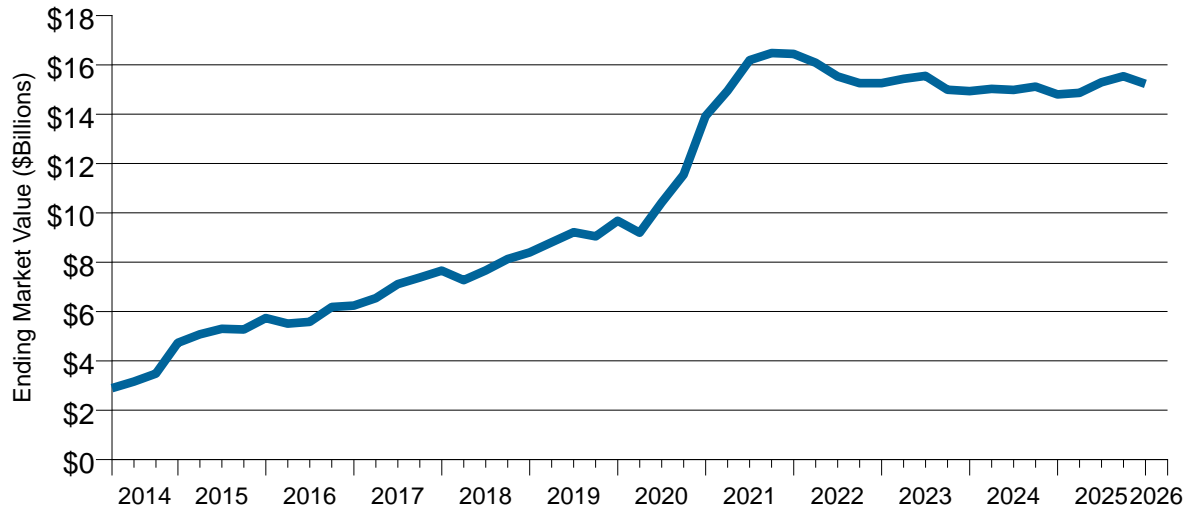
As of December 31, 2025

- For the first quarter 2026 period, 17.0% of the total fund was allocated to Private Equity.
- Allocation to the Private Equity portfolio has grown ~6% over the last decade.

## Private Equity Allocation

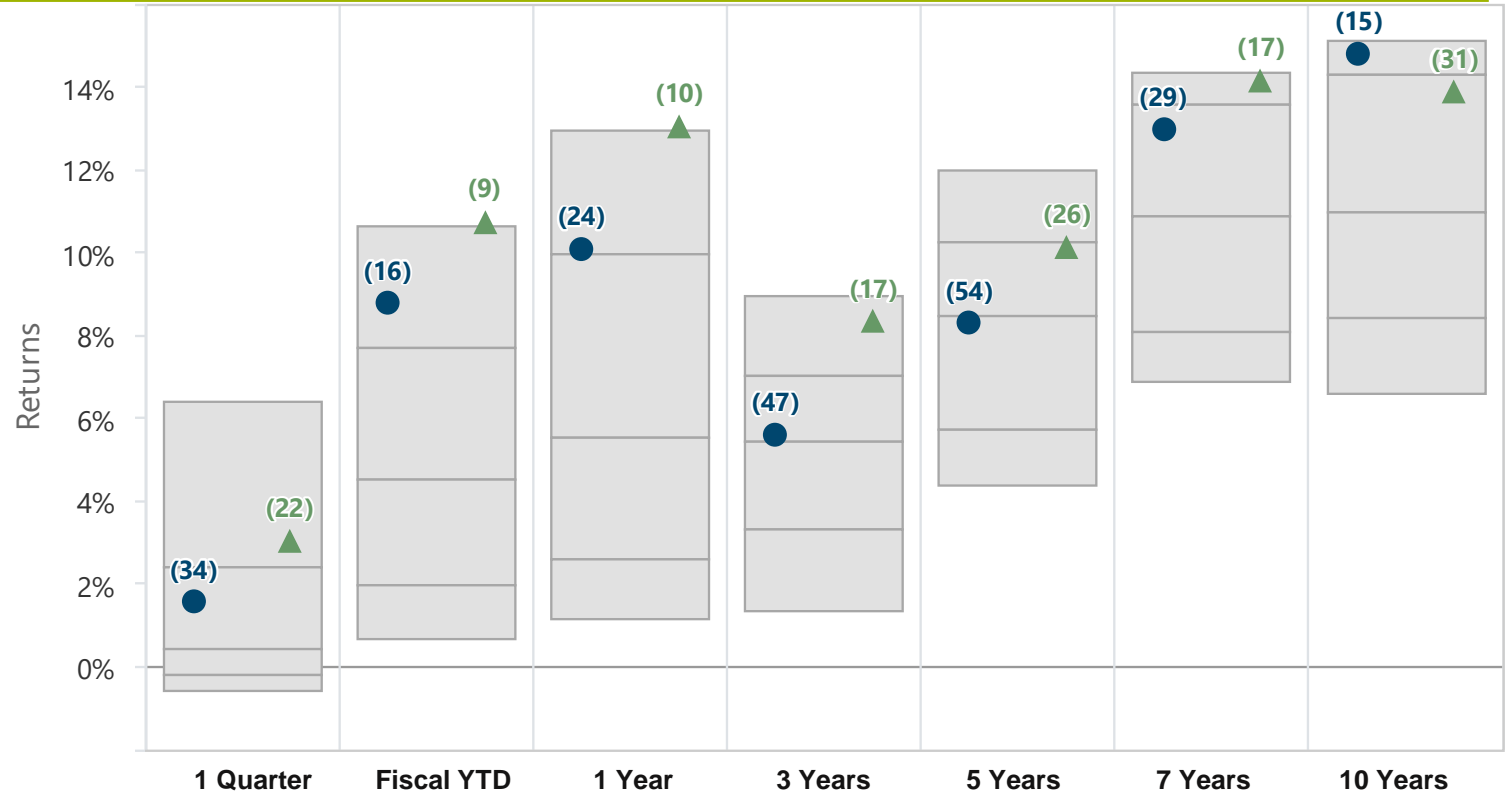


## Ending Market Value Through March 31, 2026



# Performance Comparison – Private Equity as of December 31, 2025

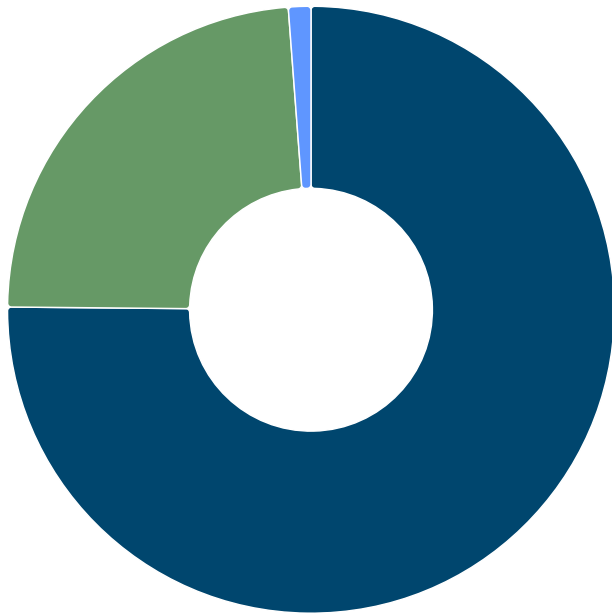
Private Equity Composite (1Q Lag) vs Callan Total Fund Sponsor DB



	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	6.40	10.66	12.95	8.94	12.00	14.33	15.10
25th Percentile	2.40	7.70	9.97	7.05	10.26	13.56	14.30
Median	0.44	4.53	5.53	5.43	8.49	10.87	10.97
75th Percentile	-0.18	1.99	2.60	3.34	5.74	8.09	8.41
90th Percentile	-0.58	0.67	1.17	1.35	4.37	6.87	6.59
Private Equity ●	1.58	8.79	10.08	5.60	8.31	12.98	14.80
Cambridge Private Equity ▲	3.04	10.73	13.05	8.36	10.13	14.15	13.89

# Private Equity Strategy Allocation (1Q LAG)

Periods Ended December 31, 2025



Asset Class	Assets	Actual Weight
■ Private Equity	\$11,444,759,752	75.14%
■ Special Opportunities	\$3,603,709,350	23.66%
■ In-State Emerging Managers	\$182,292,129	1.20%
<b>Private Equity</b>	<b>\$15,230,761,231</b>	<b>100.00%</b>

## Private Equity Strategy Performance (1Q LAG)

Periods Ended December 31, 2025

Performance for Periods Ended December 31, 2025	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years
<b>Private Equity</b>	<b>0.57%</b>	<b>9.17%</b>	<b>11.13%</b>	<b>7.50%</b>	<b>11.61%</b>	<b>17.12%</b>
<i>Cambridge Private Equity</i>	3.04%	10.73%	13.05%	8.36%	10.13%	13.89%
<b>Special Opportunities</b>	<b>4.61%</b>	<b>7.52%</b>	<b>6.84%</b>	<b>0.73%</b>	<b>1.58%</b>	<b>10.30%</b>
<i>Cambridge Private Equity</i>	3.04%	10.73%	13.05%	8.36%	10.13%	13.89%
<b>In-State Emerging Managers</b>	<b>7.03%</b>	<b>11.21%</b>	<b>13.76%</b>	<b>1.75%</b>	<b>6.05%</b>	<b>-</b>
<i>Cambridge Private Equity</i>	3.04%	10.73%	13.05%	8.36%	10.13%	13.89%
<b>Total Private Equity Composite</b>	<b>1.58%</b>	<b>8.79%</b>	<b>10.08%</b>	<b>5.60%</b>	<b>8.31%</b>	<b>14.80%</b>
<i>Cambridge Private Equity</i>	3.04%	10.73%	13.05%	8.36%	10.13%	13.89%

- Private equity has underperformed over shorter periods and outperformed over longer periods.
- In state program has outperformed over shorter periods and underperformed over longer periods.
- Special Opportunities has underperformed over most periods.
- Total Private Equity Composite has underperformed over shorter periods and outperformed over 10 years.

Callan

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**Real Estate**

# U.S. Private Real Estate Performance: 1Q26

## Sector appreciation stays relatively flat, outside of Hotel

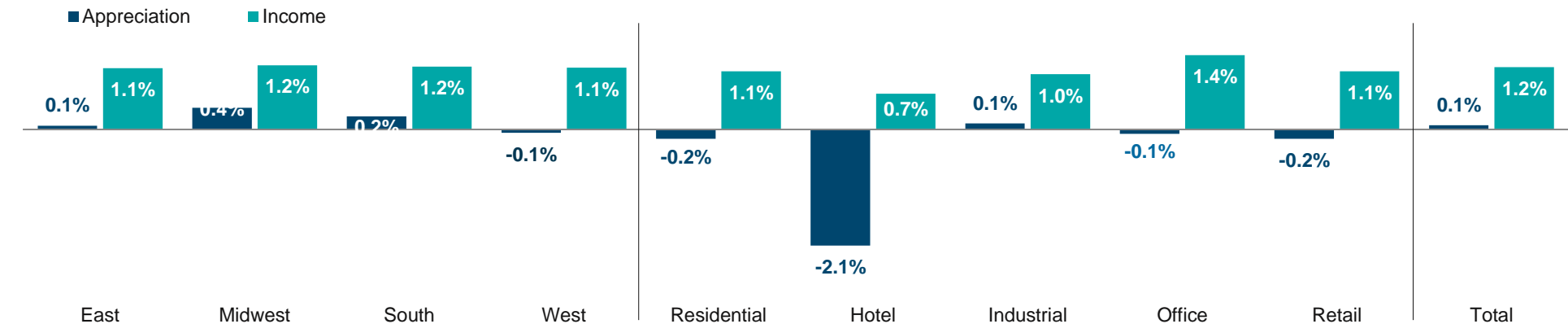
### Fundamentals show early stabilization

- Income returns remained positive and continued to drive total returns.
- Property sector returns driven by income; Residential, Hotel, Office, and Retail experienced negative appreciation, while industrial had slightly positive appreciation.
- The West region lagged in performance, largely due to softening industrial fundamentals in Southern California.
- Manager return dispersion within the ODCE Index remains elevated, driven by portfolio composition and sector exposure.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	1.0%	3.1%	-2.8%	2.3%	3.8%
Income	0.8%	3.2%	3.0%	2.9%	3.2%
Appreciation	0.2%	-0.1%	-5.8%	-0.6%	0.6%
NCREIF Property Index	1.2%	4.8%	0.0%	3.7%	4.7%
Income	1.2%	4.7%	4.7%	4.4%	4.5%
Appreciation	0.1%	0.1%	-4.7%	-0.7%	0.2%

Returns are geometrically linked

### NCREIF Property Index Quarterly Returns by Region and Property Type



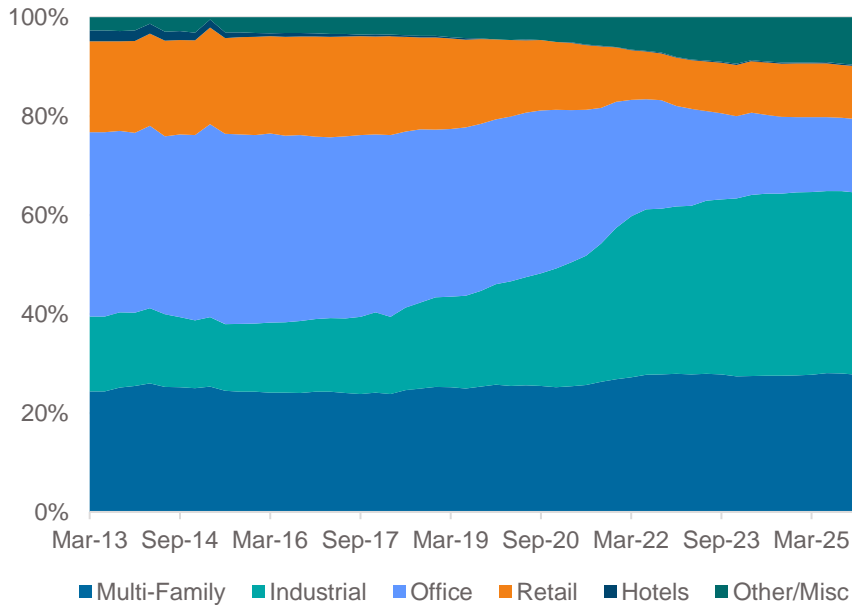
Source: NCREIF; ODCE return is net

# ODCE Sector Exposure: 1Q26

## NCREIF NFI-ODCE Value Weight (Net)

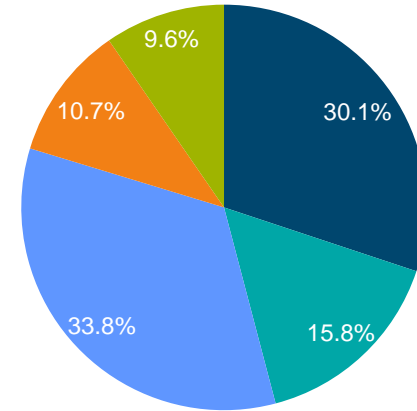
- Private core real estate exposures have shifted meaningfully over time, with office and retail declining and industrial and multi-family increasing.
- Allocations to alternative property types remain steadily growing. Portfolios are shifting toward lower-capex and less GDP-linked sectors.
- U.S. geographic exposure remains concentrated in coastal regions.

### Historical Property Sector Exposure

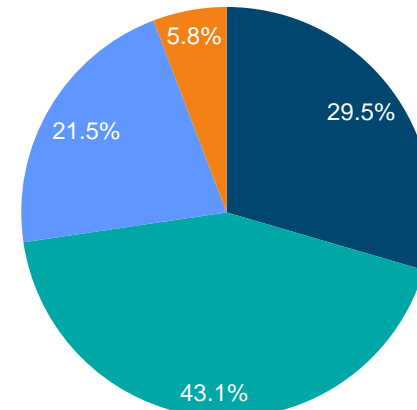


Source: NCREIF  
Sector data as of 4Q25, the latest available at time of publication

### Property Type and U.S. Geographic Concentrations



■ Residential ■ Office ■ Industrial ■ Retail ■ Other

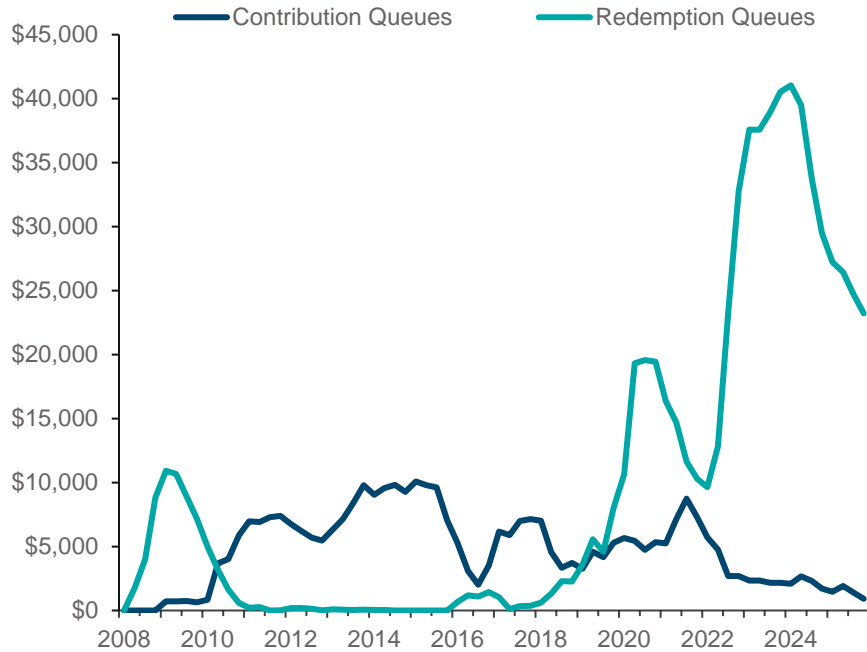


■ East ■ West ■ South ■ Midwest

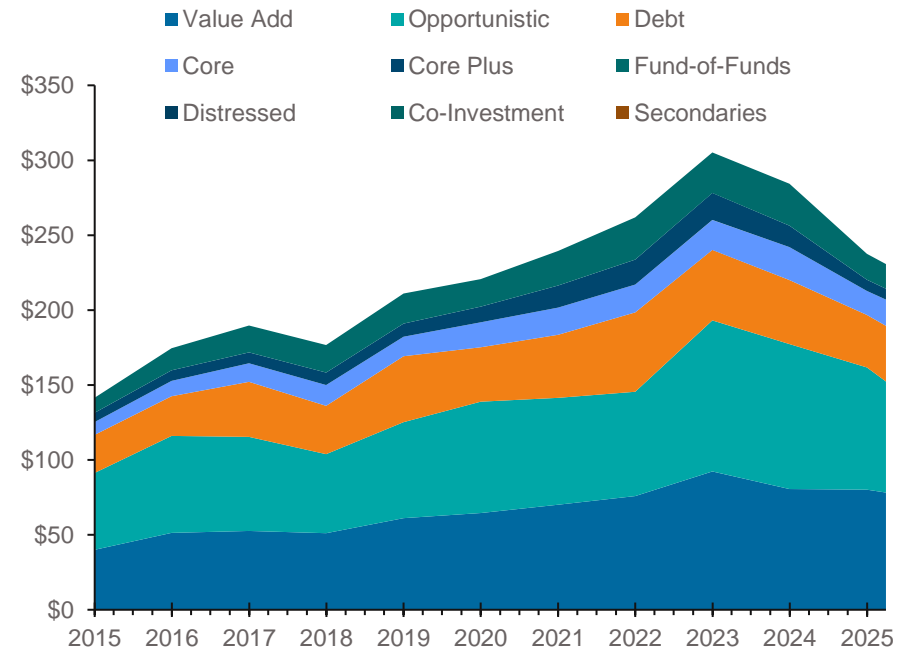
# U.S. Private Real Estate Market Trends

Over \$230 billion of dry powder

Core Fund Contribution/Redemption Queues (\$mm)^



Dry Powder for CRE Investment in North America (\$bn)



- ODCE redemption queues are approximately 10.2% of net asset value (NAV) with a median queue of 9.4%. This compares to the Global Financial Crisis, when queues peaked at approximately 15% of NAV.
- Outstanding redemption requests for most large ODCE funds are approximately 0% to 47% of NAV.
- Redemption queues are now sharply decreasing after having peaked at 19.3% of NAV in 1Q24. This has been driven primarily by rescissions of redemption requests within a handful of managers with large queues and increased redemption payments due to increasing transactions.

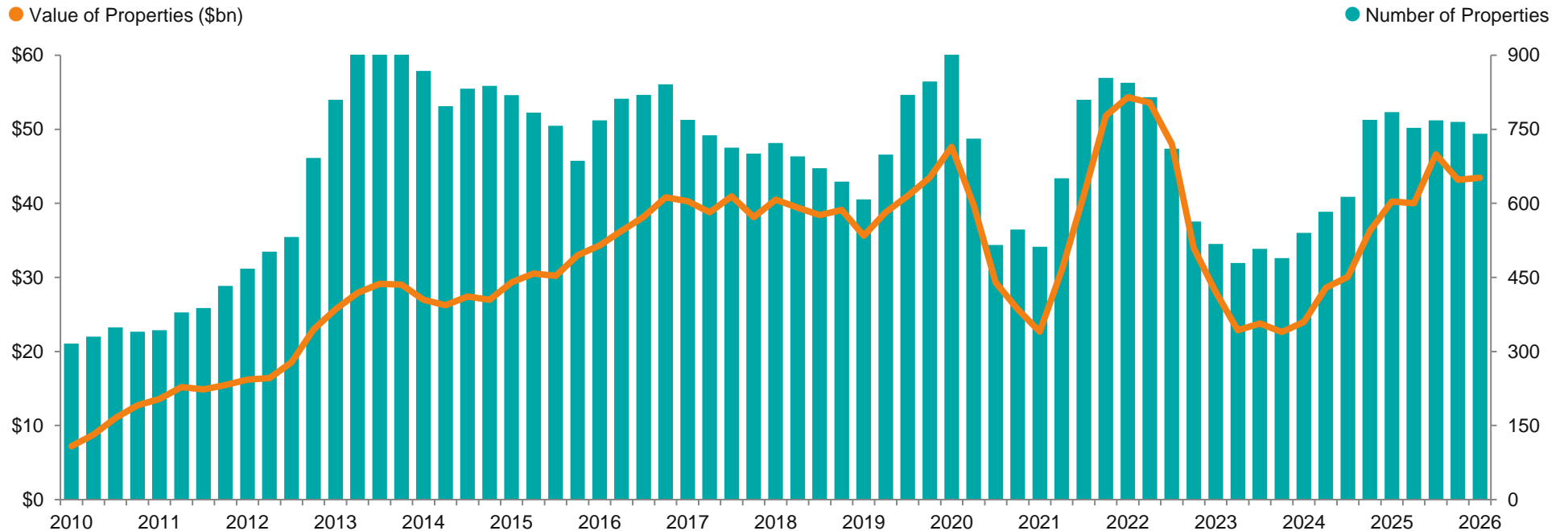
Sources: AEW, NCREIF, Preqin

^Queue data as of 4Q25, the latest available at time of publication

# U.S. Private Real Estate Market Trends

Pricing and transaction volumes are increasing after bottoming

## NCREIF Property Index Rolling 4-Quarter Transaction Totals

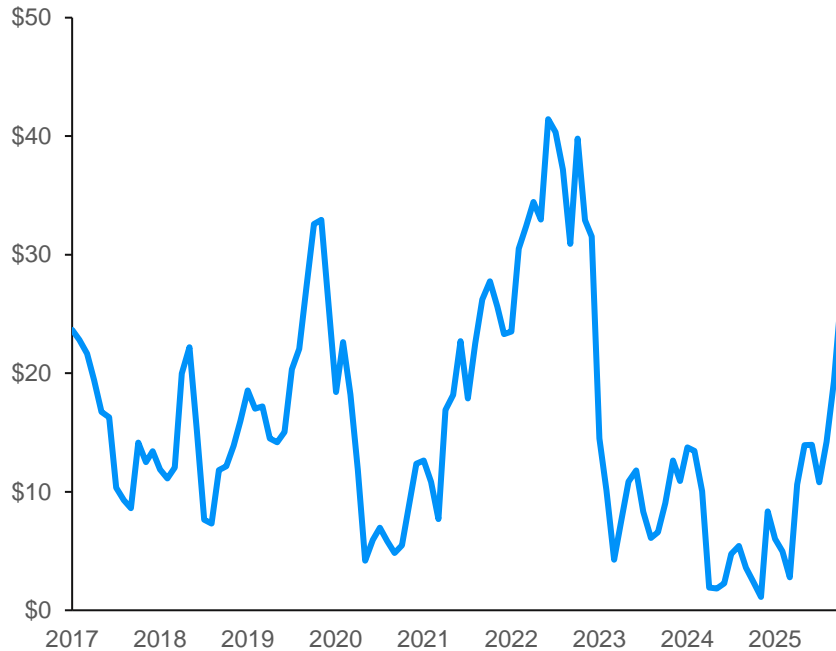


- Transaction volume is increasing on a rolling four-quarter basis and has exceeded five-year averages.
- In 1Q26, transaction volume increased by number and overall transaction value on a quarter-over-quarter basis. However, transaction volume remains lower compared to 2022.
- The volatile rise in interest rates was the driving force behind the slowdown in transactions between 2022 and 2024. Activity has since rebounded as valuations have largely adjusted to increased borrowing costs.

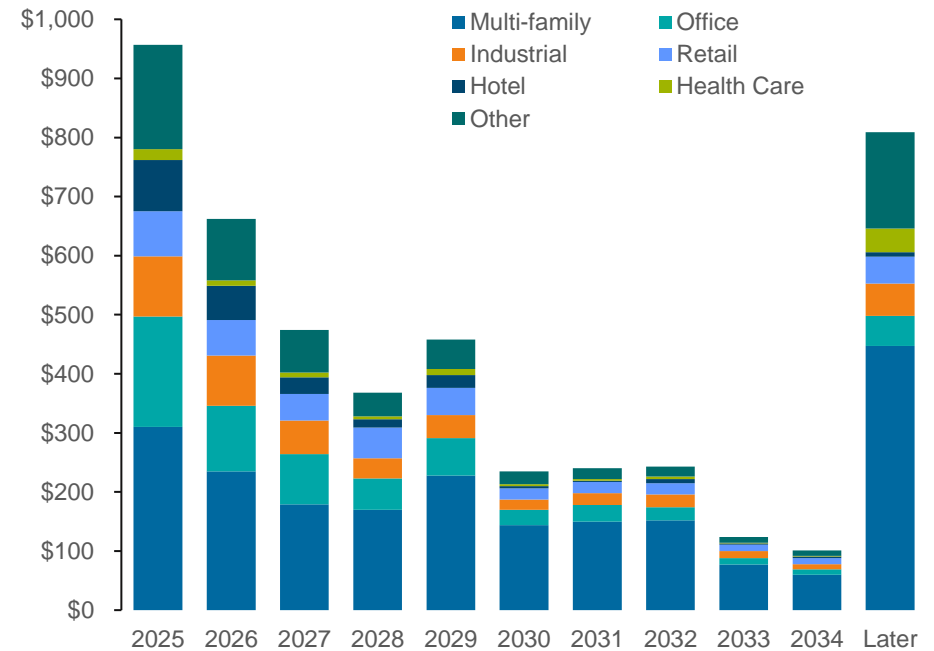
Source: NCREIF

# Real Estate Capital Markets

Bank CRE Net issuance (Rolling 3 Months) \$bn



Loan Maturities by Sector (\$bn)

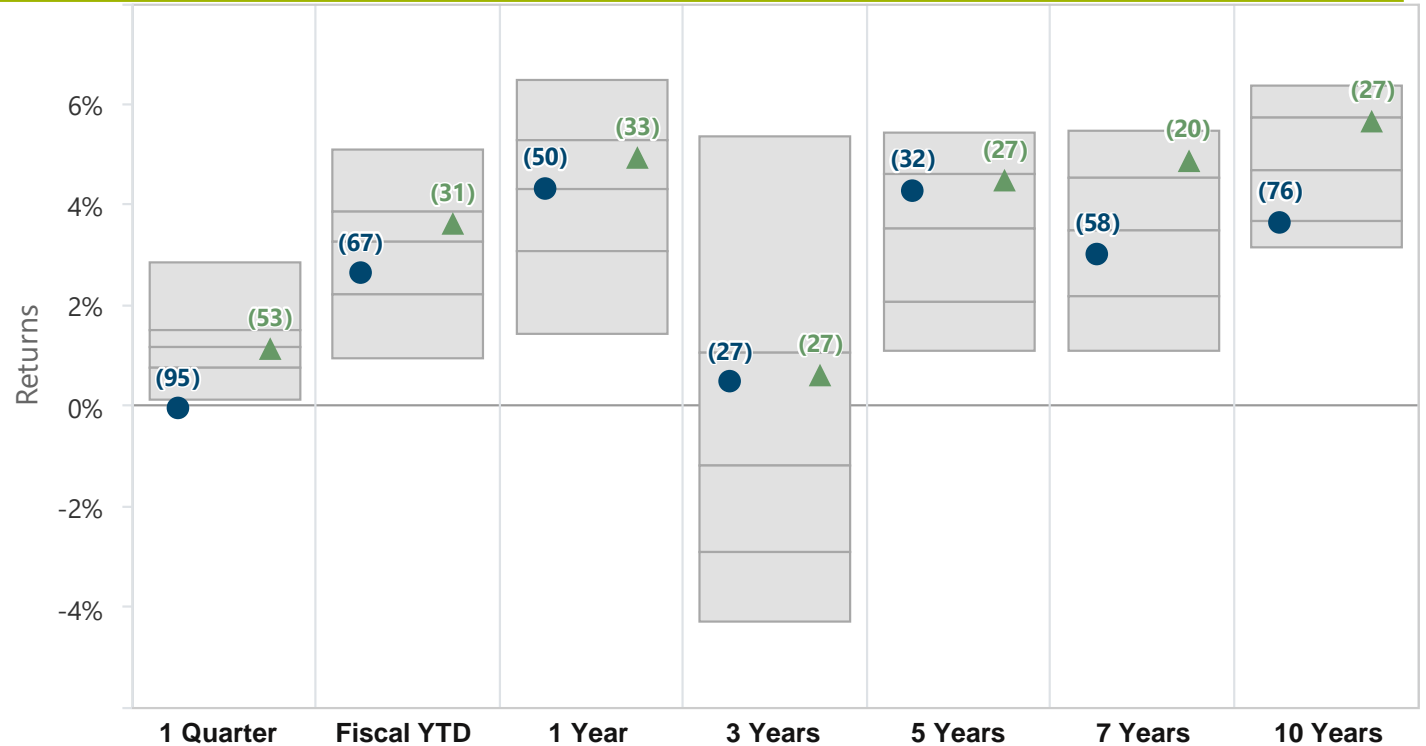


- While bank CRE lending activity is recovering, lower loan-to-value ratios are forcing borrowers to source additional capital, creating opportunities for private debt providers.
- Extension-driven maturities have pushed refinancing further out—particularly in multi-family and office—amid tighter spreads and supportive lender appetite. Rates appear to have peaked, and conditions are more accommodative, but challenges remain.
- Lenders are increasingly forcing borrowers to refinance or repay at higher rates rather than extending loans, driving a rise in defaults and accelerating the resolution of distressed assets, particularly in office, amid record CMBS delinquencies and a large wave of near-term maturities.

Sources: FDIC, JP Morgan Asset Management, MBA, Moody's, *The Wall Street Journal*

# Performance Comparison – Real Estate as of December 31, 2025

Real Estate Composite (1Q Lag) vs Callan Total Fund Sponsor DB

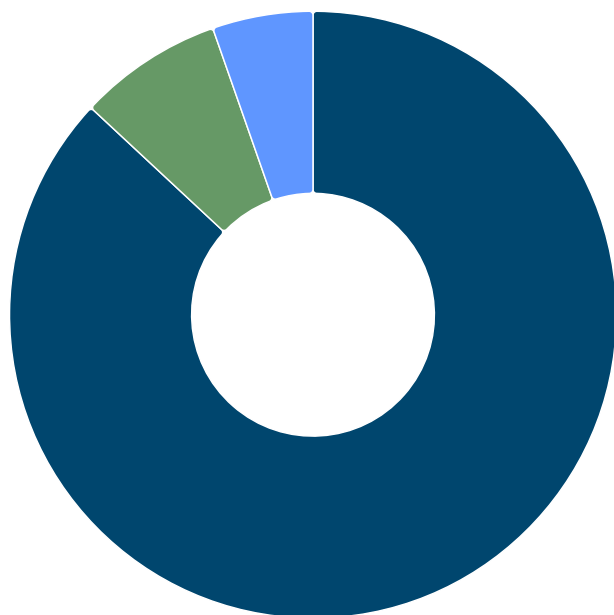


	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	2.84	5.08	6.49	5.37	5.42	5.47	6.36
25th Percentile	1.51	3.86	5.29	1.04	4.61	4.55	5.74
Median	1.18	3.28	4.30	-1.18	3.53	3.49	4.70
75th Percentile	0.76	2.23	3.09	-2.90	2.06	2.19	3.68
90th Percentile	0.12	0.94	1.45	-4.28	1.08	1.11	3.17
Real Estate ●	-0.04	2.65	4.32	0.49	4.28	3.02	3.65
Real Estate Benchmark <sup>1</sup> ▲	1.14	3.63	4.94	0.61	4.49	4.88	5.66

<sup>1</sup> Real Estate Target components: Real Estate Custom: NCREIF Total Index through 6/30/20, then 85% NCREIF Total Index and 15% MSCI US REIT through 6/30/25, and 100% NCREIF Expanded Property Index thereafter

# Real Estate Strategy Allocation (1Q LAG)

Periods Ended December 31, 2025



Asset Class	Assets	Actual Weight
■ RE Equity Investments	\$7,388,165,192	86.94%
■ RE Debt Investments	\$654,650,575	7.70%
■ REITS	\$455,234,743	5.36%
<b>Real Estate</b>	<b>\$8,498,050,511</b>	<b>100.00%</b>

## Real Estate Strategy Performance (1Q LAG)

Periods Ended December 31, 2025

Performance for Periods Ended December 31, 2025	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years
<b>RE Equity Investments</b>	<b>-0.16%</b>	<b>2.46%</b>	<b>4.07%</b>	<b>-1.39%</b>	<b>3.38%</b>	-
<i>NCREIF Expanded (Lagged)</i>	1.14%	3.63%	4.96%	-1.00%	3.80%	-
<b>RE Debt Investments</b>	<b>1.86%</b>	<b>6.21%</b>	<b>8.35%</b>	<b>8.40%</b>	<b>10.05%</b>	-
<i>NCREIF Expanded (Lagged)</i>	1.14%	3.63%	4.96%	-1.00%	3.80%	-
<b>REITS</b>	<b>-1.42%</b>	<b>0.73%</b>	<b>2.29%</b>	<b>8.75%</b>	<b>7.25%</b>	<b>6.69%</b>
<i>MSCI US REIT</i>	-1.69%	1.86%	2.95%	8.39%	6.58%	5.71%
<b>Total Real Estate Composite</b>	<b>-0.04%</b>	<b>2.65%</b>	<b>4.32%</b>	<b>0.49%</b>	<b>4.28%</b>	<b>3.65%</b>
<i>Real Estate Benchmark</i>	1.14%	3.63%	4.94%	0.61%	4.49%	5.66%

- Real Estate Equity Investments have trailed the NCREIF benchmark over all periods.
- Real Estate Debt Investments have outperformed over all periods.
- REIT Investments have mixed performance but have outperformed over longer time periods.
- The overall Real Estate Composite has underperformed the benchmark over all time periods.

Real Estate Target components: Real Estate Custom: NCREIF Total Index through 6/30/20, then 85% NCREIF Total Index and 15% MSCI US REIT through 6/30/25, and 100% NCREIF Expanded Property Index thereafter

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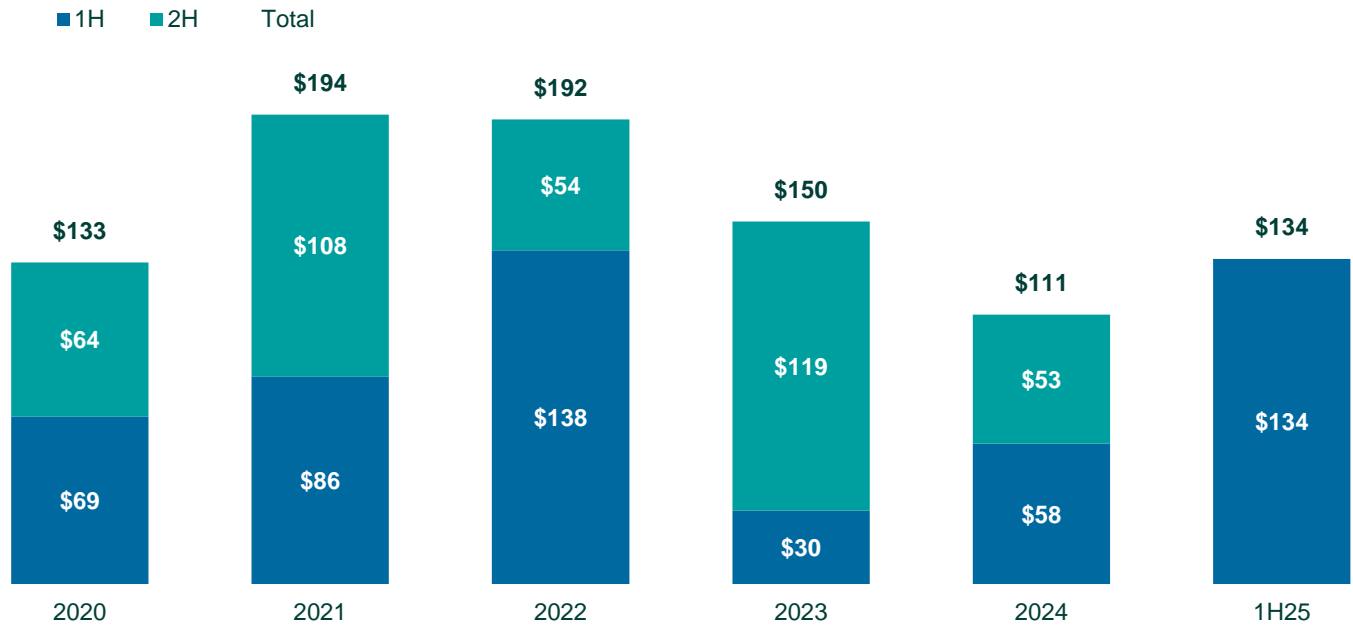
## **Private Income**

Infrastructure and Private Credit

# Infrastructure Fundraising Momentum Rebounds in 1H25

Mega funds drive fundraising to highest level since 1H22

Infrastructure Fundraising Volume (\$bn)



- Fundraising decreased in 2023 and 2024 following a long-term trend of growth dating back to the Global Financial Crisis. A primary reason for this is the slowdown in dealmaking and exits, which reduced distributions to fund new commitments.
- Mega funds, targeting a fund size more than \$10 billion, have raised significant capital in recent years. Fundraising in 1H25 was primarily driven by mega funds, with 80% of the infrastructure capital flowing to five to six mega fund managers.
- The closed-end fund market continues to expand, with new offerings in infrastructure debt, energy transition, emerging markets, and sector-specific strategies (e.g., digital and renewables).
- The open-end fund market is increasing, with multiple new funds coming to market since 2020.

Sources: Callan research, CBRE, Infralogic, Institutional Infrastructure Investor data, Preqin

# Infrastructure Market Conditions

## Headwinds



- **Tariff / Recession Risk:** Trade wars and uncertain macroeconomic conditions may impact demand for assets. Merchant / more GDP-sensitive assets may see volatility in volumes/usage. Growth-oriented investments may not achieve business plans.
- **Interest rates:** High interest rates impacting asset prices / refinancing activity. May affect transaction activity.
- **Inflation:** Inflation pass-through is prevalent across most infrastructure assets, although there can be a lag. Persistent high inflation may lead to regulators looking unfavorably on higher prices to consumers over a longer term and/or resulting in demand impacts.
- **Regulatory / Policy:** Shifting regulatory environment and policy changes may affect incentives and valuations.

## Tailwinds

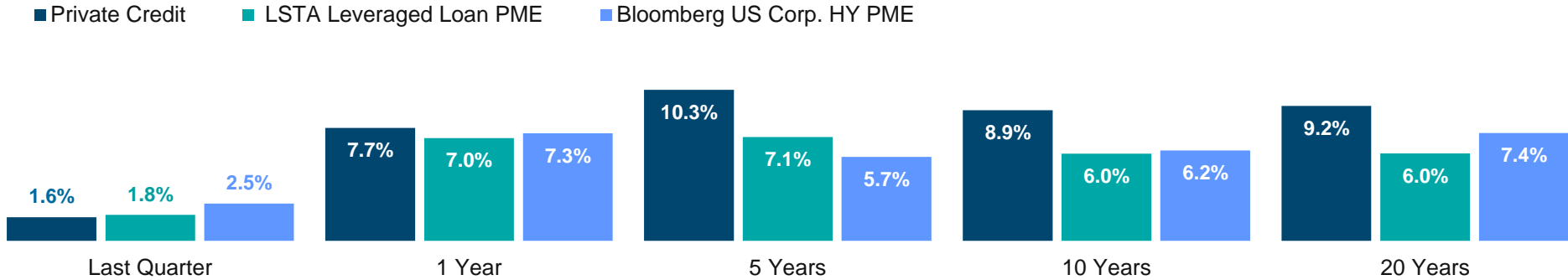


- **Digitization:** Growth of AI and 5G, with associated data centers, small cell, tower, and other infrastructure. Digitization is also driving robust demand for power generation and grid development.
- **Energy transition:** Renewables and transmission; NetZero targets; electrification, including EVs; public policy support (Inflation Reduction Act).
- **Supply Chain:** Expansion of supply chains to create more resilience and less reliance on a single supplier, while near-shoring is changing demand patterns for ports/logistics.
- **Aging Infrastructure:** Underinvestment across transport and utilities may create attractive new opportunities with government incentives.

# Private Credit Market Overview

Outperformed leveraged loans and high yield over last 1, 5, 10, and 20 years ended 3Q25

Pooled Horizon Net IRRs as of 9/30/25



Pooled Horizon Net IRRs by Strategy as of 9/30/25

Strategy	Last Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	1.1	7.7	8.3	7.9	7.8
Subordinated	2.0	9.9	12.1	11.0	10.9
Credit Opportunities	1.8	7.0	10.6	8.5	9.0
<b>Total Private Credit</b>	<b>1.6</b>	<b>7.7</b>	<b>10.3</b>	<b>8.9</b>	<b>9.2</b>

## Long-term performance

Over the past 10 years the asset class has generated a net IRR of 8.9%, outperforming leveraged loans and high yield as of Sept. 30, 2025. Higher-risk strategies have performed better than lower-risk strategies.

Source: Cambridge

# Private Credit Fundraising Landscape

## Activity slowly picked up in 3Q25

The top four funds raised in 3Q25 were across various verticals of private credit.

In 3Q25, secondaries strategies led capital formation, followed by opportunistic funds, with distressed debt trailing.

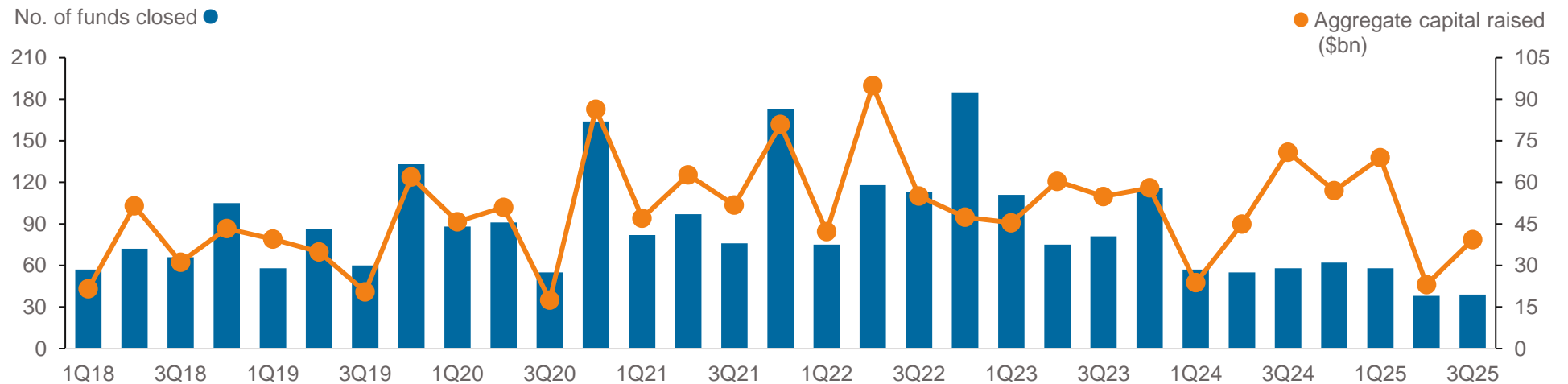
Private credit stayed in high demand among Callan clients, and most LPs look to maintain or increase their target allocation.

We continue to notice increased interest in specialty finance and asset-backed lending strategies.

### Largest Funds Holding Closes in 3Q25

Name	Amount (\$millions)	Strategy
Coller Credit Opportunities II	\$6,800	Secondaries
Strategic Value Special Situations Fund VI	\$4,030	Opportunistic
Five Arrows Debt Partners IV	\$2,829	Opportunistic
Strategic Value Capital Solutions Fund II	\$2,675	Distressed Debt

### Quarterly Private Credit Fundraising



Source: Preqin

# Projected Private Credit Market Growth by Strategy

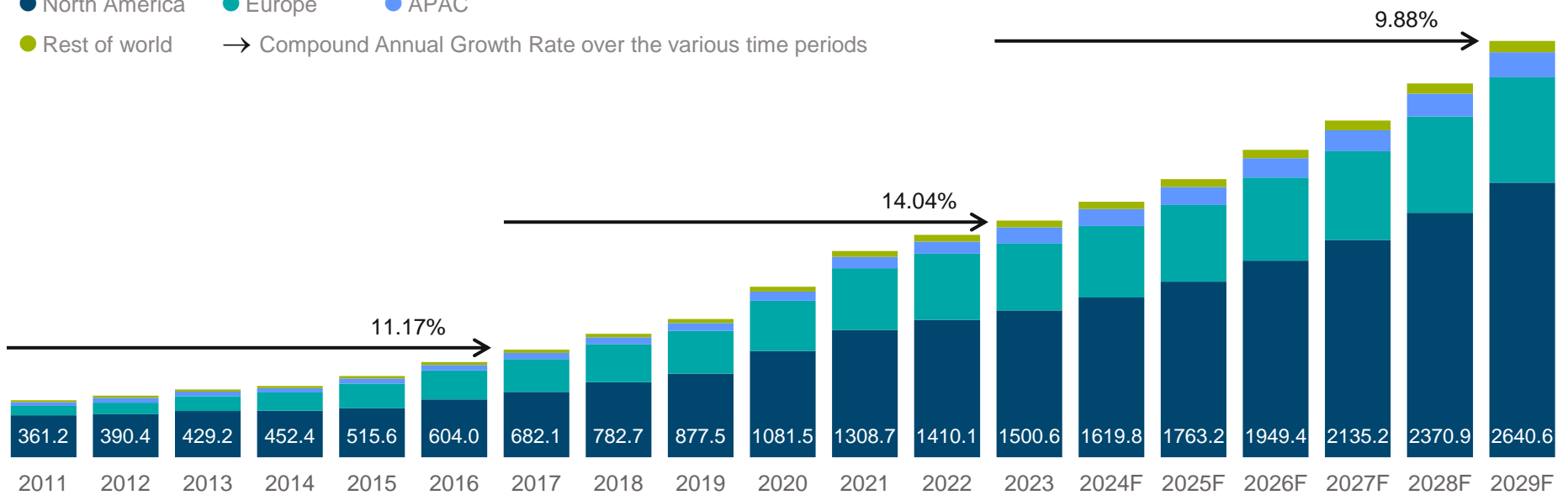
North American private debt AUM is expected to grow significantly, from \$1.01 trillion in 2024 to \$1.74 trillion in 2029, representing an annualized growth rate of 11%. European private debt AUM is projected to grow at a slower pace of 7.8%, reflecting resilience despite a more challenging economic environment.

Fundraising in Europe is forecast to remain static, which could create upside potential as reduced competition for deals may improve investment opportunities.

The private credit market is positioned to maintain strong growth, particularly in North America, while Europe's steadier trajectory still offers attractive prospects in a less crowded landscape.

## Private Credit AUM\* by Primary Region Focus

- North America
  - Europe
  - APAC
  - Rest of world
- Compound Annual Growth Rate over the various time periods



\* AUM figures exclude funds denominated in yuan renminbi. Data labels show total private credit AUM for each year.

Source: Preqin

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## Credit Market Environment

### Private credit default rate below high yield rate, despite high-profile issues

The broad high yield credit default surge anticipated by the post-2022 tightening cycle did not fully materialize (increase from 2% to 3.5%). In other recent cycles high yield default rates have increased from 5% to 11% (2000-01); 2% to 15% (2007-09); and 3% to 8% (2020-21). The long-term average U.S. high yield bond default rate is about 4%.

Private credit defaults (2%) have historically been significantly less than high yield default rates (4%). This has continued to be the case during the current market environment:

- Amend-and-extend activity and sponsor equity support delayed or mitigated distress.
- Private credit's control orientation has enabled earlier intervention versus syndicated markets. Documentation protections such as debt covenants have played a critical role in lender positioning and recovery outcomes.

However, credit risk may be getting deferred rather than eliminated as maturities extend forward.

Widely covered credit events in late 2025 and early 2026 drew increased attention to underwriting standards and recovery expectations.

**First Brands:** Auto-parts supplier

**Tricolor:** Used-car retailer and subprime auto lender targeting borrowers with weak credit profiles

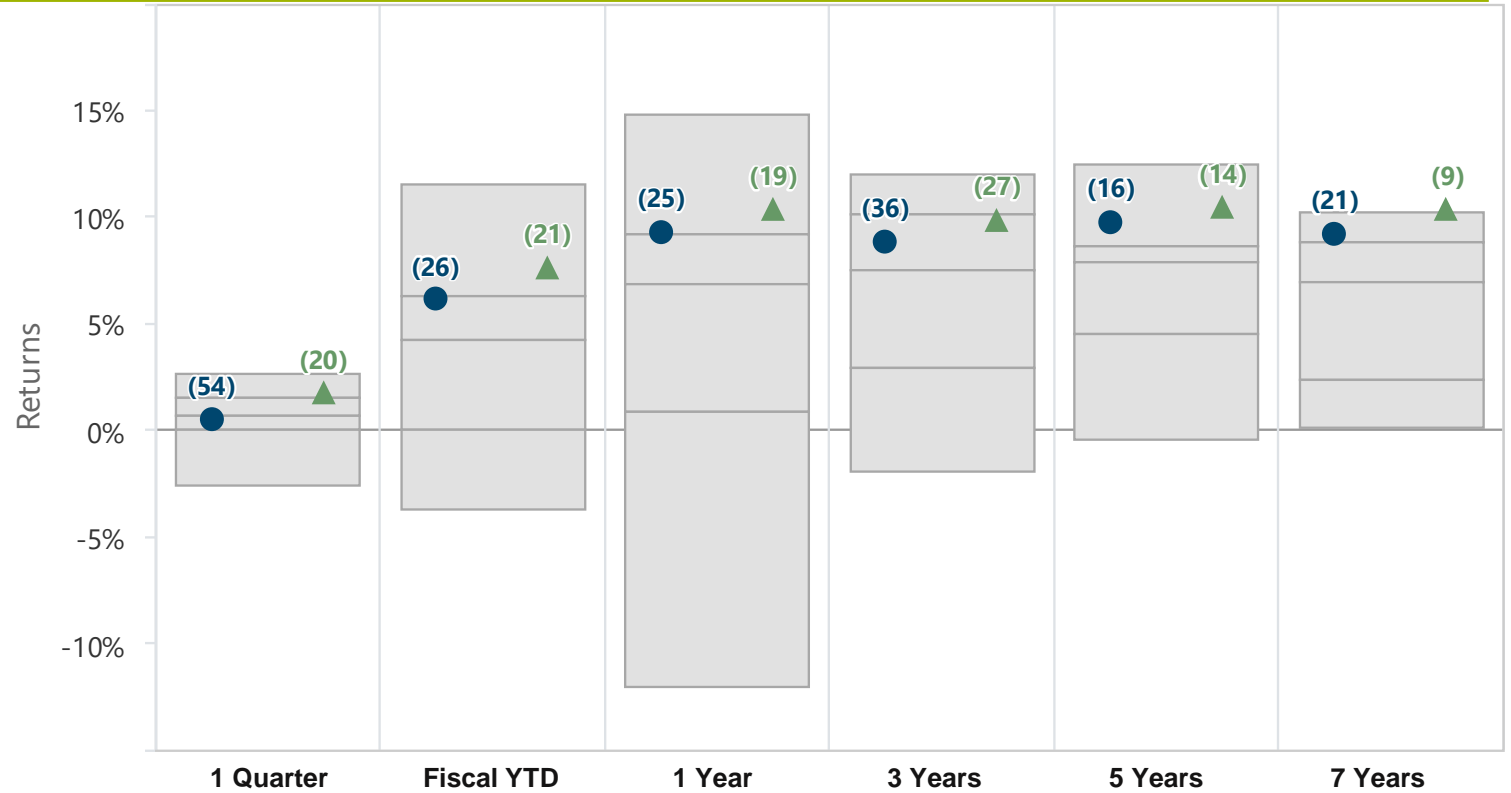
**Broadcom/Bridgevoice:** New York-based wholesale voice and messaging carriers

**Market Financial Solutions (MFS):** U.K. lender to professional residential property investors and developers

These cases, which primarily impacted the broadly syndicated loan market, were idiosyncratic rather than systemic, concentrated in cyclical and rate-sensitive sectors, and/or related to fraud. They reinforce dispersion in manager performance driven by underwriting and monitoring rigor and workout capability.

# Performance Comparison – Private Income as of December 31, 2025

Private Income Composite (1Q Lag) vs Callan Total Fund Sponsor DB

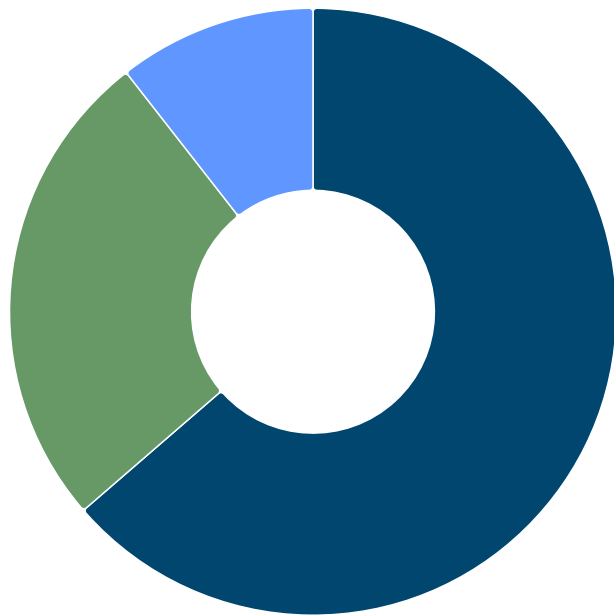


	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years
10th Percentile	2.65	11.57	14.77	12.03	12.45	10.20
25th Percentile	1.56	6.28	9.23	10.15	8.67	8.81
Median	0.70	4.28	6.89	7.47	7.84	6.95
75th Percentile	0.00	0.06	0.86	2.92	4.48	2.37
90th Percentile	-2.64	-3.70	-12.01	-1.93	-0.44	0.07
Private Income ●	0.52	6.18	9.29	8.85	9.76	9.21
Private Income Custom <sup>1</sup> ▲	1.77	7.64	10.39	9.86	10.48	10.39

<sup>1</sup> Private Income Custom Benchmark components: 60% FTSE Dev Core Infr and 40% BB US Corp HY 2% to 6/30/20, 60% Cambridge Global Pri Inf and 40% Cambridge Pri Cdt

# Private Income Strategy Allocation (1Q LAG)

Periods Ended December 31, 2025



Asset Class	Assets	Actual Weight
■ Infrastructure	\$5,095,135,112	63.65%
■ Private Credit	\$2,065,446,481	25.80%
■ Income Opportunities	\$844,780,658	10.55%
<b>Private Income</b>	<b>\$8,005,362,252</b>	<b>100.00%</b>

## Private Income Performance (1Q LAG)

Periods Ended December 31, 2025

Performance for Periods Ended December 31, 2025	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years
<b>Infrastructure</b>	<b>0.02%</b>	<b>6.83%</b>	<b>10.28%</b>	<b>10.23%</b>	<b>12.59%</b>	<b>13.10%</b>
<i>Cambridge Global Pvt Infr</i>	1.57%	8.07%	11.13%	9.17%	10.13%	10.14%
<b>Private Credit</b>	<b>1.47%</b>	<b>7.44%</b>	<b>9.74%</b>	<b>7.66%</b>	<b>8.69%</b>	<b>7.84%</b>
<i>Cliffwater Direct Lending TR</i>	2.08%	6.99%	9.28%	10.90%	11.00%	9.31%
<b>Income Opportunities</b>	<b>1.22%</b>	<b>-0.21%</b>	<b>3.06%</b>	<b>4.69%</b>	<b>3.67%</b>	<b>6.27%</b>
<i>Private Income Custom</i>	1.77%	7.64%	10.39%	9.86%	10.48%	9.84%
<b>Total Private Income Composite</b>	<b>0.52%</b>	<b>6.18%</b>	<b>9.29%</b>	<b>8.85%</b>	<b>9.76%</b>	<b>10.37%</b>
<i>Private Income Custom</i>	1.77%	7.64%	10.39%	9.86%	10.48%	-

- Infrastructure has underperformed over short term and outperformed over long term
- Private Credit has outperformed for Fiscal YTD and year, underperformed for longer periods
- Income Opportunities and Total Private Income Composites have underperformed for all periods

Private Income Custom Benchmark components: 60% FTSE Dev Core Infr and 40% BB US Corp HY 2% to 6/30/20, 60% Cambridge Global Pri Inf and 40% Cambridge Pri Cdt

Callan

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## Hedge Funds

# Hedge Fund Performance: 1Q26

Managers navigated a volatile March for mixed hedge fund performance

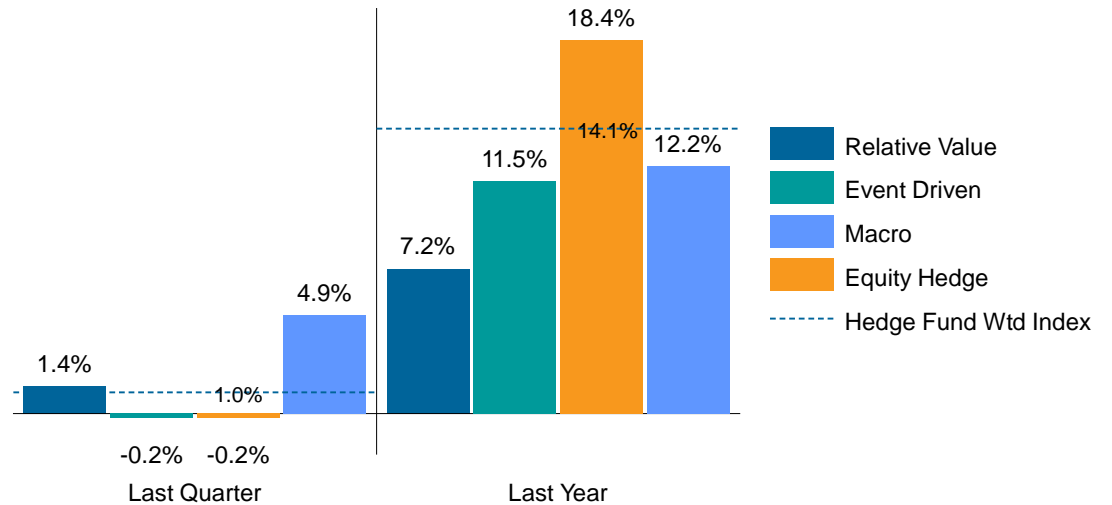
## Macro strategies drove hedge fund gains

- Macro strategies started the year off strong despite a volatile March, as they were able to profit off commodity, interest rate, and currency positions in 1Q26.
- Relative value strategies ended higher despite the sharp increase in interest rates, as managers repositioned for higher rates throughout the year.
- Event-driven strategies ended slightly lower, as expectations for corporate actions were offset by geopolitical uncertainty.
- Equity-hedge strategies also ended lower, as tech and health care managers were a drag on performance.

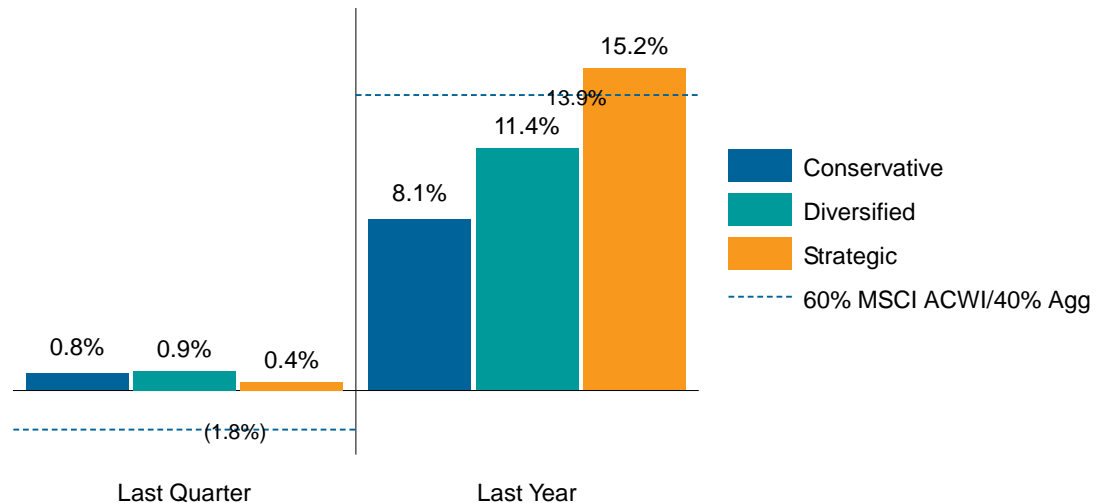
## FOFs saw mixed performance

- Fund-of-funds (FOFs) with more equity beta saw lower performance compared to those with less equity exposure.
- FOFs with more diversification with higher weights to macro and relative value strategies saw stronger performance during the quarter.

HFRI Strategy Index Returns vs. Broad Hedge Fund Universe as of 3/31/26



HFRI Fund-of-Funds Returns vs. 60% Stock/40% Bond Mix as of 3/31/26



Source: Hedge Fund Research

# Hedge Fund Key Themes

## Equity hedge started the year off in negative territory

### Equity hedge had a challenging start

- L/S alpha ended 1Q26 in negative territory after 11 consecutive months of positive spread.
- Tech, materials, and communication services saw the widest spread between long and short performance.
- The top 50 crowded longs ended the month down 5.6% while shorts were down only 4.2%.

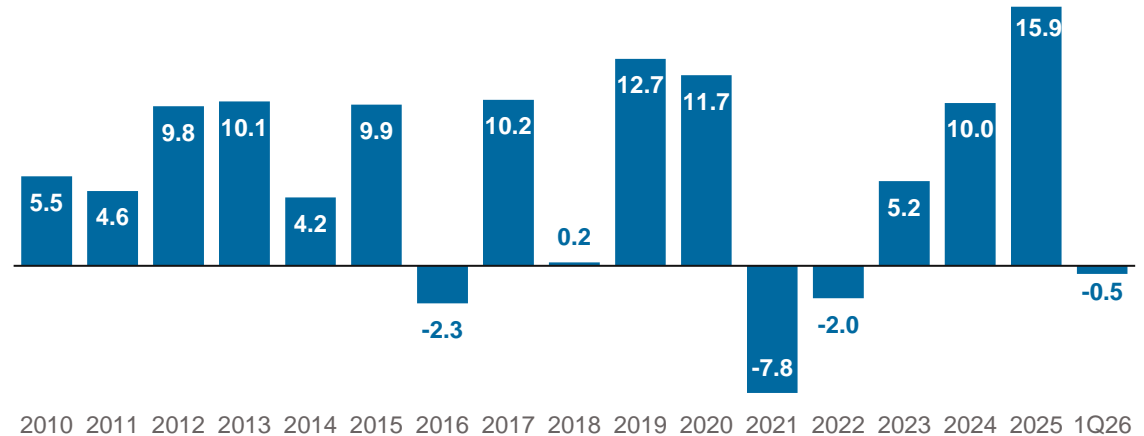
### Interest rate volatility

- The move higher in yields during the quarter reflects a repricing of inflation risk rather than stronger growth.
- Entering the year, three to four rate cuts were expected in 2026; by quarter-end futures implied no easing.

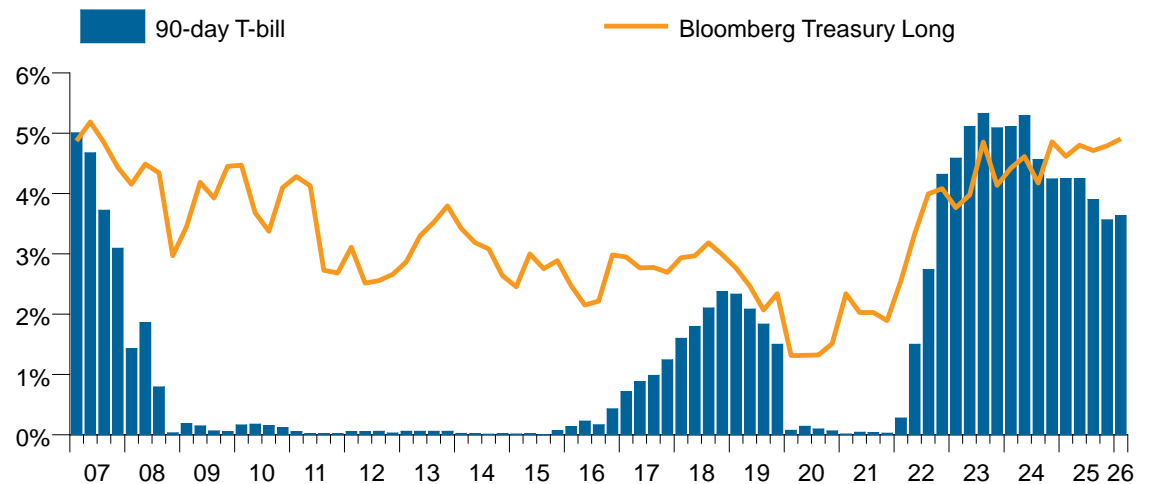
### Outlook remains compelling in 2026

- As rates remain elevated and volatile, hedge funds have been able to profit from this surge in asset volatility during 1Q.

Total Alpha (100% Long Alpha + Short Alpha)



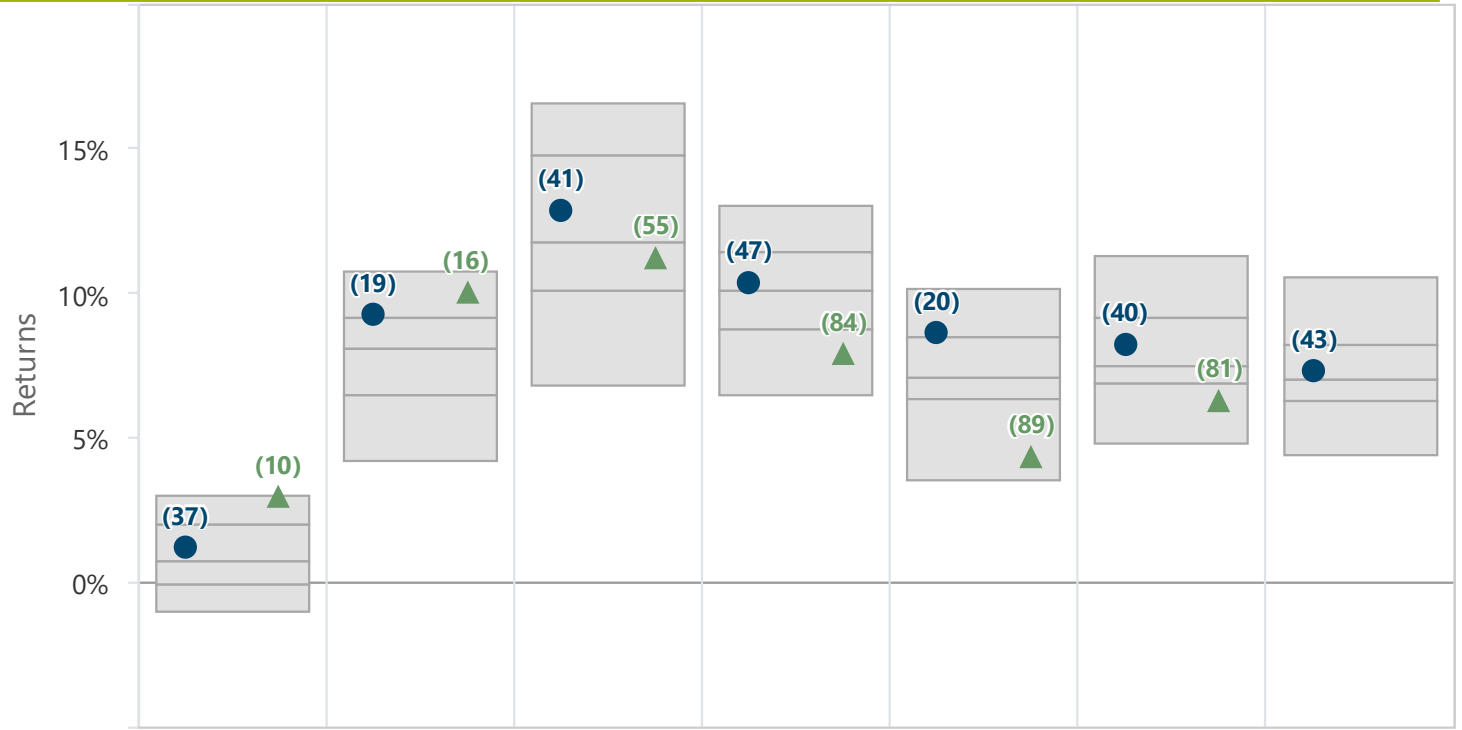
Yield of 90-day T-bills vs. Long Treasuries



Sources: Bloomberg, Morgan Stanley

# Performance Comparison – Absolute Return as of March 31, 2026

Absolute Return Composite vs Callan Total Fund Sponsor DB

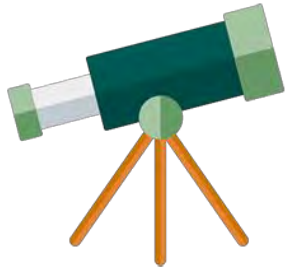


	1 Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years
10th Percentile	3.00	10.74	16.55	12.98	10.14	11.28	10.55
25th Percentile	1.97	9.17	14.79	11.38	8.44	9.14	8.18
Median	0.74	8.04	11.73	10.09	7.10	7.50	7.01
75th Percentile	-0.11	6.46	10.04	8.75	6.31	6.89	6.24
90th Percentile	-0.99	4.18	6.78	6.48	3.53	4.82	4.38
Absolute Return ●	1.21	9.27	12.86	10.36	8.63	8.22	7.31
Absolute Return Benchmark <sup>1</sup> ▲	2.97	10.03	11.22	7.91	4.34	6.28	-

<sup>1</sup> Absolute Return Benchmark components: LIBOR + 4% to 6/30/13, LIBOR + 6% to 6/30/15, LIBOR + 5% to 9/30/16, HFRI Total HFOF Universe to 6/30/22, and 50% HFRI EH Equity Market Neutral and 50% HFRI Macro thereafter

# Published Research Highlights: 1Q26

## Callan's 2026-2035 Capital Markets Assumptions



## The Callan Periodic Table Collection: Year-End 2025



## 2025 NDT Study



## STAR Report Executive Summary: Year-End 2025



## Recent Blog Posts

### Fiduciary Rule: The End of an Era?

Jana Steele

### What Institutional Investors Should Know About Private Credit

Daniel Brown

### The Opportunity Cost of a 'Really' Big Gold Cube

Nicholas Conant and Mark Wood

### Additional Reading

- Active vs. Passive quarterly charts
- Capital Markets Review* quarterly newsletter
- Monthly Updates to the Periodic Table
- Market Pulse Flipbook* quarterly markets update
- Market Intelligence (clients-only)
- Real Estate Indicators* market outlook

# Callan Institute Events

- Upcoming conferences, workshops, and webinars

## 2026 National Conference

Our annual conference, which took place on April 20-22, featured Callan-led workshops on private markets benchmarking and total portfolio approach (TPA), led by senior Callan consultants and research specialists.

**Stay tuned for invitations to the virtual workshops on these two topics!**



## Mark Your Calendar

### 2026 Regional Workshops

June 16, 2026 – Denver

June 18, 2026 – Chicago

October 20, 2026 – Atlanta

October 22, 2026 – San Francisco

*Watch your email for further details and an invitation.*

## Upcoming Webinars

**May 20, 2026**

Alternatives Benchmarking Webinar

**June 4, 2026**

Total Portfolio Approach Webinar

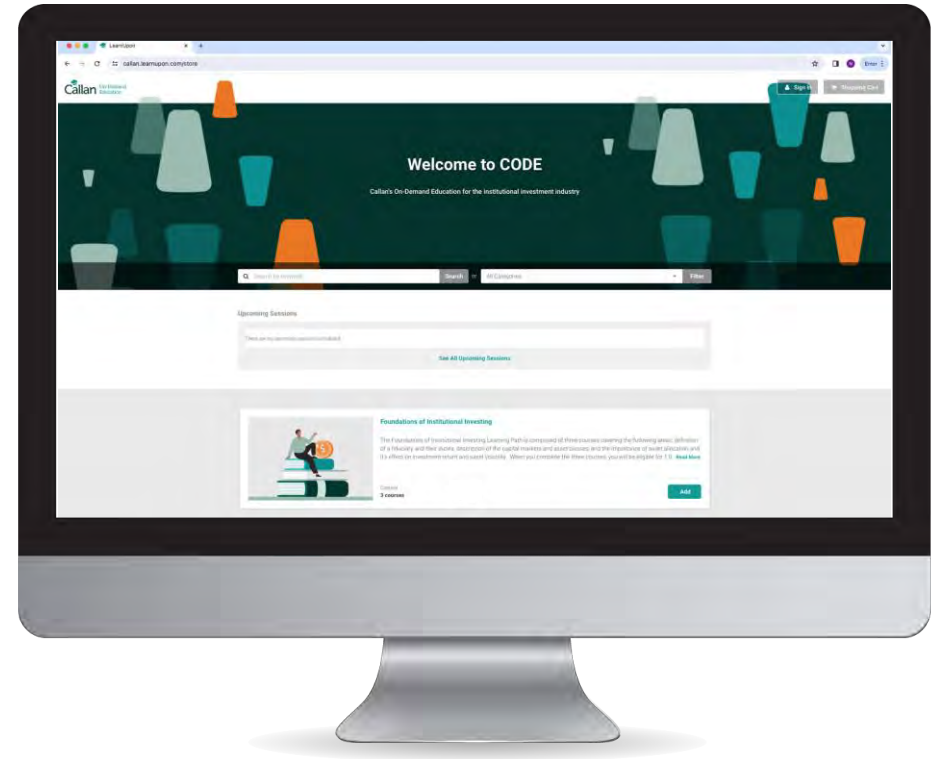
**July 24, 2026**

Market Intel Webinar

# Introducing Callan On-Demand Education (CODE)



- ▶ Variety of educational courses
  - ▶ Interactive and engaging
  - ▶ Self-guided modules
  - ▶ Eligible for continuing education credits
  - ▶ Learning at your own pace
- **CODE** courses are designed for investment professionals of all levels—and they're self-guided. Access them anytime, from anywhere, and get continuing education credits for each completed course.
  - **CODE** is for you, your colleagues, your new hires, and your interns. It's for anyone interested in learning about institutional investing.
  - [callan.learnupon.com](https://callan.learnupon.com)



## 3 Reasons to Take CODE Courses

- 1 **Become a better fiduciary**
- 2 **Showcase your skills and knowledge**
- 3 **Learn from Callan's investment experts**

## Callan Updates

- Firm updates by the numbers, as of March 31, 2026

**Total Associates:** ~200

**Company Ownership:**

- ▶ 100% employee ownership
- ▶ ~70% of employees are equity owners
- ▶ No outside ownership interests allow us to stay 100% focused on our core business: consulting

Total Investment Consultants: 50+

Total Specialty and Research Consultants: 65+

Total CFA/CAIA/FRMs: 60+

Total Institutional Investor Clients: 475+

Provides advisory services to institutional investor/asset owner clients with more than \$4+ trillion

**“Our 2026 survey shows that DC plan sponsors continue to be sharply focused on the fundamentals: governance, fees, and investment structure. As the DC ecosystem innovates around areas such as guaranteed income and private markets, effective governance and durable fiduciary frameworks will remain paramount for plan sponsors.”**

— Patrick Wisdom, VP, DC consultant, about Callan’s recently released *2026 Defined Contribution Trends Survey*



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## Important Disclosures (continued)

The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information. Please see any applicable full performance report or annual communication for other important disclosures.

Unless Callan has been specifically engaged to do so, Callan does not conduct background checks or in-depth due diligence of the operations of any investment manager search candidate or investment vehicle, as may be typically performed in an operational due diligence evaluation assignment and in no event does Callan conduct due diligence beyond what is described in its report to the client.

Any decision made on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon the client to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.



SUBJECT: Asset Class Update: Absolute Return

ACTION:

DATE: May 26, 2026

INFORMATION: X

---

**BACKGROUND:**

The presentation provides an overview of APFC's Absolute Return program objectives, strategy, and performance.

**STATUS:**

Youlian Ninkov, Senior Portfolio Manager, will present an update on the Program's recent developments, an overview of the strategy, and performance since inception through calendar quarter Q1 2026.



ALASKA PERMANENT  
FUND CORPORATION

# Absolute Return

As of March 2026

## Key Facts as of March 2026

AUM	\$6.5bn
Number of Current Direct Relationships	19
Net Deployed Capital	\$3.3bn (\$7.1bn - \$3.8bn)
Returns (net of fees)	7.6%
Volatility	3.5%
Correlation to S&P 500	0.18
Beta to S&P 500	0.04
Average Management Fee	1.5% (2.5%)
Average Performance Fee	19.7%

\* Annualized; Since Inception of Direct Program: July 1, 2016

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# Program Objectives

Deliver diversifying returns

High “single digit” returns with a Sharpe around 1

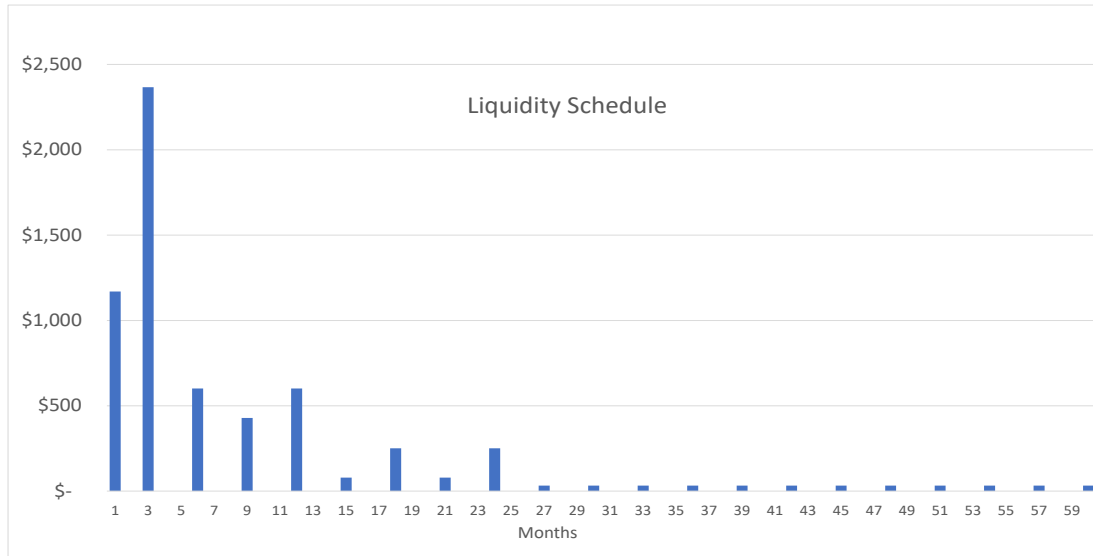
Benchmarked to a 50/50 blend of the HFRI Equity Market Neutral, and the HFRI Macro (Total) indices

# Strategy

- Target hedge fund strategies that are Beta-neutral by design
  - Average Manager Beta is 0.02
- Diversify across strategy types
  - Average 12-mo pairwise correlation is 0.1
- Balanced contribution
- Moderately concentrated (<20)
- Low turnover

# Liquidity

- Approximately \$5.2bn, or 83% of the portfolio can be liquidated in 12 months



# Portfolio Activity (last 18 months)

- Raised approximately \$700mm in cash
  - One full redemption
- Reinvested approximately \$250mm in existing and new positions
  - Introduced 2 new positions
    - Credit focused
    - Liquid multi-strategy

# Current Portfolio

Initial Allocation	Strategy	Description	Portfolio Weight
Dec-15	Equity Long/Short	Equity-focused arbitrage and relative value strategies; systematic and discretionary	4%
Aug-16	Equity Long/Short	Sector specialists RV; high turnover	9%
Sep-16	Equity Long/Short	Multi-PM platform with focus on factor neutrality; U.S.-centric	5%
Mar-17	Multistrategy	Systematic futures, equities, and macro	5%
Apr-17	Macro	Discretionary directional macro	5%
Oct-17	Event Driven	Activist in de-risked complex situations with focus on capital preservation	11%
Mar-18	Multistrategy	Focus on legal and policy-driven arbitrage, corporate actions, and special situations	6%
Aug-18	Macro	Asia-focused rates and FX specialist	4%
Sep-18	Event Driven	Focus on legal and policy-driven arbitrage, corporate actions, and special situations	5%
Oct-18	Macro	Systematic directional macro	11%
Oct-18	Equity Long/Short	TMT and Consumer focus; concentrated	4%
Feb-19	Macro	Developed markets rates arbitrage and directional macro	4%
Feb-19	Multistrategy	Multi-PM, multi-asset platform	10%
Nov-19	Equity Long/Short	Sector specialists RV; low turnover	4%
Apr-21	Commodities	Aggs and softs RV	3%
Aug-22	Macro	Emerging markets rates and FX specialist	5%
Oct-22	Equity Long/Short	Multi-PM platform with focus on factor neutrality; Global	2%
Jul-23	Credit Long/Short	Security arbitrage focus, with strong volatility convexity	3%
Aug-25	Credit Long/Short	High turnover credit RV with negative carry	1%

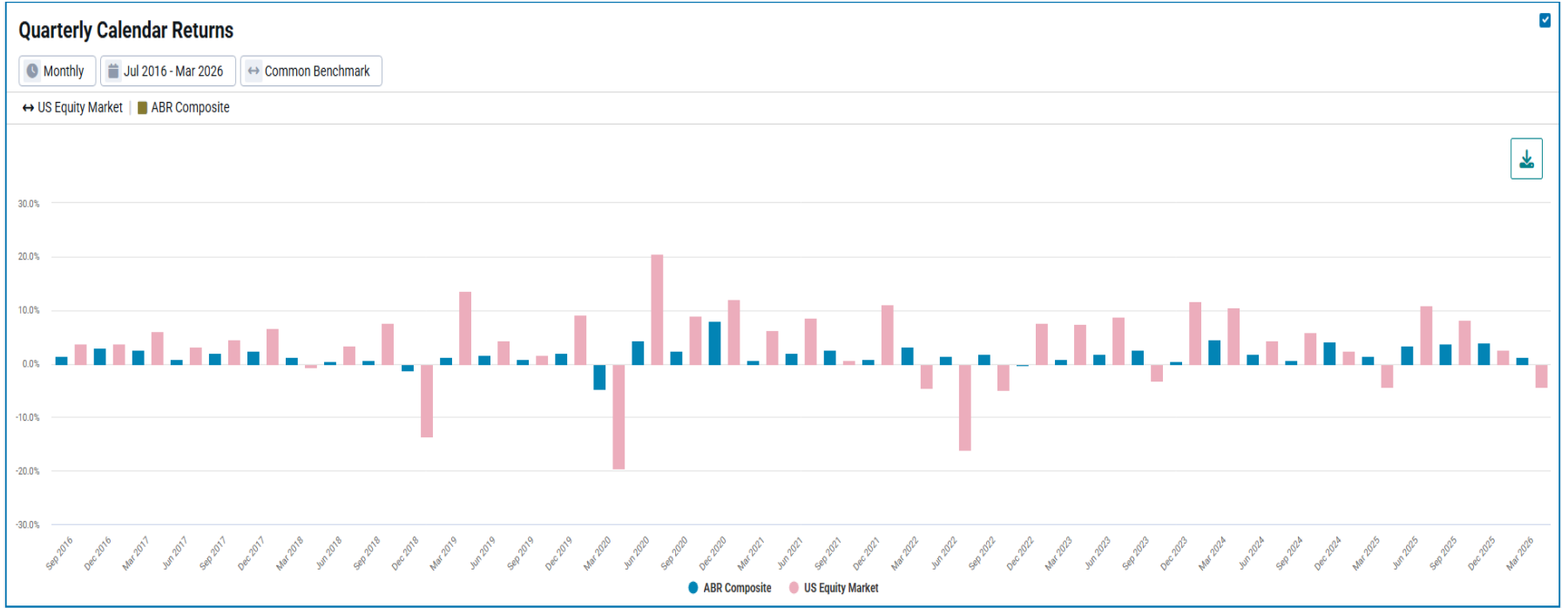
# Performance Attribution

Initial Allocation	Strategy	Portfolio Weight	Last 36-Months Contribution (annualized)
Oct-18	Macro	11%	1.5%
Aug-16	Equity Long/Short	9%	1.2%
Feb-19	Multistrategy	10%	1.2%
Oct-17	Event Driven	11%	0.9%
Dec-15	Equity Long/Short	4%	0.8%
Aug-22	Macro	5%	0.7%
Mar-18	Multistrategy	6%	0.6%
Apr-17	Macro	5%	0.5%
Mar-17	Multistrategy	5%	0.5%
Sep-18	Event Driven	5%	0.5%
Sep-16	Equity Long/Short	5%	0.4%
Feb-19	Macro	4%	0.3%
Aug-18	Macro	4%	0.3%
Oct-18	Equity Long/Short	4%	0.3%
Oct-22	Equity Long/Short	2%	0.2%
Nov-19	Equity Long/Short	4%	0.2%
Aug-25	Credit Long/Short	1%	0.0%
Apr-21	Commodities	3%	0.0%
Jul-23	Credit Long/Short	3%	-0.2%

# Performance Statistics

Performance and Risk <span style="float: right;">✓</span>			
<span>Monthly</span> <span>Jul 2016 - Mar 2026</span> <span>Common Benchmark</span>			
<span>US Equity Market</span> <span>ABR Composite</span> <span>ABR Custom HFRI 50/50</span>			
	ABR Composite	ABR Custom HFRI 50/50	US Equity Market
Availability	Jul 2016 - Mar 2026	Feb 1990 - Mar 2026	05 Jan '99 - 04 May '26
Max Frequency	Monthly	Monthly	Daily
Benchmark	▲ US Equity Market	▲ US Equity Market	⊘ No benchmark set
Return (Analysis Period)	7.55%	4.42%	14.26%
Return (3Y)	10.34%	7.92%	18.32%
Average Up Month	1.01%	0.88%	3.41%
Average Down Month	-0.64%	-0.67%	-4.15%
Sharpe Ratio	1.43	0.60	0.80
Volatility (5Y)	2.94%	3.32%	15.26%
Max drawdown (5Y)	-2.15%	-1.49%	-23.87%
Upside Volatility	4.19%	3.92%	14.81%
Downside Volatility	3.70%	2.86%	17.74%
Batting Average	76.07%	66.67%	70.94%
Beta To Benchmark	0.04	0.07	-
Correlation	0.18	0.33	-
Downside Capture	-10.24%	2.19%	-
Upside Capture	20.26%	16.20%	-

# Performance Statistics



# Performance Statistics

## Sensitivity Analysis

← Common Benchmark

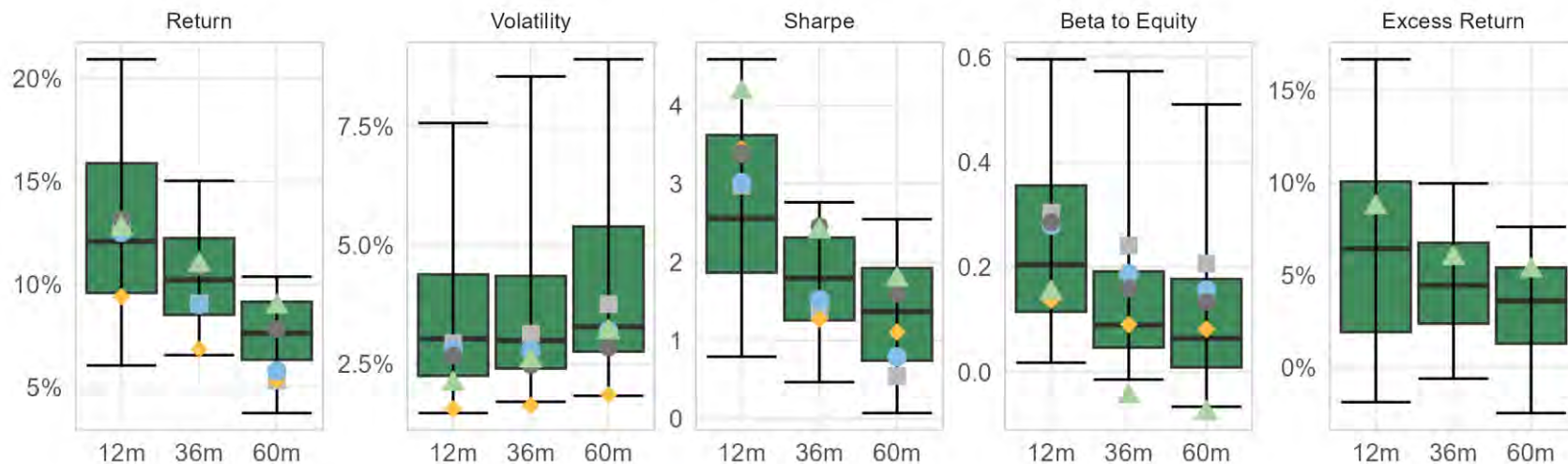
↔ US Equity Market | ■ ABR Composite

Input	Shock Value ⓘ	Estimated Return		
		ABR Composite	US Equity Market	
MSCI ACWI Net Return Index	+15.0%	0.3% ± 1.4	15.8% ± 2.3	
MSCI ACWI Net Return Index	-15.0%	1.4% ± 1.4	-15.2% ± 2.3	
Bloomberg Global Aggregate Index Gross TR	+5.0%	1.0% ± 1.3	4.4% ± 8.9	
Bloomberg Global Aggregate Index Gross TR	-5.0%	0.9% ± 1.4	-4.9% ± 10.4	
CBOE Volatility Index	+20.0 pts	1.1% ± 1.4	-13.1% ± 4.4	



# Dispersion Analysis

## Performance Dispersion: All Portfolios



● Hedgers AW Universal 
 ■ HFRI FoF Composite 
 ◆ HFRI FoF: Conservative 
 ● HFRI FoF: Diversified 
 ▲ Alaska Permanent - HF Portfolio

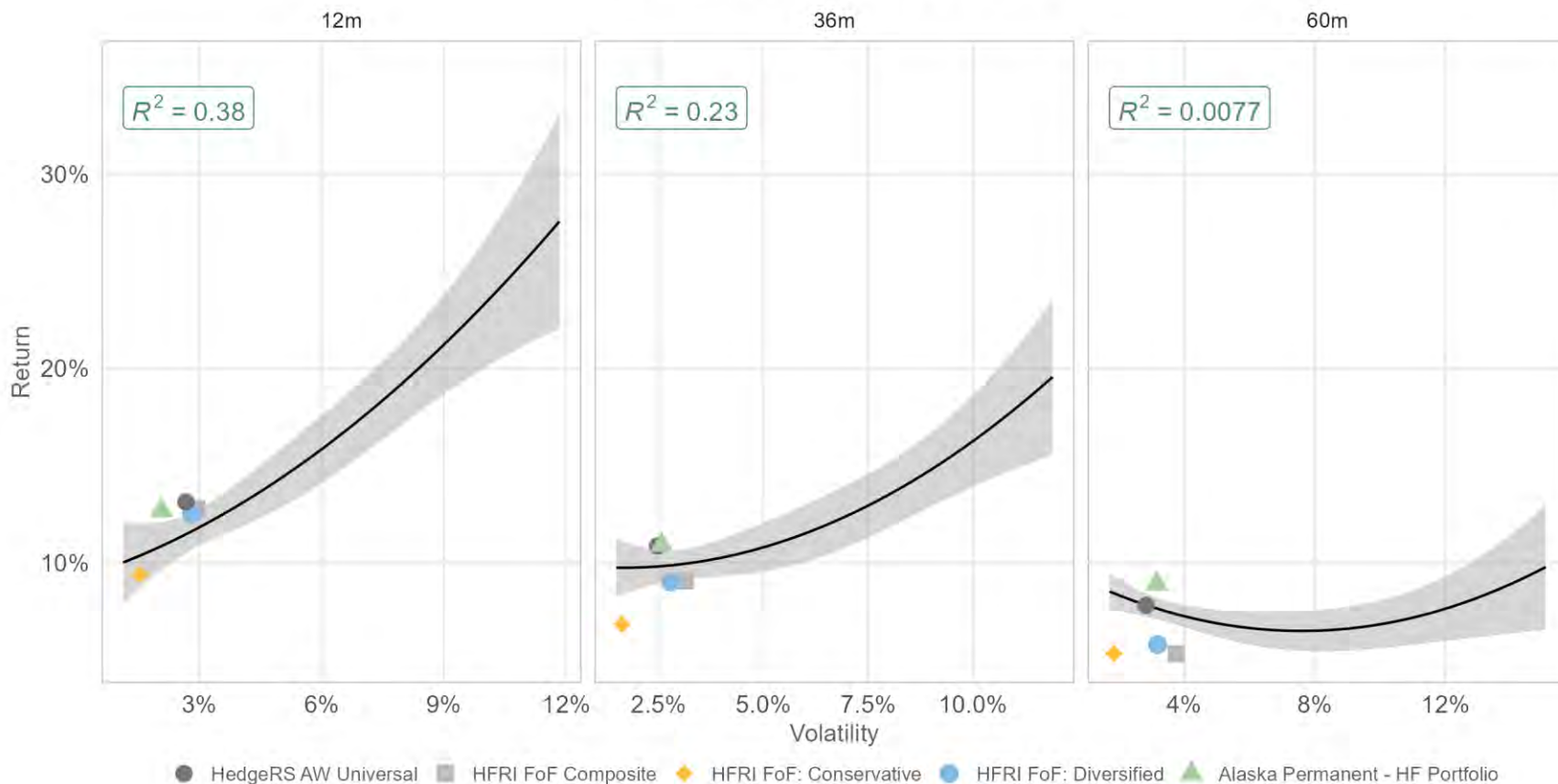
Quartiles	YTD Return	12m Return	12m Volatility	12m Sharpe	12m Beta to Equity	12m Excess Return	36m Return	36m Volatility	36m Sharpe	36m Beta to Equity	36m Excess Return	60m Return	60m Volatility	60m Sharpe	60m Beta to Equity	60m Excess Return
Alaska Permanent - HF Portfolio	1.13%	12.71%	2.08%	4.17	0.15	8.66%	10.93%	2.57%	2.39	-0.05	5.92%	8.91%	3.17%	1.78	-0.08	5.25%
First Quartile Average	4.43%	19.34%	1.78%	4.27	0.58	14.30%	14.76%	2.03%	2.60	0.44	8.98%	10.07%	2.17%	2.32	0.42	7.04%
Second Quartile Average	2.69%	13.91%	2.64%	3.16	0.28	8.16%	11.37%	2.65%	2.09	0.14	5.64%	8.46%	2.95%	1.60	0.11	4.40%
All Quartile Average	2.42%	12.83%	3.59%	2.70	0.27	6.59%	10.57%	3.69%	1.75	0.16	4.40%	7.54%	4.31%	1.31	0.13	3.27%
Third Quartile Average	1.86%	10.58%	3.60%	2.21	0.16	4.55%	9.44%	3.43%	1.56	0.07	3.34%	7.05%	4.08%	1.03	0.04	2.80%
Fourth Quartile Average	0.71%	7.49%	6.34%	1.17	0.05	-0.63%	6.74%	6.59%	0.76	0.00	-0.42%	4.61%	7.84%	0.29	-0.05	-1.02%

- 1) Box plots show the 5th Percentile, 1st Quartile, Median, 3rd Quartile and 95th Percentile
- 2) Annualized numbers are shown for periods longer than 12 months
- 3) Excess Return is measured relative to each portfolio's strategic objective (long-term return target)
- 4) Performance statistics for each quartile are the average of each quartile
- 5) Past Performance is not indicative of future returns.



# Returns vs Risk

Returns vs Risk: All Portfolios



- 1) Returns and volatility are annualized for periods longer than 12 months
- 2) The trend line is a polynomial regression model line; the relationship between y (Return) and x (Volatility) is modelled as a 2nd degree polynomial in x
- 3) The grey area around the smooth line, represents the 0.95 confidence interval
- 4) Past Performance is not indicative of future returns.



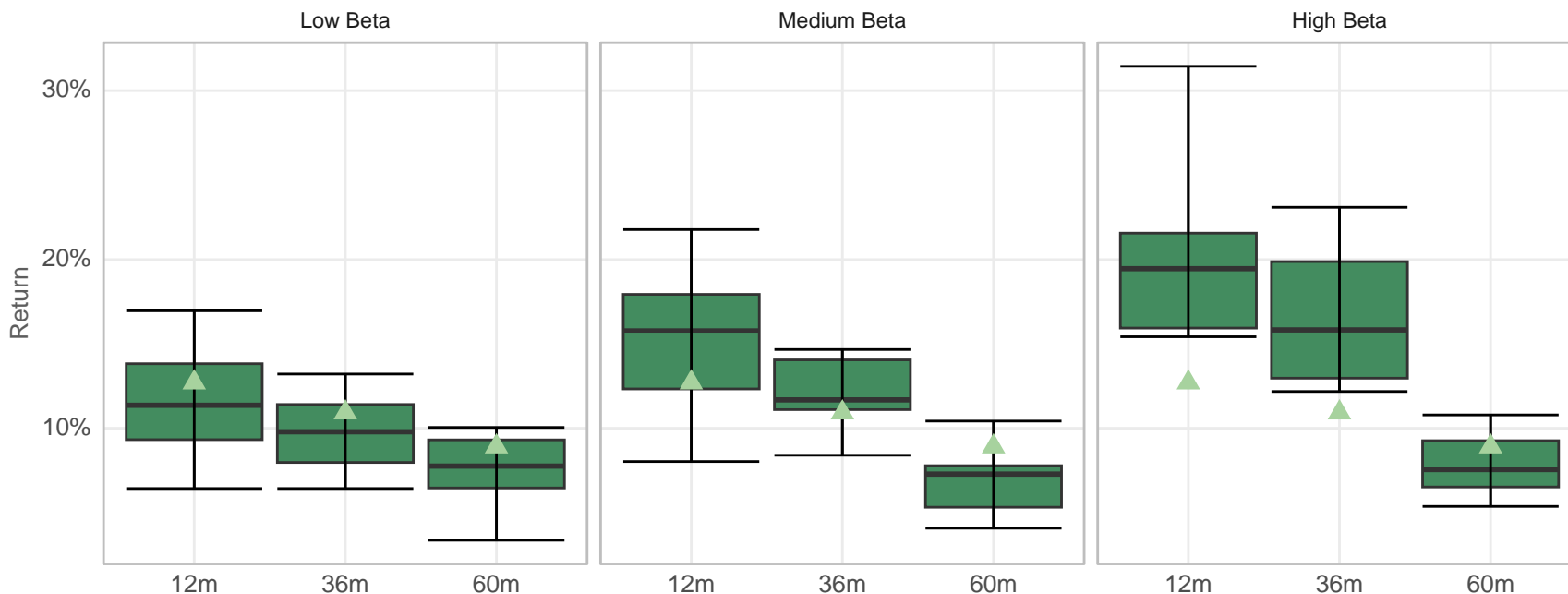
# Dispersion Analysis by Beta

## Returns Grouped by 36m Beta to MSCI ACWI TR

	YTD Portfolios	YTD Return	12m Portfolios	12m Return	36m Portfolios	36m Return	60m Portfolios	60m Return
All Average	75	2.4%	75	13.0%	75	10.6%	73	7.5%
Low Beta Average	57	2.4%	57	11.7%	57	9.5%	55	7.6%
Medium Beta Average	11	2.0%	11	15.2%	11	12.0%	11	7.0%
High Beta Average	7	2.9%	7	20.7%	7	16.8%	7	7.9%

1) Beta for Alaska Permanent - HF Portfolio is: -0.046247490566725

▲ Alaska Permanent - HF Portfolio



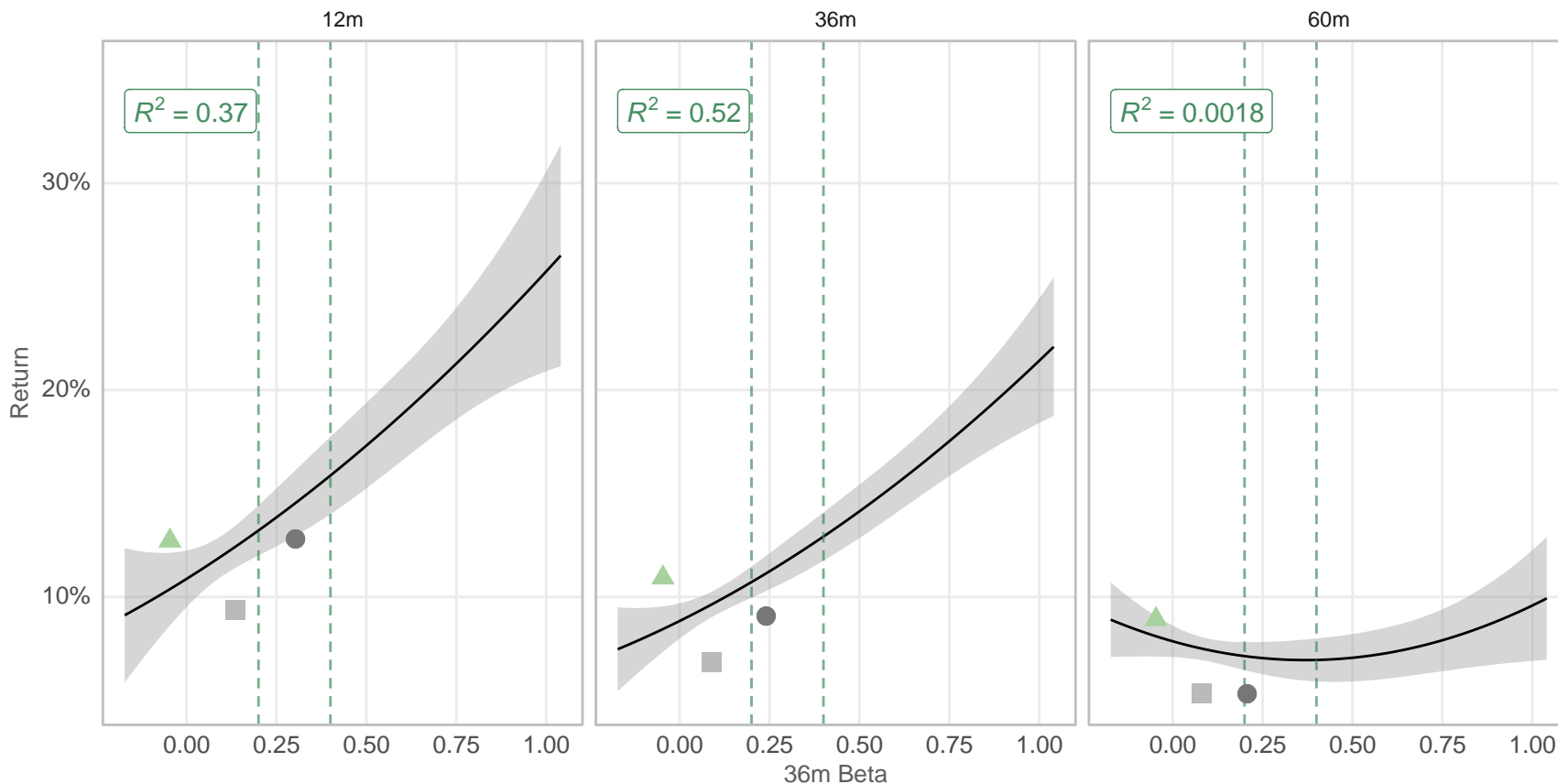
- 1) Box plots show the 5th Percentile, 1st Quartile, Median, 3rd Quartile and 95th Percentile
- 2) Returns are annualized for periods longer than 12 months
- 3) Low Beta (< 0.2), Medium Beta (0.2 to 0.4), High Beta (> 0.4) - Beta is calculated over 36 months to MSCI ACWI TR
- 4) Includes portfolios with at least 36 months of return history
- 5) Past Performance is not indicative of future returns.

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# Returns vs Beta

● HFRI FoF Composite   ■ HFRI FoF: Conservative   ▲ Alaska Permanent - HF Portfolio



- 1) Returns are annualized for periods longer than 12 months
- 2) Low Beta (< 0.2), Medium Beta (0.2 to 0.4), High Beta (> 0.4) - Beta is calculated over 36 months to MSCI ACWI TR
- 3) Includes portfolios with at least 36 months of return history
- 4) Past Performance is not indicative of future returns.

The logo for the Alaska Permanent Fund Corporation (APFC) features the letters 'APFC' in a large, white, serif font. The letters are contained within a white rectangular box that is centered horizontally on the page. The background of the entire slide is a teal-tinted photograph of a coastal landscape with mountains and water.

APFC

ALASKA PERMANENT  
FUND CORPORATION

SUBJECT: Governance Manual Changes

ACTION: X

DATE: May 26, 2026

INFORMATION:

---

BACKGROUND:

At the last Board meeting, the Trustees agreed to adopt the proposed changes to the Governance Manual that were recommended by the Governance Committee and directed Staff to prepare for this meeting a draft of the proposed changes to the Governance Manual to implement these changes. As a reminder, these proposed governance changes were provided to APFC from Wilmer Hale as a part of the governance review that was completed at the request of the Office of the Governor.

STATUS:

Attached for your consideration and possible action is a redline version of the Governance Manual that would adopt the following changes:

1. Require Board and Staff to complete annual conflict of interest disclosure acknowledgement form;
2. Direct staff to require the same risk and return profile for a Trustee referred investment as is used for all other permanent fund investments;
3. Expressly acknowledge the use of Work Remote;
4. Enhance Trustee Orientation to fit the needs of each new Trustee;
5. Enhance Trustee Orientation to include other Trustees when practical;
6. Provide for additional Staff/Board Member interaction opportunities; and
7. Provide for public Education on role of Staff and Trustees.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# Proposed Changes to the Governance Manual

# Annual Conflicts Disclosure Form

Modify Board Standards Charter to add the following requirement:

“By March 15<sup>th</sup> of each year, each Trustee shall complete and return to the Executive Director a form acknowledging compliance with the disclosure requirements set out in Alaska Statute 37.13.110(a) – (b).”

Modify the Personnel Management Plan (PMP) (next time it is before the Board for consideration) to add the following requirement:

“By March 15<sup>th</sup> of each year, each employee shall complete and return to the Executive Director a form acknowledging compliance with the disclosure requirements set out in Alaska Statute 37.13.110(a) – (b), to the extent applicable.”

# Sample Form:

## Conflicts of Interest Disclosure Acknowledgement Form 2026

I acknowledge that I have completed and filed the annual Conflicts of Interest Disclosure forms required by Alaska Statute 37.13.110(a) – (b) by March 15<sup>th</sup> for the calendar year ending December 31, 2026. I understand that the disclosure of these conflicts of interest is required by Alaska law and is a part of the Alaska Permanent Fund Corporation's (APFC) fiduciary duties imposed in the investment and management of the Alaska Permanent Fund.

By signing below, I confirm the following:

1. If required by Alaska Statute 39.50 (Public Office Financial Disclosure), I have completed and filed with the Alaska Public Offices Commission the annual financial disclosure from required by Alaska Statute 39.50.020; and
2. I have filed with the designated APFC Compliance Officer, the required quarterly and annual investment disclosure forms required by Alaska Statute 37.13.110(b), and in conformity with the Investment Disclosure Policy approved by the APFC Board of Trustees on January 22, 2022.

Trustee/Employee Name:

Signature:

Completion date:

# Trustee Investment Referrals

Modify section of the Communications Charter that relates to investment referrals by Trustees to add the following statement:

“For the avoidance of doubt, APFC Staff shall not invest the assets of the permanent fund into a Trustee referred investment opportunity unless the investment has a risk level and expected return comparable to a similar investment opportunity in the permanent fund that was not referred to APFC Staff by a Trustee.”

# Acknowledge use of Work Remote

Amend the Human Services and Operations section of the Charter of Board of Trustees to add a “Work Remote policy” to the list of established policies required for management of the Fund (changes are underlined and in red):

“The Board will establish human resources policies and procedures necessary for the effective management of the APFC, including a compensation and benefit policy, a work-remote policy, and a succession plan for the senior management of the organization.”

# Enhance Trustee/Staff Communication

APFC

ALASKA PERMANENT  
FUND CORPORATION

Add a new section to the principles of the Trustee Education Policy to promote effective communication between the Trustees and Staff:

“The education program shall include structured opportunities for in-person engagement between Trustees and APFC Staff to foster effective working relationships and communication practices, recognizing that strong interpersonal dynamics are essential to the prudent investment and management of the permanent fund.”

# Enhance Trustee Orientation

Amend the Trustee Orientation Program to tailor it to the needs of each new Trustee, as follows:

“As each Trustee appointed to the Board will have a unique background and level of experience in institutional investing, the Executive Director shall, following appointment, engage with the new Trustee to design and implement an orientation program tailored to the Trustee’s institutional investment experience.”

# Enhance Trustee Orientation

Amend the portion of the Trustee Orientation that includes a briefing by the Chair of the Board and the Executive Director to include other Trustees when practicable, as follows (proposed changes are underlined and in red):

“A briefing by the Chair of the Board and the Executive Director on the major issues currently before the Board. When practical, this briefing will also be attended by the other members of the APFC Board of Trustees.”

Amend the Communications Policy to include public communication regarding the roles of the Trustees and Staff in the investment and management of the permanent fund, as follows:

“For the purpose of public education, APFC will post on its website information about the role of APFC Trustees and Staff in the investment and management of the permanent fund.”



## Sample Motion to Approve these Proposed Changes to the Governance Manual, effective today:

“With an immediate effective date, I move the Board of Trustees adopt the proposed changes to the Governance Manual as detailed in the track change version of the Governance Manual included in the Board Packet for this meeting.”

# Alaska Permanent Fund Corporation *Governance Manual*

AS OF ~~May~~**FEBRUARY 13<sup>26</sup>, 2025<sup>6</sup>**

*This manual includes APFC's governance documents, the laws, charters, and policies that are essential for successful governance. These documents outline an effective independent management structure and organizational framework, reliable accountability measures, clearly defined legal and regulatory responsibilities, and established policies and procedures.*



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## GUIDING DOCUMENTS

The Governance Manual outlines APFC's governance documents, charters, policies, and laws, and is one of three documents essential for successful governance:

- Governance Manual
- Investment Policy, *see separate document*
- Strategic Plan, *see separate document*



# For All Generations

*The Permanent Fund's enduring strength and resilience have supported and continue to support Alaska's financial well-being. As a public endowment, this wealth is the collective responsibility of every Alaskan to protect for today and tomorrow. By doing so, we honor the vision and contributions of the past, embrace the opportunities before us, and ensure enduring stewardship on behalf of all generations of Alaskans.*

## THE FUND

In 1976, Alaskan voters established the Alaska Permanent Fund to save and invest a portion of the state's oil, gas, and mining revenue, generating income for all generations of Alaskans.

The Alaska Permanent Fund is the largest sovereign wealth fund in the United States and is recognized globally as a model for converting a nonrenewable natural resource into a renewable financial asset.

The Fund plays a crucial role in Alaska's financial landscape by generating significant financial returns. Since 2019, Alaska's revenue sources to support the state's annual budget have shifted from relying primarily on nonrenewable mineral royalties to depending on the draws from the financial earnings generated from the Fund's investment activities.

## APFC

The Alaska Permanent Fund Corporation (APFC) is a quasi-independent state agency with one mission: to manage and invest the assets of the Alaska Permanent Fund and other funds designated by law, including the Alaska Mental Health Trust and the Power Cost Equalization Endowment.

## MISSION

To Manage and invest the assets of the Permanent Fund and other funds designated by law.

## VISION

To deliver outstanding returns for the benefit of all current and future generations of Alaskans.

## THE BOARD OF TRUSTEES

The Board of Trustees oversees the Corporation and serves as the Fund's fiduciary. There are four primary fiduciary duties that are expected of APFC's Board of Trustees:

- duty to act prudently,
- duty of loyalty,
- duty to diversify investments,
- and duty to follow the law and plan documents.

In service to their fellow Alaskans, the Board of Trustees ensures that the Alaska Permanent Fund is managed and invested in a manner consistent with legislative findings in AS 37.13.020 that provide:

- *The Permanent Fund should provide a means of conserving revenue from mineral resources to benefit all generations of Alaskans.*
- *The Permanent Fund's goal should be to maintain safety of principal while maximizing total return.*
- *The Permanent Fund should be used as a savings device managed to allow the maximum use of disposable income from the fund for the purposes designated by law.*

The Board is composed of six governor-appointed Trustees. Two of the members must be heads of principal departments of state government, one of whom shall be the commissioner of revenue. Four public members fill the remaining seats, which have staggered, four-year terms. The four public members of the Board must have recognized competence and wide experience in finance, investments, or other business management-related fields.

The Board sets investment policy, reviews the portfolio's performance, and works together with management to determine the Corporation's strategic direction. The Board appoints the Corporation's Chief Executive Officer, who provides executive leadership and manages APFC in accordance with its established mission, vision, and strategic objectives.

#### **ETHICS**

The APFC Board and staff are governed by the State of Alaska Executive Branch Ethics Act (Ethics Act). This Act, codified in state law AS 39.52, establishes guidelines and regulations that promote ethical behavior among state employees and board members. During their orientation, each new board member and employee receives a briefing on the requirements of the Ethics Act, and annual training reinforces these standards.

#### **GOVERNANCE**

Governance is the framework of rules, policies, laws, and procedures that guide the operations, decisions, and accountability of an organization. The governance documents of APFC are essential for ensuring proper management and oversight of the Fund.

#### **RESOLUTIONS**

APFC bylaws require that all investment policy be established by resolution. Long-term administrative and operating policies may also be established by resolution.



# APFC *Bylaws*

**AS OF FEBRUARY 13, 2025**

*Bylaws serve as the legal guidelines of the Corporation and include articles of incorporation, organization, officers, meetings, books, and records.*

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## PREAMBLE

The Alaska Permanent Fund Corporation, a government instrumentality of the State of Alaska created by AS 37.13 to manage and invest the assets of the Alaska Permanent Fund and other funds designated by law, by and through its Board of Trustees who, under AS 37.13.040, are responsible for managing the affairs of the Corporation, hereby adopts the following bylaws:

## ARTICLE I. THE CORPORATION

### SECTION 1. NAME OF CORPORATION.

The name of the Corporation is the "ALASKA PERMANENT FUND CORPORATION".

### SECTION 2. SEAL OF CORPORATION.

The seal of the Corporation is in the form of a circle and shall bear the name of the Corporation and the year of its creation, 1980. The seal of the Corporation shall be different than the logo of the Alaska Permanent Fund, which will bear the name of the Fund and the year of its creation, 1976.

### SECTION 3. OFFICES OF THE CORPORATION.

The principal office of the Corporation shall be at Juneau, Alaska, with branch offices at other locations in the State of Alaska as the Board of Trustees may from time to time designate by resolution.

## ARTICLE II. ORGANIZATION AND OFFICERS

### SECTION 1. OFFICERS.

The principal officers of the Corporation are Chair, Vice Chair, Secretary/Treasurer, and Executive Director. The Executive Director is also designated as Secretary/Treasurer.

### SECTION 2. CHAIR.

The Chair shall preside at meetings of the Board of Trustees. At each meeting, the Chair shall submit such recommendations and information as the Chair may consider proper concerning the business, affairs, and policies of the Corporation. The Chair shall be primarily responsible for communications between the Board of Trustees and the Executive Director whenever the Board of Trustees is not in session. The Chair serves as one of the official spokespersons for the Corporation, together with the Executive Director.

### SECTION 3. VICE CHAIR.

The Vice Chair shall perform the duties of the Chair in the absence or incapacity of the Chair.

### SECTION 4. EXECUTIVE DIRECTOR.

The Board of Trustees shall appoint an Executive Director for the Corporation who serves as the Chief Executive Officer of the Corporation. The Executive Director serves at the pleasure of the Board. The Executive Director serves as one of the official spokespersons for the Corporation, together with the Chair of the Board. The duties of the Executive Director include:

- (a) Provide for execution of all operational, administrative, and investment functions of the Corporation on a daily basis;
- (b) Act as Secretary/Treasurer of the Corporation and sign all contracts, deeds, and other instruments of the Corporation;

- (c) Provide for recording of all votes and proceedings of the Board of Trustees, electronically whenever possible;
- (d) Provide for the custody, recordkeeping, and monitoring of all assets managed by the Corporation, either directly or through one or more financial institutions or fiduciaries qualified and experienced in the safekeeping of financial assets of large institutional investors;
- (e) Provide for the retention and safekeeping of all instruments that reflect the assets managed by the Corporation;
- (f) Provide for disbursements of funds for Corporation-managed investments, expenses, and obligations;
- (g) Provide periodic reports to the Board of Trustees;
- (h) Perform such duties and responsibilities assigned to the Executive Director in the Board of Trustees Charters and Governance Policies; and
- (i) Perform such other duties as may be assigned from time to time by the Board of Trustees by resolution or motion.

#### SECTION 5. COMMITTEES.

- (a) **Standing Committees.** Standing committees of the Board of Trustees shall be as follows:
  1. The Audit Committee consists of at least three Trustees appointed by the Chair. In accordance with the Board of Trustees Charters and Governance Policies, the Board shall adopt an Audit Committee Charter that sets forth the role, authority, operating procedures, and duties and responsibilities of the Audit Committee.
  2. The Governance Committee consists of at least three Trustees. The Vice Chair of the Board shall be the Chair of the Governance Committee, and the Chair of the Board shall appoint the other Governance Committee members. In accordance with the Board of Trustees Charters and Governance Policies, the Board shall adopt a Governance Committee Charter that sets forth the duties and responsibilities of the Governance Committee.
- (b) **Ad hoc Committees.** The Chair may appoint temporary, ad hoc committees for specified purposes. Ad hoc committees shall report to the full Board and have no decision-making powers except those specifically granted by action of the Board of Trustees. Unless the term of an ad hoc committee is extended by action of the Board of Trustees, the term shall expire at the conclusion of the next annual meeting of the Corporation after the committee is first appointed, or upon completion of the matter for which the committee was appointed, whichever first occurs.

#### SECTION 6. ELECTION OR APPOINTMENT.

The election of the Chair and the Vice Chair 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.

#### SECTION 7. VACANCIES.

If the office of the Chair becomes vacant, the Vice Chair shall succeed to the position of Chair for the unexpired term of the office. If the office of the Vice Chair becomes vacant, the Board of Trustees shall elect a successor for the unexpired term of the office from among its members at the next meeting of the Board.

#### SECTION 8. PERSONNEL.

The Executive Director of the Corporation shall employ such personnel as the Executive Director deems necessary to exercise the powers, duties, and functions of the Executive Director as prescribed by AS 37.13, all other applicable laws of the State of Alaska, these bylaws, the Board of Trustees Charters and Governance Policies, and other duties as are assigned from time to time by the Board of Trustees. The compensation of such personnel shall be determined by the Executive Director of the Corporation. All decisions of the Executive Director under this section shall be made within the limitations of the budget of the Corporation as approved by the Board of Trustees, and in compliance with the charters and policies established by the Board of Trustees.

#### **SECTION 9. CONFLICT OF INTEREST AND ETHICS; DISCLOSURE.**

The Board of Trustees may impose standards of conduct and disclosure that are stricter than those required of Trustees and Corporate officers and employees by State law.

#### **SECTION 10. POLITICAL ACTIVITIES.**

Except as otherwise provided by law, the resources of the Corporation or the Fund may not be used to finance or influence political activities.

### **ARTICLE III. MEETINGS**

#### **SECTION 1. ANNUAL MEETING.**

The annual meeting of the Board of Trustees of the Corporation shall be held in the first six (6) months of each fiscal year ending June 30 at the place and time and on a date fixed by the Chair and transmitted by written notice to the Trustees at least thirty (30) days prior to the date of such annual meeting. The annual meeting is also a regular meeting as set forth in Section 2 of this Article.

#### **SECTION 2. REGULAR MEETINGS.**

Regular meetings of the Board of Trustees of the Corporation shall be held at least once in each calendar quarter of each year on the date and at the time and place designated at the last regular meeting or by adoption of an annual calendar. In the absence of such designation, then at the place and time and on the date in any such month as fixed by the Chair. Regular meetings shall be held to review investment activity of the Corporation, to consider other matters properly brought before the Board, and to provide an opportunity for public comment on matters affecting the Fund or the Corporation. The members of the Board of Trustees of the Corporation shall be given at least fifteen (15) days prior notice of regular meetings. Designation of the date, time, and place of the next regular meeting at the previous regular meeting or adoption by the Board of an annual calendar constitutes sufficient notice to Board members. If a waiver of notice and consent to the meeting of each absent member is provided, and so long as a quorum is otherwise present, then any and all business may be transacted even though notice of that meeting was not provided to the absent Board members.

#### **SECTION 3. SPECIAL MEETINGS.**

The Chair of the Board of Trustees may, when the Chair deems it expedient, and shall upon the written request of two members of the Board, call a special meeting of the Board for the purpose of transacting any business designated in the call. The call for a special meeting shall be transmitted to the business or home address of each member of the Board at least five (5) days prior to the date of such special meeting. At such special meetings, no business shall be considered other than as designated in the call. However, if all the members of the Board are present at a special meeting, or those not present have signed a waiver of notice and consent to the meeting with a quorum otherwise being present, then any and all business may be transacted at such special meeting. Public notice for a special meeting shall be accomplished pursuant to Section 5 of this Article.

#### **SECTION 4. COMMITTEE MEETINGS.**

The Chair of the Board of Trustees or the chair of a committee appointed by the Chair of the Board may, and shall upon the written request of two members of the committee, call a meeting of the committee including, but not limited to, a committee of the whole composed of the entire Board. The committee may discuss and take action on any subject within its area of responsibility and authority.

#### **SECTION 5. PUBLIC NOTICE.**

All meetings of the Board of Trustees or of a committee of the Board shall be preceded by reasonable notice to the public of the time, place, and subject matter of the proceeding. If reasonable under the circumstances, notice shall be made by advertisement in a newspaper of general circulation throughout the State of Alaska and by posting on the Corporation's website.

#### SECTION 6. QUORUM AND ACTION.

- (a) In accordance with AS 37.13.080, four members of the Board of Trustees constitute a quorum, and the Board may take action only upon the affirmative vote of a majority of the full membership of the Board at a regular or properly called special meeting at which a quorum is present.
- (b) In accordance with AS 44.62.310(a), a member of the Board of Trustees may attend and vote at a meeting of the Board by teleconference.

#### SECTION 7. ORDER OF BUSINESS.

For regular meetings of the Board of Trustees, the order of business shall be determined by the Chair at least 24 hours in advance of the scheduled meeting time. The order of business may be amended at the time of the meeting by the Chair without objection of any Trustee present or by approved motion of the Board of Trustees.

#### SECTION 8. RULES OF PROCEDURE.

The rules of procedure applicable at all regular, special, and committee meetings of the Board of Trustees are the current edition of Robert's Rules of Order, Newly Revised, except as the Board provides by resolution for other procedures.

#### SECTION 9. MANNER OF VOTING.

- (a) The voting on all resolutions coming before the Board of Trustees shall be by roll call, and the vote of each Trustee shall be entered upon the minutes of such meeting.
- (b) The voting on motions coming before the Board may be by voice vote. The "Yeas" and "Nays" shall be entered upon the minutes of such meeting, providing any dissenting votes are cast; otherwise, actions on motions may be shown as unanimous.

#### SECTION 10. MOTIONS AND RESOLUTIONS.

An investment policy shall be established by adoption of resolutions; provided, however, the Corporation's Investment Policy may be amended by motion in accordance with procedures described in the Investment Policy. Short-term administrative and operational matters may be adopted by motion. The Board of Trustees may adopt long-term administrative and operating policies by resolution.

### ARTICLE IV. BOOKS AND RECORDS

#### SECTION 1. CUSTODY.

Unless the Board of Trustees directs otherwise, the Executive Director of the Corporation shall, to the extent practicable, maintain physical custody at the Corporation's principal office of the books and records of the Corporation.

#### SECTION 2. PUBLIC INSPECTION.

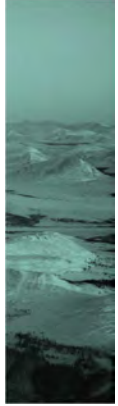
The Executive Director shall insure that the books and records of the Corporation, unless confidential under AS 37.13.200 or otherwise confidential or privileged under applicable law, are available for public inspection in accordance with Alaska law relating to public records.

### ARTICLE V. AMENDMENTS

#### AMENDMENTS TO BYLAWS.

The bylaws of the Corporation may be amended by motion at a regular or special meeting when the amendment has been submitted to each member of the Board of Trustees at least thirty (30) days prior to such meeting.

ADOPTED September 12, 1980.  
AMENDED December 4, 1982  
AMENDED March 23, 1984.  
AMENDED March 20, 1990.  
AMENDED October 1, 1992.  
AMENDED September 29, 1994.  
AMENDED September 27, 1995.  
AMENDED September 26, 2002.  
AMENDED November 14, 2002.  
AMENDED March 27, 2003.  
RESCINDED AND READOPTED September 20, 2004.  
AMENDED September 29, 2010.  
AMENDED February 25, 2011.  
AMENDED February 13, 2025.



# APFC Board Charters & Governance Policies

AS OF ~~MAY~~SEPTEMBER 26, 2024~~6~~

*Charters describe the roles and responsibilities of the major decision-making bodies involved in the governance and management of the Fund. These include Charters for the Board of Trustees, Committees of the Board, Officers of the Board, the Investment Advisory Group and the Executive Director. By clarifying duties and accountabilities, charters help to enhance the efficiency of the Board's operations, and the quality of its decisions.*

*Governance policies offer specific guidance to the Board and senior management on how to fulfill their responsibilities and establish the Board's expectations regarding its own behavior and that of individual Trustees. These policies cover various topics, including communications, education, ethical conduct, and performance evaluation.*

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- Charter of the Board of Trustees**
- Charter of the Ethics, Audit & Cybersecurity Committee of the Board**
- Charter of the Governance Committee of the Board**
- Charter of the Chair of the Board**
- Charter of the Vice Chair of the Board**
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- Board Policy Development Process**
- Strategic Planning & Budgeting Policy**
- Monitoring & Reporting Policy**
- Trustee Education Policy**
- Board Communications Policy**
- Executive Director Performance Evaluation Policy**
- Board Standards**



# Charter of the Board of Trustees

## INTRODUCTION

1. The State of Alaska has established the Alaska Permanent Fund Corporation (APFC) to manage and invest the assets of the Alaska Permanent Fund and other funds designated by law (Fund). [AS 37.13.040]
2. The Board of Trustees of the APFC (Board) consists of six members appointed by the Governor. Two of the members are required by law to be heads of principal departments of state government, one of whom shall be the commissioner of revenue. Four members shall be appointed by the Governor from the public with recognized competence and wide experience in finance, investments, or other business management-related fields. [AS 37.13.050]

## DUTIES AND RESPONSIBILITIES

### GOVERNANCE

3. The Board will establish a committee structure that it considers necessary and appropriate.
4. The Board will establish charters setting out the duties and responsibilities of:
  - a. The Board of Trustees;
  - b. The Chair and Vice Chair of the Board;
  - c. The Committees of the Board;
  - d. The Investment Advisory Group; and
  - e. The Executive Director
5. The Board will establish governance policies as necessary, including bylaws and other Board standards, to ensure effective operation of the affairs of the Board.
6. The Board will establish a process for the evaluation of the performance of the Executive Director and will conduct such performance evaluation annually.

### INVESTMENTS

7. In managing and investing the assets of the Fund, the Board is required to exercise the judgment and care under the circumstances then prevailing that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the designation and management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering preservation of the purchasing power of the Fund over time while maximizing the expected total return from both income and the appreciation of capital. [AS 37.13.120]
8. The Board will establish an investment policy which shall include the Board's overall investment philosophy, as well as other related policies as necessary for the effective management and investment of the assets of the Fund.
9. The Board will establish a framework and process for the management of the investment risk of the Fund, which shall be set out in the investment policy.
10. At least every five years the Board will review the investment policy and approve the long-term or strategic asset allocation of the Fund in terms of the proportion of total assets to be invested within a minimum-maximum range at any point in time.

#### FINANCE, ACCOUNTING AND AUDIT

11. The Board will ensure that appropriate financial and operational controls and procedures are in place to safeguard the assets of the Fund.
12. The Board will ensure that audits of these controls and procedures are conducted from time to time by an independent external auditor in order to ensure that the assets are properly accounted for, and that the investments of the Fund are in accordance with applicable laws and regulations.
13. The Board will ensure that annual financial statements of the Fund are prepared and that these statements are audited by an independent external auditor. It will approve the annual financial statements, and include them as part of an annual report for distribution to the Governor, the Legislature and the public. [AS 37.13.170]

#### OPERATIONS AND HUMAN RESOURCES

14. The Board will appoint an Executive Director and review the performance of the Executive Director annually.
15. The Board will establish a four-year strategic plan for the APFC and review the strategic plan annually.
16. The Board will approve an annual operating budget for the APFC.
17. The Board will establish human resources policies and procedures necessary for the effective management of the APFC, including a compensation and benefit policy, [a work-remote policy](#), and a succession plan for the senior management of the organization.

#### COMMUNICATIONS

18. The Board will establish a communications policy which sets out guidelines with respect to how the Board and individual trustees should communicate with:
  - a. The staff of the APFC;
  - b. Service providers;
  - c. The media, including social media such as Facebook, LinkedIn, and Twitter and
  - d. Other external parties.

#### APPOINTMENTS

19. The Board will approve the appointment of the following key service providers and advisors:
  - a. The External Auditor;
  - b. The Custodian;
  - c. The Investment Consultant;
  - d. The members of the Investment Advisory Group; and
  - e. At the Board's election, any other service providers.

#### MONITORING AND REPORTING

20. The Board will establish a policy which sets out its requirements regarding the reports the Board will receive on a regular basis in order to meet its responsibility for the oversight of the management of the APFC.
21. The Board will review on a regular basis, without limitation, the following:
  - a. The investment performance of the Fund and each asset class, including the costs of managing the Fund;
  - b. The asset allocation and investment risk of the Fund; and
  - c. The compliance program of the Fund and the APFC in relation to applicable laws and regulations, as well as all policies, procedures and bylaws established by the Board.
22. The Board will review the compliance of the Board, its committees, the Chair and Vice Chair of the Board, and the Executive Director with the duties and responsibilities set out in their respective charters.
23. The Board will review all policies established by the Board as frequently as required under the terms of the individual policy.

**REVIEW AND AMENDMENT OF THE CHARTER**

24. The Governance Committee will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.

25. The Board of Trustees ~~amended~~~~repealed~~ this Charter on ~~May 26, 2026~~~~September 24, 2020~~.



# Charter of the *Ethics, Audit & Cybersecurity* Committee of the Board

## INTRODUCTION

1. The Board has established an Ethics, Audit & Cybersecurity Committee (“the Committee”) to assist the Board in the financial oversight of the APFC.
2. The Board has established this Charter which sets out the duties and responsibilities of the Committee.

## ROLE

3. The role of the Committee will be to:
  - a. Monitor and keep the Board apprised regarding compliance with the Executive Branch Ethics Act requirements set forth in AS 39.52 (“Ethics Act”);
  - b. Monitor the integrity of the financial reporting process and the system of internal controls and procedures regarding finance, accounting, and legal compliance;
  - c. Review the performance and independence of the APFC’s external auditors;
  - d. Review the sufficiency and integrity of the cybersecurity systems and protocols in place at APFC to safeguard APFC’s information systems against cybersecurity threats; and
  - e. Provide an avenue of communication among the external auditors, APFC management, the Chief Financial Officer, and the Board.

## AUTHORITIES

4. The Committee will have the authority to conduct any investigation appropriate to fulfill its responsibilities.
5. The Committee will have direct access to the external auditors, as well as all APFC management and staff, legal counsel, as well as all advisors, consultants and investment managers of the Fund.
6. The Committee may retain, at the expense of the APFC and consistent with applicable procurement requirements, consultants or experts it considers necessary in the performance of its duties.

## OPERATING PROCEDURES

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.
8. The Committee will meet at least two times annually, or more frequently as circumstances dictate. The Committee Chair will approve an agenda in advance of each meeting.
9. The Committee will invite members of APFC management, auditors, the Investment Advisory Group or other professionals as deemed necessary, to attend meetings and provide pertinent information. The Committee may meet in executive sessions as necessary within the requirements of the Alaska Open Meetings Act [AS 44.62.310].
10. The Committee will maintain minutes or digital recordings of Committee meetings and periodically report to the Board of Trustees on significant results of the Committee's activities.
11. The Committee will annually perform a self-assessment of the Committee's performance.

## DUTIES AND RESPONSIBILITIES

### STATE ETHICS ACT REQUIREMENTS

12. The Committee will review each quarterly report of Ethics Act disclosures made to the Attorney General under AS 39.52.260. Because these reports are confidential under state law, consistent with the requirements of the Open Meetings Act, these reports will be discussed by the Committee in executive session.
13. The Committee may also discuss with an APFC designated ethics supervisor, any declaration of a potential Ethics Act violation received from a member of the Board or a member of APFC Staff. Depending on the status of the Ethics Act declaration being discussed, consistent with the requirements of the Open Meetings Act, this discussion by the Committee shall take place in executive session.
14. The Committee, at their discretion, may bring to the attention of the Board any report of a potential Ethics Act violation that involves a member of the Board or the Executive Director.

### FINANCIAL REPORTING AND INTERNAL CONTROLS

15. The Committee will carry out the following responsibilities with respect to financial reporting and internal controls:
  - a. Review the annual audited financial statements prior to filing or distribution of the final report. This review should include discussion with management and external auditors of significant issues regarding accounting principles, practices, and judgments;
  - b. In consultation with management, the external auditors, and the Chief Financial Officer, consider the integrity of the financial reporting processes and controls; discuss significant financial risk exposures and the steps management has taken to monitor, control, and report such exposures; and review significant findings prepared by the external auditors and the Chief Financial Officer together with management's responses;
  - c. Discuss any significant changes to applicable accounting principles and any items required to be communicated by the independent auditors; and
  - d. At least annually, review with the APFC's counsel any legal matters that could have a material impact on the Fund's financial statements, the APFC's compliance with applicable laws and regulations, and any inquiries received from regulators or governmental agencies.

### EXTERNAL AUDIT

16. The Committee will have the following responsibilities with respect to the APFC's external auditors:
  - a. Review the external auditors' audit plan - discuss scope, staffing, locations, reliance upon management, and general audit approach;
  - b. Consider the external auditors' judgments about the quality and appropriateness of the APFC's accounting principles as applied in its financial reporting;
  - c. Discuss with management and the external auditors the quality of the accounting principles and underlying estimates used in the preparation of the Fund's financial statements;
  - d. Discuss with the external auditors the clarity of the financial disclosure practices used or proposed by

the APFC;

- e. Review the performance and independence of the auditors and periodically recommend to the Board the appointment of the external auditors or approve any discharge of auditors when circumstances warrant; and
- f. On an annual basis, review and discuss with the external auditors all significant relationships the auditors have with the APFC that could impair the auditors' independence.

#### CYBERSECURITY POLICY AND CYBERSECURITY AUDIT

- 17. Every two years, the Committee, in consultation with a cybersecurity consultant hired by the Committee, shall:
  - a. Review the current APFC Cybersecurity Policy to evaluate whether it is sufficient to safeguard APFC's information systems against cybersecurity threats and recommend any amendments to this policy as deemed appropriate; and
  - b. Review the results of the bi-annual third-party cybersecurity audit that is a requirement of the APFC Cybersecurity Policy and recommend any changes that are identified as any area needing improvement. Because the results of this audit may expose vulnerabilities which could lead to harm to the finances of the state, consistent with the requirements of the Open Meetings Act, a discussion of this matter may take place in executive session.

#### REVIEW AND AMENDMENT OF THE CHARTER

- 18. The Governance Committee, in consultation with the Audit Committee, and staff will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.
- 19. The Board of Trustees adopted this Charter on September 26, 2024.



# Charter of the *Governance Committee* of the Board

## INTRODUCTION

1. The Board has established a Governance Committee (“the Committee”) to assist the Board in the governance of the APFC.
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 duties set forth in this Charter with the approval of the full Board.

## DUTIES AND RESPONSIBILITIES

### GOVERNANCE

3. The Governance Committee will review the charters of the Board, its committees, the Chair, the Vice Chair, the Investment Advisory Group, and the Executive Director, as well as the governance policies of the Board as frequently as required under the terms of the individual charter or policy. The Committee will recommend any proposed changes in the charters and policies to the Board for approval as necessary.
4. The Committee will review compliance by the Board, its committees, the Chair, the Vice Chair and the Executive Director with the duties and responsibilities set forth in their respective charters.
5. Every three years, the Committee will review and update the senior management personnel (including Executive Director, Chief Investment Officer, Chief Risk Officer and Chief Financial Officer) succession plan.

### STRATEGIC PLANNING AND BUDGETING

6. The Committee will assist the Board in establishing a Strategic Plan. It will undertake a comprehensive review of the Plan every three to four years, and supervise the preparation of a new Strategic Plan.

### MONITORING AND REPORTING

7. The Committee will review and approve any changes to the list of reports that the Board will receive on a regular basis as set out in the *Monitoring and Reporting Policy*.

### REVIEW AND AMENDMENT OF THE CHARTER

8. The Governance Committee will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.
9. The Board of Trustees amended this Charter on December 11, 2023.



# Charter of the *Chair* of the Board

## INTRODUCTION

1. Alaska Statute 37.13.050 requires the Board to elect a Chair annually from among its members.

## DUTIES AND RESPONSIBILITIES

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);
  - b. Coordinate Board meetings, agendas, schedules and presentations, in consultation with the Executive Director;
  - c. Preside at the meetings of the Board and ensure that such meetings are conducted in an efficient manner and in accordance with Alaska's Open Meetings Act and agreed-upon rules of order.
  - d. Facilitate effective and open communications between the Board and the Executive Director;
  - e. Act as one of the official spokespersons for the APFC, together with the Executive Director;
  - f. Review and approve travel and other expenses of the members of the Board of Trustees;
  - g. Review and approve travel outside of the United States and other expenses of the Executive Director; and
  - h. Carry out any other duties and responsibilities as assigned by the Board.

## REVIEW AND AMENDMENT OF THE CHARTER

3. The Governance Committee will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.
4. The Board of Trustees adopted this Charter on September 24, 2020.



# Charter of the *Vice Chair* of the Board

## INTRODUCTION

1. The Bylaws of the APFC establish the Vice Chair as an officer of the Board. The Vice Chair is elected annually.

## DUTIES AND RESPONSIBILITIES

2. The Vice Chair will perform the duties and responsibilities and exercise the powers as specified below:
  - a. Assume the duties of the Chair when the Chair is absent, or when the Chair designates the Vice Chair to act in that capacity;
  - b. Temporarily act as the Chair in the event of death, resignation, removal from office, or permanent disability of the Chair, until the election of a new Chair;
  - c. Serve as the Chair of the Governance Committee; and
  - d. Carry out any other duties and responsibilities as assigned by the Board.

## REVIEW AND AMENDMENT OF THE CHARTER

3. The Board of Trustees will review this Charter at least once every three (3) years and make any amendments as necessary to ensure that the Charter remains relevant and appropriate.
4. The Board of Trustees adopted this Charter on September 24, 2020.



# Charter of the *Investment Advisory Group*

## INTRODUCTION

1. The Board of Trustees has established an Investment Advisory Group consisting of at least one but not more than three individuals who have considerable knowledge and experience in the management and investment of large endowment or trust funds to serve as independent advisors to the Board of Trustees.
2. This Charter sets out the duties and responsibilities of the Investment Advisory Group, which includes evaluating Fund performance, asset allocation, the merits of specific investment proposals, and other investment topics identified by the Board.
3. The Board will have full authority over the selection and appointment of the members of the Investment Advisory Group who will serve at the pleasure of the Board.

## DUTIES AND RESPONSIBILITIES

4. The Investment Advisory Group (or "IAG") members are expected to attend in-person at least three of the quarterly Board meetings and present at least one educational topic annually for the Board's consideration on best practices in the management of large institutional funds, with input from the Board on the specific educational topic for presentation.
5. The IAG will provide comments to the Board on the following issues:
  - a. The long-term or strategic asset allocation of the Fund;
  - b. The risk management framework of the Fund;
  - c. Any changes to the investment policy;
  - d. Any proposed investment in new asset classes;
  - e. Any proposed investment in new or innovative investment products or strategies, particularly those involving alternative or non-traditional asset classes;
  - f. Any significant changes to the investment management structure of the Fund, including the following:
    - (i) The relative proportion of assets in an asset class managed by external investment managers versus internal staff;
    - (ii) The relative proportion of assets in an asset class managed using active versus passive investment strategies;
    - (iii) The total number of active investment managers or portfolios in an asset class; and
  - g. Any other issue at the discretion of the Investment Advisory Group or as requested by the Board.
6. The IAG shall make contact with the Executive Director (ED) and Chief Investment Officer (CIO) at least six weeks prior to each quarterly Board meeting to discuss topics on the agenda for the upcoming meeting, including:
  - a. Fund performance for the quarter;
  - b. Changes being considered or implemented to the asset allocation or investment policy; and
  - c. A report prepared by the CIO that outlines the investment activity for the prior quarter and an update on the annual investment pacing for each asset class.

7. Each Quarter, the Staff shall provide documentation included as a regular Board report, demonstration that the IAG had met with the ED & CIO as required in Section 6.
8. At the request of the Board, IAG members may be invited to attend a special board meeting or committee meeting and be requested to present on topics that are to be discussed at the such meetings.
9. Each member of the Investment Advisory Group may also, at their discretion, attend in-person or virtually an investment committee meeting held by the CIO.

#### REVIEW AND AMENDMENT OF THE CHARTER

10. The Governance Committee will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.
11. The Board of Trustees adopted this Charter on September 26, 2024.



# Charter of the *Executive Director*

## INTRODUCTION

1. Alaska Statute 37.13.100 states that the Board of the APFC may employ and determine the salary of an Executive Director.
2. The Bylaws of the APFC state that the Executive Director will be the chief executive officer of the Corporation and serve at the pleasure of the Board. The Bylaws, set out, in general terms, the duties of the Executive Director.
3. The Board has, for greater clarity, established this Charter which sets out, in more specific terms, the duties and responsibilities of the Executive Director.
4. The Executive Director may delegate certain of these duties to staff. The Executive Director will, however, remain responsible for ensuring that these duties are carried out.

## DUTIES AND RESPONSIBILITIES

### LEADERSHIP

5. The Executive Director will provide executive leadership to the APFC in setting and achieving its mission, goals and objectives and will manage the APFC in accordance with guidelines and parameters established by the Board. In doing so, the Executive Director may solicit advice and counsel from the Board as necessary.

### POLICY DEVELOPMENT

6. The Executive Director will provide support to the Board in establishing the policies of the Board. This will involve working with the Board and the Governance Committee to identify issues requiring Board policy, conducting the necessary analysis of such issues and providing clear and well-supported policy recommendations for Board approval.

### INVESTMENTS

7. The Executive Director will develop and recommend to the Board:
  - a. An investment policy, including the Board's overall investment philosophy, and mechanism for monitoring and managing investment risk;
  - b. The long-term or strategic asset allocation of the Fund in terms of the proportion of total assets to be invested within a minimum-maximum range at any point in time; and
8. The Executive Director will implement all investment policies and strategies as approved by the Board.

### FINANCE, ACCOUNTING AND AUDIT

9. The Executive Director will direct that appropriate financial and operational controls and procedures are put in place to safeguard the assets of the Fund.

10. The Executive Director will direct and supervise a review of the Corporation's internal controls and procedures to ensure that the operations of the Corporation are performed in a secure and appropriate manner.
11. The Executive Director will direct and supervise the preparation of annual financial statements of the APFC and cooperate in the audit of these statements by an independent external auditor prior to their submission to the Audit Committee for its review.
12. The Executive Director will prepare and coordinate management's response to any issues of significant concern on the part of the external auditor, and will meet and discuss with the Audit Committee the findings of the audit.

#### OPERATIONS AND HUMAN RESOURCES

13. The Executive Director will develop and recommend to the Board the overall organizational structure of the APFC.
14. The Executive Director will be responsible for managing the day-to-day operations of the APFC.
15. The Executive Director will have the authority to make all necessary operational expenditures, consistent with budgets, policies, and internal controls established by the Board.
16. The Executive Director will have the authority to execute all formal documents and contracts on behalf of the APFC.
17. The Executive Director will develop and recommend to the Board:
  - a. A strategic plan; and
  - b. An annual operating budget for the APFC.
18. The Executive Director will select and employ the staff necessary to manage the APFC and develop appropriate staff training and development programs.
19. The Executive Director will develop and recommend to the Board human resources policies and procedures necessary for the effective management of the APFC, including a compensation and benefit policy and a succession plan for the organization.
20. The Executive Director will determine the appropriate level of compensation for staff within the benefits and compensation policy approved by the Board.

#### COMMUNICATIONS

21. The Executive Director will develop and recommend to the Board a communications policy which sets out guidelines with respect to how the Board and individual trustees will communicate with:
  - a. The staff of the APFC;
  - b. Service providers;
  - c. The media, including social media such as Facebook, LinkedIn, and Twitter; and
  - d. Other external parties.
22. The Executive Director will serve as one of the official spokespersons for the APFC, together with the Chair of the Board.

#### APPOINTMENTS

23. The Executive Director will direct and supervise the conduct of all necessary due diligence that is appropriate in the search and selection of all service providers of the Fund.
24. The Executive Director will develop and recommend to the Board the appointment of the following key service providers and advisors:
  - a. The External Auditor;
  - b. The Custodian;
  - c. The members of the Investment Advisory Group;
  - d. The Investment Consultant; and
  - e. Other service providers as the Board may direct.
25. The Executive Director will be responsible for the selection and appointment of all other service

providers not appointed by the Board.

26. The Executive Director will negotiate and execute the terms and provisions of all agreements and contracts with the service providers of the Fund, including those appointed by the Board.

#### MONITORING AND REPORTING

27. The Executive Director will develop and recommend to the Board a monitoring and reporting policy which sets out the Board's requirements regarding the reports it will receive on a regular basis in order to meet its responsibility for the oversight of the management of the APFC.
28. The Executive Director will provide the Board with all relevant and appropriate information in a timely manner so as to enable the Board to meet its responsibilities.
29. The Executive Director will monitor on an ongoing basis, without limitation, the following:
  - a. The investment performance of the Fund, asset classes, and investment managers and portfolios, including the costs of managing the Fund;
  - b. The asset allocation and investment risk of the Fund; and
  - c. The compliance of the Fund and the APFC with all applicable laws and regulations, as well as all policies, procedures and bylaws established by the Board, including those set forth in the Board standards.
30. The Executive Director will periodically review the performance, level of service and fees of the service providers appointed by the Executive Director.
31. The Executive Director will direct and supervise the preparation of an annual report of the APFC for distribution as required by Alaska Statute 37.13.170.

#### REVIEW AND AMENDMENT OF THE CHARTER

32. The Governance Committee will review this Charter at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Charter remains relevant and appropriate.
33. The Board of Trustees adopted this Charter on September 24, 2020.



# Board *Policy* *Development* *Process*

## OBJECTIVES OF THE POLICY

1. The Board of Trustees of the APFC has established this *Board Policy Development Process* in order to meet the following objectives:
  - a. To set out the process by which the Board will develop and establish the policies of the Board; and
  - b. To ensure that the process is sound and reasonable and provides the Board with effective policies that achieves the goals and objectives of the APFC.

## POLICY GUIDELINES

### ROLES AND RESPONSIBILITIES

2. The role of the Executive Director in the policy development process will be to:
  - a. Assist the Board in identifying appropriate areas or subject matters in which a board policy may be required;
  - b. Provide the Board with sound and comprehensive analysis of the underlying issues;
  - c. Undertake any research and analysis required in the development of the proposed policy, with the assistance of external advisors and consultants if necessary; and
  - d. Prepare a draft of the proposed policy for the Board's consideration.
3. The role of the Board is to review the proposed policy, including the research and analysis undertaken, and approve it if the Board determines that the policy will achieve the goals and objectives of the APFC.

### DEVELOPMENT AND APPROVAL

4. Any member of the Board, a Board committee, or the Executive Director may propose to the Board that it consider the development of a new Board policy.
5. In determining whether a particular matter warrants a Board policy, the Board should consider whether it meets the following criteria:
  - a. The matter may have a significant impact on the APFC's ability to achieve its goals and objectives;
  - b. It is an ongoing concern which is expected to come up again or remain indefinitely; and
  - c. It is not an operational matter that would otherwise fall within the responsibility of the Executive Director.
6. If the Board determines that the matter warrants a Board policy, it will pass a motion directing the Executive Director to prepare and submit a draft policy to the Board for its consideration.
7. A Board policy should contain, at a minimum, the following sections:
  - a. Objectives of the policy – what the policy is intended to achieve;

- b. Policy guidelines – the actual terms and provisions of the policy; and
- c. Review and amendment of the policy – how often the policy will be reviewed, and the date(s) on which the policy was adopted and/or amended.

8. The Board will approve the final language of a policy by a roll call vote.

#### MAINTENANCE AND REVIEW

- 9. All Board policies will be maintained in up-to-date form in a single volume or a series of volumes within the APFC's offices, and will be accessible to trustees, staff and the public. Trustees will be provided with a copy of the Board policies which will be updated as necessary.
- 10. The Board will formally review a Board policy within the time period specified in the policy, but no less frequently than once every three years. Any Trustee, Board committee, or the Executive Director may propose to the Governance Committee that a particular policy be reviewed earlier than required.

#### REVIEW AND AMENDMENT OF THE POLICY

- 11. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.
- 12. The Board of Trustees adopted this Policy on September 24, 2020.



# Strategic Planning & Budgeting Policy

## OBJECTIVES OF THE POLICY

1. The Board of the APFC has established this *Strategic Planning and Budgeting Policy* in order to meet the following objectives:
  - a. To ensure that the APFC plans, in a deliberate and systematic way, for the future needs of the organization; and
  - b. To achieve a consensus among the Board and staff on how those needs and priorities are going to be met.

## POLICY GUIDELINES

### THE STRATEGIC PLAN

2. The APFC will establish a Strategic Plan, extending over a period of four years into the future, to be reviewed and updated annually, which will address, without limitation, the following:
  - a. The mission of the APFC;
  - b. The philosophy and core values of the organization;
  - c. The goals and objectives of the APFC over the four-year period;
  - d. An evaluation of the external environment in which the APFC operates;
  - e. An assessment of the organization's internal resources and capabilities; and
  - f. The strategies for achieving the APFC's goals and objectives.
3. The Strategic Plan will include a list of the specific projects and initiatives to be started and/or implemented over the next fiscal year, including for each project or initiative:
  - a. Its potential benefit or impact;
  - b. Responsibility for implementation;
  - c. Timeline for completion; and
  - d. Budgetary implications.
4. The Board, with the assistance of the Executive Director, will undertake a comprehensive review of the Strategic Plan at least every four years.

### THE PLANNING AND BUDGETING PROCESS

5. The Executive Director will review and update the Strategic Plan annually and present a report to the Governance Committee that includes:
  - a. A review of the implementation of the Strategic Plan for the current fiscal year; and
  - b. The updated Strategic Plan, including the current projects and initiatives in progress to be carried forward and new initiatives to be undertaken in the next fiscal year.
6. The Executive Director will present to the Board semi-annually a variance report on the current year's Budget that provides:
  - a. A comparison of actual expenditures versus the budget; and

- b. An explanation for significant differences in actual and budgeted amounts for any budget item.
- 7. The Executive Director will prepare and present to the Board annually a proposed Budget for the next fiscal year which provides:
  - a. A breakdown of the Budget by line item, and within each line item by major expense category;
  - b. A comparison of each budget item to the current year's budget and actual expenditure (projected to year-end);
  - c. An explanation of significant changes from the previous year for any budget item; and
  - d. The identification of budgetary amounts tied to any project or initiatives in the Strategic Plan for the next fiscal year.
- 8. Any significant revisions to the Strategic Plan or Budget must be reviewed and approved by the Board.
- 9. The Executive Director shall inform the Board Chair in a timely manner, if for any reason, a particular project or initiative cannot be implemented or completed as planned.

**REVIEW AND AMENDMENT OF THE POLICY**

- 10. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.
- 11. The Board of Trustees adopted this Policy on September 24, 2020.



# Monitoring & Reporting Policy

## OBJECTIVES OF THE POLICY

1. The Board of the APFC has established this *Monitoring and Reporting Policy* in order to set out its minimum requirements with respect to the reports it expects to receive on a regular basis.

## POLICY GUIDELINES

2. The Board will receive the reports specified in the Appendix to this Policy. The reports will be provided on a regular basis at the frequency indicated in the Appendix.
3. The Board may receive additional reports on an ad hoc basis as necessary.
4. Any request by Trustees for additional reports to be provided on a regular basis will require approval by the Board and an amendment to the Appendix of this Policy.

## REVIEW AND AMENDMENT OF THE POLICY

5. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.
6. The Board of Trustees amended this Policy on ~~May 26, 2026~~ December 11, 2023.

## MONITORING & REPORTING POLICY APPENDIX

### GOVERNANCE REPORTS

Name of Report	Frequency	Prepared By	Description of Report
1. Review of Governance Policies and Charters	Every 3 years	Staff	Report on the findings and recommendations of the Board's review of its governance policies and charters. There could be separate reports, for policies one year and charters another year.
2. Governance Report	Every 3 years	Third Party or staff	Report on compliance with governance policies and charters. This report should be part of the Board's review of its policies and charters, and produced with the same frequency, i.e. every 3 years, with separate reports for policies and charters.
3. Reserved			
4. Board Education Report	Annual	Staff	Report on the activities of the Board and its members with respect to education.
5. IAG Report	Quarterly	Staff	Report on compliance with IAG requirements

### INVESTMENT REPORTS

Name of Report	Frequency	Prepared By	Description of Report
6. Investment Performance Report	Monthly & Quarterly	Staff and/or Investment Consultant	Report on the asset allocation and investment performance of the Fund, including the performance of asset classes
7. Risk Management Report	Quarterly	Staff and/or Investment Consultant	Report on the investment risk of the Fund, its asset classes and investment portfolios.
8. Asset Allocation Study	At least every 5 years	Staff and/or Investment Consultant	Report on the findings and recommendations of a review of the long-term or target asset allocation policy of the Fund.
9. Review of the Fund's Investment Policies	At least every 5 years	Staff and/or Investment Consultant	Report on the findings and recommendations of a review of the investment policy statement and related policies and procedures of the Fund.
10. Review of the Fund's Investment Managers	Quarterly	Staff and/or Investment Consultant	Report on the performance and strategies of the investment managers of the Fund.

FINANCIAL, AUDIT AND OPERATIONAL REPORTS

Name of Report	Frequency	Prepared By	Description of Report
11. Annual Financial Report, including: - Audited Financial Statements - Management's Discussion and Analysis - Auditor's Opinion	Annual	Staff	Report on the financial position and activities of the Fund. <del>Semi-Annual</del>
12. Cybersecurity/ IT Audit	Every <del>3</del> 2 years	Staff	Report on the safety and security controls of the Fund

PLANNING AND BUDGETING REPORTS

Name of Report	Frequency	Prepared By	Description of Report
13. Budget Variance Report	Semi-Annual	Staff	Report on the implementation of the current year's budget, showing the variance between actual and budgeted expenditures.
14. Operating Budget	Annual	Staff	Report on the proposed budget for the next fiscal year.



# Trustee Education Policy

## OBJECTIVES OF THE POLICY

1. The Board of the APFC has established this *Trustee Education Policy* with the following objectives:
  - a. 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
  - b. 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 Fund.

## POLICY GUIDELINES

2. The education program for Trustees will be based on the following principles:
  - a. The program should include both in-house education, so that Trustees can share in a common base of knowledge and information relevant to their tasks, as well as external conferences and seminars, so that Trustees can benefit from exposure to alternative perspectives and interaction with trustees of other organizations;
  - b. There should be diverse sources for education, beyond APFC staff and current service providers, including other external consultants, advisors and experts, so that Trustees may benefit from a wide range of views and opinions; and
  - c. Trustees are expected to participate in any in-house education sessions that may be organized for their benefit, including an orientation session for new Trustees. They are also encouraged to attend external conferences and seminars.
  - d. The education program shall include structured opportunities for in-person engagement between Trustees and APFC Staff to foster effective working relationships and communication practices, recognizing that strong interpersonal dynamics are essential to the prudent investment and management of the permanent fund.
3. The education program will consist of the following:
  - a. A formal orientation for new Trustees;
  - b. A Trustee Reference Manual containing key information about the APFC;
  - c. In-house education, including:
    - (i) At the request of the Board, an annual education session
    - (ii) Seminars and briefings from time to time;
    - (iii) Selected reading material provided by staff; and
  - d. External conferences and seminars.

## ORIENTATION PROGRAM

4. The Executive Director will develop an orientation program designed to introduce new trustees to all relevant operations of the APFC, and to the duties and responsibilities of the Trustee. The aim of the orientation program will be to ensure that a new Trustee is in a position to contribute fully to the deliberations of the Board, and effectively carry out their duties and responsibilities as soon as possible after joining the Board. As each new trustee appointed to the Board will have a unique background and level of experience in institutional investing, the Executive Director shall, following appointment, engage with the new Trustee to design and implement an orientation program tailored to the Trustee's institutional investment experience.

5. The orientation program should include the following:
  - a. A briefing by the Executive Director on the history, mission, organization and operations of the APFC;
  - b. A briefing by the Chief Investment Officer on the investment philosophy, asset allocation, investment managers, and the major investment portfolios of the Fund;
  - c. A briefing on the laws and regulations governing the APFC, the fiduciary duties and responsibilities of the Trustees, the Board Charter, Committee structure, Bylaws and other Board standards including disclosure requirements;
  - d. A briefing on administrative policies and procedures relating to Board members;
  - e. An introduction to the APFC's website and the educational resources available there for Trustees; and
  - f. A briefing by the Chair of the Board and the Executive Director on the major issues currently before the Board. When practical, this briefing will also be attended by the other members of the APFC Board of Trustees.
6. The new Trustee will also, as part of the orientation program, be provided with the following:
  - a. The Trustee Reference Manual;
  - b. Selected articles, books, and papers on the APFC and institutional fund management;
  - c. A list of upcoming conferences and seminars; and
  - d. The most recent Annual Report, including the audited financial statements.

#### TRUSTEE REFERENCE MANUAL

7. The Trustee Reference Manual will include the following:
  - a. The laws and regulations governing the Alaska Permanent Fund;
  - b. The Bylaws of the APFC;
  - c. The Charters and Governance Policies established by the Board;
  - d. A list of Board committees and committee members;
  - e. Names and contact information for Trustees, members of the Investment Advisory Group and the Executive Director;
  - f. Organization chart of the APFC;
  - g. List of the APFC's major service providers; and
  - h. The Investment Policy for the Fund.

#### IN-HOUSE EDUCATION

8. The Board will periodically conduct assessments of its educational requirements to ensure it will be provided with the knowledge and information necessary to discharge its functions.
9. Trustees are encouraged to attend, if scheduled, an annual educational session which may be organized either by the Executive Director or in conjunction with other Alaska public funds such as the Alaska Retirement Management Board.
10. The Executive Director will, from time to time, organize short seminars or presentations on various topics by APFC staff and service providers, as well as other external consultants, advisors and experts. The Executive Director will consult with Trustees to identify topics of special interest or relevance to the Board, taking into account the results of the educational needs assessment. These sessions may be organized either as part of regular Board meetings or as stand-alone events.
11. The Executive Director will also provide Trustees with relevant and appropriate reading material (e.g., journal articles, research studies, news clippings, etc.).

#### EXTERNAL CONFERENCES AND SEMINARS

12. The Executive Director will maintain a list of conferences and seminars that Trustees may wish to attend, with expenses to be paid for by the APFC upon approval of the Chair. The Executive Director will update the list from time to time taking into account new information and feedback from previous conference attendees.
13. The Executive Director will notify the Board of upcoming conferences on a regular basis at Board meetings.
14. Trustees are free to attend any other conferences, seminars, or workshops, other than those

recommended by the Executive Director. The potential reimbursement of expenses incurred by Trustees will be subject to prior approval by the Chair.

#### TRUSTEE EDUCATION REPORT

15. The Executive Director will present to the Board annually a report on the various educational activities undertaken by the Board and individual Trustees during the year.

#### REVIEW AND AMENDMENT OF THE POLICY

16. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.
17. The Board of Trustees ~~amended~~<sup>adopted</sup> this Policy on ~~May 26, 2026~~<sup>September 24, 2020</sup>.



# Board Communications Policy

## OBJECTIVES OF THE POLICY

1. The Board has established this *Board Communications Policy* in order to facilitate effective communication by the Trustees with each other, and with APFC staff and service providers, the media and other external parties.

## POLICY GUIDELINES

### COMMUNICATION AMONG TRUSTEES

2. Trustees are free to communicate with each other on matters concerning the APFC, subject to the requirements of Alaska's Open Meetings Act.

### COMMUNICATION WITH STAFF

3. While Trustees have the right to communicate with any member of the APFC staff, they should direct questions and requests for information regarding the APFC's management and operations to the Executive Director or with the consent of the Executive Director to senior management staff. APFC Staff are required to report all communications with Trustees regarding the management and operations of APFC to the Executive Director.
4. Any question or request for information which can reasonably be expected to take up a significant amount of time, effort or resources on the part of APFC staff or service providers should be made through a formal request at a Board or committee meeting or with the consent of the Chair of the Board.
5. Trustees may directly contact the Executive Director or with the consent of the Executive Director, members of the senior management staff, with any other question or request for which an answer or response is readily available or can be quickly and easily obtained. APFC Staff are required to report all communications with Trustees under this Section of the Communications Policy to the Executive Director.
6. The provisions of Section 3 through 5 above will not apply to Trustees request for legal advice from APFC's General Counsel or for administrative support from the Board Liaison.

### COMMUNICATION WITH SERVICE PROVIDERS

7. Trustees should communicate with the APFC's investment managers and other service providers on matters concerning the APFC generally at Board or committee meetings, or through staff. If Trustees have any questions or wish to request any information from service providers, they should contact the Executive Director.
8. If Trustees do communicate directly with a service provider, they should be careful not to disclose any privileged information, make any commitments on behalf of the Board, or provide any special treatment or favoritism to the service provider. Trustees should disclose the nature of any communication with the service provider that is important or material to the APFC to the Board at their earliest convenience.
9. Trustees should refer any investment opportunities or proposals they receive from a service provider or prospective investment manager which may be of relevance to the APFC directly to the Executive Director. The Executive Director will document all investment referrals from a Trustee and any action

taken regarding such referrals and provide the Board with a report of such referrals at the next regularly scheduled meeting. For the avoidance of doubt, APFC Staff shall not execute on a Trustee referred investment opportunity unless the investment has a risk level and expected return comparable to a similar investment opportunity in the permanent fund that was not referred to APFC Staff by a Trustee.

10. The provisions of Section 7 through 9 above will not apply to Trustees' communication with the Investment Consultant, the Investment Advisory Group, the Auditor and APFC legal counsel.

#### COMMUNICATION WITH THE MEDIA AND OTHER EXTERNAL PARTIES

11. The Chair and the Executive Director will both serve as the official spokespersons for the APFC.
12. In their role as spokespersons, they should communicate in a manner consistent with the established policies and decisions of the Board and should not make comments which represent their personal views.
13. The Executive Director will be responsible for all "press releases" or written communications with the media. Such communications should clearly and accurately represent the actions and decisions of the Board.
14. All Trustees, including the Chair, are free to communicate with the media on matters concerning the Board or the APFC in their capacity as individual Trustees. If approached by the media for interviews or information on the APFC, they may refer the matter to one of the official spokespersons. If Trustees do communicate with the media, they should observe the following guidelines:
  - a. Trustees, other than the Chair, should not speak on behalf of the Board unless specifically authorized to do so by the Board;
  - b. If authorized to speak on behalf of the Board, Trustees should follow the provisions of Section 12 above; and
  - c. If Trustees, including the Chair, are speaking as individual Trustees, they should indicate that they are doing so, and not speaking on behalf of the Board.

15. Any written material on the APFC prepared by Trustees for publication or general distribution should be submitted to the Executive Director for review prior to its publication or distribution. The review will be only for the purpose of verifying the accuracy of the material to ensure that the APFC is not being inadvertently misrepresented.

~~15.~~16. For the purpose of public education, APFC will post on its website information about the role of APFC Trustees and Staff in the investment and management of the permanent fund.

#### REVIEW AND AMENDMENT OF THE POLICY

~~16.~~17. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.

~~17.~~18. The Board of Trustees amended this Policy on May 26, 2026~~July 24, 2024~~.



# Executive Director *Performance* *Evaluation* Policy

## OBJECTIVES OF THE POLICY

1. The Board of Trustees of the APFC has established this *Executive Director Performance Evaluation Policy* with the following objectives:
  - a. To ensure that the Executive Director receives appropriate and useful feedback on their performance from the Board on an annual basis; and
  - b. To help develop clear and meaningful performance objectives for the Executive Director.

## POLICY GUIDELINES

### ROLES AND RESPONSIBILITIES

2. The Board will be responsible for evaluating the performance of the Executive Director on an annual basis.
3. The Board may retain the services of an independent third party to facilitate and administer the performance evaluation in order to ensure the integrity and confidentiality of the process.

### EVALUATION SURVEY AND CRITERIA

4. The Board will evaluate the performance of the Executive Director based on a number of criteria, including the following:
  - a. Achievement of the goals and objectives of the APFC;
  - b. Completion of the specific projects and initiatives set out in the strategic plan for that fiscal year;
  - c. Implementation of Board policies and reporting requirements;
  - d. General leadership and management skills; and
  - e. Compliance with the Executive Director's charter.

### THE EVALUATION PROCESS

5. Towards the end of the calendar year and before the fourth quarter meeting of the Board, the Chair will distribute a package of materials to each Trustee which may include the following:
  - f. A report prepared by the Executive Director that lists their achievements for the previous year;
  - g. The strategic plan and budget for the fiscal year or a summary thereof; and
  - h. Any other materials that might be relevant to Board's performance evaluation of the Executive Director.
6. Trustees should review the materials provided prior to the meeting during which the Executive Director will be evaluated.
7. The Board, consistent with Alaska's Open Meetings Act, will meet in executive session to review and discuss the Executive Director's performance for the prior year.
8. The Board, consistent with Alaska's Open Meetings Act, will then meet with the Executive Director in

executive session to discuss their performance for the prior year and any opportunities for improvement.

9. The Board, after coming out of executive session, will then take any action on the record that may be required to complete the evaluation.

#### REVIEW AND AMENDMENT OF THE POLICY

10. The Governance Committee will review this Policy at least once every three (3) years and recommend any amendments to the Board for approval as necessary to ensure that the Policy remains relevant and appropriate.
11. The Board of Trustees amended this Policy on December 11, 2023.



# Board Standards

## OBJECTIVES OF THE STANDARDS

1. The Permanent Fund was established by Article IX, Section 15 of the Alaska Constitution. The statutory purpose of the APFC is to manage and invest the assets of the Permanent Fund. The Trustees' conduct is subject to the Alaska Constitution and Statutes, regulations under the Alaska Administrative Code, and various other rules and policies. The Board of Trustees has established the Board Standards to identify applicable rules and policies and provide further guidance to Trustees in conducting their affairs and activities as Board members.

## POLICY GUIDELINES

2. Trustees will conduct themselves with honesty, integrity, decorum, and professionalism in all aspects of their duties, and in their interaction with fellow trustees, APFC staff, service providers, and other external parties.

### WITH RESPECT TO COMPLIANCE WITH LAWS, REGULATIONS AND POLICIES

3. Trustees will abide by all applicable laws and regulations, including, in particular, the following:
  - a. Alaska Statutes at Title 37, Chapter 13;
  - b. Alaska Administrative Code at Title 15, Chapter 137;
  - c. APFC Bylaws;
  - d. The Alaska Open Meetings Act and regulations thereunder;
  - e. The Alaska Executive Branch Ethics Act and regulations thereunder, administered by the Department of Law; and
  - f. The Alaska Conflict of Interest Act and regulations thereunder, administered by the Alaska Public Offices Commission (APOC).

~~4.~~ Trustees will abide by all policies of the APFC.

~~4.5.~~ By March 15<sup>th</sup> of each year, each Trustee shall complete and return to the Executive Director a form acknowledging compliance with the disclosure requirements set out in Alaska Statute 37.13.110(a) – (b).

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### WITH RESPECT TO CONFIDENTIALITY AND USE OF INFORMATION

~~5.6.~~ Trustees will respect the confidentiality of all information pertaining to the APFC to which they become privy to by virtue of their position. They will not disclose any confidential information to any external party unless required to do so by law.

~~6.7.~~ Any information on the APFC that Trustees request in their capacity as Trustees will only be to fulfill their responsibilities as Trustees of the APFC and not for use in their own personal or business affairs.

### WITH RESPECT TO ENFORCEMENT OF THE BOARD STANDARDS

~~7.8.~~ The Chair of the Board will enforce and attempt to rectify any breach of the Board Standards.

~~8.9.~~ If a Trustee has reason to believe that a material violation of the Board Standards has taken place, they will notify the Chair (or the Vice Chair if the allegation is against the Chair) and the Executive Director.

## REVIEW AND AMENDMENT OF THE POLICY

~~9.10.~~ This Policy will be reviewed periodically and amended by the Board as necessary or appropriate.

11. The Board of Trustees ~~amended~~ ~~adopted~~ this Policy on ~~May 26, 2026~~ ~~September 24, 2020~~.



# Resolutions *of the* *Board of Trustees*

AS OF SEPTEMBER 30, 2024

*APFC bylaws require that all investment policy be established by resolution. Long-term administrative and operating policies may also be established by resolution.*

Visit the website for downloadable resolutions: [apfc.org/board-of-trustees/resolutions-board-trustees/](https://apfc.org/board-of-trustees/resolutions-board-trustees/)

## ADMINISTRATIVE RESOLUTIONS

- 2020-01 APFC Resolution POMV Support
- 2018-04 APFC Resolution Sustainable Rules Based Legal Framework for Fund Transfers
- 2018-02 APFC Resolution Staff Compensation
- 2018-01 APFC Resolution Supporting a Rules Based Legal Framework for Fund Transfers
- 2017-01 APFC Resolution Inflation Proofing
- 2016-01 Resolution Release of Public Records
- 2010-04 APFC Resolution Corporate Governance
- 2009-10 APFC Resolution Executive Authority
- 2008-03 APFC Resolution PMP Executive Director Compensation
- 2007-08 APFC Resolution Personnel Management Program
- 2004-10 APFC Resolution Travel
- 2004-09 APFC Resolution POMV
- 2003-05 APFC Resolution POMV
- 2003-01 APFC Resolution Securities Litigation
- 2000-13 APFC Resolution Constitutional Amendment Inflation Proof Fund
- 1999-01 APFC Resolution Signing Endorsing Checks
- 1998-06 APFC Resolution Operating Capital Budgets
- 1998-04 APFC Resolution Operating Budget of the Corporation
- 1993-02 APFC Resolution Updating Safe Deposit Box Signature Cards
- 1983-08 APFC Resolution Defining Principal Balance

## ETHICS & DISCLOSURES RESOLUTION

- 2009-09 APFC Resolution Personal Investments Conduct and Reporting

## INVESTMENT POLICIES RESOLUTIONS

- 1983-02 APFC Resolution Purpose of the Permanent Fund
- 1987-05 APFC Resolution Definition of Income-Producing
- 1990-24 APFC Resolution Use of Fund International Investment Program
- 2010-05 APFC Resolution Investment Policy
- 2018-03 APFC Resolution In-State Emerging Manager Program
- 2023-01 APFC Follow-Up Resolution Regarding In-State Emerging Manager Program



# State of Alaska Governance

**AS OF SEPTEMBER 30, 2024**

*The Alaska Permanent Fund is established in the Alaska Constitution, while the objectives and investment guidelines of the Fund are defined in State law, specifically in Alaska Statutes (AS) 37.13. The Principal of the Fund is constitutionally protected, whereas the disposition of income is directed to the Earnings Reserve Account as established in AS 37.13.145.*

*State law authorizes the governor to appoint the members of the APFC Board of Trustees and provides membership requirements.*

*State law (AS 37.13.120) requires that all investments be made under the guidelines of the prudent investor rule and that a reasonable diversification of assets must be maintained unless it is clearly prudent not to do so. The Board of Trustees is required to draft and maintain a list of allowed investments under regulations, this list is maintained in Alaska Administrative Code 15 AAC 137.*

**ALASKA CONSTITUTION ARTICLE IX, SECTION 15..... 43**

**ALASKA STATUTES CHAPTER 37.13 ALASKA PERMANENT FUND AND CORPORATION 44**

- Article 1. Alaska Permanent Fund**
- Article 2. Management of Other Assets**
- Article 3. General Provisions**

**ALASKA ADMINISTRATIVE CODE TITLE 15 REVENUE. CHAPTER 137 ..... 51**



# Constitution of the State of Alaska

## ARTICLE IX, SECTION 15

*Alaska Permanent Fund. At least twenty-five percent of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received by the State shall be placed in a permanent fund, the principal of which shall be used only for those income producing investments specifically designated by law as eligible for permanent fund investments. All income from the permanent fund shall be deposited in the general fund unless otherwise provided by law [Effective February 21, 1977].*



# Alaska Statutes

## CHAPTER 37.13 ALASKA PERMANENT FUND AND CORPORATION

### ARTICLE 1. ALASKA PERMANENT FUND

#### SEC. 37.13.010. ALASKA PERMANENT FUND.

- (a) Under art. IX, sec. 15, of the state constitution, there is established as a separate fund the Alaska permanent fund. The Alaska permanent fund consists of
- (1) 25 percent of all mineral lease rentals, royalties, royalty sale proceeds, net profit shares under [AS 38.05.180](#)(f) and (g), and federal mineral revenue sharing payments received by the state from mineral leases issued on or before December 1, 1979, and 25 percent of all bonuses received by the state from mineral leases issued on or before February 15, 1980;
  - (2) 50 percent of all mineral lease rentals, royalties, royalty sale proceeds, net profit shares under [AS 38.05.180](#)(f) and (g), and federal mineral revenue sharing payments received by the state from mineral leases issued after December 1, 1979, and 50 percent of all bonuses received by the state from mineral leases issued after February 15, 1980; and
  - (3) Any other money appropriated to or otherwise allocated by law or former law to the Alaska permanent fund.
- (b) Payments due the Alaska permanent fund under (a) of this section shall be made to the fund within three banking days after the day the amount due to the fund reaches at least \$3,000,000 and at least once each month.
- (c) The Alaska permanent fund shall be managed by the Alaska Permanent Fund Corporation established in this chapter.

#### SEC. 37.13.020. FINDINGS.

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

- (1) The fund should provide a means of conserving a portion of the state's revenue from mineral resources to benefit all generations of Alaskans;
- (2) The fund's goal should be to maintain safety of principal while maximizing total return;
- (3) The fund should be used as a savings device managed to allow the maximum use of disposable income from the fund for purposes designated by law.

#### SEC. 37.13.030. PURPOSE.

It is the purpose of [AS 37.13.010](#) - [37.13.190](#) to provide a mechanism for the management and investment of those fund assets by the Alaska Permanent Fund Corporation in a manner consistent with the findings in [AS 37.13.020](#).

#### SEC. 37.13.040. ALASKA PERMANENT FUND CORPORATION.

There is established the Alaska Permanent Fund Corporation. The corporation is a public corporation and government instrumentality in the Department of Revenue managed by the board of trustees. The purpose of

the corporation is to manage and invest the assets of the permanent fund and other funds designated by law in accordance with [AS 37.13.010 - 37.13.190](#).

[SEC. 37.13.050. COMPOSITION AND QUALIFICATIONS OF BOARD OF TRUSTEES.](#)

- (a) The Board of Trustees of the Alaska Permanent Fund Corporation consists of six members appointed by the governor. Two of the members must be heads of principal departments of state government, one of whom shall be the commissioner of revenue. Four members shall be appointed by the governor from the public and may not hold any other state or federal office, position or employment, either elective or appointive, except as a member of the armed forces of either the United States or of this state.
- (b) The four public members of the board must have recognized competence and wide experience in finance, investments, or other business management-related fields.
- (c) The board shall annually elect a chairman from among its members.

[SEC. 37.13.060. TERM OF OFFICE.](#)

The public members of the board shall be appointed for terms of four years, and they may be re-appointed. The terms of the public members shall be staggered so that no more than one term of a public member expires each year.

[SEC. 37.13.070. REMOVAL AND VACANCIES.](#)

- (a) The governor may remove a public member of the board from office only for cause. A removal by the governor must be in writing and must state the reason for the removal. A member who is removed by the governor may not participate in board business and may not be counted for purposes of establishing a quorum after the member receives written notice of removal from the governor.
- (b) A vacancy on the board shall be promptly filled by appointment by the governor. An appointee to a vacancy shall hold office for the balance of the term for which the appointee's predecessor on the board was appointed.
- (c) A vacancy on the board does not impair the authority of a quorum of the board to exercise all the powers and perform all the duties of the board.

[SEC. 37.13.080. QUORUM AND VOTING.](#)

Four members of the board constitute a quorum for the transaction of business and the exercise of the powers and duties of the board. Action may be taken only upon affirmative vote of a majority of the full membership of the board.

[SEC. 37.13.090. COMPENSATION OF BOARD MEMBERS.](#)

Public members of the board receive an honorarium of \$400 for each day spent at a meeting of the board or at a meeting of a subcommittee of the board or at a public meeting as a representative of the board. Members of the board are entitled to per diem and travel allowances as provided by law for members of state boards and commissions.

[SEC. 37.13.100. CORPORATION STAFF.](#)

The board may employ and determine the salary of an executive director. The executive director may, with the approval of the board, select and employ additional staff as necessary. An employee of the corporation, including the executive director, may not be a member of the board. The executive director and the other employees of the board are in the exempt service under [AS 39.25](#).

[SEC. 37.13.110. CONFLICTS OF INTEREST.](#)

- (a) Members of the board, the executive director, and investment officers of the corporation are subject to the provisions of [AS 39.50](#).
- (b) If a member of the board or an employee of the corporation acquires, owns, or controls an interest, direct or indirect, in an entity or project in which fund assets are invested, the member shall immediately disclose

the interest to the board. The disclosure is a matter of public record and shall be included in the minutes of the board meeting next following the disclosure.

SEC. 37.13.120. INVESTMENT RESPONSIBILITIES.

- (a) The board shall adopt regulations specifically designating the types of income-producing investments eligible for investment of fund assets. When adopting regulations authorized by this section or managing and investing fund assets, the prudent-investor rule shall be applied by the corporation. The prudent-investor rule as applied to investment activity of the fund means that the corporation shall exercise the judgment and care under the circumstances then prevailing that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the designation and management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering preservation of the purchasing power of the fund over time while maximizing the expected total return from both income and the appreciation of capital.
- (b) The corporation may not borrow money or guarantee from principal of the fund the obligations of others, except as provided in this subsection. With respect to investments of the fund, the corporation may, either directly or through an entity in which the investment is made, borrow money if the borrowing is nonrecourse to the corporation and the fund.
- (c) The board shall maintain a reasonable diversification among investments unless, under the circumstances, it is clearly prudent not to do so. The board shall invest the assets of the fund in in-state investments to the extent that in-state investments are available and if the in-state investments.
  - (1) have a risk level and expected return comparable to alternate investment opportunities; and
  - (2) are eligible for investment of fund assets under (a) of this section.
- (d) The corporation may enter into and enforce all contracts necessary, convenient, or desirable for managing the fund's assets and corporate operations, including contracts for future delivery to implement asset allocation strategies or to hedge an existing equivalent ownership position in an investment.
- (e) Before adoption of a regulation under (a) of this section, the regulation, in electronic format, shall be provided to the Legislative Budget and Audit Committee for review and comment. The board shall submit investment reports to the committee at least quarterly.

SEC. 37.13.130. GAINS AND LOSSES. [REPEALED, SEC. 13 CH 81 SLA 1982].

Repealed or Renumbered

SEC. 37.13.140. INCOME.

- (a) Net income of the fund includes income of the earnings reserve account established under [AS 37.13.145](#). 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 any unrealized gains or losses. Income available for distribution equals 21 percent of the net income of the fund for the last five fiscal years, including the fiscal year just ended, but may not exceed net income of the fund for the fiscal year just ended plus the balance in the earnings reserve account described in [AS 37.13.145](#).
- (b) The corporation shall determine the amount available for appropriation each year. The amount available for appropriation is five percent of the average market value of the fund for the first five of the preceding six fiscal years, including the fiscal year just ended, computed annually for each fiscal year in accordance with generally accepted accounting principles. In this subsection, "average market value of the fund" includes the balance of the earnings reserve account established under [AS 37.13.145](#), but does not include that portion of the principal attributed to the settlement of State v. Amerada Hess, et al., 1JU-77-847 Civ. (Superior Court, First Judicial District).

SEC. 37.13.145. DISPOSITION OF INCOME.

- (a) The earnings reserve account is established as a separate account in the fund. Income from the fund shall be deposited by the corporation into the account as soon as it is received. Money in the account shall be invested in investments authorized under [AS 37.13.120](#).
- (b) At the end of each fiscal year, the corporation shall transfer from the earnings reserve account to the

dividend fund established under [AS 43.23.045](#), 50 percent of the income available for distribution under [AS 37.13.140](#).

- (c) After the transfer under (b) and an appropriation under (e) of this section, the corporation shall transfer from the earnings reserve account to the principal of the fund an amount sufficient to offset the effect of inflation on the principal of the fund during that fiscal year. However, none of the amount transferred shall be applied to increase the value of that portion of the principal attributed to the settlement of State v. Amerada Hess, et al., 1JU-77-847 Civ. (Superior Court, First Judicial District) on July 1, 2004. The corporation shall calculate the amount to transfer to the principal under this subsection by
- (1) computing the average of the monthly United States Consumer Price Index for all urban consumers for each of the two previous calendar years;
  - (2) computing the percentage change between the first and second calendar year average; and
  - (3) applying that rate to the value of the principal of the fund on the last day of the fiscal year just ended, including that portion of the principal attributed to the settlement of State v. Amerada Hess, et al., 1JU-77-847 Civ. (Superior Court, First Judicial District).
- (d) Notwithstanding (b) of this section, income earned on money awarded in or received as a result of State v. Amerada Hess, et al., 1JU-77-847 Civ. (Superior Court, First Judicial District), including settlement, summary judgment, or adjustment to a royalty-in-kind contract that is tied to the outcome of this case, or interest earned on the money, or on the earnings of the money shall be treated in the same manner as other income of the Alaska permanent fund, except that it is not available for distribution to the dividend fund, for transfers to the principal under (c) of this section, or for an appropriation under (e) of this section, and shall be annually deposited into the Alaska capital income fund ([AS 37.05.565](#)).
- (e) The legislature may not appropriate from the earnings reserve account to the general fund a total amount that exceeds the amount available for appropriation under [AS 37.13.140](#) (b) in a fiscal year.
- (f) The combined total of the transfer under (b) of this section and an appropriation under (e) of this section may not exceed the amount available for appropriation under [AS 37.13.140](#) (b).

#### SEC. 37.13.150. CORPORATION BUDGET.

The revenue generated by the fund's investments must be identified as the source of the operating budget of the corporation in the state's operating budget under [AS 37.07](#) (Executive Budget Act). The unexpended balance of the corporation's annual operating budget does not lapse at the end of the fiscal year but shall be treated as income under [AS 37.13.140](#).

#### SEC. 37.13.160. AUDITS.

The Legislative Budget and Audit Committee may provide for an annual post audit and annual operational and performance evaluations of the fund's investments and investment programs.

#### SEC. 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. The annual income statement and balance sheet of the fund shall be published in at least one newspaper in each judicial district. The income statement and balance sheet for the two fiscal years preceding the publication of the election pamphlet under [AS 15.58](#) shall be included in that pamphlet.

#### SEC. 37.13.180. TAX EXEMPTION.

The corporation and the fund are exempt from all taxes and assessments in the state. All security instruments issued by the corporation or the fund, their transfer, and their income are exempt from all taxes and

assessments in the state.

SEC. 37.13.190. POLITICAL ACTIVITIES.

The resources of the corporation or the fund may not be used to finance or influence political activities.

SEC. 37.13.200. PUBLIC ACCESS TO INFORMATION.

Information in the possession of the corporation is a public record, except that information that discloses the particulars of the business or affairs of a private enterprise or investor is confidential and is not a public record. Confidential information may be disclosed only for the purposes of an official law enforcement investigation or when its production is required in a court proceeding. These restrictions do not prohibit the publication of statistics presented in a manner that prevents the identification of particular reports, items, persons, or enterprises.

SEC. 37.13.205. REGULATIONS. [REPEALED, SEC. 3 CH 46 SLA 2005].

Repealed or Renumbered

SEC. 37.13.206. REGULATIONS.

- (a) The board may adopt regulations to carry out the purposes of this chapter and shall adopt regulations under [AS 37.13.120\(a\)](#). The provisions of [AS 44.62](#) (Administrative Procedure Act) regarding the adoption of regulations do not apply to regulations of the corporation.
- (b) The board may adopt regulations under this section by motion, by resolution, or in any other manner permitted by the bylaws of the corporation.
- (c) Except as provided in (f) of this section, at least 15 days before the adoption, amendment, or repeal of a regulation, the corporation shall give public notice of the proposed action by
  - (1) publishing the notice in a newspaper of general circulation or trade or industry publication that the corporation prescribes;
  - (2) posting the notice on the Alaska Online Public Notice System;
  - (3) furnishing the notice, by electronic format, to all legislators; and
  - (4) providing a copy of the notice to every person who has filed a request for notice of proposed regulation with the corporation.
- (d) The public notice must include a statement of the time, place, and nature of the proceedings for the adoption, amendment, or repeal of the regulation and an informative summary of the subject of the proposed action.
- (e) On the date and at the time and place designated in the notice, the corporation shall give each interested person or the person's authorized representative, or both, the opportunity to present statements, arguments, or contentions in writing, with or without opportunity to present them orally. The board may accept material presented by any form of communication and shall consider all factual, substantive, and other relevant matter presented to it before adopting, amending, or repealing a regulation. A regulation adopted, amended, or repealed by the board may vary from the informative summary specified in (d) of this section if the subject of the action taken on the regulation remains the same and if the original notice of the proposed action was written so as to ensure that members of the public are reasonably notified of the subject of the proposed action in order for members of the public to determine whether their interests could be affected by the board's proposed action on that subject.
- (f) A regulation or order of repeal of a regulation under this section may be made as an emergency regulation if, in the order of adoption, the board states the facts constituting the emergency and makes a finding that the adoption of the regulation or repeal is necessary for the immediate preservation of the orderly operation of the corporation. The requirements of (c) - (e) of this section do not apply to the initial adoption of an emergency regulation or repeal under this subsection; however, upon adoption of an emergency regulation or repeal under this subsection, the corporation shall, within 10 days after that adoption, comply with the notice procedures specified in (c) - (e) of this section. An emergency regulation or repeal adopted under this subsection does not remain in effect for more than 120 days unless, before the expiration of that period, the corporation complies with the procedures specified in (c) - (e) of this section.
- (g) A regulation adopted under this section takes effect immediately upon its adoption by the board or at another time specified in the order of adoption. The regulation shall be submitted to the lieutenant governor

for publication in the Alaska Administrative Code and Register.

SEC. 37.13.210. [RENUMBERED AS 37.13.900].  
Repealed or Renumbered

## **ARTICLE 02. MANAGEMENT OF OTHER ASSETS.**

### SEC. 37.13.300. CORPORATION TO MANAGE CERTAIN ASSETS OF THE MENTAL HEALTH TRUST.

- (a) The corporation shall manage the mental health trust fund.
- (b) The corporation shall
  - (1) hold and invest the mental health trust fund subject to [AS 37.13.120](#);
  - (2) at least quarterly, prepare, publish, and distribute to the Board of Trustees of the Alaska Mental Health Trust Authority a financial report showing investment revenue and expenditures, including the allocation of the cash assets of the mental health trust fund among investments;
  - (3) annually prepare, publish, and distribute to the Board of Trustees of the Alaska Mental Health Trust Authority financial statements prepared in accordance with generally accepted accounting principles consistently applied, and an audit report prepared by a certified public accountant;
  - (4) periodically advise the Board of Trustees of the Alaska Mental Health Trust Authority when revisions to long-range investment policy, including asset allocation changes, are contemplated, and provide an opportunity for consultation and comment on the changes before they are implemented; and
  - (5) transfer to the mental health trust settlement income account the net income available for distribution attributable to the mental health trust fund at the end of each fiscal year.
- (c) Net income from the mental health trust fund may not be included in the computation of net income available for distribution under [AS 37.13.140](#).

### SEC. 37.13.310. CORPORATION TO MANAGE THE POWER COST EQUALIZATION ENDOWMENT FUND.

- (a) The corporation shall manage the power cost equalization endowment fund using the same investment objective and asset allocation as the corporation uses in managing the Alaska permanent fund subject to [AS 37.13.120](#).
- (b) The corporation shall
  - (1) at least quarterly, prepare a financial report showing investment revenue and expenditures, including the allocation of the cash assets of the power cost equalization endowment fund among investments; and
  - (2) annually prepare financial statements in accordance with generally accepted accounting principles consistently applied, and an audit report prepared by a certified public accountant.
- (c) After preparing a financial statement or report, the corporation shall publish and deliver the financial statement or report to the Alaska Energy Authority, the Department of Commerce, Community, and Economic Development, the senate secretary, and the chief clerk of the house of representatives, and notify the legislature that the financial statement or report is available.
- (d) Net income from the power cost equalization endowment fund may not be included in the computation of net income or market value available for distribution or appropriation under [AS 37.13.140](#).

## **ARTICLE 03. GENERAL PROVISIONS**

### SEC. 37.13.900. DEFINITIONS.

In this chapter,

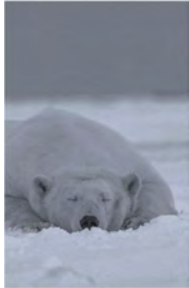
- (1) "board" means the Board of Trustees of the Alaska Permanent Fund Corporation;
- (2) "corporation" means the Alaska Permanent Fund Corporation;
- (3) "fund" means the Alaska permanent fund established under art. IX, sec. 15, Constitution of the State of Alaska.

**LEGISLATIVE BUDGET AND AUDIT COMMITTEE (EXCERPT)**

SEC. 24.20.206. DUTIES.

The Legislative Budget and Audit Committee shall

- (1) annually review the long-range operating plans of all agencies of the state that perform lending or investment functions;
- (2) review periodic reports from all agencies of the state that perform lending or investment functions;
- (3) prepare a complete report of investment programs, plans, performance, and policies of all agencies of the state that perform lending or investment functions and notify the legislature on or before the first day of each regular session that the report is available;
- (4) in conjunction with the finance committee of each house, recommend annually to the legislature the investment policy for the general fund surplus and for the income from the permanent fund;
- (5) provide for an annual post audit and annual operational and performance evaluation of the Alaska Permanent Fund Corporation investments and investment programs;



# Alaska *Administrative Code*

## **TITLE 15 REVENUE.**

### **CHAPTER 137. RECEIPT, CUSTODY, INVESTMENT, AND MANAGEMENT OF STATE FUNDS**

#### **ARTICLE 1, ALASKA PERMANENT FUND CORPORATION**

[15 AAC 137.010. SCOPE OF 15 AAC 137.010 - 15 AAC 137.200.](#)

Repealed.

[15 AAC 137.020. FEDERALLY GUARANTEED LOANS AND MORTGAGES.](#)

Repealed 8/5/82.

[15 AAC 137.030. CONVENTIONAL RESIDENTIAL MORTGAGES.](#)

Repealed 7/12/92.

[15 AAC 137.040. GENERAL TERMS AND CONDITIONS FOR LOANS AND MORTGAGES.](#)

Repealed 7/12/92.

[15 AAC 137.050. GENERAL TERMS AND CONDITIONS FOR CERTIFICATES OF DEPOSIT.](#)

Repealed.

[15 AAC 137.060. ACCOUNTING PRACTICES.](#)

Repealed 7/12/92.

[15 AAC 137.200. DEFINITIONS.](#)

Repealed.

#### **ARTICLE 2, TREASURY SURPLUS**

Repealed 12/26/86

#### **ARTICLE 3, ALASKA PERMANENT FUND CORPORATION INVESTMENT ACTIVITIES**

[15 AAC 137.410. PURPOSE OF 15 AAC 137.410 - 15 AAC 137.530.](#)

The purpose of [15 AAC 137.410](#) - [15 AAC 137.530](#) is to implement the authority granted the APFC board of trustees under [AS 37.13.120\(a\)](#) to specifically designate the income-producing investments eligible for permanent fund investments.

[15 AAC 137.420. PERMANENT FUND INVESTMENTS; INSTITUTIONAL QUALITY.](#)

All permanent fund investments must be of a quality considered acceptable by other prudent institutional investors, including endowments, foundations, sovereign wealth funds, or public and private pension funds.

15 AAC 137.430. FIXED-INCOME INVESTMENTS.

- (a) The assets of the permanent fund may be invested in the following fixed-income investments:
- (1) obligations of, or obligations insured by or guaranteed by, the United States or agencies or instrumentalities of the United States;
  - (2) obligations secured by reserves paid in by the United States or agencies or instrumentalities of the United States or obligations of corporations in which the United States is a shareholder or member;
  - (3) certificates of deposit and term deposits of United States domestic banks that are members of the Federal Deposit Insurance Corporation and that may be readily sold in a secondary market at prices reflecting fair value or that are fully secured at all times as to payment of principal and interest as described in (b) of this section;
  - (4) certificates of deposit and term deposits of federally chartered savings and loan associations in the state that are fully secured at all times as to payments of principal and interest as described in (b) of this section;
  - (5) certificates of deposit and term deposits of mutual savings banks in the state that are fully secured at all times as to payments of principal and interest as described in (b) of this section;
  - (6) fixed-term certificates of indebtedness of federally insured credit unions in the state that are fully secured at all times as to payments of principal and interest as described in (b) of this section;
  - (7) debt instruments that have been issued by domestic entities and that are rated investment grade, or debt instruments of comparable quality issued by nondomestic entities;
  - (8) debt instruments that have been issued by domestic or nondomestic entities that are rated below investment grade or are unrated;
  - (9) short-term
    - (A) promissory notes that have been issued by domestic entities and that are rated investment grade; or
    - (B) promissory notes of comparable quality issued by nondomestic entities;
  - (10) short-term promissory notes that have been issued by domestic or nondomestic entities that are rated below investment grade or are unrated;
  - (11) bankers' acceptances drawn on and accepted by United States banks each of which has a combined capital and surplus aggregating at least \$200,000,000;
  - (12) repurchase agreements and reverse repurchase agreements, the securities underlying the agreements being any of the items listed in (1) - (6) of this subsection;
  - (13) the portions of business and industrial loans made under the Rural Development Act of 1972 that are guaranteed by the Farmers Home Administration;
  - (14) the guaranteed portion of Farmers Home Administration loans;
  - (15) certificates of deposit, term deposits, or bankers' acceptances, that are issued by a United States or nondomestic bank or trust company located outside of the United States and are denominated in United States or nondomestic currency if either
    - (A) those instruments may be readily sold in a secondary market at prices reflecting fair value; or
    - (B) the issuing bank or trust company has capital, surplus, and retained earnings at the date of issue equaling at least \$500,000,000;
  - (16) securities of nondomestic governments and nondomestic government agencies, the principal of, or interest on, which is payable in either United States dollars or nondomestic currencies;
  - (17) taxable or tax-exempt municipal or state debt instruments whether supported by revenues, general obligations, or guarantees;
  - (18) shares in a money market, exchange traded fund (ETF), or short-term investment fund that has either collateral securities of a type authorized elsewhere in this section as acceptable collateral or securities of similar quality to those authorized elsewhere in this section as acceptable collateral;
  - (19) fixed-income derivatives, including forwards, futures, options, collateralized securities, structured notes, and swaps, including credit default swaps;
  - (20) debt instruments issued by an investment entity described in [15 AAC 137.450\(a\)\(1\)\(B\)](#).

- (b) Except for investments made under (a)(15) of this section, certificates of deposit or the equivalent instruments that are not of a quality that may be readily sold in a secondary market at prices reflecting fair value must be secured by a pledge as collateral of
  - (1) investments authorized for the permanent fund under (a)(1), (2), or (4) of this section;
  - (2) obligations of the State of Alaska or instrumentalities of the state that are rated at least "A" by a major bond rating service and have a demonstrated secondary market; or
  - (3) letters of credit issued by an agency of or enterprise sponsored by the United States government, including the Government National Mortgage Association, the Federal National Mortgage Association, and the Federal Home Loan Mortgage Corporation.
- (c) Investments or obligations pledged as collateral under (b) of this section must have value at least equal to the face value of the certificates of deposit being secured. The APFC may require substitution of collateral in order to ensure continued satisfaction of the requirements set out in (b) of this section.
- (d) Repealed 12/10/2014.

15 AAC 137.440. PUBLICLY TRADED EQUITY INVESTMENTS.

The assets of the permanent fund may be invested in the following publicly traded equity securities:

- (1) preferred and common stock and other equity interests in entities organized in the United States and elsewhere, including ordinary shares, convertible debt securities, initial public offerings (IPO's), exchange traded funds (ETF's), American depository receipts (ADR's), American depository securities (ADS's), global depository securities (GDS's), and grantor trusts;
- (2) equity derivatives, including forwards, futures, options, swaps, collateralized securities, and structured notes.

15 AAC 137.450. REAL ESTATE INVESTMENTS.

(a) The assets of the permanent fund may be invested in the following real estate investments:

- (1) equity or debt interests in real estate that is
  - (A) improved by income-generating assets; or
  - (B) to be developed for commercial purposes;
- (2) publicly traded securities in companies that own or manage equity or debt interests in portfolios of real estate assets, including common stocks, depository receipts, preferred stocks, exchange traded funds, and derivatives based on common stocks or equity indices (including convertibles, warrants, rights, options, and futures); or
- (3) equity interests in real estate operating companies.

(b) Real estate investments described in (a) of this section may be:

- (1) directly held and managed through a limited liability vehicle; or
- (2) made through a separately managed account, real estate investment trust, joint venture, commingled fund, or any other externally managed limited liability entity.

15 AAC 137.460. ALTERNATIVE INVESTMENTS; OTHER INVESTMENT TYPES AND STRATEGIES.

(a) The assets of the permanent fund may be invested in the following additional investment types and strategies:

- (1) limited liability private equity investment entities and funds-of funds whose investments and investment strategies include one or more of the following approaches:
  - (A) acquisitions, including buyouts, growth buyouts, platform add-ons, and industry consolidation;
  - (B) venture capital, including seed, early, middle, late, expansion, and diversified;
  - (C) debt, including mezzanine/subordinated debt, distressed debt, and venture leasing/debt;
  - (D) special situations, including industry-focused, turnaround, and diverse;
  - (E) other, including secondaries;
- (2) co-investments with entities and funds-of funds described in (1) of this subsection;

(3) limited liability hedge fund investment entities and funds-of funds whose investments and investment strategies include one or more of the following approaches:

- (A) relative value, including equity market neutral, fixed income arbitrage, and convertible arbitrage;
- (B) event-driven, including merger arbitrage, distressed securities/discounted bank debt, and special situations;
- (C) directional/tactical/opportunistic, including long-short equity, managed futures, and global macro;

(4) commodities and commodity-linked securities and derivatives, including forwards, futures, options, swaps, and structured notes;

(5) hybrid investments and strategies; these investments may include domestic, nondomestic, public and private market equity, or fixed income securities, financial derivatives, and short positions in publicly traded domestic and international equity and fixed income securities;

(6) managed futures funds.

(b) An investment under (a) of this section may be made only

(1) through a manager of permanent fund assets with demonstrated skill and experience investing in the specific investment type or strategy authorized under (a) of this section; or

(2) on the written analysis of a consultant, with demonstrated skill and experience evaluating the specific investment type or strategy, retained by the APFC to evaluate a specific proposed investment or investment strategy.

#### 15 AAC 137.470. INTERESTS IN COLLECTIVE OR COMMINGLED INVESTMENT FUNDS.

The assets of the permanent fund may be invested in shares or other interests in collective and commingled investment funds that invest predominantly in investments otherwise permitted under [15 AAC 137.410](#) - [15 AAC 137.530](#).

#### 15 AAC 137.480. FOREIGN CURRENCY TRANSACTIONS.

A manager of permanent fund assets may, with the prior approval of the executive director or the chief investment officer, utilize foreign exchange transactions. Such transactions include currency forwards, futures, swaps, options, and exchange traded funds, as well as currency strategies, including hedging, cross-hedging, and long or short directional strategies.

#### 15 AAC 137.490. SHORT-SELLING.

In addition to the specific authority for the use of short-selling strategies granted under [15 AAC 137.460](#), a manager of permanent fund assets may, with the prior approval of the executive director or the chief investment officer and consistent with the limitations on the use of leverage provided under [15 AAC 137.500](#), utilize short-selling as a part of the manager's overall investment strategy.

#### 15 AAC 137.500. LEVERAGE.

(a) A manager of permanent fund assets may, with the prior approval of the executive director or chief investment officer, utilize leverage as part of the investment strategy for the portfolio for which the manager is responsible, so long as the creditor's recourse on the leverage amount is

(1) not a general obligation of the permanent fund or the APFC; and

(2) is limited to either

- (A) the permanent fund assets for which the manager acts as manager; or
- (B) other specific assets of the permanent fund.

(b) A manager of permanent fund assets shall use leverage, if at all, in a prudent manner that is consistent with leverage applied by professional asset managers using similar investment strategies.

#### 15 AAC 137.510. LENDING OF PERMANENT FUND-OWNED SECURITIES.

Securities purchased by or otherwise held for the permanent fund may be loaned to securities dealers or financial institutions, if the loan is collateralized by cash or securities having a market value of at least 102

percent of the market value of securities loaned.

15 AAC 137.520. FORM OF ASSET HOLDINGS.

Unless otherwise provided in [15 AAC 137.410](#) - [15 AAC 137.530](#), the APFC may invest permanent fund assets directly in the name of the permanent fund, through a limited liability entity, including a corporation, limited partnership, limited liability partnership, or limited liability company, or through a collective or commingled investment fund, including a fund-of-funds.

15 AAC 137.530. INVESTMENTS NOT OTHERWISE PERMITTED.

- (a) The permanent fund may hold assets not otherwise authorized under [15 AAC 137.410](#) - [15 AAC 137.520](#) that
- (1) were held by the permanent fund before January 1, 2006;
  - (2) are distributed to the permanent fund as the result of a liquidation of other assets held by the fund; or
  - (3) are acquired by a manager of permanent fund assets because the assets are included in an investment index that is applied by the APFC to measure that manager's investment performance.
- (b) The permanent fund may hold an asset described in (a) of this section so long as holding the asset satisfies the prudent-investor rule stated in [AS 37.13.120\(a\)](#).
- (c) The APFC must liquidate, restructure, or otherwise bring into compliance a permanent fund investment that ceases to satisfy the prudent investor rule stated in [AS 37.13.120\(a\)](#) within six months after the asset first fails to satisfy that rule.

**ARTICLE 4, ALASKA PERMANENT FUND CORPORATION OPERATIONAL ACTIVITIES**

15 AAC 137.610. CONFIDENTIAL RECORDS.

Repealed.

**ARTICLE 5, GENERAL PROVISIONS**

15 AAC 137.990. DEFINITIONS.

Unless the context requires otherwise, in [15 AAC 137.610](#) - [15 AAC 137.990](#),

- (1) "APFC" means the Alaska Permanent Fund Corporation established in [AS 37.13.040](#);
- (2) "chief investment officer" means the chief investment officer of the APFC;
- (3) "co-investment" means a direct investment of permanent fund assets in an entity at the same time and on the same or better economic terms as an investment of permanent fund assets in that entity made through a private equity or hedge fund permitted under [15 AAC 137.460](#);
- (4) "collective or commingled investment fund" means an entity whose purpose is to direct the collective investment of assets, including a common trust fund, a collective trust fund, a unit investment trust, an open-end or closed-end mutual fund, an open-end or closed-end registered investment company, or any other collective or commingled investment vehicle that is engaged primarily in the purchase and sale of securities or other assets;
- (5) "commodities" means
  - (A) materials, such as gold, copper, silver, and petroleum;
  - (B) timber and other agricultural crops;
  - (C) foods;
  - (D) other natural resources; and
  - (E) products of the items identified in (A) - (D) of this paragraph;
- (6) "derivative" means an instrument whose value, usefulness, and marketability is dependent upon or derives from an underlying asset; classes of derivatives include futures contracts, options, forward contracts, including currency forward contracts, swaps, and options on futures;
- (7) "derivative based strategy" means an investment strategy used by investors that invest in markets typically dominated by derivative instruments;
- (8) "executive director" means the executive director of the APFC;

- (9) "hybrid investment or strategy" means a multi-part investment that may include any investment otherwise allowable, including private equity funds, hedge funds, arbitrage funds, derivative-based strategies, strategic block investment funds, or crossover funds where the underlying investments consist of both public and private investments, including both debt and equity instruments;
- (10) "includes" or "including" has the same meaning given in [AS 01.10.040](#);
- (11) "investment grade" means a Standard & Poor's Corporation rating BBB or better, or Moody's Investors Service, Inc., rating of Baa or better, including a rating with a "+" or "-" designation or other variations that occur within these ratings, or a comparable rating by another nationally recognized rating organization or by a recognized rating service in the jurisdiction of the issuer;
- (12) "leverage" means the use of various financial instruments or borrowed capital, such as margin, to increase the potential return of an investment;
- (13) "manager of permanent fund assets" means an individual, firm, or other entity that, either by contract or employment with the APFC, has responsibility for the investment and management of a portion of the assets of the permanent fund;
- (14) "permanent fund" has the meaning given "fund" in [AS 37.13.900](#).
- (15) "security" means an instrument that signifies an ownership position in a corporation or other private entity, a creditor relationship with a corporation, other private entity, or governmental body or entity, or rights to ownership such as those represented by an option, future or forward contract, subscription right, or subscription warrant; "security" includes
- (A) stocks, bonds, convertible bonds, bills, notes, debentures, bankers acceptances, commercial paper, certificates of deposit, and shares of a real estate investment trust or real estate operating company;
  - (B) the types of securities identified under (A) of this paragraph purchased on a when issued basis; and
  - (C) combinations of the types of securities identified under (A) and (B) of this paragraph issued as a single instrument;
- (16) "short-selling" means
- (A) the selling of a security that the seller does not own; or
  - (B) any sale that is completed by the delivery of a security borrowed by the seller.



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801 W 10th Street, Suite 302  
Juneau, AK 99801 apfc.org

SUBJECT: Corporate Operations Overview: Communications

ACTION:

DATE: 5/26/2026

INFORMATION: X

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**BACKGROUND:**

This series is to inform the Board and the public about APFC's operational functions, complementing the quarterly investment presentations. It highlights the systems, processes, and financial structures that support APFC's long-term stability and performance. An opportunity to showcase how APFC's operational teams support the Corporation's mission, goals, and vision.

**STATUS:**

An overview of APFC's communications program, including its mandates, strategic goals, key challenges, and stakeholder opportunities with -

- Paulyn Swanson, Director of Communications
- Juliette Alldredge, Communications Manager

We always welcome discussion and input from the Trustees.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# Communications Corporate Operations Overview

May 2026

# APFC Communications

Internal leadership with targeted external support



**Paulyn Swanson, APR**  
**Director**

10+ years APFC Communications  
28+ years State of Alaska



**Juliette Alldredge, M.Ed., APR**  
**Manager**

2+ years APFC Communications  
9+ years Communications  
11+ years Higher Education

## Communications Services

Strengthens in-state education  
and public understanding

## Gregory

Enhances financial institution  
credibility and accuracy

## Alaska Resource Education

Provides classroom resources to  
build understanding of the Fund

# A Trusted Resource

Providing stakeholder education  
Mitigating reputational risk  
Supporting transparency & accountability

## Statutory

AS 37.13.170

- Annual Report - Financial Disclosures
- General Election Pamphlet

AS 40.25.120

- Public Records Requests

## Board Packets

- Communications Update
- Legislative Update

## Stakeholder Education

- apfc.org
- Legislative Communications
- Presentations
- Multimedia: Videos, Photos
- Media Outreach: Inquiries, Interviews
- Social Media: Facebook and LinkedIn
- Crisis Communications & Reputation Risk
- Youth Education Initiative
- Trustees' Papers
- An Alaskan's Guide to the Fund
- Mid Fiscal Year Review

# Strategic Communications

Structured, measurable, and aligned to APFC's long-term mission



The FY25 plan includes goals to set the vision, standard program objectives to secure resources and trust, objectives that provide measurable actions, and priorities to focus projects. These elements work together to drive effective, aligned communications. This is a working document and will inform quarterly communications work.

COMMUNICATIONS VISION STATEMENT	PRIORITIES TO ACCOMPLISH IN 2025-2026	EXPECTATIONS
To be a trusted voice in fostering transparency, engagement, and understanding of APFC's mission.	<p><b>P1</b> Achieve legislative support to optimize our ability to protect and grow the Fund.</p> <p><b>P2</b> Refresh the website with accessible analytics.</p> <p><b>P3</b> Plan for the 50th anniversary of the Fund.</p> <p><b>P4</b> Develop a resource/campaign to further understanding of the rules-based endowment structure.</p> <p><b>P5</b> Establish a quarterly thought leadership series.</p> <p><b>P6</b> Ongoing Reputation Management and Crisis Communications preparedness</p>	<p>➤ <b>Transparency:</b> Delivery of clear, accurate, timely information regarding the Fund's performance, management, and values in stewardship of the Fund.</p> <p>➤ <b>Data-Driven Insights:</b> Access to reliable data and analysis that supports informed decision-making and understanding of the Fund's complexities.</p> <p>➤ <b>Engagement and Collaboration:</b> Opportunities for direct engagement on initiatives related to the Fund's impact and sustainability.</p> <p>➤ <b>Educational Initiatives for Understanding:</b> Programs that raise awareness and understanding of the Fund's role and financial literacy, particularly among younger audiences.</p>
COMMS GOALS	TARGET AUDIENCES	KEY ASSUMPTIONS
<p><b>Resources</b> To protect and grow the Fund (P1)</p> <p><b>Brand Recognition</b> To be held in high regard (P2, P3, P5, P6)</p> <p><b>Education</b> To increase Alaskans understanding (P2, P4)</p> <p><b>Alaskan Youth</b> To engage and inform future leaders (P4)</p> <p><b>Internal Communications</b> To support APFC brand ambassador (P1-P6)</p>	<ul style="list-style-type: none"> <li>Alaskans</li> <li>Policymakers</li> <li>Board of Trustees</li> <li>Employees</li> <li>Financial partners</li> <li>Media</li> <li>Thought Leaders/Alaska Bloggers</li> <li>Organizations/NGOs</li> <li>Alaska Youth</li> <li>Potential employees</li> </ul>	<ul style="list-style-type: none"> <li>Comms staff will not turnover in the next 3 years.</li> <li>Communications staff will not be increased.</li> <li>Current contractors will be maintained.</li> </ul>
STANDARD COMMS PROGRAM OBJECTIVES		
<ul style="list-style-type: none"> <li><b>Meet Statutory Requirements</b> in providing trustee stakeholder accountability (AR, PRR)</li> <li><b>Secure Resources</b> necessary to continue generating revenue for the AK (budget, policy)</li> <li><b>Educate &amp; Engage Stakeholders</b> (internal, instate, global)</li> <li><b>Maintaining Standing</b> as World Class Endowment Model SWF</li> </ul>		

## Our Approach ~

- Aligned to APFC's mission and stewardship role
- Defined objectives to support transparency, engagement, and credibility
- Focused priorities to drive impact (website, education, thought leadership)
- Structured plan with quarterly check-ins guiding and adapting execution

**APFC**  
**Communications**  
**Vision**

*To be a trusted voice in fostering transparency, engagement, and understanding of APFC's mission.*

# Strategic Goals FY25 – FY27

## Resources

- to protect and grow the Fund

## Brand Recognition

- to be held in high regard

## Education

- to increase understanding

## Alaskan Youth

- to engage and inform future leaders

## Internal Communications

- to support APFC brand ambassadors

## Stakeholder Trust

Clarity  
Credibility  
Confidence  
in Fund stewardship

# Expectations

### **Transparency**

Delivery of clear, accurate, timely information on performance, management, and values in stewardship of the Fund.

### **Data-Driven Insights**

Access to reliable data and analysis that supports informed decision-making and understanding of the Fund's complexities.

### **Engagement and Collaboration**

Opportunities for direct engagement on initiatives related to the Fund's impact and role in the state.

### **Educational Initiatives for Understanding**

Programs that raise awareness and understanding of the Fund's role and financial literacy, particularly for younger audiences.

# The Awareness Gap

## APFC Communications' Core Problem

This gap in understanding leads to:

- Confused public expectations
- Policy pressure misaligned with long-term sustainability

<b>What Alaskans Commonly Know</b>	<b>What Many Alaskans May Not Know</b>
The Permanent Fund exists	Who manages the Fund - APFC
They receive a Permanent Fund Dividend (PFD)	The PFD is not established in the Constitution
The Fund is large and valuable	How the Fund generates returns, what the POMV is and why it matters
The Fund belongs to Alaskans	How the Fund is used to support both PFDs and state services
The Fund has been around a long time	How investment discipline and inflation proofing protect long-term value

# From Awareness to Engaged

One Audience at a Time, Moving People Forward

Most are not aware or don't engage

*"Latent Public"*

Some misunderstand

Some understand, but don't act

*"Aware Public"*

A few participate and engage

*"Active Public"*

*James Grunig's Situational Theory*

## **A More Strategic Model**

Instead of one message for all, we focus on progression:

**Awareness**

**Understanding**

**Conviction**

**Engagement**

Tailored messages

Strategic tools, platforms

Different messengers

# Outcome-Focused, Audience Aware Strategy

## The Middle Matters Most

### The Audience Most Likely to Shift

- Vaguely aware of APFC and/or the Fund
- Largest group of Alaskans
- Most influence on public sentiment

*APFC invests, not spends*  
*The Fund supports the majority of the state's UGF revenue*  
*Overdrawing has real consequences*

## Policymakers & Influencers

### Trusted Partnership

- Need precision, not volume
- Clear linkage between:  
    Decisions today  
    Long-term Fund health

*Reinforce POMV discipline*  
*Strengthen understanding of sustainability*

## Trusted Voices Board & Staff

### APFC Ambassadors

- Highest credibility
- Under-leveraged
- Alignment Matters

*Simple, consistent messages*  
*Confidence to engage*  
*One aligned voice is more powerful than many fragmented ones*

# Clear Communications, Stronger Stewardship

## Consequences of Public Confusion Without Strategic Communications

Public trust erodes

Confusion persists around APFC vs. PFD, the POMV draw, and legislative roles

Short-term political and fiscal pressure increases

Operational underfunding and talent constraints grow

Reputational risk can affect partnerships, performance, and public confidence

## Impact of Success With Strategic Communications

Trust in APFC's role strengthens

Alaskans better understand the Fund, APFC's role, and how the Fund supports Alaska's future

Policymakers are better equipped to make decisions grounded in financial literacy and long-term sustainability

APFC's capacity, credibility, and expertise are reinforced

APFC is recognized locally and globally as a trusted, best-in-class investment manager



# Website Refresh

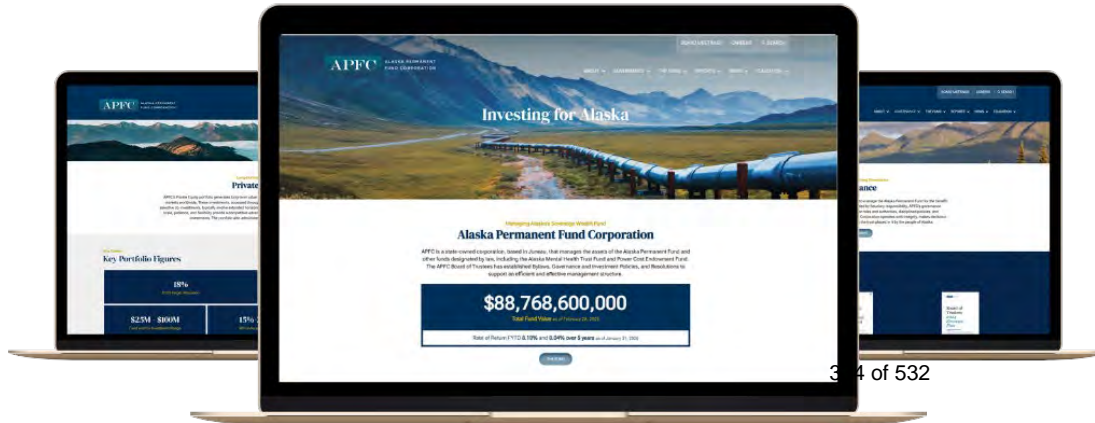
Measuring Accountability

**Improve Transparency** by helping users find key information faster.

**Advance Education** by increasing engagement with explanatory content.

**Strengthen Engagement** by encouraging meaningful actions.

**Build Brand Recognition** by increasing direct traffic and repeat visits.



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Top Pages

Home

Careers

Performance

Leadership

Board Meetings

Most Common Activities

Site Scrolling

View Performance

View News

View Meetings

View Annual Report

View Mid-Year Report

APFC

ALASKA PERMANENT  
FUND CORPORATION

# Pulling Together



The logo for the Alaska Permanent Fund Corporation (APFC) consists of the letters 'APFC' in a bold, serif font, enclosed within a white rectangular box. The background of the slide is a dark teal color with a faint, close-up image of a pine branch and its cones.

ALASKA PERMANENT  
FUND CORPORATION

Communications Vision:  
To serve as a trusted voice in fostering transparency,  
engagement, and understanding of APFC's mission.

SUBJECT: Investment Policy Update

ACTION:  X 

DATE: May 27, 2026

INFORMATION:     

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**BACKGROUND:**

The current Investment Policy Statement (IPS) is valid until 30<sup>th</sup> June 2026. Board approval is required to renew the IPS, with or without changes, for the FY 2027 beginning 1<sup>st</sup> July 2026.

**STATUS:**

The principal topic for discussion is the FY 2027 asset allocation. Staff present various options including a status quo (FY 2026) allocation and a staff-recommended allocation. Board to choose either one or advise on another allocation for FY 2027.

The approved allocation will be effective July 1<sup>st</sup>, 2026, for a period of one year. Staff to update IPS based on board decision and submit updated IPS to board for approval at the next board meeting in September 2026.



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# Investment Policy Update

## Asset Allocation (ACTION)

# Investment Policy Statement (IPS) : valid until June 30<sup>th</sup>

- The current Investment Policy Statement (IPS) is valid for FY 2026 and requires Board review and approval for FY 2027, effective July 1<sup>st</sup>, 2026.
- The principal topic for review and approval is the asset allocation for FY 2027. Changes, if any, to asset allocation that the board decides on will need to be reflected in the IPS. All related and consequent changes, if any, will also be updated in the IPS (e.g., changes in benchmark weights, etc.)
- Staff requests approval for changes, if any, or the current IPS (if there are no changes) to be effective July 1<sup>st</sup>, 2026. Staff will submit an updated IPS document for renewal (for FY 2027) at the next board meeting in September 2026.

# Asset Allocation: focus solely on FY 2027

- The central thesis of staff's analysis and recommendations remain the same as was presented during the October 2025 and February 2026 board meetings. The asset allocation section of the February 23-24, 2026, board packet is included in the appendix.
- However, unlike in the previous instances, the current focus is solely on the FY 2027 allocation. Previously a 3-year execution timeframe was assumed covering 2027, 2028 and 2029.
- In the next slide (#4), three options are provided for the board to choose from, one of them being staff's recommendation. It is worth emphasizing that, with the focus only on 2027, the changes recommended by staff are all on the margin.
- On slide #5 five more asset allocation options (Options - 3 through 7) are provided, all of which are close to the efficient frontier, but vary in terms of risk and return

# Asset Allocation: FY 2027 allocation options

Board to choose/decide on one of the three allocation options below for FY 2027:

- **Status Quo** (FY 2026 target allocation)
- **Staff Recommendation** (based on review and analysis as presented during the previous board meetings)
- **Other** (an allocation different from the above – as directed by the board)

	Public Equity	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Tactical Opportunities	Cash	Other (New)	Total Fund
<b>Green Zone</b>	+/- 5%	+/- 5%	+/- 5%	+/- 3%	+/- 5%	+/- 3%	+2%/- 1%	+2%/- 1%		
<b>Yellow Zone</b>	0 - 5%	0 - 5%	0 - 5%	0 - 3%	0 - 5%	0 - 3%	0 - 2%	0 - 2%		
<b>FY2026</b>	32%	20%	18%	11%	10%	7%	1%	1%	0%	100%

Notes: Green Zone: expressed as +/- to Target Allocation; Yellow Zone: expressed as range beyond green zone

## FY 2027 Options

<b>Status Quo</b>	32%	20%	18%	11%	10%	7%	1%	1%	0%	100%
<b>Staff Recommendation</b>	34%	20%	17%	10%	9%	8%	1%	1%	0%	100%
<b>Other</b>	TBD%	TBD%	TBD%	TBD%	TBD%	TBD%	TBD%	TBD%	TBD%	100%

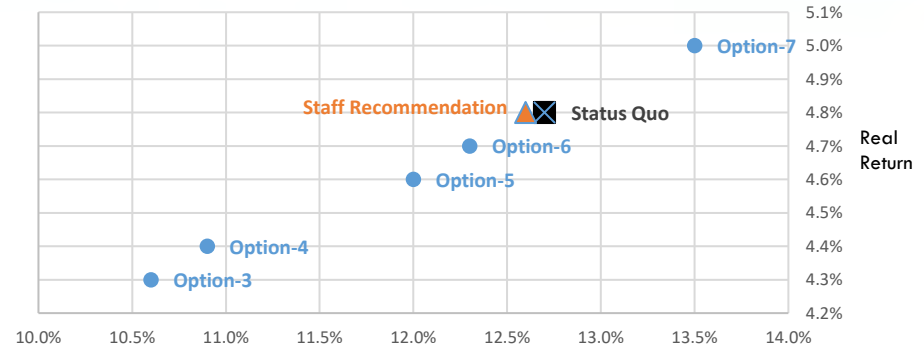
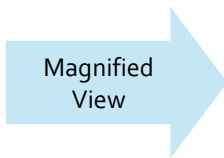
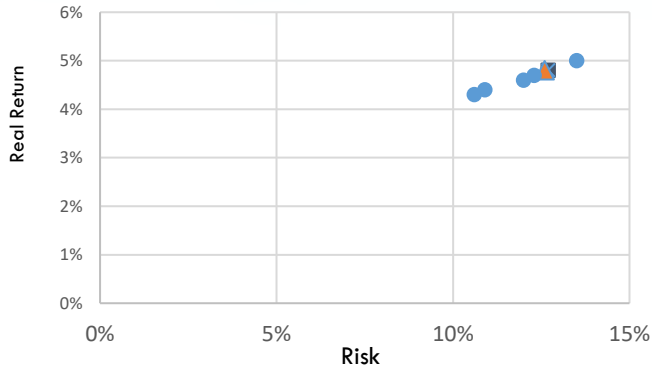
Estimates of\*

Risk	Real Return
12.7%	4.8%
12.6%	4.8%

\* Risk and return estimates are based on Callan's 10-year capital market projections

Real return reflects the spread over the 2.5% inflation rate estimate

# Asset Allocation: ...more options on or close to efficient frontier



	Asset Allocation							
	Public Equities (a)	Fixed Income (b)	Private Equity (c)	Real Estate (d)	Private Inf/Crd (e)	Absolute Return (f)	Cash (g)	Tacops (h)
Status Quo	32%	20%	18%	11%	10%	7%	1%	1%
Staff Recommendation	34%	20%	17%	10%	9%	8%	1%	1%
Option-3	20%	34%	17%	10%	9%	8%	1%	1%
Option-4	20%	32%	18%	11%	10%	7%	1%	1%
Option-5	30%	24%	17%	10%	9%	8%	1%	1%
Option-6	32%	22%	17%	10%	9%	8%	1%	1%
Option-7	40%	14%	17%	10%	9%	8%	34%	1%

	Estimates		
	Risk (Standard Deviation)	Return (Wtd Avg + GR spread)	Real Return
Status Quo	12.7%	7.3%	4.8%
Staff Recommendation	12.6%	7.3%	4.8%
Option-3	10.6%	6.8%	4.3%
Option-4	10.9%	6.9%	4.4%
Option-5	12.0%	7.1%	4.6%
Option-6	12.3%	7.2%	4.7%
Option-7	13.5%	7.5%	5.0%

Risk and return estimates are based on Callan's 10-year capital market projections. Real return reflects the spread over the 2.5% inflation rate estimate

# Conclusions & Ask: FY 2027 asset allocation decision

- Focusing just on FY 2027, the differences across the various asset allocation options are mostly on the margin
- **'Status Quo'** and **'Staff Recommendation'** both have an estimated real return of 4.8%. The recommended allocation has slightly lower risk and is more liquid
- Adding an expected 20bps outperformance to benchmark increases the target rate of return to CPI+5%

## **Board to decide on asset allocation for FY 2027**

- Effective July 1<sup>st</sup>, 2026
- Staff to submit updated Investment Policy Statement at the next board meeting (September 2026)
- Staff to develop private asset pacing plans in accordance with board approved asset allocation



# Appendix

Asset Allocation section (pages 83-232) of board packet presented at the February 23-24, 2026, board meeting



SUBJECT: Asset Allocation Presentation

ACTION: \_\_\_\_\_

DATE: February 23, 2026

INFORMATION:  X

---

BACKGROUND:

The asset allocation presentation provides information regarding asset allocation to include recent actions, alternative options, Staff recommendations, and the October presentation.

STATUS:

Marcus Frampton, CIO, and Sebastian Vadakumcherry, CRO, will present on the topics described above.



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# Asset Allocation

**Marcus Frampton**  
**Sebastian Vadakumcherry**

# Table of Contents

- Background & Introduction
- Asset Allocation Options
- Pros and Cons of the options
- Appendix:
  - Asset Allocation section (pages 64-204) of board packet presented at the October 1-2, 2025 board meeting

# Background and Introduction

- In staff's opinion, most of the thoughts on asset allocation presented and discussed at the October 2025 Board meeting continue to be valid and relevant. Hence, the comprehensive presentation made in October is included as appendix to this one.
- With Board action on asset allocation required in May 2026, this would be a good time for the Board to firm up thoughts on the various asset allocation options.
- In the following pages, staff outlines two options in addition to status quo.
- Option-1 and Option-2 incorporate a 9% reduction to private assets over a 3-year period (1% per year each to Private Equity, Real Estate and Infrastructure + Private Credit).
  - *As outlined in October, over the past 15 years the most notable asset allocation move / investment decision taken by APFC has been to very materially increase the Fund's allocation to private markets*
  - *The characteristics and metrics around these private markets asset classes have changed dramatically since the decision to ramp them up was made and warrants a re-evaluation*

# Asset Allocation: two options in addition to status quo

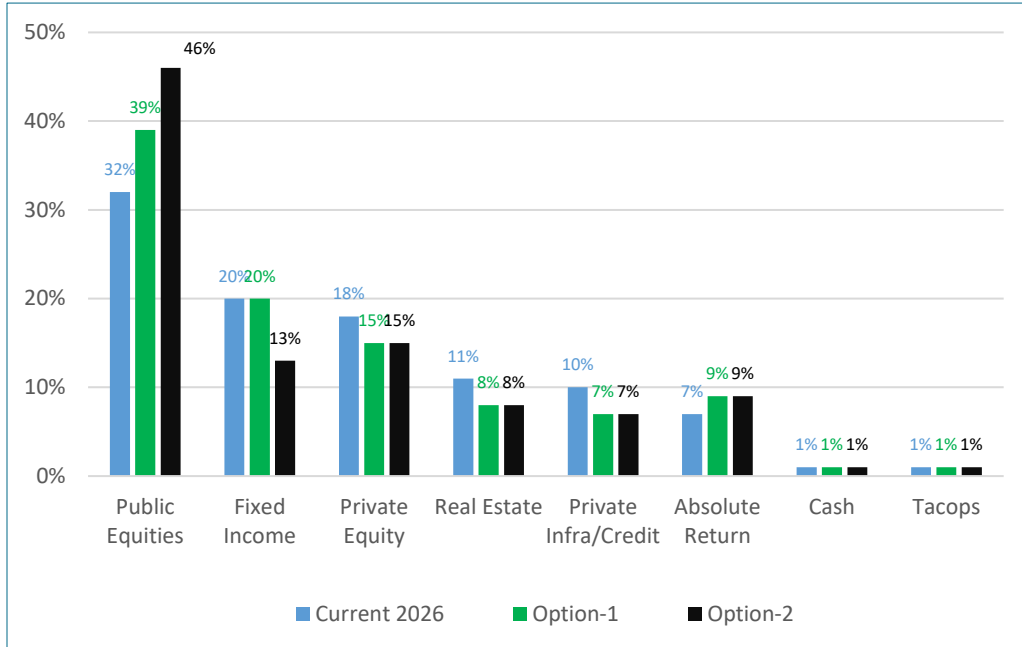
- Asset allocation %, 10-year return and risk (volatility) estimates, stress drawdown projections and illiquidity levels are tabulated below
- The 'Current 2026' allocation represents the existing Board approved Fund portfolio
- Options 1 and 2 reflect fresh asset allocations for consideration for FY 2027 and beyond
- The 80/20 is the board approved risk appetite
- Staff recommends adopting option-1, with a 3-year implementation timeframe

	Asset Allocation								10-year Risk and Return estimates ( based on Callan's projections)			( c ) + ( d ) + ( e ) + ( f ) Aladdin Estimates	
	Public Equities (a)	Fixed Income (b)	Private Equity (c)	Real Estate (d)	Private Inf/Crd (e)	Absolute Return (f)	Cash (g)	Tacops (h)	Risk (Standard Deviation)	Return (Wtd Avg + GR spread)	Sharpe Ratio	% of Low Liquidity Assets	Stress (GFC scenario) Drawdown
	<b>Option-1</b>	39.0%	20.0%	15.0%	8.0%	7.0%	9.0%	1.0%	1.0%	12.6%	7.3%	0.417	39%
<b>Option-2</b>	46.0%	13.0%	15.0%	8.0%	7.0%	9.0%	1.0%	1.0%	13.7%	7.5%	0.400	39%	-45%
<b>Current 2026</b>	32.0%	20.0%	18.0%	11.0%	10.0%	7.0%	1.0%	1.0%	12.7%	7.3%	0.416	46%	-41%
<b>80/20 RTP</b>	80.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	7.5%	0.383	0%	-49%

*Note: Sharpe ratio assumes a risk-free rate of 2%*

# Asset Allocation: current 2026 (status quo), option-1 and option-2

Asset class weights



	Current 2026	Option-1	Option-2
		A slight reduction in private assets offset by increases to public equities and hedge funds	Option-1 plus a reallocation from fixed income to public equities, aiming for a higher return
<b>Return</b>	7.3%	7.3%	7.5%
<b>Risk</b> (volatility)	12.7%	12.6%	13.7%
<b>Risk</b> (Drawdown)	-41%	-41%	-45%
<b>Illiquidity</b>	46%	39%	39%

- All return and risk numbers are estimates
- Execution of either options 1 and 2 is expected to be over a period of 3 years

# Asset Allocation: pros and cons of the three options

	Pros	Cons
<b>Status Quo</b>	<ul style="list-style-type: none"> <li>• No change, business as usual</li> </ul>	<ul style="list-style-type: none"> <li>• Higher exposure to private assets, with the following risks:               <ul style="list-style-type: none"> <li>✓ Illiquid</li> <li>✓ over-valued relative to historical levels</li> <li>✓ less transparent</li> <li>✓ complex asset classes</li> <li>✓ more prone to agency risks</li> <li>✓ Generally higher fee burden</li> </ul> </li> </ul>
<b>Option-1</b>	<ul style="list-style-type: none"> <li>• A moderate and phased scaling back of private assets aiming to mitigate some of the cons of status quo, while continuing to maintain a meaningful exposure to private assets</li> <li>• Maintain fixed income allocation aiming to mitigate some of the cons of option-2</li> </ul>	<ul style="list-style-type: none"> <li>• An expected return slightly lower (by 20bps) than target 5% real return</li> </ul>
<b>Option-2</b>	<ul style="list-style-type: none"> <li>• The pros of option-1, plus</li> <li>• Expected return equal to the target of 5% real</li> </ul>	<ul style="list-style-type: none"> <li>• Materially increasing public equities exposure when market is more concentrated and expensive, relative to historical levels</li> <li>• Higher expected volatility</li> <li>• Larger estimated stress drawdown</li> </ul>

Note: The pros and cons is an exhaustive list, but are on a relative basis across the three options



# Appendix

**Asset Allocation section (pages 64-204) of board packet presented at the October 1-2, 2025, board meeting**



SUBJECT: Asset Allocation Presentation

ACTION: \_\_\_\_\_

DATE: October 1, 2025

INFORMATION:  X

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BACKGROUND:

The asset allocation presentation outlines the private market environment, discusses risk as it pertains to asset allocation, and evaluates portfolio optimization scenarios for APFC.

STATUS:

Marcus Frampton, CIO, and Sebastian Vadakumcherry, CRO, will present on the topics described above.



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# Asset Allocation

**Marcus Frampton**  
**Sebastian Vadakumcherry**

# Table of Contents

- Part 1: Private Markets
- Part 2: Asset Allocation Discussion
- Part 3: Portfolio Optimization & Efficient Frontier Simulation
- Appendices:
  - Crypto Slides
  - GS Bitcoin Research Report
  - WSJ article on endowments in the private markets
  - Harvard Business School – “Does the Case for Private Equity Still Hold?”



# Part 1:

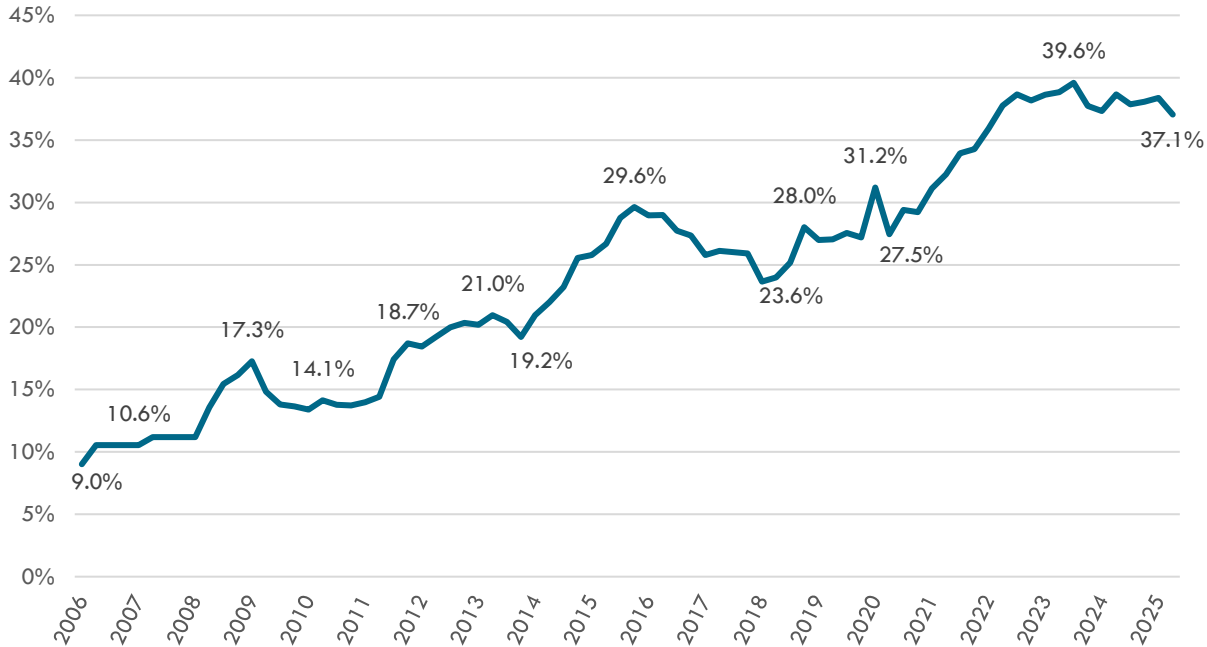
## Private Markets Discussion

# Executive Summary

- Over the past 15 years the most notable asset allocation move / investment decision taken by APFC has been to very materially increase the Fund's allocation to private markets (Private Equity + Real Estate + Infrastructure + Private Credit)
- The characteristics and metrics around these private markets asset classes have changed dramatically since the decision to ramp them up was made and warrants periodic re-evaluation
- While investors and industry observers commonly make the observation that allocators “will receive an illiquidity premium” for allocation to private markets, the reality is that characteristics of private markets result in a situation where prudent allocators should rather “demand an illiquidity premium” for allocation to private markets
- Whether allocators receive an adequate illiquidity premium is subject to considerable judgement and can not be measured directly in the marketplace
- With no Board action around asset allocation required until May 2026, we believe that this is a good time to start a conversation about whether APFC should moderately and incrementally reduce its targets for private markets and, thereby, preserve optionality to deploy more aggressively in a more attractive market environment

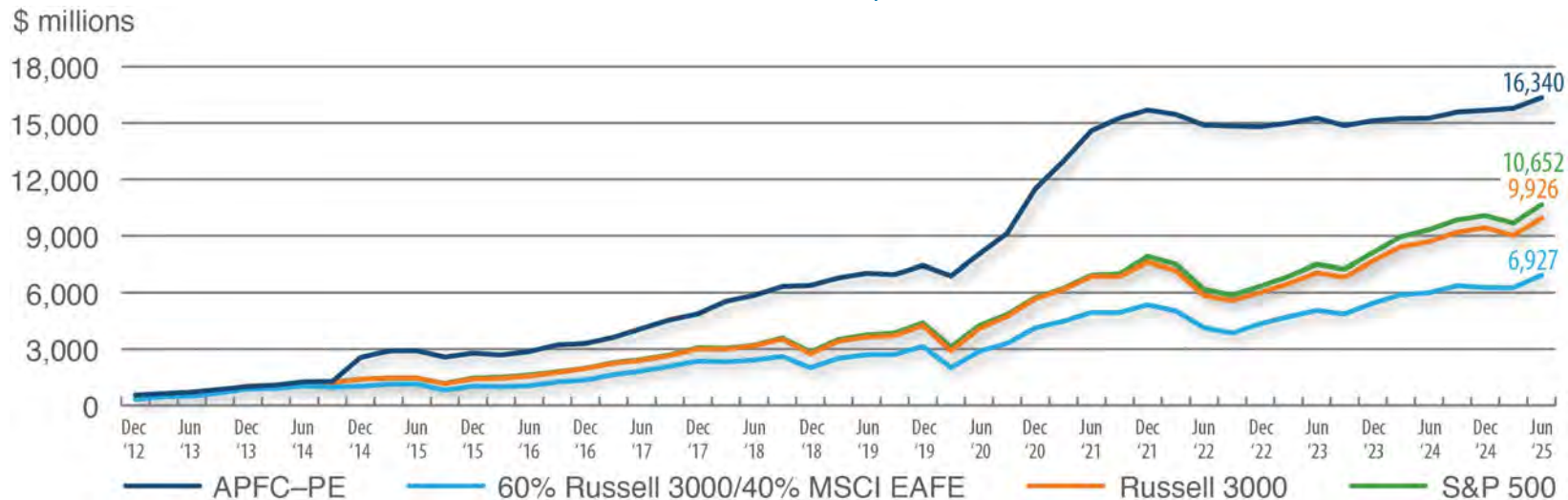
# APFC Long-term Private Markets Allocations

2006 – 2025 Private Market Percentage of Total Fund Value



# Strong Long-term Performance vs. PME's Private Equity

**SINCE-INCEPTION GAIN/LOSS COMPARISON WITH PUBLIC BENCHMARKS  
AS OF JUNE 30, 2025**

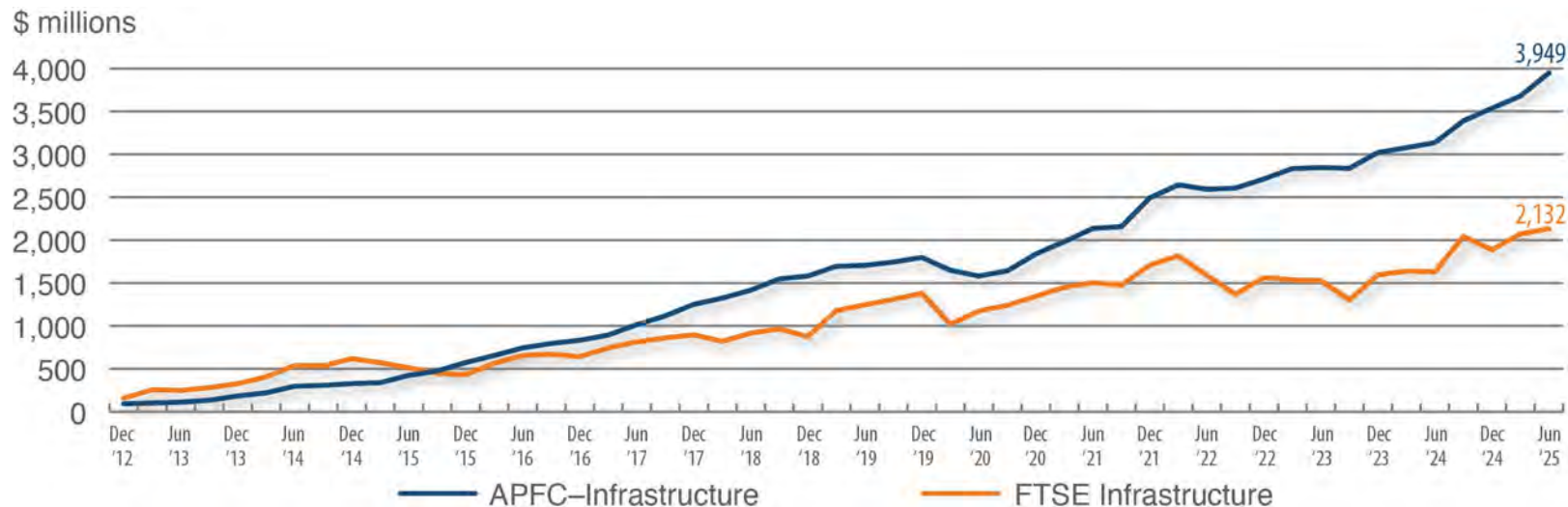


NOTES: Based on daily cash flows. As of June 30, 2025, 17.4% of the portfolio's market value reflects roll-forward values; therefore, market value is subject to change.

- Outperformance of public market benchmarks drove **\$5.7bn - \$9.4bn of additional value.**

# Strong Long-term Performance vs. PME's Private Infrastructure

## SINCE-INCEPTION GAIN/LOSS COMPARISON WITH PUBLIC BENCHMARKS AS OF JUNE 30, 2025

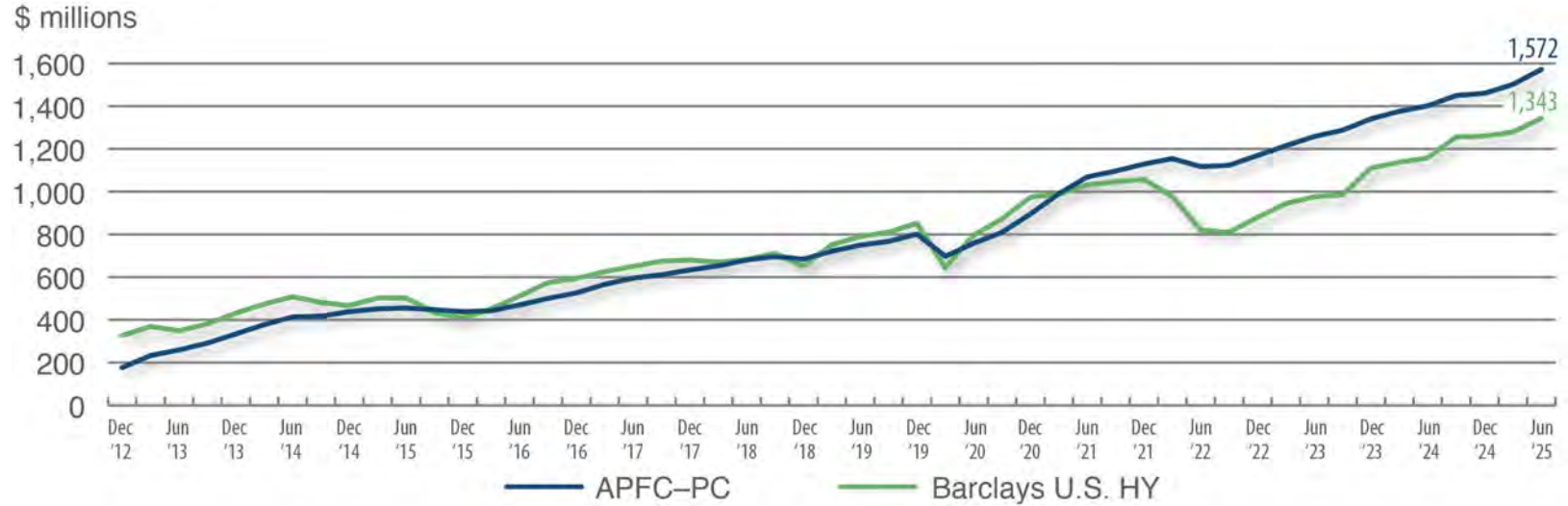


NOTES: Based on daily cash flows. As of June 30, 2025, 2.4% of the portfolio's market value reflects roll-forward values; therefore, market value is subject to change.

- Outperformance of public market benchmarks drove **\$1.8bn of additional value.**

# Strong Long-term Performance vs. PME's Private Credit

SINCE-INCEPTION GAIN/LOSS COMPARISON WITH PUBLIC BENCHMARKS  
AS OF JUNE 30, 2025

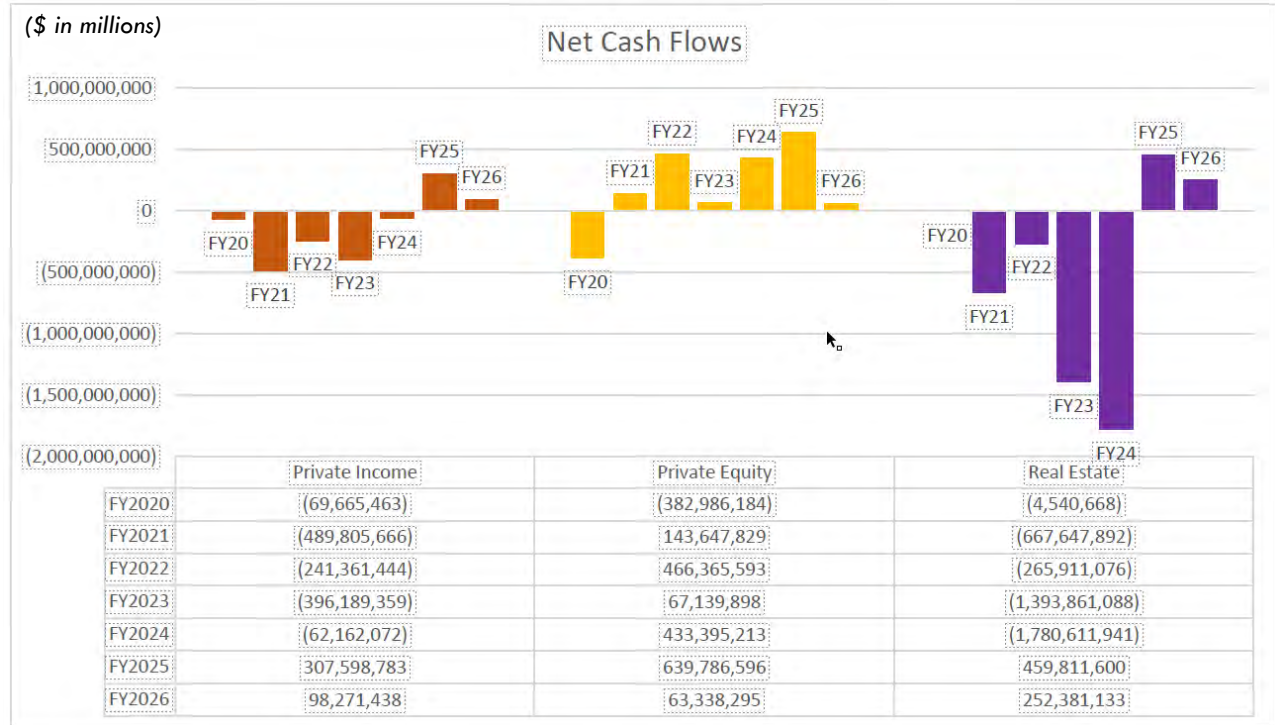


NOTES: Based on daily cash flows. As of June 30, 2025, 8.7% of the portfolio's market value reflects roll-forward values; therefore, market value is subject to change.

- Outperformance of public market benchmarks drove **\$229m of additional value.**

# Strong Cash Flow Generation

- Strong positive cash flows (net distributions less net capital calls) for APFC's private equity portfolio is not very common in the industry today as private equity exits have slowed down; this positive net cash flow position of APFC's private equity portfolio is one of the strongest and rarest attributes of our mature private equity portfolio vs. peers
- Real Estate net cash outflows from FY 2021 – FY 2024 reflect growth in portfolio following re-vamped strategy in 2020; switch to positive cash flows in FY 2025 reflects changes to ultimate target allocation



Source: APFC internal accounting data. As of 9/11/25.

# Only makes sense to be active if top quartile

## Average performance doesn't cut it in the Private Markets... and size, quite frequently, is the enemy of performance in alternative investments

- “The data indicate the average or median PE funds do not actually outperform their PME's, since the GFC.”
  - John Ng and Richard Lietz, Harvard Business School (2024)

- “Returns dispersion in private equity has always been much wider than in public markets... Investors must aim to harvest an expertise premium from taking exposure to top-quartile managers rather than an illiquidity premium from taking exposure to the asset class”
  - Steffen Pauls, former KKR MD writing in *Financial Times* (2025)

**US State Pension 10 Year Returns by Major Asset Classes**  
July 1, 2010 – June 30, 2020

	Total Fund	US Stocks	Non-US Stocks	Fixed Income	Real Estate	Private Equity	Absolute Return
Highest Return	9.74%	15.02%	8.24%	9.75%	13.47%	16.91%	7.27%
25th Percentile	8.93%	13.61%	6.67%	5.17%	11.41%	13.60%	6.15%
Median Return	8.57%	13.17%	6.07%	4.57%	10.65%	12.65%	5.17%
75th Percentile	7.81%	12.65%	5.41%	3.96%	9.86%	11.37%	4.33%
Lowest Return	6.71%	8.81%	4.13%	2.91%	8.20%	5.37%	2.65%
Average Return	8.63%	12.90%	6.26%	4.79%	10.43%	12.75%	4.95%

Source: AQR analysis from April 2024.

- “It seems investing in private assets only makes sense if you have access to top-quartile managers. And actually, I hear this all the time from wealth managers who are going to provide access, we're only going to give the top-quartile. First of all, won't giving retail investors access to private assets dilute those returns potentially? And also, are the top-quartile managers really going to care about the [retail] space.”
  - Kunal Kapoor, CEO, Morningstar (2024)

# Qualitative reasons you need a return premium

**The following are qualitative challenges that all allocators to private markets face; given these challenges allocators must demand several hundred basis points premium in expected returns; this “illiquidity premium” at any given time is a matter of judgement and can not be directly measured in the market on a go forward basis**

1. Difficulty managing portfolios against benchmarks (extremely high tracking error, PM's don't always know their bets)
2. High fees
3. Mis-aligned interests versus managers / partners
4. Inability for PM's to change their portfolios when they change their mind or when positions are inherited
5. Extreme difficulty for CIO, management and Board to assess the quality of decisions being made by investment teams (performance shows up and problems manifest with a multi-year lag)
6. Positions are illiquid and the illiquidity becomes most pronounced in difficult market environments
7. Valuation uncertainty (inaccuracy?) – risks masked by stale marks
8. Incentive fees paid on market beta as frequently or more frequently than alpha (e.g., fixed 6-8% hurdles in up markets)
9. Difficult to measure risks – typically smaller companies versus public markets and materially higher leverage than public markets
10. Inconsistent and often poor transparency
11. Median performance generally lags public market averages (see prior page); allocators must convince themselves that they are truly special to justify their activities

# APFC has managed costs well...

- While APFC fees are more fully and prominently disclosed than peers, on an apples-to-apples basis, **our approach to private markets and alternatives investing is relatively efficient**
- A recent paper published by Richard Ennis summarizes fee and expense loads for the few public pension funds he could find that fully discloses these items
- The source paper in its entirety may be found at the following link:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5163511](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5163511)

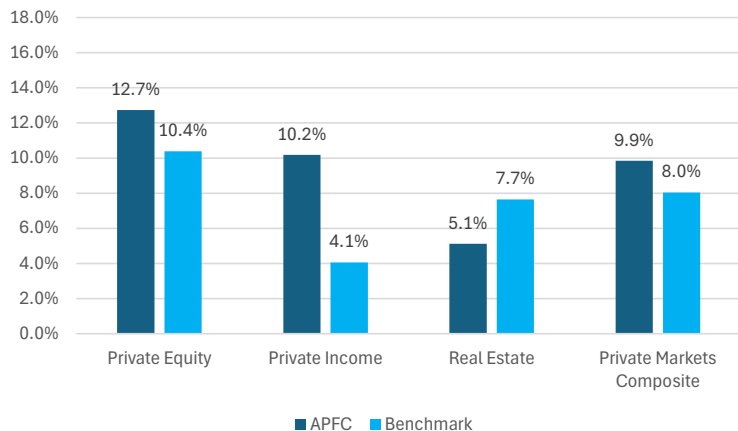
## Private/Alternatives Allocation and Cost for Nine Public Pension Plans

Pension Plan	Private/Alts Allocation	Estimated Reported Annual Total Cost
1	0%	0.10%
2	29%	1.50%
3	30%	1.10%
4	38%	1.90%
5	38%	1.90%
6	39%	1.20%
7	43%	1.60%
8	43%	1.00%
9	49%	2.00%
Peer Average (Plans 2-9)	39%	1.53%
APFC	46%	0.97%

Source: Pension fund peers from Ennis (2025). APFC data is per June 2024 "Fees & Expenses" report.

# ...but Performance has Ebbed Past 5 Years...

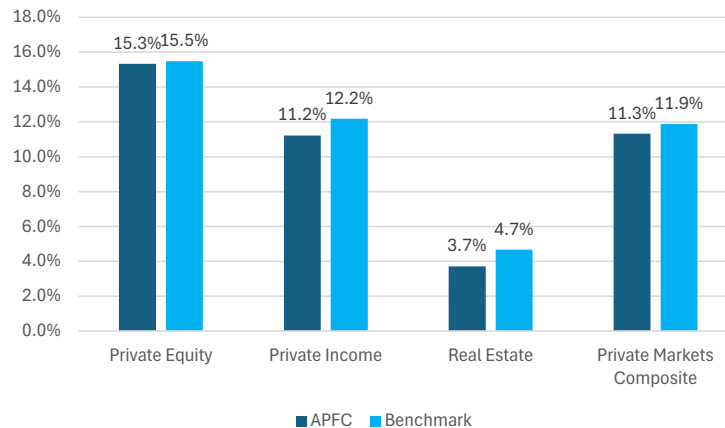
## Five Year Returns As of June 30, 2020



### Performance vs. Benchmark

+235 bps +612 bps -253 bps +181 bps

## Five Year Returns As of June 30, 2025



### Performance vs. Benchmark

-15 bps -96 bps -97 bps -55 bps

Source: APFC official performance reports.

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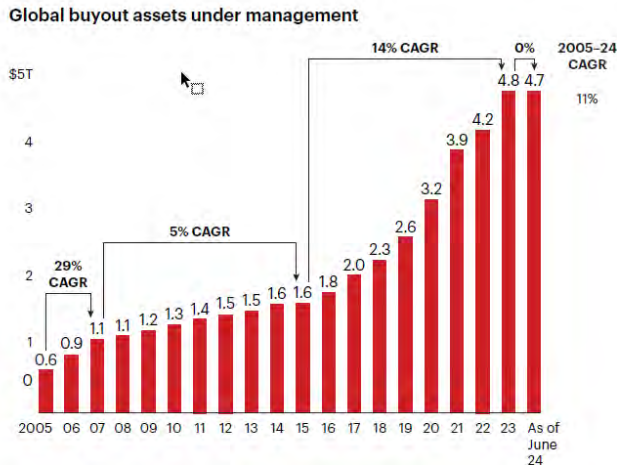
Note: Private Markets Composite weights PE, PE, and RE by their average AUM weights for the five-year period covered.

# ...Meanwhile Industry AUM has Ballooned...

- “There is probably at least a trillion dollars committed to trying to buy private businesses in the US market... the supply / demand situation for buying private businesses and leveraging them up has changed dramatically from what it was 10 or 20 years ago... we have seen a number of proposals from private equity funds where the returns are not calculated in a manner I would regard as honest.”
  - Warren Buffett (2019)

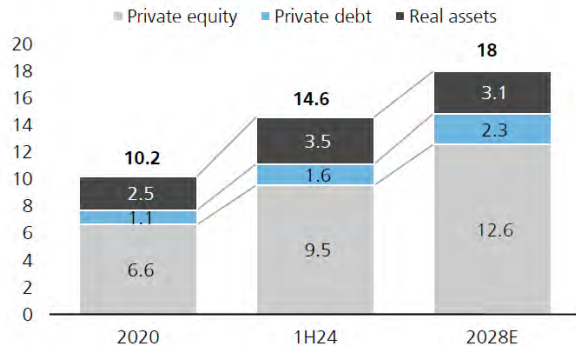
***AUM in private equity and private markets broadly have dramatically grown... and, as shown on the following slide, even though the last couple years have been tougher for fundraising than the prior years, “dry powder” remains at or near highs across strategies***

***(“dry powder” refers to the committed but undrawn funds available to private fund managers)***



**With USD 14.6 trillion in AuM, global private markets are hard to ignore**

Global private markets assets under management, in USD trillion

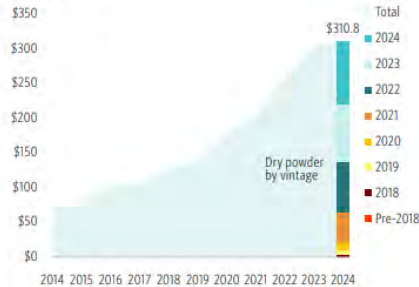


Note: Closed-ended funds only. Excludes fund-of-funds and secondaries to avoid double counting. Source: Pitchbook, Preqin, UBS May 2025.

# ...and Dry Powder is Elevated Across Segments

## Venture Capital

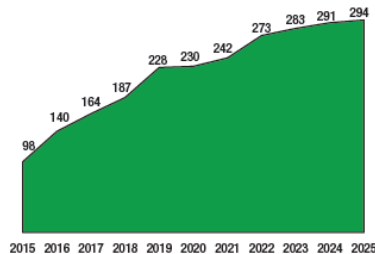
Most dry powder sits within funds of 2022 vintage and later  
VC dry powder (\$B)



PIP/Minted-IVCA Venture Monitor • As of September 30, 2024

## Real Estate

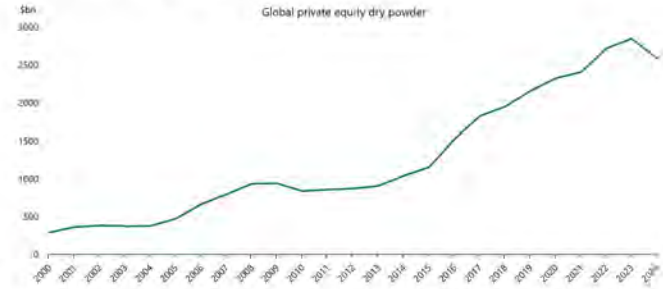
Uninvested Equity (\$Bil.)



Source: Green Street March 2025.

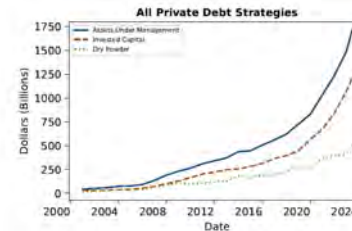
## Private Equity

Global private equity dry powder



Source: Apollo.

## Private Credit

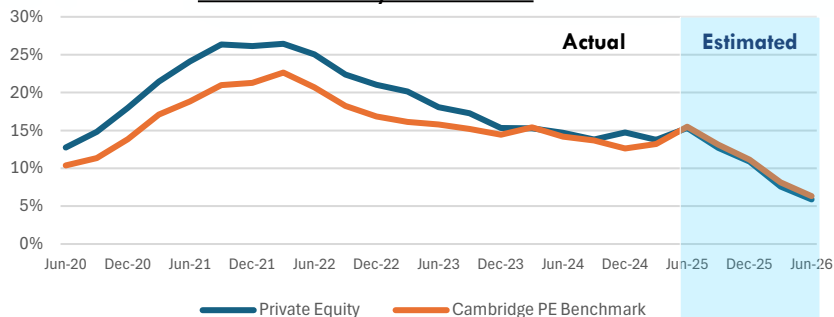


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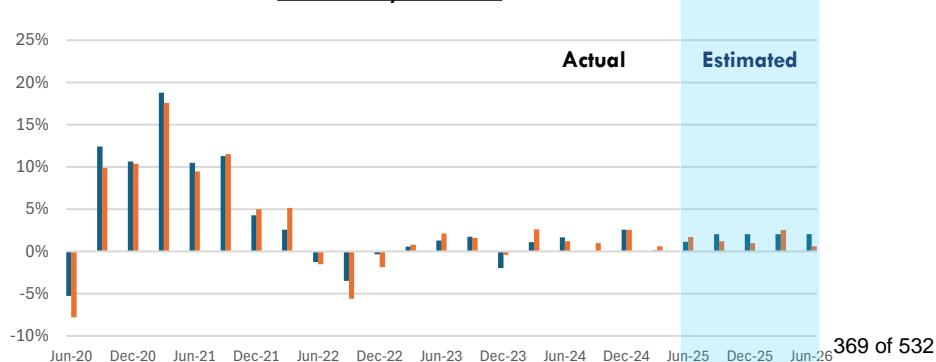
Source: 2024 Federal Reserve paper.

# APFC Private Equity : performance trends

Annualized 5-year Returns



Quarterly Returns



## APFC private equity actual and estimated returns

- Annualized 5-year returns for APFC's private equity portfolio have been trending down since the peak in 2021
- The estimated 5-year annualized returns over the next year ending June 2026, based on Callan's capital market assumptions, trend even lower towards around 6%
- The overall private equity market, assumed to be represented by the Cambridge benchmark, has a similar downward trend
- The consistently lower quarterly returns since 2021 reflects a changed (lower) return profile

# Lower private equity returns : Cyclical or Structural?

## Weakness could be Cyclical...

- Private equity (PE) returns have been cyclical — periods of outperformance often followed by weaker vintages, then rebounds.
- Valuation lag – PE valuations tend to adjust more slowly than public markets, so the markdowns from 2022–2023 may still be working through portfolios.
- Exit environment – IPOs and M&A slowed sharply with rising rates, hurting distributions and IRRs. This could change

## ...or could be Structural

### **Past Tailwinds (now mostly gone or reversed)**

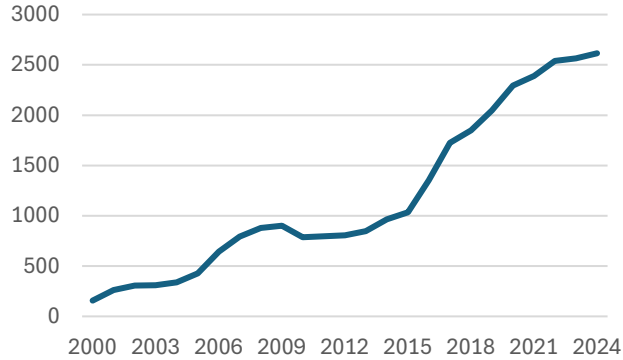
- Low interest rates – Cheap leverage boosted returns; higher rates increase financing costs, reduce deal multiples, and pressure portfolio company cash flows.
- Less competition for deals – there's more dry powder and more managers chasing deals, compressing entry multiples. “There is no investment idea so good that it cannot be ruined by too much capital”
- Untapped market– Many sectors have already been “PE-ized,” reducing easy wins.

### **Current Headwinds**

- High valuations – Even with recent adjustments, good companies rarely trade cheaply.
- Operational improvement ceiling – PE's toolkit is well-known; achieving incremental gains is harder in a mature industry.
- LP capital constraints – LPs committing more selectively, creating fundraising pressure.

# Private equity : “there is no investment idea so good that it cannot be ruined by too much capital”

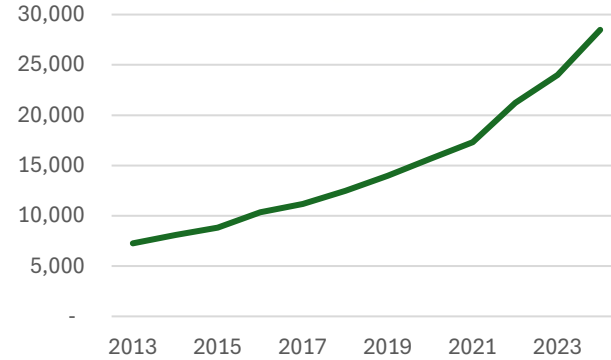
Global Private Equity Dry Powder (\$ Billions)



Source: S&P Global

- Total capital committed but not yet deployed (dry powder) to private equity funds exceeds \$2.6 trillion
- Comparatively, dry powder was only \$157 billion in 2000, reflecting an expansion of more than 16 times or CAGR of 12% over 25 years

Number of Private Equity & Venture funds in US



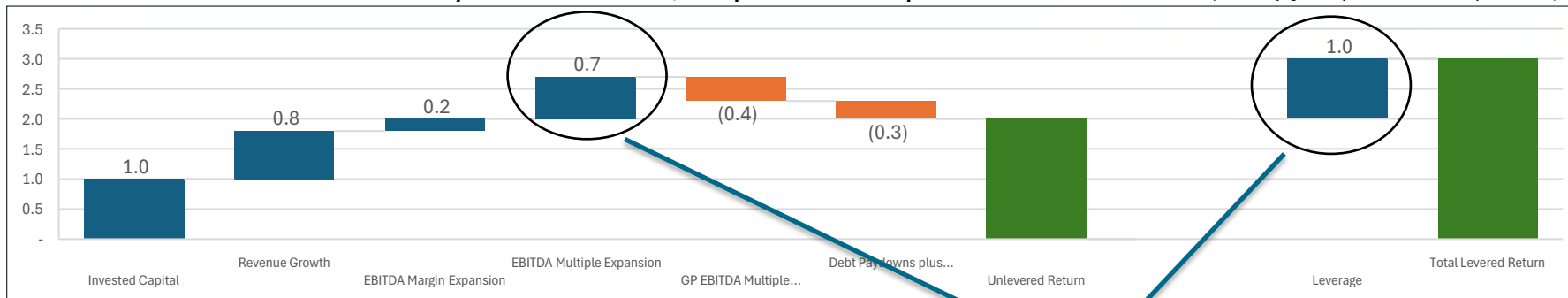
Source: SEC private funds database

- The number of private equity funds grew steadily over the last decade crossing 28,000 in 2024
- In 2013 there were about a quarter of this number (7,259 funds).

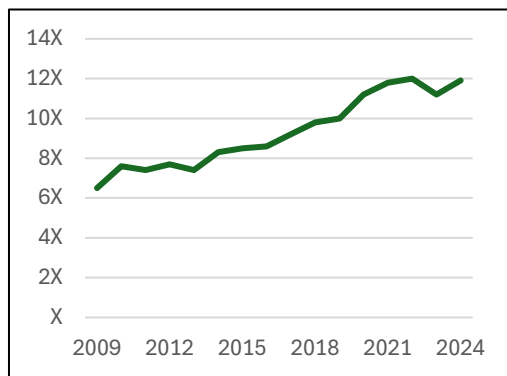
# Private equity : High valuations – good companies rarely trade cheaply

Drivers of investment returns for realized buyout deals in 2010–22, multiple of invested capital

Source: (McKinsey global-private-markets-report-2025)



Median multiples of global buyout entry



Source: (McKinsey global-private-markets-report-2025)

The median global buyout entry multiple almost doubled over the last 15 years to about 12X in 2024.

Leverage and market multiple expansion drove 61 percent of investment returns for buyout deals from 2010 to 2022.

# Private equity returns : a plausible future scenario

- Key drivers of private equity's "golden era" (past couple of decades) may have reversed. That period was unusually favorable and it's unlikely PE returns will snap back to those averages
- More plausible is a moderate rebound once exits improve, but with a lower ceiling due to structural headwinds. More likely to be high single-digit to low double-digit net returns, rather than the mid-to-high teens many investors became accustomed to.
- The winners in the next cycle will probably be those who:
  - Deploy capital selectively in today's higher-cost-of-capital world.
  - Avoid overpaying for trophy assets.
  - Generate operational value in less crowded niches.

**Private versus Public equity:** if the expected future returns are not adequately higher for private equity, the rationale for taking on higher risks (illiquid, levered, idiosyncratic, high fees) may have eroded

# Private Equity is Less Attractive than the Past

## Venture Capital

Pre-Money Valuations up Dramatically Across all Series

(\$ in millions)

Round	Average Pre-Money Valuation		% Increase
	2015	1H 2025	
Pre-Seed	\$4	\$12	223.7%
Seed	\$7	\$37	463.1%
A	\$22	\$76	253.7%
B	\$72	\$252	248.5%
C	\$146	\$789	439.0%
D+	\$795	\$2,694	239.1%

Source: Pitchbook.

## Leveraged Buy-outs

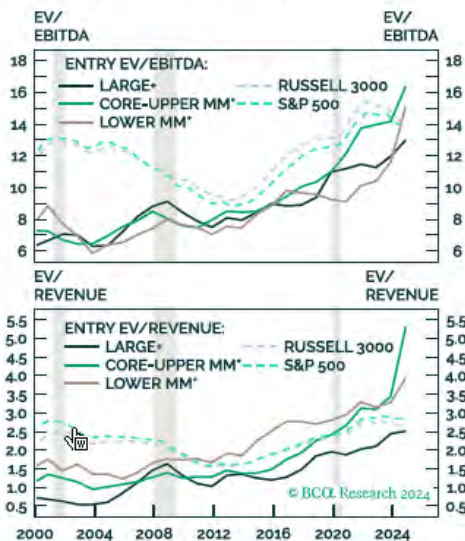
### North America

Median total enterprise value (TEV)/EBITDA multiple



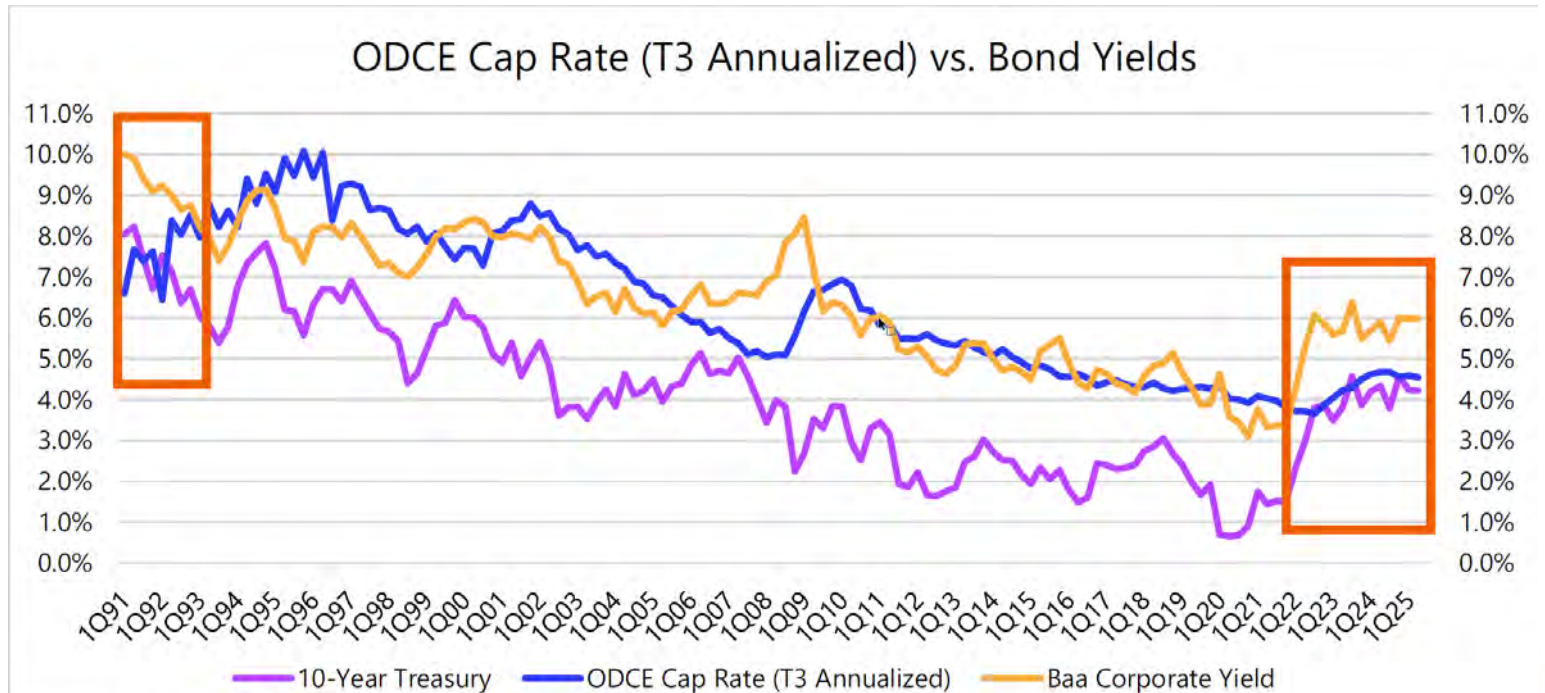
Note: Data as of September 30, 2024  
Source: SPI by StepStone

### Middle Market Drives Elevated Entry Multiples Versus Publics



# Private Real Estate is Less Attractive than the Past

Investors in private core Real Estate today are earning no yield premium to 10 year treasuries; the norm over time has been at least a couple of hundred basis points



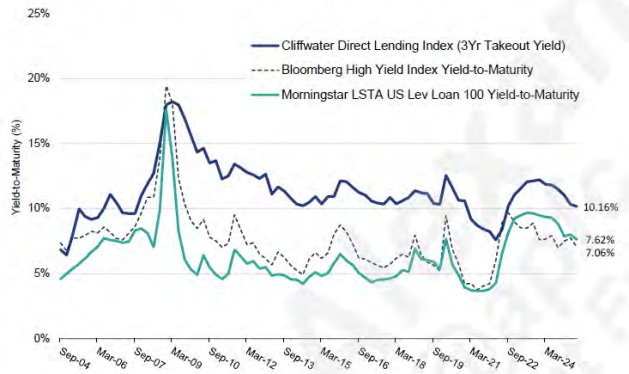
Source: NCREIF, U.S. Dept. of Treasury, Moody's, Compiled by SitusAMC

# Private Income is Less Attractive than the Past

## Private Credit

- We are seeing spreads between S+450bps and S+500 bps in the middle market and upper middle market for first lien loans; for comparison, the average new issue spread for single B rated broadly syndicated loans was S+355bps as of Q2 2025

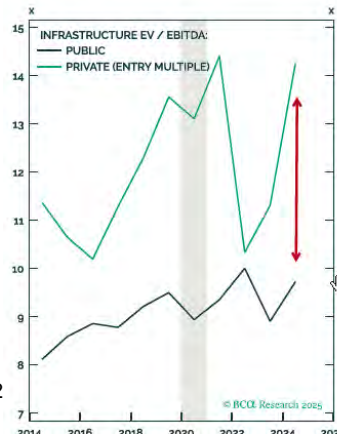
Exhibit 5: CDLI, High Yield Bond, and Leveraged Loan Yield-to-Maturity (Sep 2004 to Jun 2025)



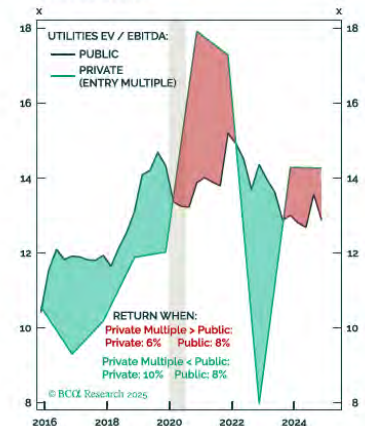
## Private Infrastructure

- Private Infrastructure market has many different sectors than other private asset classes with different metrics, however, as a general matter we believe that private infrastructure managers pay large and growing premiums to value available in the public markets for similar quality assets
- Data also suggests weak returns for average private markets infra investments vs. historical listed infrastructure returns + materially higher leverage in privates than publics

Valuations Favor Publics



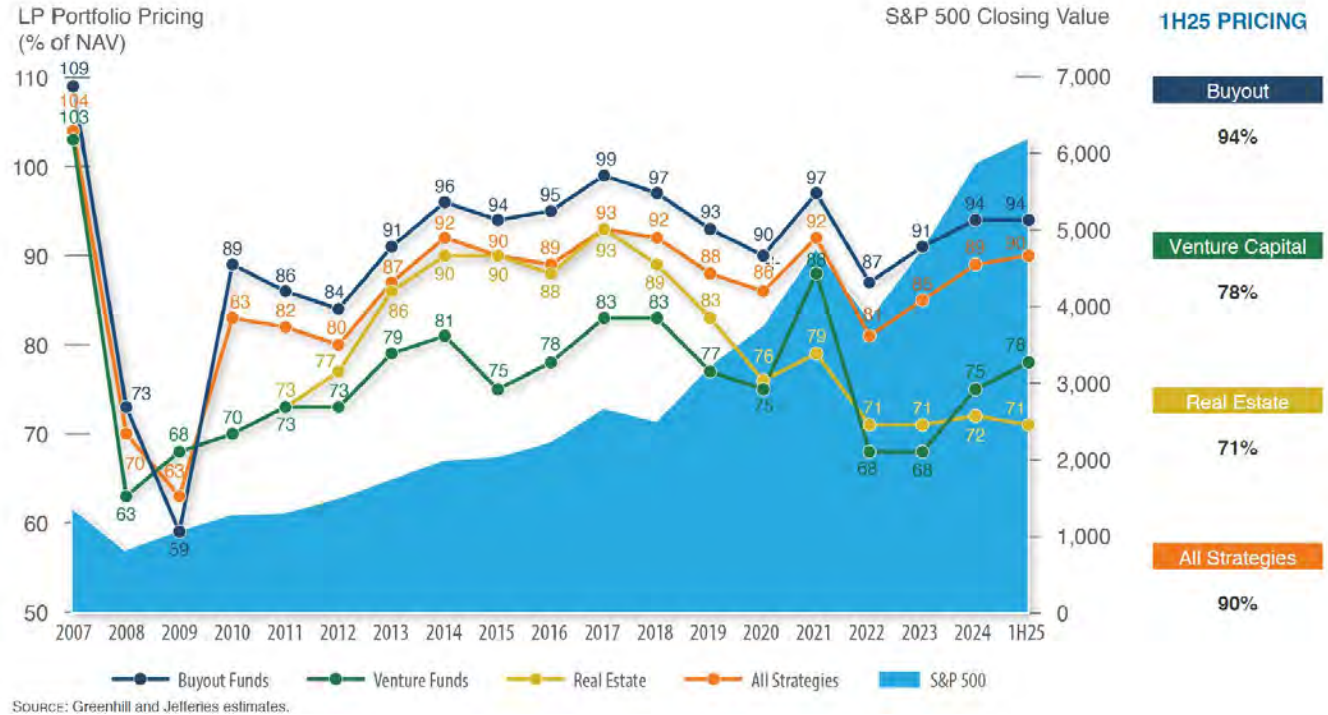
The Private Bid Is Apparent In The Utilities Sector



# Changing Your Mind on Private Investments is Costly

**Pricing to exit illiquid private markets fund investments in 1H 2025 ranged from 70's of cents on the dollar (Real Estate and Venture) to 94% (Buyouts)...**

**...and in periods where more institutional investors need liquidity (e.g., 2008 and 2022) pricing gets much worse**



# Asset Allocation Suggestions

- Last May, Staff reviewed the Status Quo portfolio allocation along with two alternatives (Option 1 and Option 2); ultimately Status Quo was reaffirmed, however, Trustees indicated desire to continue the review in the Fall
- In the next section the CIO and CRO will review materials from last May, but also will introduce a third option (Option 3) which they are recommending for serious consideration as being most consistent with their views and concerns around the private markets space broadly today
- Staff Recommended Option 3:
  - Move incrementally given the “steering the battleship” nature of private markets
  - Reduce allocation to each of Private Equity, Real Estate and Private Income by 1% over each of the next three years
  - Fixed Income allocation also reduced to 15% from 20%
  - Most of the reductions offset by increases to Public Equities with a minor increase to Absolute Return
  - Taken together moves do not represent a de-risking of the portfolio or a lower expected return, but they do result in material increase to portfolio liquidity and increase to future optionality around private markets
  - Review and optimize sub-portfolio allocations within Fixed Income to achieve higher Sharpe Ratio and higher expected return Fixed Income portfolio
- Callan to review Option 3 at their annual asset allocation review in February 2026; no Board action requested or needed until May 2026



# Part 2:

## Asset Allocation Discussion

# Risk is Good: up to a limit

- APFC is in the business of taking risk
- The goal is to be Risk Aware not Risk Averse
- Principal preservation is paramount

# Risk Appetite: is as important as target return in formulating strategy

- Defining a performance target in terms of 'returns' alone is not only incomplete but could also lead to inaccurate inferences and undesired outcomes
- Ignoring or not factoring the risks entailed in generating the return could be a costly mistake
- The flaw is more pronounced if comparative performance (say, versus peers) is measured solely in terms of returns. **The same return can be achieved by taking varying levels of risk**
- Risk appetite is a broad-based articulation of the corporation's thresholds, in terms of risks\* it is willing to take in pursuit of its objectives. It quantitatively defines the acceptable level of risk

*\* For now, the focus is only on 'investment' or 'portfolio value' risk (other risks like operational, reputational, legal, etc. are not addressed here)*

# APFC Risk Appetite: approved definition

APFC's Risk appetite is defined in terms of (a) a Risk Tolerance Portfolio (RTP) and (b) Liquidity level, as follows:

a) The maximum 'risk' of the APFC portfolio should not exceed that of the RTP (specified below):

- The RTP comprises of an **80/20:Equity/Bond** reference portfolio with the following constituents:
  - 80% MSCI ACWI IMI
  - 8% BB US AGG
  - 8% BB US CORP
  - 4% BB GLBL TRS ex-US
- Here risk is measured across the following volatility and drawdown parameters
  - Value at Risk (VaR), 1 year, 1SD (based on 10-year constant weighted historical monthly data)
  - Drawdown: Recession GFC – Dec 3, 2007 to Mar 9, 2009

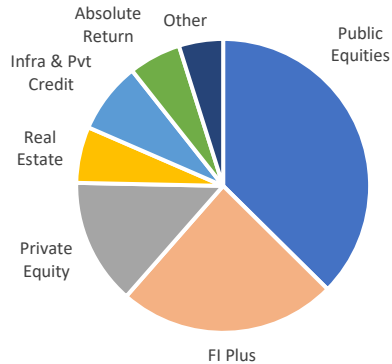
b) Liquidity: The combined allocation to Public equities, Fixed income and Cash will not be lower than 40%

# APFC Risk Appetite: key assumptions

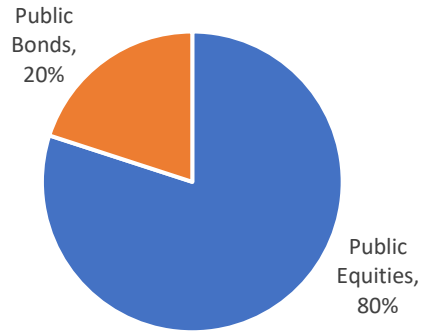
- i. VaR and Drawdown risks will be measured using the Aladdin tool, incorporating the following assumptions:
  - Time Horizon & SD multiple : 1 year & 1 Standard Deviation
  - Historical Data weighting : 10 years, monthly, constant weighted
  
- ii. **The Private Equity risk estimate computed by Aladdin is at the Board's direction adjusted downward (reduced) by adjusting the private equity exposure to 75% of actual exposure when comparing to RTP (this board action was based on the view that Aladdin's methodology over-estimated risk for private equity)**
  
- iii. Drawdown Stresses are based on and as defined within the Aladdin tool

# Risk Appetite: how it works

## Risk of Fund Portfolio



## Risk of RTP



The Fund portfolio can have any type and mix of asset classes subject to:

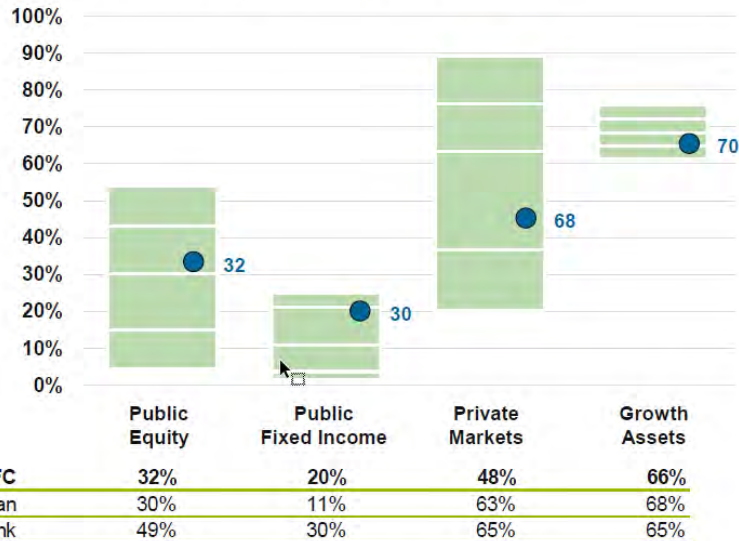
- VaR (volatility)  $\leq$  that of RTP
- Drawdown  $\leq$  that of RTP
- Public Equities + Fixed Income + Cash  $\geq$  40%

*Risk Management independently computes risk of total Fund portfolio to ensure it's below the RTP risk level*

# Endowments do often feature lower allocations to fixed income than state pensions & APFC...

- High Public Equity**
  - Roughly median allocation to public equities.
  - Median is 30%, APFC is 32%.
- High Public Fixed Income**
  - Higher allocation to public fixed income than 70% of E&F's.
  - Median is 11%, APFC is 20%.
- Low Private Markets**
  - Lower allocation to private markets than 65% of E&F's.
  - Median is 63%, APFC is 48%
- Low Growth Assets**
  - Roughly median allocation to Growth Assets
  - Median is 68%, APFC is 66%

Asset Allocation Distribution as of December 31, 2022  
Callan Large Endowment/Foundation (> \$1 billion)

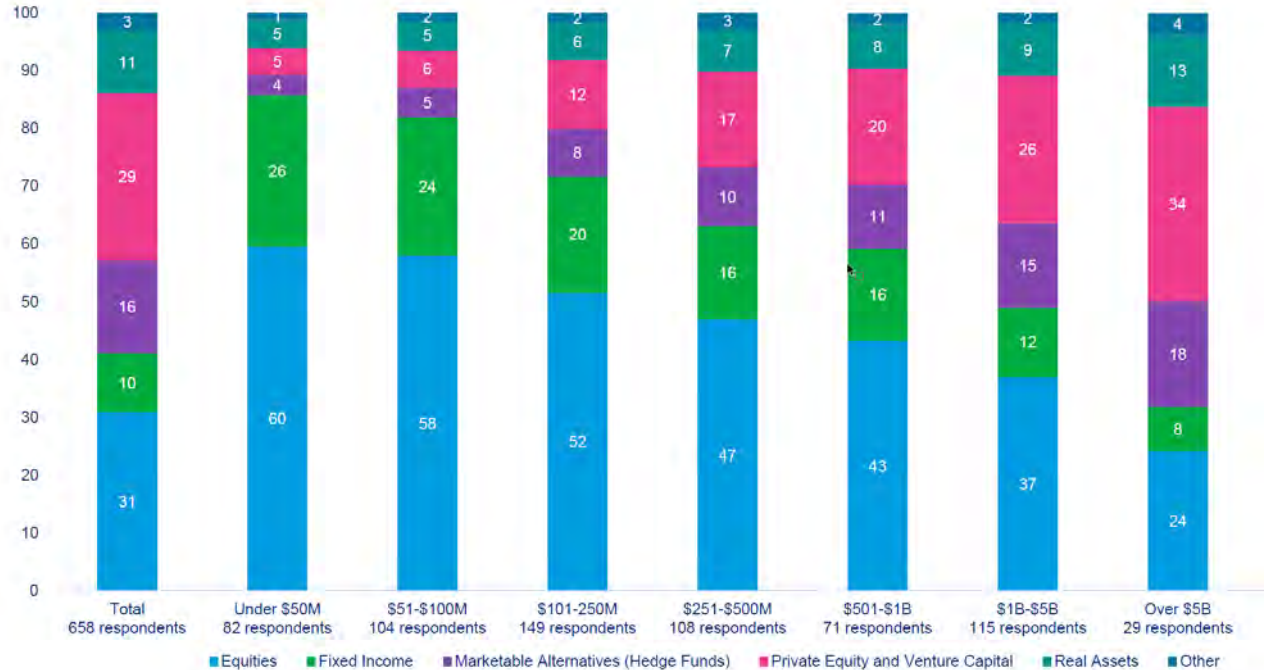


\*Growth Assets include public equity, private equity, tactical opportunities, 70% of private real estate, 70% of private infrastructure/credit.

# ...however, typically other lower risk allocations, in particular hedge funds, offset this...

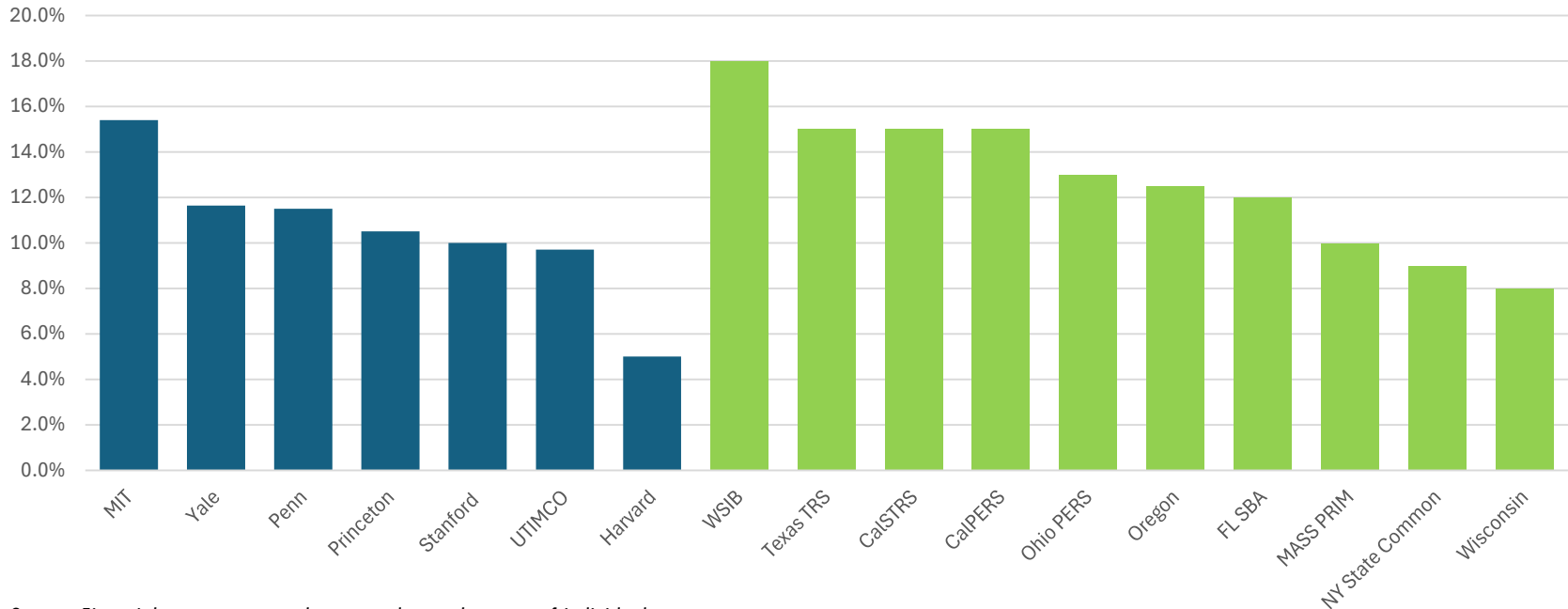
Fixed Income + Hedge Funds: 26% 30% 29% 28% 26% 27% 27% 26%

- Data from NACUBO (National Association of College and University Business Officers) 2024 survey
- Survey demonstrates heavy usage of Hedge Funds to achieve prudent diversification (16% overall average, \$18% for \$5 bn+ cohort)



# ...and All Endowments and Pensions we Reviewed Included Real Estate as a Further Diversifier

## Large Public Pension and Large University Endowment Real Estate allocations



Source: Financial reports, press releases, and annual reports of individual programs.

Notes: (1) Represents target allocations unless only actual allocation is readily available; (2) When available, data reflects target allocation to Real Estate specifically.

For certain programs "Real Assets" or similar asset class labels were used when it appeared that the majority of the asset class was Real Estate investments.

# The “Art” of Asset Allocation

In just the last few years, Yale Endowment’s philosophy on portfolio balance and asset allocation has undergone a material shift; between 2020 and 2024 the numbers behind the asset allocation and the endowment’s purpose haven’t shifted, but the University’s judgements about these matters clearly have shifted

## 2020 (and earlier) Financial Reporting

*“Yale targets a minimum allocation of 30% of the endowment to market-insensitive assets (cash, bonds, and absolute return). The university further seeks to limit illiquid assets to 50% of the portfolio.”*

-Yale Endowment Annual Letter, 2016, 2017, 2018, 2019, 2020

**Total: \$31.2 billion**

Private Equity	41.0%
Absolute Return	23.5%
Public Equity	14.0%
Real Estate	9.5%
Fixed Income	7.5%
Natural Resources	4.5%
<b>Total</b>	<b>100.0%</b>
Market Sensitive	69.0%
Market Insensitive	31.0%

## 2024 Financial Reporting

*“Roughly 95% of the endowment pool is invested in assets expected to produce equity-like returns, through domestic and international securities, real assets, and private equity.”*

-Yale University Financial Report 2023-2024

**Total: \$41.4 billion**

Private Equity	53.2%
Public Equity	19.3%
Absolute Return	14.5%
Real Assets	11.6%
Fixed Income	1.4%
<b>Total</b>	<b>100.0%</b>
Market Sensitive	84.1%
Market Insensitive	15.9%

**An additional judgement that can be inferred from Yale Endowment’s allocation decisions is that they do not find the arguments for private credit/infra compelling**



# Part 3:

## Portfolio optimisation & efficient frontier simulation

# Introduction

- **No board action required at this point:** As requested by and based on feedback from Trustees', staff is bringing back proposals for modifying asset allocation. The aim is to facilitate preliminary discussions and share thoughts prior to asset allocation decisions scheduled for Feb/May 2026.
- This is a follow-up from the May 2025 board meeting, and several slides are a repeat from that meeting
- In general asset allocation works best if adhered to over the long term. Periodic review and necessary adjustments could add value. Staff recommends to alter asset allocation only if there are valid and tested justifications, and not to be based on interim market moves, public opinion, current (temporary) trends, one dimensional views, etc.
- While staff recommends making asset allocation changes deliberately and avoiding frequent changes to targets for illiquid asset classes, three options (Option-1, Option-2 and Option-3) were developed to target an expected return in line with the Fund's mandate of CPI + 5%. Staff recommends pursuing Option-3 with a three-year timeline for full implementation of new targets
- The following slides include a brief overview of modern portfolio theory (MPT), the Montecarlo simulation model staff utilized to generate the efficient frontier and how various portfolios aligned to this efficient frontier. Return and risk estimates for the various portfolios are also tabulated and reviewed in detail

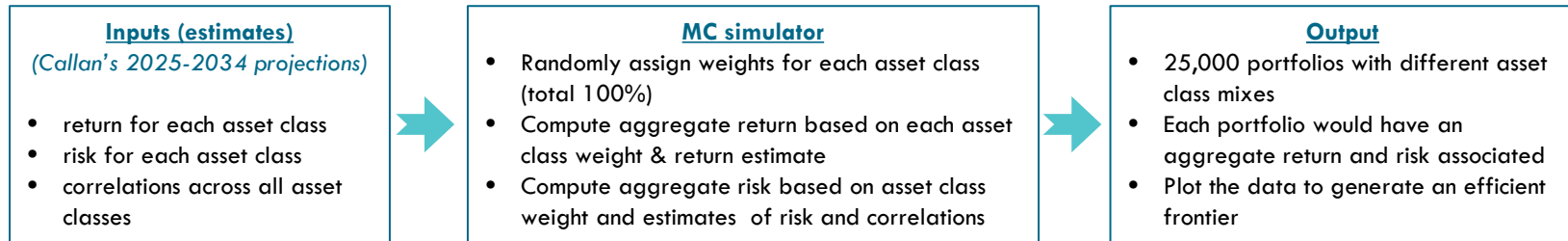
# Modern Portfolio Theory (MPT): diversification is a key aspect

- The modern portfolio theory (MPT) is a concept that can be used by investors to construct diversified portfolios that maximize their returns without unacceptable levels of risk
- MPT is a mathematical framework that optimizes asset allocation to maximize return for a given (acceptable) level of risk
- American economist Harry Markowitz pioneered this theory in his paper "Portfolio Selection," which was published in the *Journal of Finance* in 1952. He was later awarded a Nobel Prize for his work on modern portfolio theory
- It is important to note that all inputs into this mathematical framework are estimates, implying that the validity of the output, which is dependent on the accuracy of inputs, is uncertain. GIGO is a very real risk and so prudence and judgement are vital when assessing outputs

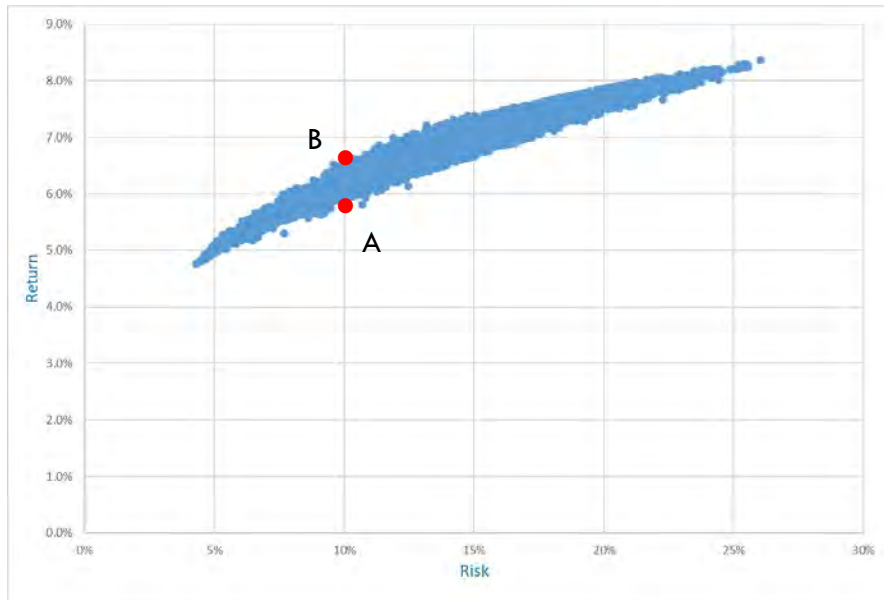
# Montecarlo Simulation: to build an efficient frontier

## Key steps and inputs:

- Define/select the asset classes we want in the overall portfolio (Fund)
- For each asset class, estimate the return achievable and risk (volatility) that would be entailed
- Additionally, estimate the correlation between the returns for each asset class with every other chosen asset class
- Develop scenarios by applying different weights to asset classes and computing the aggregate portfolio return and risk numbers – we simulated 25,000 different portfolios by randomly assigning weights to asset classes



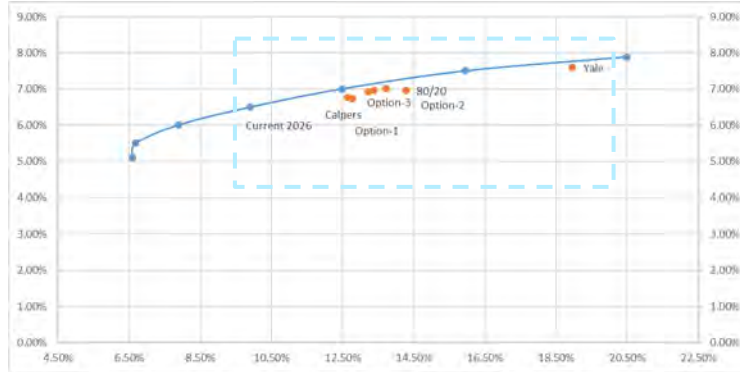
# The efficient frontier: [concept] optimal vs. sub-optimal portfolios



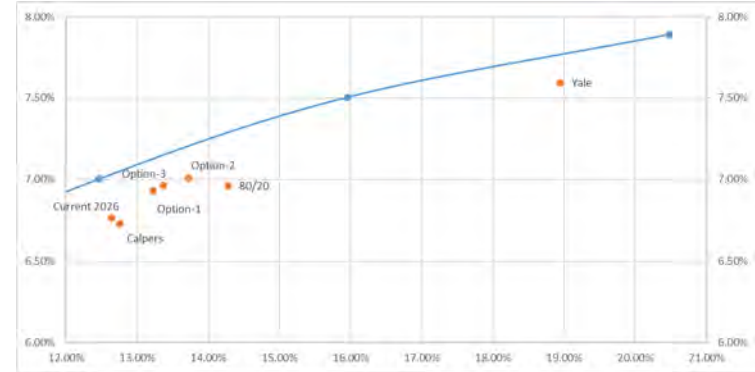
- The scatter plot represents 25,000 portfolios with different weights for the 8 asset classes
- Each portfolio has an associated return (vertical axis) and risk (horizontal axis)
- The upper outward arch represents portfolios on the efficient frontier – i.e., optimal portfolios
- To illustrate:
  - dot A represents a portfolio that has an estimated risk level of 10% and a return estimate of 5.8%
  - dot B represents another portfolio with the same estimated risk of 10% but has a higher expected return of 6.8%
  - B is on the efficient frontier and represents the optimal mix, if the acceptable risk level is 10%

# The efficient frontier: [application] a range of portfolio mixes possible

Portfolios relative to the efficient frontier



Magnified View



- The following selection of portfolios (different asset class mixes) is charted against the efficient frontier from the previous page: **Current 2026 allocation; the 80/20 portfolio; CalPERS; Yale; Option-1; Option-2; Option-3**
- All six portfolios are close to the efficient frontier, with some slightly better optimized for risk-return
- Selecting asset class mixes that fall precisely on the efficient frontier may not be practical in terms of execution (e.g., one or more asset classes close to zero % and or an asset class greater than 50%)
- Note: all computations are based on estimates of risk and return – it is prudent to be aware of ‘false precision’

# Asset Allocation: options, select peers and risk appetite

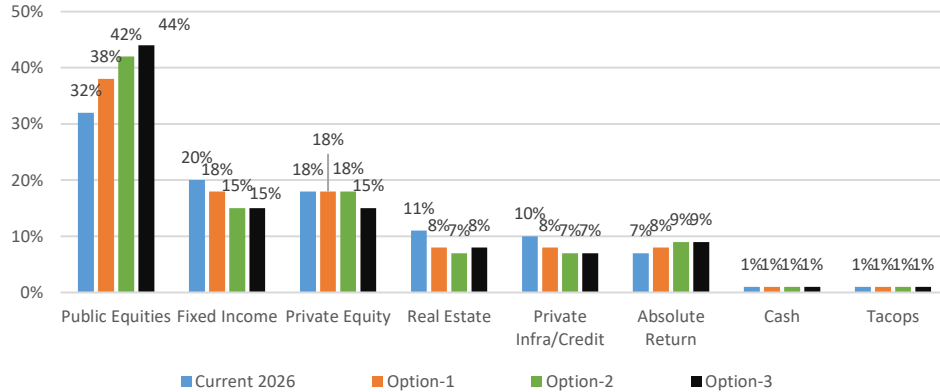
- Asset allocation %, 10-year return and risk (volatility) estimates, stress drawdown projections and illiquidity levels are tabulated below
- The 'Current 2026' allocation represents the existing Board approved Fund portfolio for FY 2026.
- Options 1, 2 and 3 reflect fresh asset allocations for consideration for 2027 and beyond, based on staff interpretation of board preferences
- The 80/20 is the board approved risk appetite
- Calpers and Yale are two peers selected for reference

	Asset Allocation (based on publicly available information)								10-year Risk and Return estimates (computed based on Callan's 10-year projections)				(c) + (d) + (e) + (f)	Aladdin Estimates
	Public Equities (a)	Fixed Income (b)	Private Equity (c)	Real Estate (d)	Private Inf/Crd (e)	Absolute Return (f)	Cash (g)	Tacops (h)	Risk (Standard Deviation)	Weighted Average Return	GR Spread	Geometric Return	% of Low Liquidity Assets	Stress (GFC scenario) Drawdown
<b>Calpers</b>	41.9%	26.5%	15.6%	13.2%	2.8%	0.0%	0.0%	0.0%	<b>12.8%</b>	6.7%	0.5%	<b>7.2%</b>	32%	-39%
<b>Yale</b>	19.3%	1.4%	53.2%	11.6%	0.0%	14.5%	0.0%	0.0%	<b>18.9%</b>	7.6%	0.5%	<b>8.1%</b>	79%	-46%
<b>80/20</b>	80.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	<b>14.3%</b>	7.0%	0.5%	<b>7.5%</b>	0%	-48%
<b>Option-1</b>	38.0%	18.0%	18.0%	8.0%	8.0%	8.0%	1.0%	1.0%	<b>13.2%</b>	6.9%	0.5%	<b>7.4%</b>	42%	-39%
<b>Option-2</b>	42.0%	15.0%	18.0%	7.0%	7.0%	9.0%	1.0%	1.0%	<b>13.7%</b>	7.0%	0.5%	<b>7.5%</b>	41%	-41%
<b>Option-3</b>	44.0%	15.0%	15.0%	8.0%	7.0%	9.0%	1.0%	1.0%	<b>13.4%</b>	7.0%	0.5%	<b>7.5%</b>	39%	-39%
<b>Current 2026</b>	32.0%	20.0%	18.0%	11.0%	10.0%	7.0%	1.0%	1.0%	<b>12.6%</b>	6.8%	0.5%	<b>7.3%</b>	46%	-38%

*Note: A (simplifying) assumption when comparing the return and risk estimates, especially across institutions, is that asset class characteristics are uniform. An exception is that for options 1,2 and 3 the fixed income sub-categories have been modified as described in the following page*

# Asset Allocation: Current 2026 (status quo), option-1, option-2 and option-3

Asset class weights



For options -1, -2, & -3: in addition to asset allocation, the proposal is to modify allocation withing fixed income with the aim of enhancing risk adjusted returns; Fixed Income projected returns in these three options is ~5% as compared to 4.6% in status quo. This reallocation is an option in status quo case as well, however, we are defaulting to existing allocations in that scenario in recognition of the false precision of these exercises and the preference for existing arrangements in that case.

396 of 532

	Current 2026	Option-1	Option-2	Option-3
<b>Key Changes</b>	Status Quo	Target higher risk-adjusted return by increasing public equities with offsetting reductions in fixed income, private equity, real estate and private income. Modestly grow absolute return to take advantage of APFC's low vol/correlation/beta strategy here		
<b>Return</b>	7.3%	7.4%	7.5%	7.5%
<b>Risk (volatility)</b>	12.6%	13.2%	13.7%	13.4%
<b>Risk (Drawdown)</b>	-38%	-39%	-41%	-39%
<b>Illiquidity</b>	46%	42%	41%	39%

- All return and risk numbers are estimates
- Execution of either options 1, 2 and 3 is expected to be over a period of 3 years



# Appendices

# Goldman Sachs Discussion on Bitcoin

March 2025: “Should Bitcoin Play a Role in Multi-Asset Portfolios?”

Goldman Sachs Asset Management

## Key Takeaways:

### 1. Adding a Bitcoin Allocation Increased the Backtested Portfolio Value

“A hypothetical multi-asset portfolio with a 1% Bitcoin allocation returned 8.1% over the past decade, outperforming a traditional 60/40 portfolio by 0.8%.”

### 2. The Added Value is Paired with Higher Volatility

“Over the past decade, Bitcoin realized a volatility of around 68%. This means that alongside sharp, frequent, and sustained rallies, Bitcoin has also experienced sharp, frequent, and sustained drawdowns. Since July 2010, Bitcoin has experienced five drawdowns that exceeded 70%, with the most recent being between November 2021 and November 2022 when Bitcoin’s value declined by 77%.”

### 3. The Greatest Realized Gains Were Closer to Inception

“...a large portion of the outperformance occurred prior to 2021...For example, between July 2010 and December 2021, Bitcoin delivered a staggering 220% annualized return, with an annualized volatility of 140%”

### 4. The Past Rate of Return is Unlikely to Continue

#### Scenario 1: A Re-run of the Last 10-Year Sharpe Ratio - Highly Unlikely

“...Bitcoin will need to generate an annualized return of 47% to achieve another decade with a Sharpe ratio of 1.1...Therefore, to repeat historical performance, Bitcoin’s market capitalization would need to rise from less than 2% of the global money supply today to 47% by 2034.

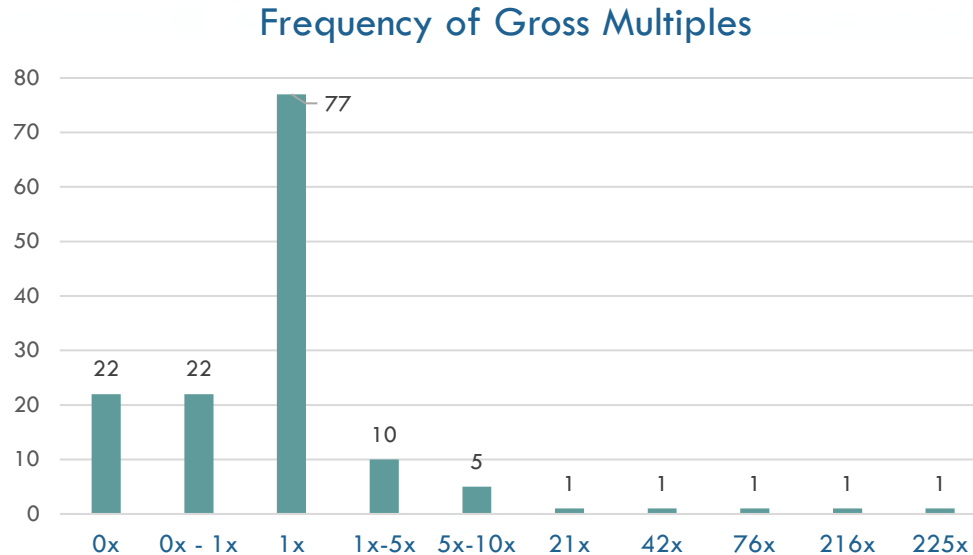
#### Scenario 2: Annualized Total Return of 10% - Plausible

“...[Bitcoin delivering an annualized total return of 10% over the next decade] would imply that Bitcoin’s market capitalization would be equivalent to around 2.5% of the global money supply in 10 years, which seems more plausible in our view.

### 5. A Bitcoin Allocation is Not Recommended for Most Institutional Investors

“In summary, while Bitcoin has delivered high returns over the past decade, these returns are difficult to predict and should not be extrapolated. Even if Bitcoin achieves decent annualized returns in the coming years, any potential upside for multi-asset portfolios must be weighted against the significant idiosyncratic risks associated with Bitcoin. While an improved regulatory framework, tighter integration into the global financial system, and broader adoption by both institutions and major central banks could prompt us to re-evaluate Bitcoin’s role in the strategic asset allocation of multi-asset portfolios in the future, our analysis suggests that a strategic allocation Bitcoin is not suitable for most institutional investors today and the bar for changing this view remains high.

# Cryptocurrency Investments: Private Markets



Cryptocurrency Investments Undertaken as of March 31, 2025: 141

Value of Investments: \$175 million (~1% of portfolio)

Total Gross Multiple: 8.5x (\$30 mm invested, \$81 mm realized)

Investment return has been positive, largely driven by a handful of high performers

# Cryptocurrency Investments: Public Markets

## Holdings by Business Type (in thousands):

### Crypto Exchanges

Coinbase - \$2,330

### Bitcoin Miners:

MARA Holdings - \$89.6

Core Scientific - \$17.7

Riot Platforms - \$58.7

CleanSpark - \$2,184

Hut 8 Corp. - \$1,146

Bitdeer Technologies - \$134.9

Cipher Mining - \$4.8

TeraWulf - \$5.2

Bitfarms - \$61

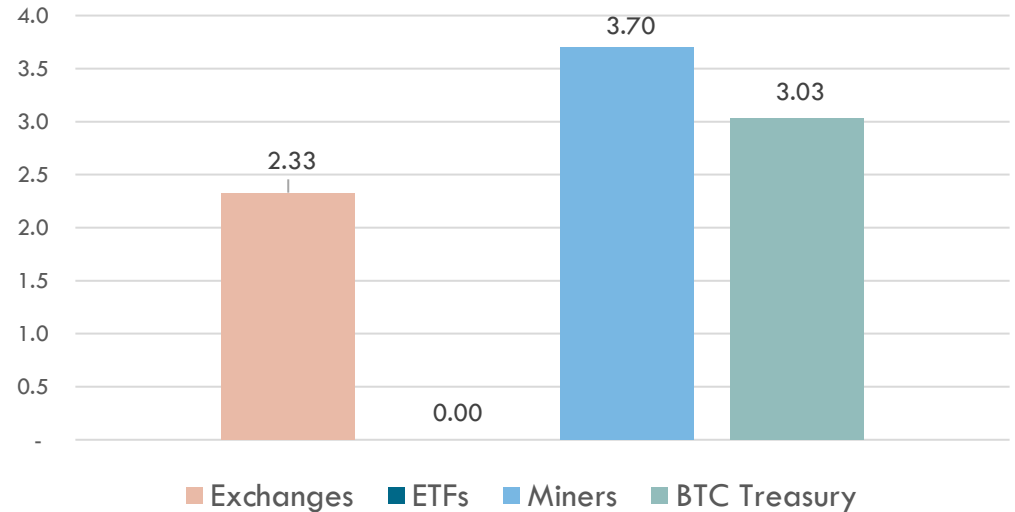
### Bitcoin Treasury Model:

Strategy (MSTR) - \$3,032

## Total Public Market Exposure

\$9.06 Million

## Cryptocurrency Exposure by Business Type (in millions USD)



# Cryptocurrency : Investment Risks

- How do we classify crypto? Is it an asset class (commodity, security) or is it a form of fiat currency?
- It has attributes of both:
  - For example, scarcity like commodities (say, gold), is traded on commodity markets – the Commodity Futures Trading Commission (CFTC) has classified Bitcoin and Ethereum as commodities, meaning they can be traded on commodity futures exchanges like CME.
  - It has fiat currency characteristics as well, like being a medium of exchange with a couple of countries adopting it as an alternative currency, it can be viewed as unit of account and store of value.
- The fuzziness in its classification may be one of the biggest risks – regulatory frameworks are still evolving.
- While there is uncertainty in terms of potential policy changes based on changes in administration, there is almost near certainty that governments will generally be uneasy about crypto taking over as money; governments like to have the ability to expand/contract the money supply as they see fit.
- If cryptos don't operate as fiat currencies, how is its intrinsic value discerned? The likelihood of new “crypto” being mined/developed is not low – how do we differentiate and pick “winners”.
- Unstable and unknown correlations to items such as inflation and equities make asset allocation modeling challenging. Very high volatility makes crypto a debatable addition based on asset allocation modeling.
- Reputational risk should this newly emergent investment area fizzle out.

The logo for APFC (Alaska Permanent Fund Corporation) is displayed in white serif font on a dark teal rectangular background. The background of the entire slide is a semi-transparent blue overlay of a financial trading interface, showing various data tables, charts, and navigation menus.

APFC

ALASKA PERMANENT  
FUND CORPORATION

MULTI-ASSET SOLUTIONS

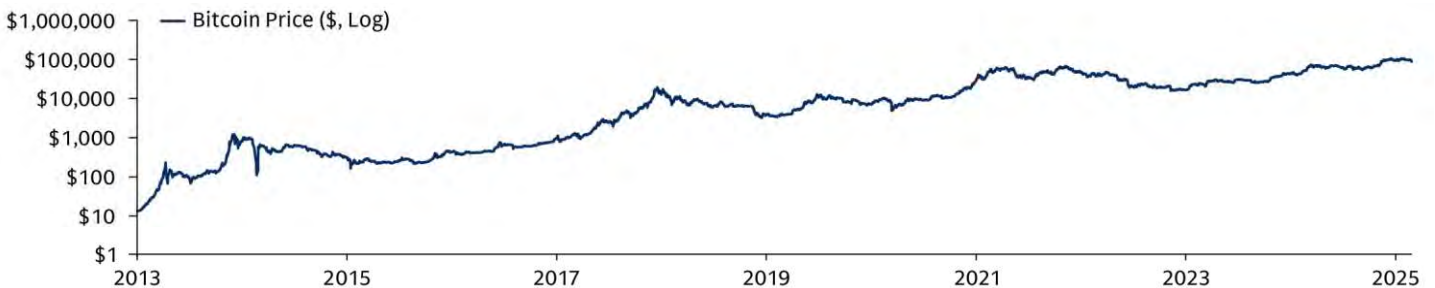
# Should Bitcoin Play a Role in Multi-Asset Portfolios?

While Bitcoin has delivered high returns over the past decade, these returns are difficult to predict and should not be extrapolated. Our team discusses the necessary considerations for this investment.

## Bitcoin’s Historical Performance

Bitcoin, created in 2009, is the world’s leading cryptocurrency, representing over 60% of the cryptocurrency market.<sup>1</sup> Over a decade ago, Forbes declared 2013 as the "Year of Bitcoin." That year, Bitcoin rallied from \$13.50 to \$805, a 60x increase, resulting in a surge in market capitalization from \$143 million to \$9 billion.<sup>2</sup> Since then, Bitcoin has experienced three rallies spanning 2015-2017, 2018-2021, and 2022-2024.<sup>3</sup> In 2023, Bitcoin returned 153%, and in 2024, it returned 123%, raising its market capitalization from \$870 billion to \$1.83 trillion in 2024.<sup>4</sup> We think strong performance was driven by increased investor adoption due to broadening market access (e.g., through the launch of spot Bitcoin ETFs on January 10, 2024), endorsements from US President Donald Trump, strong US household finances, and global demand due to geopolitical and fiscal concerns. However, year-to-date performance in 2025 has been slightly weak as relaxation of regulations have been somewhat slower than expected.

### Bitcoin's Growth in Value from January 14, 2013, to January 14, 2025



Source: Bloomberg, Forbes, CoinMarketCap, Statista, Goldman Sachs Asset Management. As of February 25, 2025. Note: The y-axis is on a logarithmic scale, meaning each unit increase on the axis represents a tenfold increase in value. **Past performance does not predict future returns and does not guarantee future results, which may vary.**

<sup>1</sup> Source: CoinMarketCap As of February 25, 2025.

<sup>2</sup> Source: CoinMarketCap As of February 25, 2025.

<sup>3</sup> These rallies include January 14, 2015- December 16, 2017, December 15, 2018-November 8, 2021 and November 21, 2022-December 17, 2024.

<sup>4</sup> Source: Bloomberg, Forbes, CoinMarketCap, Statista, Goldman Sachs Asset Management, Datastream, Goldman Sachs Global Investment Research. As of February 25, 2025.

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## Considerations for Strategic Asset Allocation

Bitcoin's market cap crossing above \$2 trillion at the end of 2024 has naturally led investors to ask whether Bitcoin should play a part in multi-asset portfolios. Strategic asset allocation decisions require consideration of several factors, some of the most important factors in our view include expected returns, expected volatility, cross-asset correlations to determine diversification benefits, fundamental merits of the investment, liquidity needs, and regulatory risks.

Over the past decade, Bitcoin realized a volatility of around 68%.<sup>5</sup> This means that alongside sharp, frequent, and sustained rallies, Bitcoin has also experienced sharp, frequent, and sustained drawdowns. Since July 2010, Bitcoin has experienced five drawdowns that exceeded 70%, with the most recent being between November 2021 and November 2022 when Bitcoin's value declined by 77%.<sup>6</sup> This high level of volatility means that even a small allocation to Bitcoin in a traditional 60% equity, 40% bonds (60/40) portfolio could significantly alter the portfolio's risk and return profile relative to its benchmark.<sup>7</sup>

### Portfolio Analysis: The Potential Impact of a 1% Allocation to Bitcoin

To quantify the potential impact of a small allocation to Bitcoin, our Multi-Asset Solutions team simulated the risk and return profile of a multi-asset portfolio that replaces 1% of its equity allocation with Bitcoin relative to a traditional 60/40 portfolio over the period spanning 2010 to 2024. Our analysis reveals the following observations:

1. A hypothetical multi-asset portfolio with a 1% Bitcoin allocation returned 8.1% over the past decade, outperforming a traditional 60/40 portfolio by 0.8%.

#### The Potential Risk-Return Impact of Adding a 1% Bitcoin Allocation to a Hypothetical Multi-Asset Portfolio

		Last 1-Year	Last 3-Year	Last 5-Year	Last 10-Year	Since July 2010
<b>Return</b>	<b>60% Equity/ 40% Bond</b>	14.5%	5.2%	7.6%	7.3%	8.1%
	<b>1% Bitcoin / 59% Equity / 40% Bond</b>	15.4%	5.5%	8.2%	8.1%	9.9%
<b>Volatility</b>	<b>60% Equity/ 40% Bond</b>	6.7%	9.3%	10.7%	8.8%	8.5%
	<b>1% Bitcoin / 59% Equity / 40% Bond</b>	6.8%	9.4%	10.8%	8.9%	8.5%
<b>Sharpe Ratio</b>	<b>60% Equity/ 40% Bond</b>	1.37	0.12	0.46	0.61	0.79
	<b>1% Bitcoin / 59% Equity / 40% Bond</b>	1.48	0.15	0.52	0.70	1.00

Source: Goldman Sachs Asset Management, Bloomberg, MSCI. As of December 2024. Our backtest analysis<sup>8</sup> is based on the MSCI World Index (50% hedged, 50% unhedged) for equities and the Bloomberg Global Aggregate Index for Bonds. Data on Bitcoin is available since July 2010. Time period: July 2010 – December 2024. These results are based on simulated or hypothetical performance results that have certain inherent limitations. Unlike the results shown in an actual performance record, these results do not represent actual trading. Also, because these trades have not actually been executed, these results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to these being shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved. For illustrative purposes only.

<sup>5</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

<sup>6</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

<sup>7</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

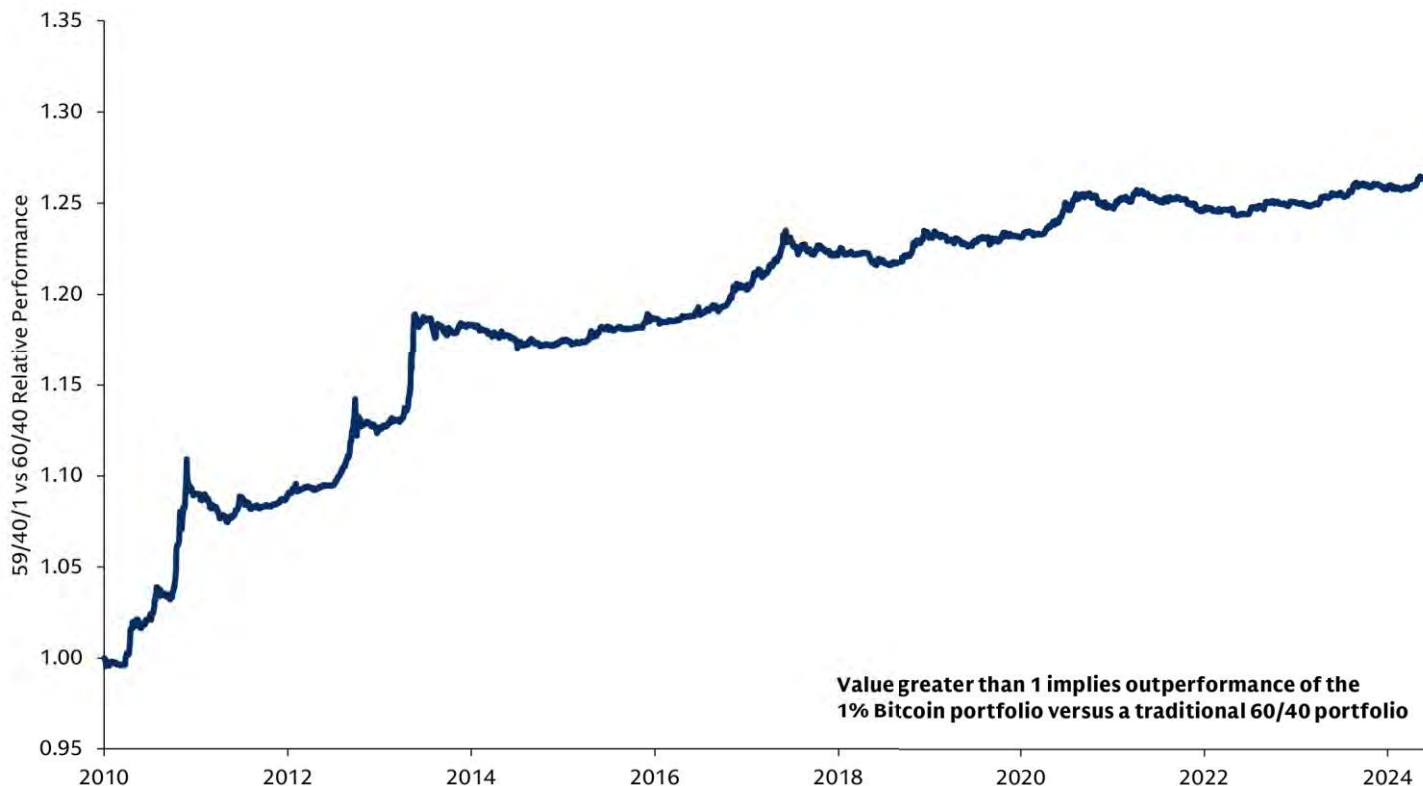
<sup>8</sup> Note that the figures in the table rely on or are based on backtested performance, which is not actual performance and in no way should be construed as indicative of future results. Backtested performance results are created based on an analysis of past market data with the benefit of hindsight, do not reflect any Goldman Sachs Asset Management product and are being shown for informational purposes only. The economic and market forecasts presented herein have been generated by Goldman Sachs Asset Management for informational purposes as of the date of this publication. They are based on proprietary models and there can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this publication.

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2. A large portion of the outperformance occurred prior to 2021, which featured outsized returns for Bitcoin. For example, between July 2010 and December 2021, Bitcoin delivered a staggering 220% annualized return, with an annualized volatility of 140%.<sup>9</sup>
3. Another benefit for the period prior to 2021 was low performance correlation with a traditional 60/40 portfolio and equities. Strong risk-adjusted returns along with a low correlation with a traditional 60/40 portfolio contributed to an improved Sharpe ratio for the multi-asset portfolio with a 1% Bitcoin allocation for that period.<sup>10</sup>

### The Potential Return Boost from Adding Bitcoin into a Hypothetical Multi-Asset Portfolio Largely Pre-Dates 2021

Relative Performance of a 59% Equities, 1% Bitcoin, and 40% Bonds portfolio versus a 60% Equities and 40% Bonds portfolio



Source: Goldman Sachs Asset Management, Bloomberg, MSCI. As of December 2024. Our backtest analysis is based on the MSCI World Index (50% hedged, 50% unhedged) for equities and the Bloomberg Global Aggregate Index for Bonds. These results are based on simulated or hypothetical performance results that have certain inherent limitations. Unlike the results shown in an actual performance record, these results do not represent actual trading. Also, because these trades have not actually been executed, these results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to these being shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved. **Past performance does not predict future returns and does not guarantee future results, which may vary.** For illustrative purposes only.

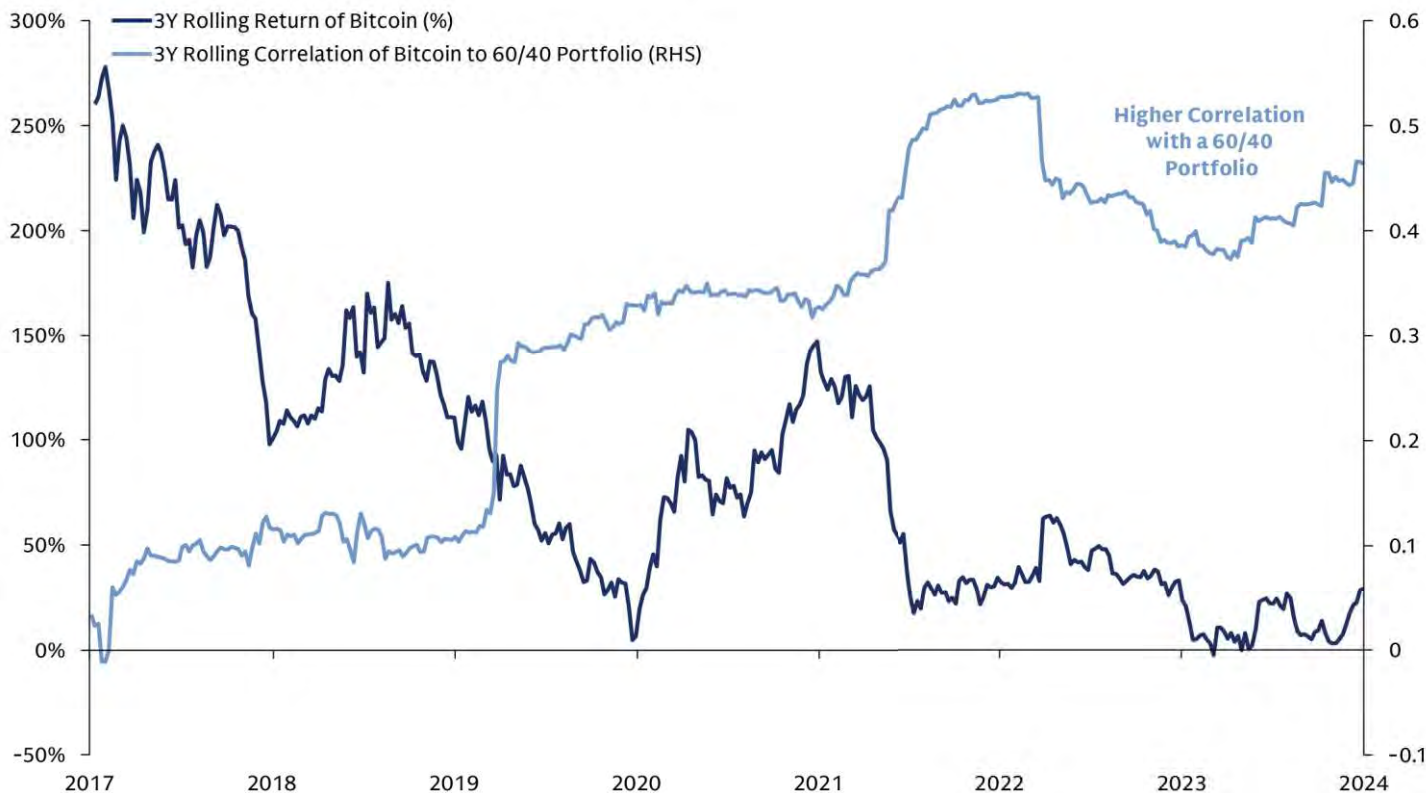
<sup>9</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

<sup>10</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

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4. Since 2021, Bitcoin's performance, while still high compared to other assets, has moderated alongside its volatility, while its correlations with a traditional 60/40 portfolio and equities have trended higher.<sup>11</sup> As a result, the incremental portfolio value of an allocation to Bitcoin has declined.

#### Since 2021, Bitcoin's Return Boost Has Diminished and Its Correlation to a Multi-Asset Portfolio Has Increased



Source: Goldman Sachs Asset Management, Bloomberg, MSCI. As of December 2024. Our backtest analysis is based on the MSCI World Index (50% hedged, 50% unhedged) for equities and the Bloomberg Global Aggregate Index for Bonds. These results are based on simulated or hypothetical performance results that have certain inherent limitations. Unlike the results shown in an actual performance record, these results do not represent actual trading. Also, because these trades have not actually been executed, these results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to those being shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved. **Past performance does not predict future returns and does not guarantee future results, which may vary.** For illustrative purposes only.

5. Overall, over the last 10 years, adding 1% Bitcoin to a multi-asset portfolio yielded an improved risk-adjusted return relative to a 60/40 allocation, with the Sharpe ratio of the Bitcoin portfolio standing at 0.7 compared to 0.6 for the traditional portfolio.

<sup>11</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

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## What About the Next Decade?

Past performance is not a reliable indicator of future results, particularly in an asset class like Bitcoin, which has experienced few market cycles and has unpredictable future returns. We analyzed the impact of Bitcoin on a 60/40 portfolio in two potential scenarios and what, in our view, is the likelihood of each.

### Scenario 1: A Re-run of the Last 10-Year Sharpe Ratio

#### Likelihood: Highly unlikely

Between 2014 and 2024, Bitcoin delivered an annualized total return of 77% with a volatility of 68%, resulting in a Sharpe ratio of 1.1. If we assume Bitcoin's volatility moderates to 40% from its last decade average of 68%, and the risk-free rate is 3%, Bitcoin will need to generate an annualized return of 47% to achieve another decade with a Sharpe ratio of 1.1. This would imply a significant increase in Bitcoin's market capitalization to approximately \$90 trillion.

For perspective, global money supply (M2) is currently around \$105 trillion.<sup>12</sup> If M2 grows at its last decade's annual trend of 6%, it will reach \$190 trillion by 2034. Therefore, to repeat historical performance, Bitcoin's market capitalization would need to rise from less than 2% of the global money supply today to 47% by 2034. For added context, gold's market capitalization is equivalent to 18% of the money supply. Even if Bitcoin grows in popularity among certain investors, we think it would be challenging for its market capitalization to expand to these levels both on an absolute basis and relative to the global money supply.

### Scenario 2: Annualized Total Return of 10%

#### Likelihood: Plausible

Based on recent correlation, volatility, and our long-term expected risk and return of a 60/40 portfolio,<sup>13</sup> Bitcoin would need to deliver an annualized total return of 10% over the next decade for a 1% allocation in a multi-asset portfolio to be justified. This would imply that Bitcoin's market capitalization would be equivalent to around 2.5% of the global money supply in 10 years, which seems more plausible in our view.

## Long-Term Asset Allocation Entails Added Considerations

As outlined, Bitcoin has delivered high returns and while volatility has moderated over the years, it still exhibits significant volatility compared to other assets.<sup>14</sup> Our simulated analysis indicates a small allocation to Bitcoin could offer marginal value to a hypothetical traditional 60/40 portfolio over the next decade if it achieves an annualized return of more than 10%. However, long-term investors must consider the complex idiosyncratic risks associated with Bitcoin that extend beyond financial metrics such as return, volatility, and correlation. These risks and considerations include, but are not limited to:

**Regulatory Risks:** The current regulatory oversight for cryptocurrencies is relatively limited compared to traditional asset classes, with fragmentation and varying degree of advancement across jurisdictions. While the limited regulatory oversight has facilitated market growth, it has also led to numerous cases of investor losses due to fraud and other criminal activities, which has heightened policymakers concerns around the misuse of cryptocurrencies for illicit activity. As the market expands with more investment products introduced akin

<sup>12</sup> Source: Bloomberg. As of January 24, 2025.

<sup>13</sup> Source: Goldman Sachs Asset Management Multi-Asset Solutions. As of January 24, 2025. Our long-term assumptions for a 60/40 portfolio imply a 5.8% annualized return with a volatility of 9.5%. We assume a 0.35 correlation between Bitcoin and a traditional 60/40 portfolio, and a 55% volatility for Bitcoin. Alpha and tracking error assumptions reflect Multi-Asset Solutions' estimates for above-average active managers and are based on a historical study of the net-of-fee results of active management. Strategic long-term assumptions are subject to high levels of uncertainty regarding future economic and market factors that may affect future performance. They are hypothetical indications of a broad range of possible returns. All numbers reflect Multi-Asset Solutions' strategic assumptions as of September 30, 2024. Please see additional disclosures.

<sup>14</sup> Source: Bloomberg and Goldman Sachs Asset Management Multi-Asset Solutions. As of January 15, 2025.

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to those familiar to a wider set of traditional investors (e.g. ETFs), and institutional adoption continues at a larger scale, there is an increasing likelihood of clearer and more constructive regulatory frameworks emerging.

**Liquidity Risks:** Bitcoin trading liquidity has improved notably in recent years. However, if buy-and-hold investors increase allocations, liquidity could decrease. Additionally, the total supply of Bitcoin is capped at 21 million coins, meaning that if certain investors capture a dominant market share, trading volume and liquidity might suffer.

**Lack of Clarity Regarding the Economic Role of Bitcoin:** Bitcoin and other cryptocurrencies can theoretically be used as a medium of exchange for goods and services. However, data from Statista shows that cryptocurrencies' share of transactions in global e-commerce payments remained subdued at 0.2% in 2022 and is only expected to rise modestly to 0.5% by 2026. Additionally, Bitcoin has experienced downturns of more than 75% twice in the last ten years, which does not align well with the characteristics of a financial instrument used to store value.

**Technological Risk:** Due to the technologically complex nature of Bitcoin, it is prone to heightened risk of cyber threats. Whether it is quantum computing invalidating the cryptography currently used in Bitcoin, bugs within wallet bridges, cyber-attacks to exchanges, investors should consider all cyber risks and controls when evaluating the use of distributed ledger technology.

These risks, combined with high uncertainty over expected returns, make it highly challenging for most long term/multi-asset investors to justify a strategic allocation to Bitcoin today, in our view.

## What Could Change Our View?

In the US, the regulatory framework around Bitcoin has improved over the last decade, with the expectation that further clarity will emerge following President Trump issuing an Executive Order to establish a Digital Assets Regulatory Framework. The Securities and Exchange Commission (SEC) under the Biden Administration recognized most cryptocurrencies as securities, with the exception of Bitcoin, though the classification of these assets under the Trump Administration will be a focus of both the regulatory agencies and market structure legislation. Recently, the SEC rescinded its Staff Accounting Bulletin (SAB) No. 121, which required an entity to recognize a custodied crypto asset on balance sheet.<sup>15</sup> Additionally, the Internal Revenue Service (IRS) treats cryptocurrencies as property and applies taxation, and the Commodities and Futures Trading Commission (CFTC) has increased cryptocurrency regulation around trading. Nonetheless, the misuse of cryptocurrencies for illicit financing and money laundering remains a concern that needs to be addressed. An improved regulatory framework could also lead to wider adoption of cryptocurrencies for economic transactions.

Another potential upside for cryptocurrencies could be adoption by major central banks as part of their reserve policy. Currently, official foreign exchange reserves and gold holdings are around \$15 trillion<sup>5</sup>. A small allocation of reserve assets to Bitcoin may or may not be prudent policy, but it could instill confidence among private investors, leading to further inflows into cryptocurrencies in general and Bitcoin in particular. Finally, we would need to see tighter integration and significant adoption of Bitcoin in the real economy. Without greater integration, understanding the real value of Bitcoin will continue to remain challenging and volatility likely elevated.

## Current Unsuitability, High Bar

In summary, while Bitcoin has delivered high returns over the past decade, these returns are difficult to predict and should not be extrapolated. Even if Bitcoin achieves decent annualized returns in the coming years, any potential upside for multi-asset portfolios must be weighed against the significant idiosyncratic risks associated with Bitcoin. While an improved regulatory framework, tighter integration into the global financial system, and broader adoption by both institutions and major central banks could prompt us to re-evaluate Bitcoin's role in the strategic asset allocation of multi-asset portfolios in the future, our analysis suggests that a strategic allocation to Bitcoin is not suitable for most institutional investors today and the bar for changing this view remains high.

<sup>15</sup> Source: CFTC. As of February 18, 2025.

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**NOTES:****Our Strategic Long-Term Assumptions for Equities, Bonds, and 60/40 Portfolio**

	Expected Return	Volatility
Equity	6.8%	15%
Bonds	4%	4%
60% Equities & 40% Bonds Portfolio	5.8%	9.5%

**Multi-Asset Solutions Assumptions for Bitcoin**

	Volatility	Correlation with 60/40 Portfolio
Bitcoin	55%	0.35

Our long-term horizon is ten years. Expected returns are estimates of hypothetical average returns of economic asset classes derived from statistical models. There can be no assurance that these returns can be achieved. Actual returns are likely to vary. Please see additional disclosures. Alpha and tracking error assumptions reflect Multi-Asset Solutions' estimates for above-average active managers and are based on a historical study of the net-of-fee results of active management. Strategic long-term assumptions are subject to high levels of uncertainty regarding future economic and market factors that may affect future performance. They are hypothetical indications of a broad range of possible returns. All numbers reflect Multi-Asset Solutions' strategic assumptions as of September 30, 2024. Please see additional disclosures. The returns presented herein are gross and do not reflect the deduction of investment advisory fees, which will reduce returns.

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**GLOSSARY**

The Sharpe ratio is a measure used to evaluate the risk-adjusted return of an investment. It is calculated by subtracting the risk-free rate from the investment's return and then dividing this result by the investment's standard deviation.

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# The Ivy League Keeps Failing This Basic Investing Test

Elite universities are again stuck with illiquid assets just when they badly need cash



By [Jason Zweig](#) [Follow](#)

Aug. 22, 2025 10:00 am ET



ILLUSTRATION: ALEX NABAUM

Why does the smart money keep flunking Investing 101?

During the 2008-09 global financial crisis, many of the world's biggest investors found themselves in dire need of cash because they had sunk too much money into assets that couldn't be publicly traded.

Now they've made the same mistake all over again.

Over the past couple of decades, no group of investors has piled into what are called alternative assets more eagerly than the endowment funds of major colleges and universities. In their rush to emulate the [stellar success of Yale University's endowment](#) head David Swensen, who [died in 2021](#), educational institutions pulled

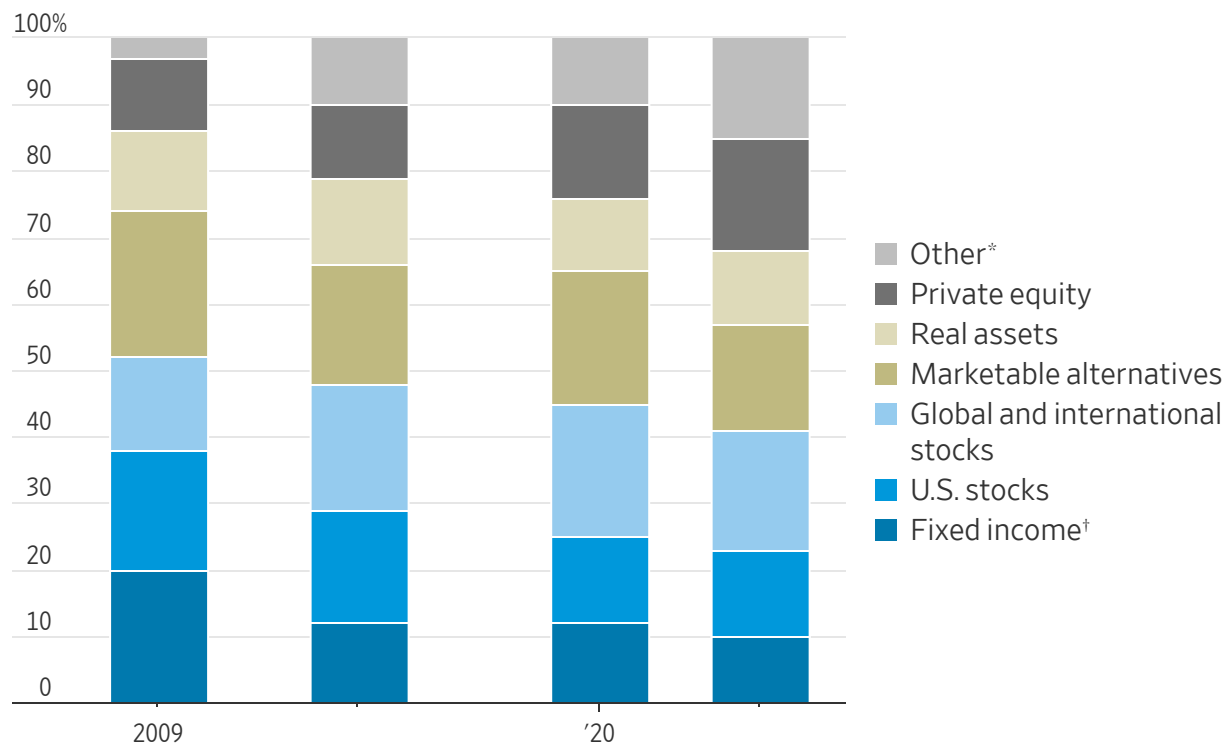
tens of billions of dollars out of stocks and bonds and poured it into hedge funds, private equity, venture capital and other investments that don't trade publicly.

The result looks nothing like the portfolio of 60% stocks and 40% bonds that has long been a guidepost for many investors. On average, in fiscal 2024, educational endowments with more than \$5 billion in assets held only 2% in cash, 6% in bonds, 8% in U.S. stocks and 16% in international stocks, according to the National Association of College and University Business Officers. That left two-thirds of their total holdings in private funds and other non-traditional assets that can't readily be turned into cash.

Now you understand the life-or-death panic that [seized such elite institutions](#) as [Brown](#), [Columbia](#), [Cornell](#), [Harvard](#), [Northwestern](#) and other universities when the Trump administration threatened to cut off their federal funding. Even though their endowments hold billions of dollars, much of that immense wealth might as well be stored on the planet [Proxima Centauri b](#), about 4.2 light years away.

These universities [are slashing budgets](#), freezing their hiring and scrambling to raise money any way they can.

#### Average asset allocation of U.S. college and university endowments



\*Includes venture capital †Includes cash Notes: Weighted by size of endowments. Marketable alternatives include hedge funds. Fixed income includes U.S. and international bonds, short-term debt, high yield and distressed debt, and private credit. Real assets include private real estate, energy, infrastructure. For 2024, "other" includes sustainable investments and secondary private-equity funds.

Source: NACUBO-Commonfund Study of Endowments

Brown, whose endowment assets exceed \$7.2 billion, had to borrow \$300 million in April and an additional \$500 million in July “to protect the university against worst-case financial scenarios,” it said this month. Northwestern, with its \$14.3 billion endowment, borrowed \$500 million earlier this year; Harvard, with its titanic \$53.2 billion endowment, raised \$750 million in April.

To be fair, much of the money at endowments is restricted, meaning it can be spent only for prespecified purposes. But that’s all the more reason why putting so much of it in nontraded assets is a bad idea.

The saddest part of this sad saga is that it’s déjà vu all over again. “A recent survey of college and university presidents found that 50% have, or will soon, put in a hiring freeze,” [I wrote in 2009](#). “Nearly 7% admitted selling assets into a bear market; another 9% have been forced to borrow money at punitive rates.”

The lesson is so simple even Ivy Leaguers should be able to understand it.

In good times, investors give no thought to liquidity, because cash is plentiful and the need for it isn’t pressing.

In hard times, liquidity becomes the only thing investors can think about, because cash is scarce and the need for it is desperate.

And when you have a sudden, urgent need for cash, good luck selling your alternative assets.

Yale—which started the whole craze for alternative assets decades ago—has reportedly been seeking to sell several billion dollars in private-equity funds for more than a year. The Wall Street Journal has reported that the funds are expected to sell for [less than their stated value](#).

This spring, after months of effort, Harvard sold \$1 billion in private-equity funds at about a 7% discount to their stated value, the Journal has also reported.

Note that this retrenchment is recurring amid one of the biggest bull markets in history. Just imagine how hard it would be for these institutions to raise cash if public markets were crashing, as in 2008-09, or if interest rates were skyrocketing, as in 2022.

Back in 2007, Laurence Siegel, then research director for the Ford Foundation’s endowment, analyzed what would happen if institutional investors that had gorged on alternative assets suddenly needed to raise cash.

An endowment that had sold most of its bonds to fund the purchase of private assets, as many already had done by then, would have to sell its publicly traded stocks if it had to raise cash, [he wrote](#).

In a bear market for stocks, Siegel warned, an institution with 50% of its assets in alternatives could run out of cash in as little as two years.

Nobody listened.

Within months, many institutional investors suffered their worst losses since the 1970s—and often turned those paper losses into real ones, selling their most liquid assets into a market panic.

What the university “smart money” should have learned is that liquidity is priceless and must never be taken for granted.

And that’s why investors, no matter how large or small, should never put most of their assets into illiquid securities. No one can possibly predict when public markets will crash or public officials will take unprecedented action, turning private assets into albatrosses.

Of all the ailments investors suffer, amnesia is the most deadly. What happened less than 20 years ago feels as if it took place in ancient Mesopotamia. As Siegel told me this week, instead of learning the obvious lessons of 2008-09, university endowments “just doubled down.”

But, I protested, aren’t they supposed to be the smart money?

“They’re not as smart as they look,” Siegel said, “because they’re human, and humans are quite closely related by evolution to monkeys.”

Don’t be a monkey. Don’t put a penny into alternatives that you can’t afford to have locked up when you suddenly need cash.

Write to Jason Zweig at [intelligentinvestor@wsj.com](mailto:intelligentinvestor@wsj.com)

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## Further Reading

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**OPINION** **Harvard's Pyrrhic Legal Victory**

**Northwestern University President Steps Down Amid Trump Pressure**

**'Becoming Thurgood: America's Social Architect' Review: PBS's Portrait of a Legal Giant**

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Working Paper 24-066

# Does the Case for Private Equity Still Hold?

Nori Gerardo Lietz  
Philipp Chvanov



**Harvard  
Business  
School**

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**Working Paper 24-066**

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# **Does the Case for Private Equity Still Hold?**

January 10, 2024

Nori Gerardo Lietz

Philipp Chvanov

## Executive Summary

Private Equity (“PE”) has received an extraordinary 10-fold increase in capital flows since the Great Financial Crisis (“GFC”) by investors seeking higher nominal returns relative to those they could obtain in the public capital markets. This paper questions the fundamental assumptions underlying why investors should select PE as an asset class to be included in their composite portfolios.

The basic historical premises for including PE were:

- Superior returns relative to public markets or public market equivalents (“PMEs”)
- Superior returns that would compensate the investor for the associated lack of liquidity
- Low correlations relative to the public markets and lower volatility
- Generating appropriate excess performance relative to the public markets net of fees
- Superior returns were due to:
  - Identifying appropriate target companies at “bargain” prices
  - Creating operational improvements within portfolio companies
  - Generating multiple expansion and increased value due to operational improvements
  - Restructuring the portfolio companies’ balance sheets primarily by adding significant leverage
  - Exiting the investment at the appropriate inflection point

The current data raises questions about these predicate assumptions. All the actions PE firms claim add value to portfolio companies should result in superior returns relative to PMEs. The data indicate the average or median PE funds do not actually outperform their PMEs since the GFC. While the top quartile PE funds have outperformed the PMEs since the GFC, the data raises three particularly disturbing conclusions.

First, General Partner (“GP”) fund performance persistence has eroded materially. Past performance is not necessarily indicative of future performance. While the top quartile GPs outperform relative to PMEs over time, they are not necessarily **the same** GPs over time. This conclusion relates to the aggregate data. There may be some individual firms who consistently perform exceptionally well or exceptionally poorly. Indeed, the most predictive information relates to those GPs who are more consistently in the bottom quartile.

The second disturbing conclusion is that if there is little persistence among the top quartile firms, then the selection of any GP is potentially a “random walk”. If that is the case, then investors should expect to achieve at best only average or median PE results. There are two studies indicating that the results of successful GPs may be as much attributable to “luck” than skill, mirroring the conclusions of the venerable Eugene Fama regarding active equity managers.

The third conclusion is there has been a somewhat shocking concentration of capital flows among a small number of firms. Is this a good attribute for the industry? Given the general lack of performance persistence among PE GPs, one should ask whether (i) capital is flowing to the best firms, (ii) capital is flowing based upon the “brand” of the PE firm, or (iii) capital flows are based on investors “looking in the rear view mirror” or desiring one stop shopping?

In sum, the PE data suggest that (i) traditional methods of evaluating a given GP partnership are questionable; (ii) evaluating performance persistence post 2008 may be subject to doubt at the time the investment is made; (iii) selecting a given GP in the hopes of obtaining top quartile results may be a random walk; (iv) investment performance may possibly be as much attributable to luck rather than skill; (v) the recent median PE investments do not outperform PME and one is just as likely to select a median GP as a top quartile GP; and (vi) PE performance may actually underperform PMEs on a risk adjusted basis given the amount of leverage they employ generating equivalent results on a nominal basis.

These conclusions suggest that the PE industry may be ripe for disruption, much as the mutual fund industry after the introduction of ETFs and index funds. There are disruptive forces at play by investors attempting to reduce their costs, and thereby enhance their returns, by adopting alternative investment methods. Some are internalizing their investment efforts. Others may look for alternative investment products that will mirror PE results at a lower cost. Similar disruptive forces have been evidenced in other financial service industries which may affect where the very best talent wants to go.

Given the size of the private markets, investors are likely to continue to desire exposure to these segments of the capital markets. The fundamental question is not *if* they want exposure to private investments but *how* they will achieve it. In short, the PE industry may have to structurally change in order to continue to attract capital or the rationale for investing in PE may have to be revised.

## Does the Case for Private Equity Still Hold?

Unfortunately, the last billionaire in private equity (“PE”) has already been made. This statement will understandably disappoint the scores of Harvard Business School (“HBS”), other business school students, and others clamoring to enter the industry. The PE and VC courses are among the most popular at HBS and students take them hoping to gain access to the industry. Securing a position within a PE firm is no easy task. Steve Schwarzman, CEO of Blackstone, has publicly claimed that getting into Blackstone is more competitive than getting into Harvard as they accept 0.6% of applicants<sup>1</sup>.

It has been well documented that the PE industry has dramatically changed over the last decade. Among these changes discussed below are:

- A ten-fold increase in the assets under management (“AUM”)
- A dramatic increase in the size of the mega funds
- A concentration of capital among the largest 20 PE General Partners (“GPs”) firms, especially among the top five firms
- An acceleration of fund-raising cycles
- Reduced returns relative to the public markets over the past 10 years
- An economic environment in which interest rates fell or remained quite low for a sustained period; for purposes of this paper since the Great Financial Crisis (“GFC”)

These industry changes and the public capital markets have had an impact on PE performance. The more recent results in the past decade call into question the basic premises as to why investors include PE within a mixed asset class portfolio.

This paper lays out the case for why the PE industry is ripe for disruption, and why this disruption is already beginning to occur. Major changes will likely occur for PE over the next several years. Some may perceive this paper as a PE indictment. That is not the case. The point is not to suggest that PE is inherently “bad”. Rather, it is a call for investors to reexamine how and with whom they invest.

This is not a traditional academic paper. Academics tend to look at historical data and draw conclusions to be derived from the data explaining what happened in a historical context. The author lives on the hyphen between academia and the business world and wants to translate academic conclusions for practitioners. The purpose of this paper is not to replicate the excellent work other academics have already done but instead to extrapolate from their conclusions as to future industry ramifications. It should be emphasized these academics have not produced “pointy headed” exercises of angels dancing on the head of a pin. Their studies and conclusions are critically important.

The focus will be on PE, not venture capital (“VC”) and real estate private equity as the conclusions from data for those asset classes are different. Real estate will be separately addressed in another paper.

Section 1 summarizes the historical case made for private equity. Section 2 analyzes whether the underlying assumptions associated with the case for private equity still hold true. Section 3 reviews pertinent academic research concerning PE performance. Section 4 reviews the trends in the mutual fund industry and whether its evolution portends potential changes that may occur in the PE industry. Section 5 addresses some of the incipient ideas for alternative investment approaches that may disrupt the PE industry.

## **Section 1: The State of the State of Private Equity**

### *A. The Original Case for Private Equity*

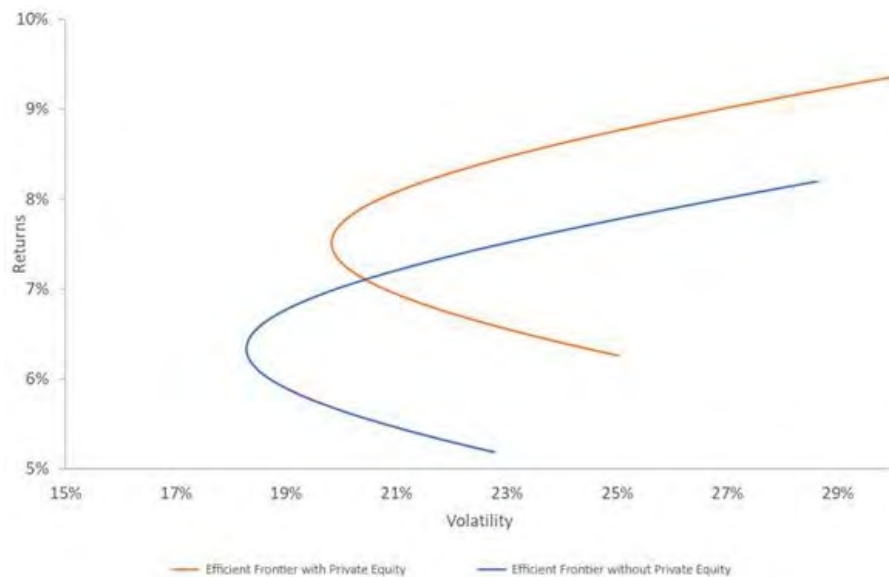
The early case for investing in private equity was made to institutional investors, most notably the Oregon and Washington state pension funds who were among the earliest PE investors. They invested in KKR's early funds in the 1980's. The State of Oregon was the author's initial client in 1988 and witnessed the early presentations of the now behemoth PE firms including KKR, Blackstone, TPG, among others. At the time, the firms' original founders made the "pitches". One of the most effective presentations was by George Roberts, co-founder of KKR, to the Oregon Investment Council. In the mid- 1990's he said to the Council, "You gave us \$1 Billion. We've given you back \$1 Billion. We conservatively value the remainder of your investment with us at \$3 Billion. Any questions?" There were none.

There was a consistent story line associated with these presentations. These new firms would differentiate themselves from active public equity managers in that they would be directly involved in setting their portfolio companies strategies and exercise actual control over the companies by having a majority of the portfolio company's board seats. In short, their approach would add value to the company's operations and in the long run would generate outsized returns especially relative to public market alternatives.

At the time, pension funds turned to their advisors and asked for a more quantitative rationale to support the inclusion of a new asset class in their composite investment portfolios. The analysis led to the several conclusions concerning this new asset class based upon a series of assumptions about how the most inefficient PE asset class would perform, including: (i) low correlations with the traditional asset classes of public equities and public fixed income; (ii) higher potential returns than the traditional asset classes; and (iii) lower reported volatility and therefore a reduction of composite portfolio risk due to the lower reported volatility. The aggregation of these factors would help move the composite portfolio higher on the efficient frontier by increasing returns at a seemingly lower level of risk. Expected returns became codified as the "2 and 20" rule, otherwise known as a 2x MOIC (Multiple of Invested Capital) and a 20% IRR (Internal Rate of Return). The phrase 2 and 20 also refers to the fees the GPs received in terms of management fees and carried interest percentages.

Pension fund advisors created a series of efficient frontiers illustrating the impact of including PE as an asset class in a mixed asset portfolio. Not surprisingly composite portfolios became more "efficient" suggesting higher returns at a lower level of risk by including these private investments. The expected return and correlation assumptions for each asset class, which are the inputs into the "optimizer", are reflected in **Exhibit 1. Figure 1** illustrates how the inclusion of PE in a mixed asset portfolio improves risk adjusted performance over time.

**Figure 1** Model Portfolios With and Without PE in a Mixed Asset Portfolio



Source: Authors.

See **Exhibit 1** for the underlying assumptions in constructing the Efficient Frontier in **Figure 1**.

The historic reported volatility, which has been used as a proxy for risk, is much lower in PE than in the public markets. The optimizer models used by institutions to determine their asset allocations gravitate to lower volatility asset classes with commensurate or higher returns, and uncorrelated results based on the reported returns used as inputs. An unconstrained asset allocation optimizer would allocate significant percentages to PE, real estate, and VC as they exhibited (i) lower reported correlations to traditional asset classes; (ii) lower reported volatility than the traditional asset classes; and (iii) historic returns in the 1990's and early 2000's that were higher in PE and VC.

However, sophisticated investors recognize this result is simply a function of the data inputs into the optimizer model and the private markets' volatility is understated. Consequently, the allocations to these asset classes are typically constrained. Does a rational, knowledgeable investor genuinely believe a private investment in a private company leveraged 65% is less risky than a comparable public company leveraged 30%?

It should be noted that the historical lower correlations and lower volatilities were largely attributable to the accounting methodology used in the private markets to report returns. Historically, most investments were held at cost until an "event" occurred, such as a follow-on investment or a sale, and were then marked to market at the transaction price. In short, they were held at the lower of cost or market until the event actually occurred. Investments were not marked to market each day as they are in the public markets or even on a quarterly or annual basis.

This reporting convention changed over time prompted in part by the 2008 Great Financial Crisis (“GFC”) in which mortgages and real estate contributed to the heavy incurred losses. In 2009 the Financial Accounting Standards Board (“FASB”) adopted guidelines of IFRS 13 and FASB ASC 820, which suggested that even private assets should be marked to market. These guidelines require PE firms to report using fair value accounting and mark their investments to market on a quarterly basis using internal valuations. PE firms continue to have audited annual financials in which their reported marked to market values are reviewed by the external accounting firm. The Securities and Exchange Commission has also recently proposed new regulations that would require audited marked to market values for their portfolios.

In marking to market PE firms frequently look to public market multiples of comparable companies as a proxy for the multiple to be used to value the private investment. Query whether this change in accounting methodology has caused the return convergence between the public and private markets as is reflected in **Figure 10** below. This reporting methodology change increases the volatility of PE investments and using public market comparables should increase the correlations with public market returns. Public market prices reflect investor psychology in a way that the private markets do not. More research needs to be done on this topic.

How would PE firms achieve these promised outsized returns relative to the public markets? The firms professed they would: (i) exercise their investment acumen by selecting appropriate target companies; (ii) negotiate the terms of the investment; (iii) restructure the target company’s balance sheet typically by adding significant amounts of leverage; (iv) monitor the investment; (v) add value via operational improvements, by modifying the corporate strategy and/or by implementing cost cutting measures; and (vi) then exit the investment at an appropriate inflection point. The exits were often by taking the company public or a sale to another strategic investor. The early PE results supported the investment theses. GPs also maintained that their track records exhibited persistence and were predictive of future results.

In the 1980s and 1990s, most PE firms had a sole product line, which was their flagship fund. This paper focuses on the flagship PE funds that have attracted the bulk of investment capital. Further, given the amount of capital, the length of their track record and the academic research, the focus and conclusions are primarily on US private equity firms.

During this early time period PE was a cottage industry largely unknown outside the pension fund institutional market. Early PE funds were considered large if they exceeded \$500 million. The backwater nature of the industry changed when Barbarians at the Gate (KKR’s acquisition of RJR Nabisco) was published in 1989.<sup>2</sup>

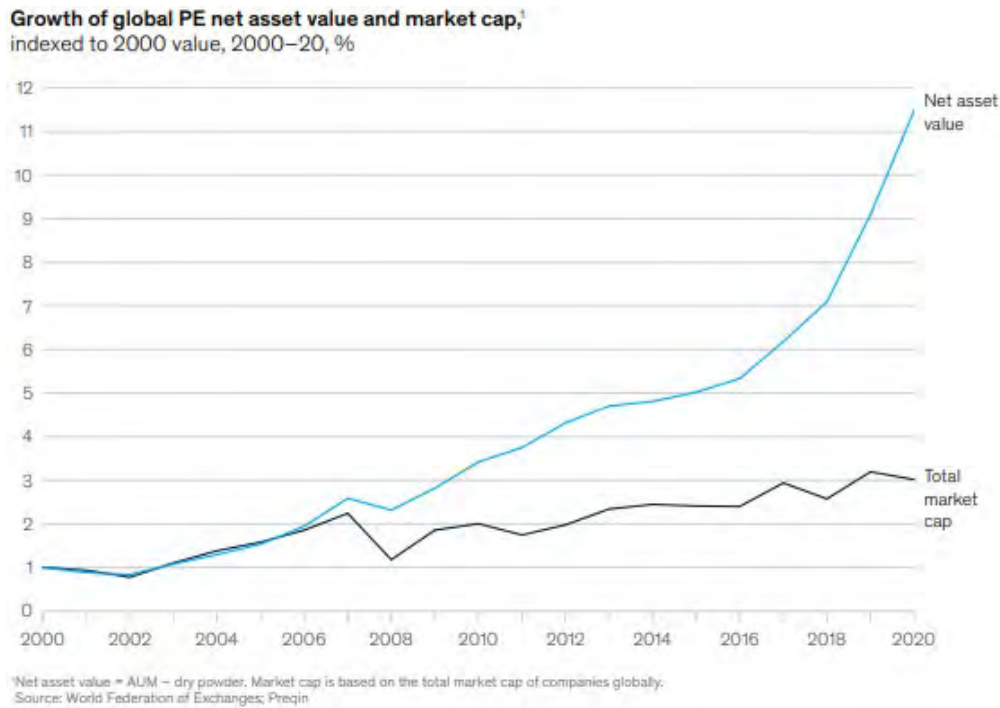
## *B. Current State of the Industry*

Clearly, the industry has evolved dramatically over the decades. The PE industry has transformed the capital markets. The funds raised by these firms are now multibillion dollar portfolios. The largest firms have multi product lines including real estate and credit and have become global investment institutions. The aggregate size of their investment portfolios dwarfs the public markets as depicted in **Figure 2**. Most of the change has occurred in a comparatively short time period since the GFC. The industry today bears little resemblance to the PE industry pre-2010. Many of the largest PE fund managers are now public companies.<sup>3</sup>

The impact on the capital markets has been dramatic. The number of PE backed companies was 1,698 in 2000 and grew to 8,892 in 2020.<sup>4</sup> Further, the number of public companies declined from approximately 7,500 listed companies in 1998 to under 4,400 in 2018.<sup>5</sup> The value of these private companies grew almost exponentially when compared to an estimate of the size of the global public capital markets. Many of these private companies do not want to be bothered with the expense or “hassles” of being public companies.

Perhaps the better rationale for PE inclusion in a portfolio is to have access to these companies. But what is the most effective way one should invest to gain access to these companies is a legitimate question. Is the current PE model the best and most effective one to follow? It should be noted that the largest firms are for the most part no longer investing in the smaller, mid-market private firms via their flagship funds.

**Figure 2** Growth of a Dollar of Global PE Net Asset Value and Market Cap, Indexed to 2000 Value, 2000-20, %



Source: “Private Markets Rally to New Heights,” p. 23, Exhibit 15, McKinsey & Company, March 2022, [https://www.mckinsey.com/~/\\_media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdfm](https://www.mckinsey.com/~/_media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdfm), accessed November 2023.

How did this exponential growth happen? The early PE funds generally delivered on the expectations created for these investments. Success beget success. In the last 13 years the industry has dramatically increased in terms of the proliferation of the number of both funds and firms as well as their fundraising activity. The number of funds focusing on US buyout strategies from

1996 to 2007 was 2,275, and by 2021 the number funds increased to 3,317.<sup>6</sup> The number of firms (fund managers) increased by 34% in the respective time periods, from 1,143 to 2,527.<sup>7</sup> Cumulative funds raised (starting from 1996) nearly trebled, from \$1.3 trillion by the end of 2007 to \$3.2 trillion by the end of 2021.<sup>8</sup> See **Figure 3**.

**Figure 3** Growth of US Buyouts Industry at the End of the Respective Period

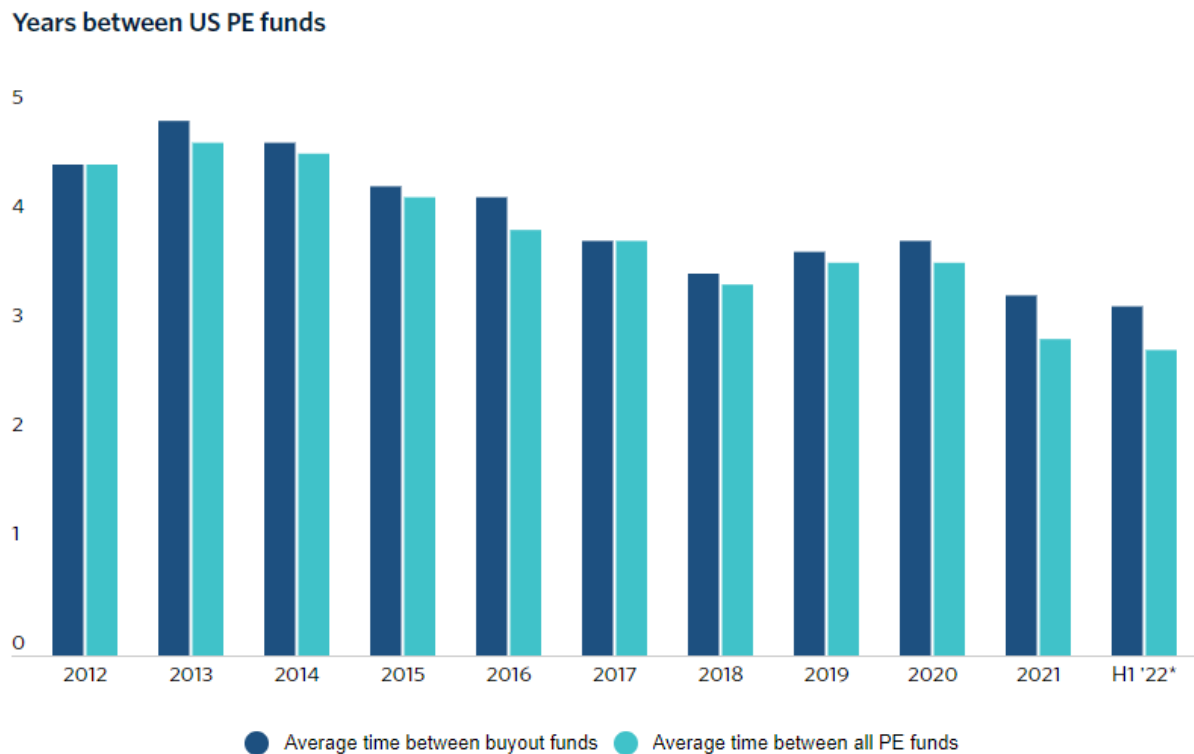
	1996-2007	2008-2021	Change
Number of fund managers	1,143	1,527	33.6%
Number of funds	2,275	3,317	45.8%
Funds raised	\$1,322,203	\$3,209,252	142.7%

Source: Created by authors using data from Refinitiv, accessed October 6, 2022.

The early firms' success in attracting capital was compounded by the needs of many institutional underfunded pension funds seeking higher nominal returns to reduce their unfunded liabilities. The promise of higher nominal returns was, and remains, an extremely attractive rationale for committing additional capital, especially with the decline in nominal returns in the equity and fixed income portfolios over the past several years. Many of the institutions have gradually increased their allocations to PE from the 8-10% range. Now the largest PE investor, the Canadian Pension Fund, has approximately 33% of their composite portfolio with more than \$130 Billion allocated to PE.<sup>9</sup> Many others exceed 20%.

The largest PE firms now seek retail investors who similarly desire higher nominal returns.<sup>10</sup> They are either developing an internal distribution method with the assistance of external retail distributors, such as Blackstone or Partners Group, or simply buying smaller wealth management firms, such as KKR, Lightyear Capital, General Atlantic, or Oak Hill Capital.<sup>11</sup> In the latter instance the PE firm will sell their products through the acquired wealth management firms. The time frame between capital raises for their flagship funds has declined as shown in **Figure 4**. In short, the largest PE firms have recently been "Hoovering" up money and have cut the time-period between fundraising by approximately one-half. The industry is seeking an additional \$1 Trillion of new funding.<sup>12</sup> Why is this happening? We address the rationale and its potential impact in Section 4.

**Figure 4** Years Between US PE Funds



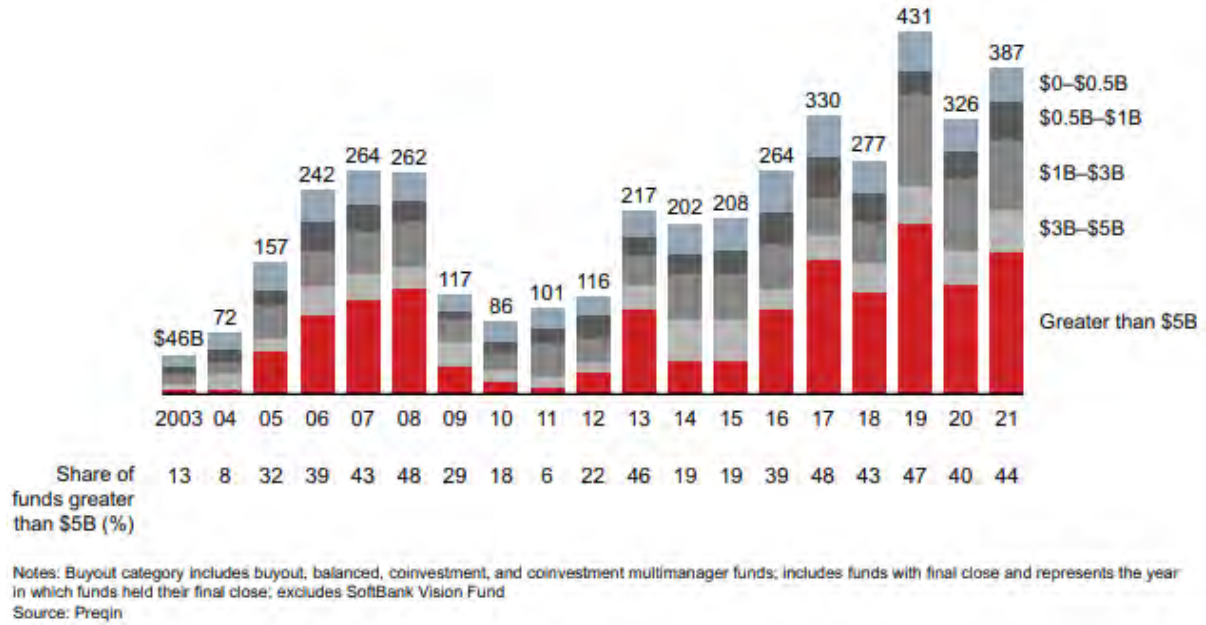
Source: US PE Breakdown  
\*As of June 30, 2022

Source: “Charting US PE’s performance in Q2,” Pitchbook, 18 July 2022, <https://pitchbook.com/news/articles/pe-breakdown-trends-charts#:~:text=The%20average%20time%20between%20PE,on%20average%20for%20buyout%20funds>, accessed November 2023.

Additionally, PE firms’ evolution spawned an entire ecosystem of other firms established to serve the PE firms and their investors. Investment banks received fees from transactions on both the buy and sell side when companies were acquired and later sold. Attorneys specialized in transactions, fundraising and other private market issues. Valuation firms specializing in underwriting private companies were created or new departments formed in management consulting and accounting firms to assist in transaction due diligence. An entire consulting or “gatekeeping” industry came into being to assist investors in underwriting the general partners and assessing their track records. In addition, LPs now have PE specialists whose sole responsibility is to select and monitor their PE portfolios. All these parties have a considerable vested interest in maintaining the status quo of a multibillion-dollar industry.

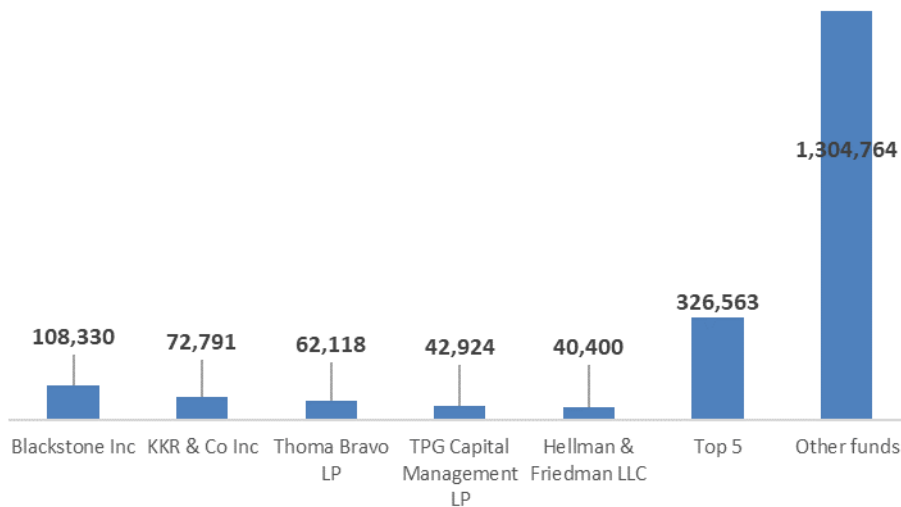
The industry has been transformed in multiple ways since 2000 but particularly post 2008. The assets under management have exploded ten-fold since 2003 as shown in **Figure 5** below. Other key trends show the concentration of capital among the largest firms. Funds over \$5 billion have received between 43%-48% of all the capital raised in the last five years as shown in **Figure 5** below. Indeed, the top five firms account for **25% of all the capital raised** between June 2017 and June 2022 as shown in **Figure 6**.

**Figure 5** Global Buyout Capital Raised, by Fund Size (\$B)



Source: “Global Private Equity Report 2022,” p. 22, Figure 24, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf) , accessed November 2023.

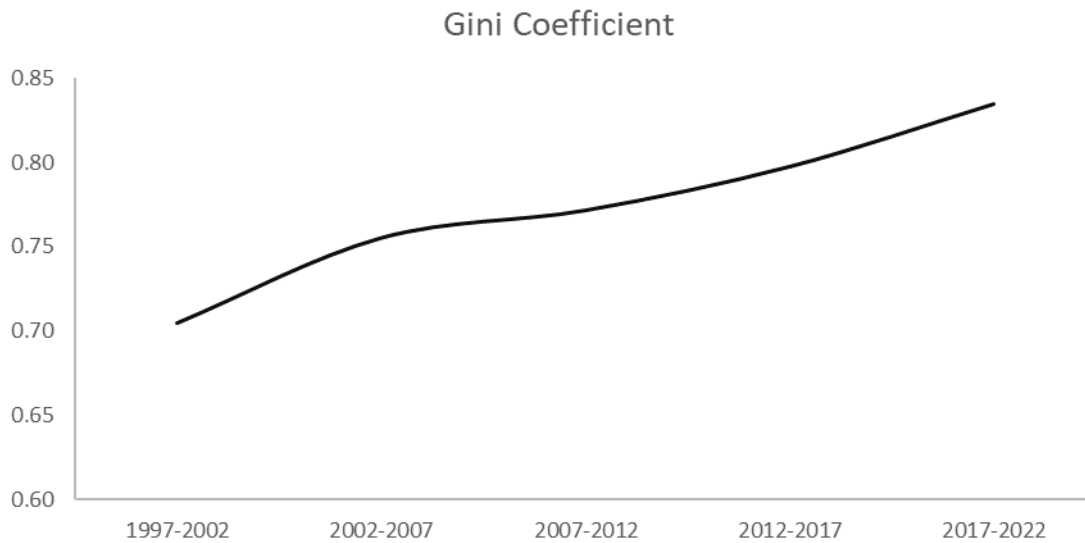
**Figure 6** Concentration of PE Capital, \$mm Funds Raised (Global Buyouts, June 2017 – June 2022)



Source: Created by authors using data from Refinitiv, accessed June 2022.

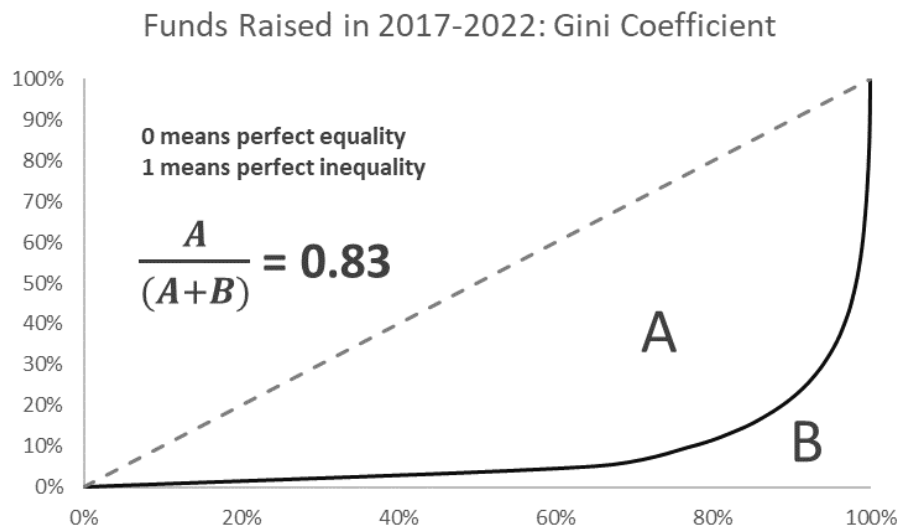
Concentration of the industry can be gauged by standard market measures such as the Herfindahl-Hirschman Index popular with antitrust regulators and the Gini coefficient, which is typically used to measure the level of inequality (see **Exhibit 4** for methodology disclosure). **Figures 7 and 8** confirm the thesis that the buyout industry has become more concentrated and unequal with a smaller number of firms capturing the largest amount of total funds raised.

**Figure 7** Gini Coefficient (Global PE, All Strategies)



Source: Created by authors using data from Refinitiv and Preqin Pro.

**Figure 8** Gini Coefficient for Funds Raised During 2017-2021

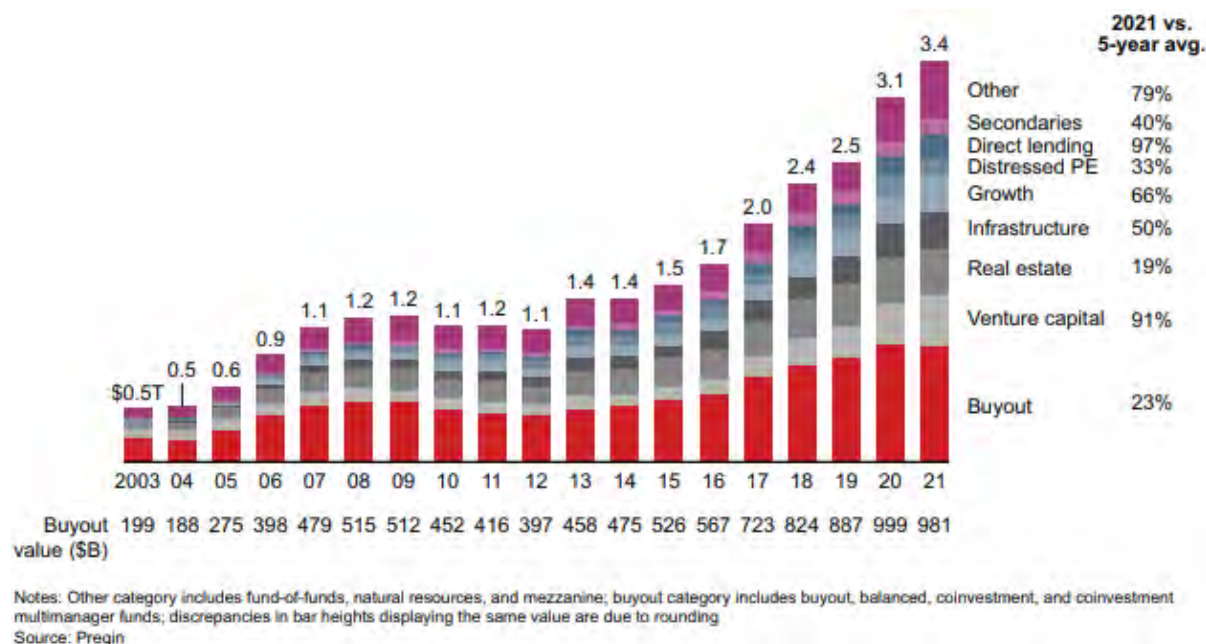


Source: Created by authors using data from Refinitiv and Preqin Pro.

Is the concentration of capital allocations beneficial to investors and the industry? The answer is yes only if the top firms consistently outperform in comparison to one another and to PMEs.

Similarly, the amount of capital to be invested or “dry powder” has grown substantially. It has been well documented that there is considerable uninvested capital in all private sectors, estimated to be over \$3 Trillion sitting on the sidelines waiting to be invested. This is a potentially concerning phenomenon based on academic research as discussed below. The largest percentage of dry powder is in PE.

**Figure 9** Global Private Capital by Dry Powder, by Fund Type (\$T)



Source: “Global Private Equity Report 2022,” p. 9, Figure 8, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

## Section 2: Does the Case for Private Equity Still Hold True? Are the Fundamental Assumptions Still Valid?

Allocations to PE firms were predicated on the key assumptions referenced above. Do they still hold true? Many of the academic analyses utilize data dating back to the early days of the industry. The performance data in the early years are very different from those of the last decade. Given the structural changes in the industry since the GFC in terms of (i) the growth of the industry; (ii) the returns; and (iii) the change of accounting practices, one can question whether the early years data distort the conclusions one should derive based on the data since the GFC. PE is now a very different industry and the industry data post 2008 lead to different conclusions. This paper focuses on the industry metrics post 2008.

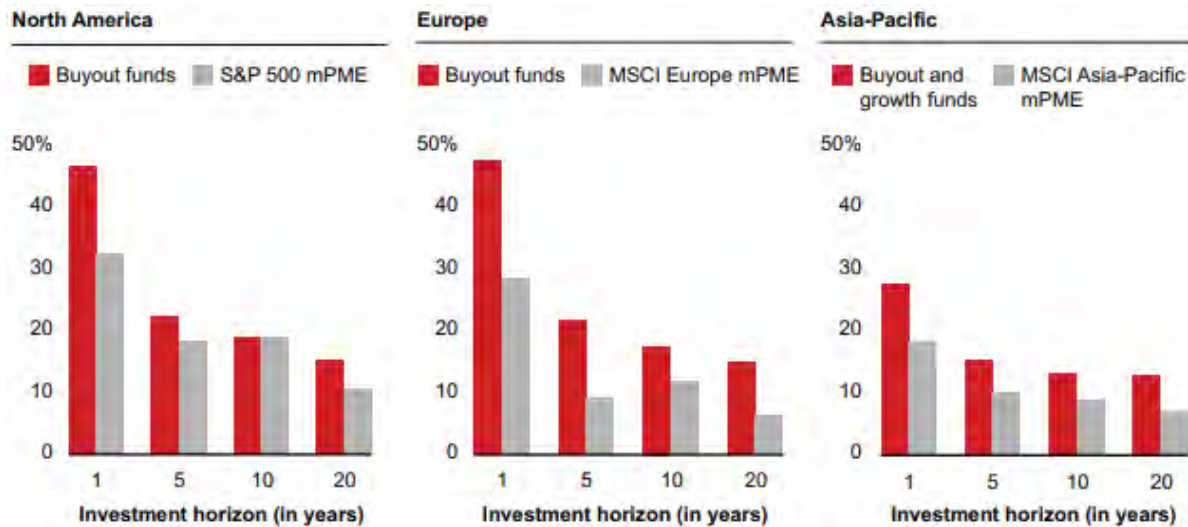
The first key assumption was that PE should generate superior results relative to public market alternatives. Part of the rationale for this assumption is the premise that long term, private

investments should provide some liquidity premium relative to public market alternatives. PE performance comparisons to the public markets have changed dramatically in the recent decade. This is likely partially attributable to the substantial industry changes noted above but more research on this topic should be done to determine whether this is accurate.

### A. Nominal Return Outperformance Relative to Public Markets

**Figure 10** illustrates that over the last decade the pooled IRRs of PE funds investing in North America have not outperformed a US customized benchmark created by Cambridge Associates, a leading PE consulting firm. This does not mean that in an individual year the PE firms will not outperform. This is the aggregated performance over time. The benchmark is comprised of PME's to those typically acquired by PE firms. There does appear to be sizeable outperformance in Europe and Asia, but not in the US over the past 10 years. The amount of capital raised to be invested in the European and Asian markets has been dwarfed by the amount allocated to the US as shown in **Figure 11**.<sup>13</sup> While Figure 11 does not depict where the capital was actually invested, it is reasonable to assume that the preponderance of the capital was invested in North America relative to Europe and Asia Pacific. These capital flows may have had an impact on performance in the US market in the past decade relative to non-US markets in the past 10 years. The academic research concerning capital flows discussed in the next section supports this conclusion.

**Figure 10** End-to-End Pooled Net IRR (as of Q3 2021) for North America, Europe, and Asia-Pacific at the end of the Trailing One Year, Five Year, Ten Year, and Twenty Year Periods at 12/31/2021



Notes: Data for US and Asia-Pacific calculated in US dollars; data for Europe calculated in euros; Europe includes developed economies only; Cambridge Associates Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions  
Source: Cambridge Associates

Source: “Global Private Equity Report 2022,” p. 25, Figure 26, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

It is unclear whether these numbers are dollar weighted. If not, the results are **materially** distorted by including the superior results within the 20 year time period within the later 10 year time period. The funds in the early days of PE (from 2000 through 2010) had vastly lower aggregate capital commitments than those funds raised in the past 10 years. The early funds performed materially better than those in the subsequent 10 year time period. Including the results of both sets of funds in the 20 year time period makes the 20 year results artificially high if not dollar weighted. Thus, the conclusions one might draw about PE's performance relative to PMEs may be wrong.

If the 20 year time series were dollar weighted, the past 10 year dollar weighted PE results would likely be reduced, as they include the performance results of the much smaller funds for the preceding 10 years. It is not possible to estimate how many funds or how long the 20 year results are included in the shorter time period before they rolled out of the sample pool.

**However, even if the results were dollar weighted, the conclusions would be the same.**

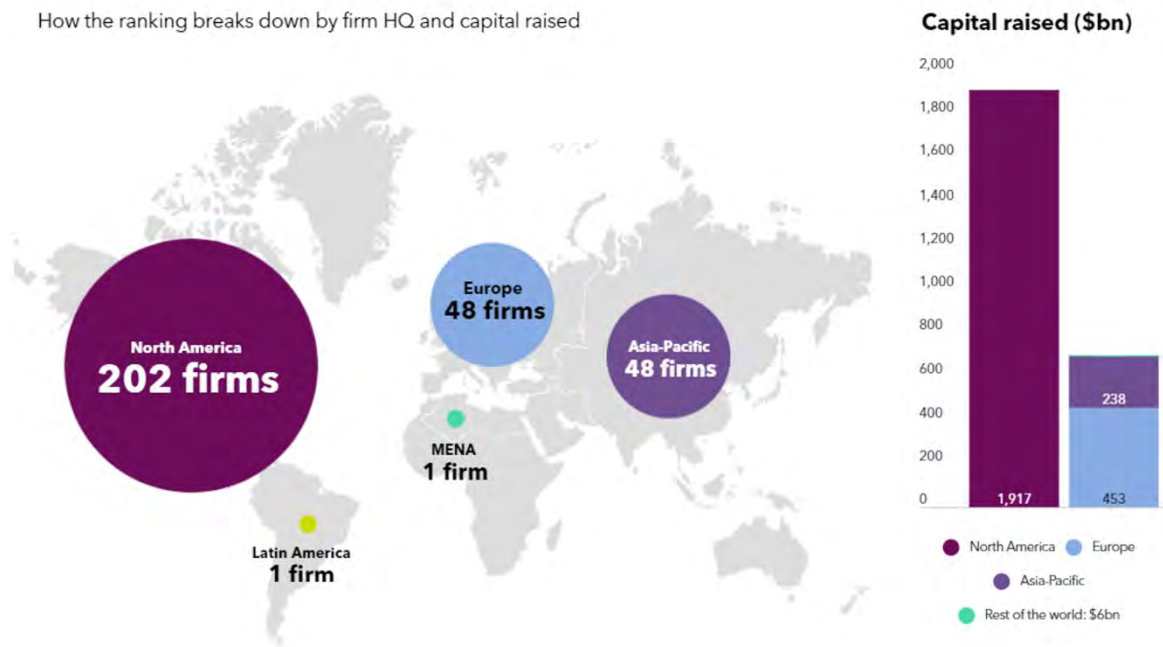
During the last 10 years PE on average did not outperform the public markets in aggregate. Given the industry changes within the last decade, the 10-year comparison is the more relevant statistic than the 20 year time frame.

A few additional comments are warranted about **Figure 10**. The charts reflect pooled IRRs and not multiples on invested capital or "MOICs", which other data collectors present. IRRs can be manipulated in the early years and comparisons between one year and five year returns of private to public company performance are likely misleading. IRR comparisons in the first two to three years of a PE fund are often artificially distorted due to the use of Subscription Lines in the early years of a PE fund, which can inflate IRRs in a fund's early years.<sup>14</sup> The practice of using Subscription Lines to augment performance began approximately 15 years ago. The perhaps overstated one and five year results are included within and may distort the 10 year results.

**Figure 11** The PEI 300 by Region

## The PEI 300 by region

How the ranking breaks down by firm HQ and capital raised



Source: “The 2022 PEI 300 in eight charts,” p. 5, Private Equity International, 22 June 2022, <https://www.privateequityinternational.com/download-this-years-pei-300-in-eight-charts/>, accessed November 2023.

Given the industry changes within the last decade, the 10-year comparison is the more relevant statistic than the 20 year time frame. The 20-year comparison shows the industry did, in fact, outperform the PMEs over the past 20 years. This is notwithstanding the potential dilution of the past 10 years, as the results are included within the 20 year statistic. This chart suggests the PE industry did significantly better during the period of 1999 to 2009 relative to the public markets, if one extracted out the past 10 years at June 30, 2021 for those investments made in the United States.

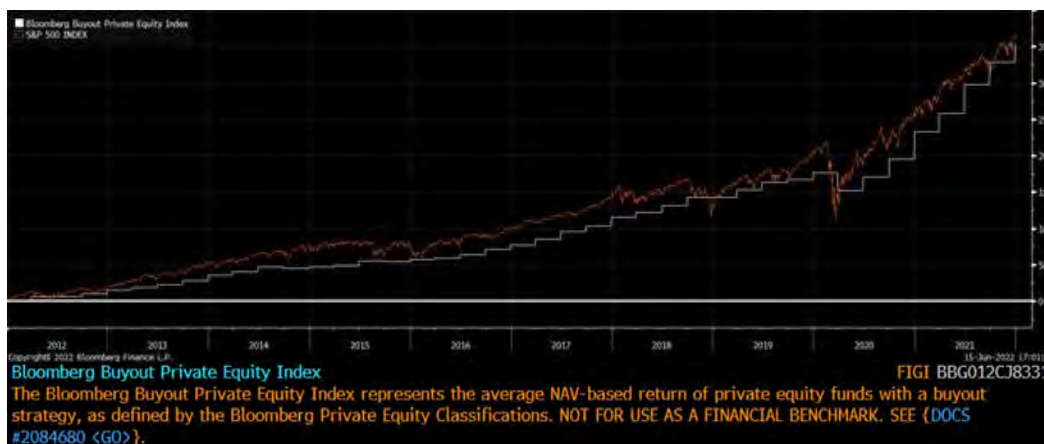
Why are these observations important? Seventy five percent of PE capital raised has been by US based firms. While not all the capital raised has been invested in the US, the preponderance has been, as **Figure 11** above illustrates. The industry capital raised has increased 10-fold since 2003 as depicted in **Figure 5** above. **Figure 10** indicates that over the past decade the preponderance of the capital raised and invested in the US did not, on average and net of fees, outperform a comparable public market benchmark.

The resulting disappointing average performance versus PMEs may be attributable to the amount of capital invested in the US and the ensuing competition this created. If the US market has become more competitive, and possibly more efficient, this market context does not augur well for the sizeable amount of uninvested capital that may be targeting US based companies today. Academics have provided data that supports this concern.

Academic research by Steve Kaplan (one of the most respected academics specializing in PE) and his colleagues similarly found that the average PE performance in North America did not outperform the S&P 500 and other PME indices, net of fees, in the 1980's and 1990's contradicting the results depicted in **Figure 10**. Their research in this seminal piece, discussed in more detail below, analyzed the performance of 746 largely liquidated funds from 1980 to 1997. They found that: *“Over the entire sample period (1980 to 1997), average [PE] fund returns net of fees are roughly equivalent to those of the S & P.”*<sup>15</sup>

In subsequent updates to Kaplan's research in 2010, they noted that funds formed **before** 2005 did on average outperform the public market as measured by both the S&P and the Russell indices. However, **post 2005** until the time of their research the average PE funds did not outperform. They were equivalent.<sup>16</sup> These conclusions are consistent with **Figure 10** above. The average PE funds only outperformed on a gross of fees basis in a similar study conducted in roughly the same time period (Philippou).<sup>17</sup> This paper found underperformance when compared to a smaller cap value orientated (the types of companies PE firms then bought) PMEs on a net of fee basis. Others drew similar conclusions using different data sources.<sup>18</sup> The chart below, **Figure 12**, independently corroborates this conclusion.

**Figure 12** S&P 500 vs Bloomberg Private Equity Index



Source: Bloomberg, accessed June 15<sup>th</sup>, 2022.

In **Figure 12**, the white line represents the performance of the Bloomberg Private Equity Index from 2012 through June 2022. The underperformance is evident.

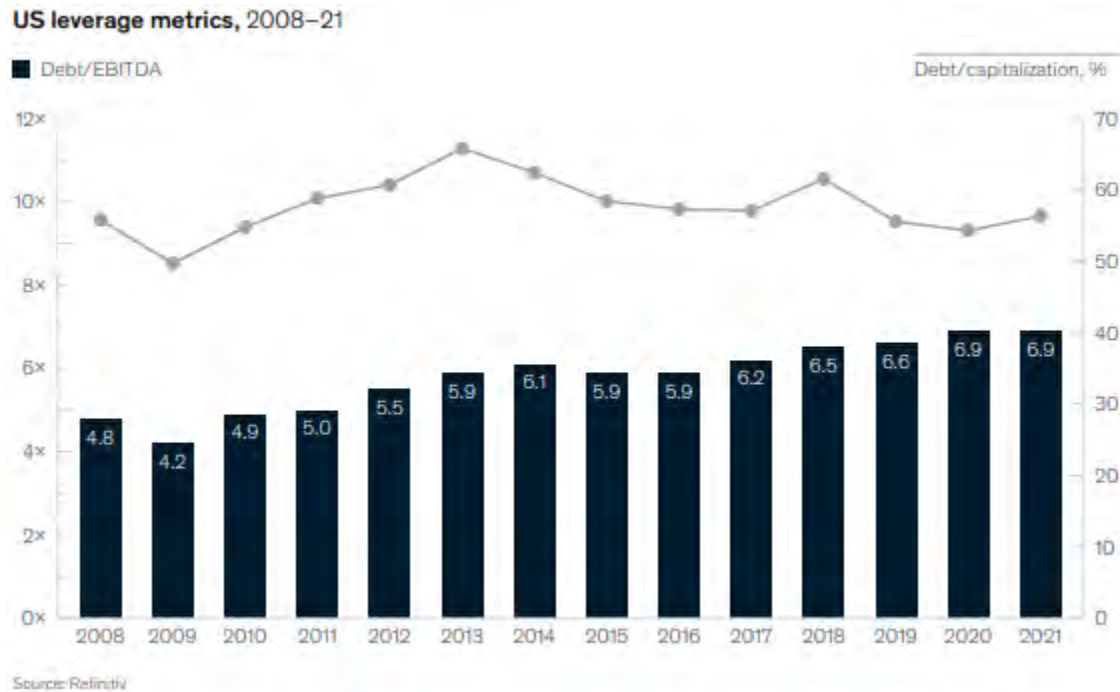
In short, data from multiple sources, examining PE performance post 2005, call into question the premise that the average PE fund will outperform a PME benchmark on a nominal and net of fees basis, much less on a risk adjusted basis due to the leverage of PE portfolio companies. **It is plausible to argue that PE has underperformed on a risk adjusted basis relative to PMEs given the amount of leverage in their portfolios, if PE only delivers equivalent results on a nominal basis.**

The leverage comparisons are addressed next and then we examine whether there are different conclusions to be drawn from the top quartile, as opposed to the average or median performance of the funds.

## B. Leverage Impacts

Given the material drawdown in the public markets through 2022 and given the higher leverage ratios of PE funds (See **Figures 13** and **14** below), the probability is that average PE funds may, on average, materially underperform the PME's on a nominal basis in the near term. The PE leverage ratio as measured by debt to EBITDA was 7x as compared to a 2x ratio for the Russell 3000. While the leverage ratio of public companies increased dramatically from 2008 to the present, based on falling interest rates, it is nowhere near the ratio of their PE counterparts.

**Figure 13** US Buyout Leverage Remained at Nearly Seven Times in 2021

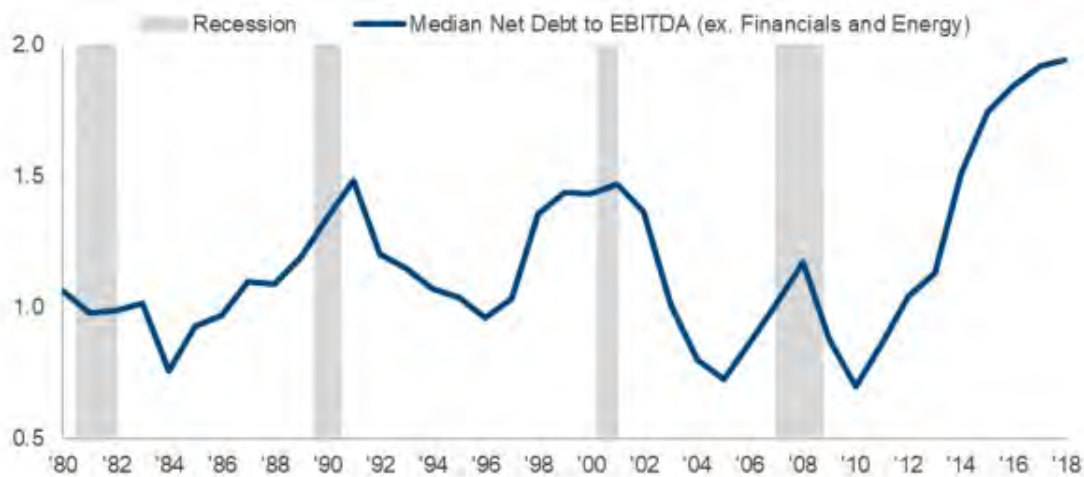


Source: “Private Markets Rally to New Heights,” p. 29, Exhibit 21, McKinsey & Company, March 2022,

<https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdfm>, accessed November 2023.

Note: Russell 2000 Debt/EBITDA leverage YoY.

**Figure 14** Net Leverage of Russell 3000 Companies (Ratio of Net Debt to EBITDA)



Source: FPA Risk is Where You're Not Looking, January 2, 2019, p. 10, <https://fpa.com/docs/default-source/funds/fpa-crescent-fund/literature/risk-is-where-you're-not-looking.pdf?sfvrsn=8>, Accessed May 30, 2022.

The difference in the leverage ratios between PE and PME and the equivalent performance of average PE funds over the past decade relative to these PMEs raises the question of whether PE firms are adding value on a risk adjusted basis. Even if they outperform, are they adding value or simply generating leveraged beta?

This is an important question, especially given the historical context since the GFC. Since the GFC the market economic environment was particularly salutary for PE given that interest rates either fell or remained quite low during this time period. In other words, investment performance may have been generated simply by “being there” with floating rate debt as opposed to some of the historically touted value enhancements PE GPs suggest they generate.

The likelihood that this historical pattern will continue prospectively seems highly unlikely given the Federal Reserve's actions in the past 18 months embarking on a continued pattern of raising rates to tame inflation. Indeed, some such as Howard Marks believe we are entering a “Sea Change” in the overall economy in which higher interest rates may be the norm.<sup>19</sup> In the face of rising rates, PE GPs will have to find other strategies to generate superior returns relative to PMEs.

Marks also highlighted that, “Relatively few investors today are old enough to remember a time when interest rates behaved differently. **Everyone who has come into the business since 1980 – in other words, the vast majority of today's investors – has, with relatively few exceptions, only seen interest rates that were either declining or ultra-low (or both).**” (emphasis in the original).<sup>20</sup> This points to the fact that the experience levels of current GPs in this market environment may be subject to question. They will no longer be able to necessarily rely on falling rates as one of the tools in their toolkit to generate returns.

However, some investors may still be attracted to the asset class notwithstanding the fact that the returns might be equivalent or slightly lower than the PMEs because the PE reported volatility is lower. Equivalent returns suggest PE results are superior on a risk adjusted basis

based upon the reported data because their Sharpe Ratios would be lower. Unfortunately, the analysis of whether this is an accurate conclusion requires further research particularly given the higher leverage levels at the transaction level in PE as shown in **Figures 13** and **14**. It would be helpful to extract out the impact of the excess leverage at the portfolio company level and then compare performance to comparable PME. This data has not been made readily available.

Academics have attempted to back out the impact of leverage, but these studies had to make certain key assumptions due to the lack of transparency at the portfolio company level so the leverage impacts, and thus their conclusions, are subject to question. For example, in one study the author attempted to increase the leverage of the PME benchmark to make it more comparable to leverage ratios of PE portfolio companies.<sup>21</sup> However, interest rates fluctuate over time and many GPs use floating rate debt, GPs pay down debt over time, or do dividend recapitalizations, so these comparisons are at best only approximate. It would be reasonable to conclude that in a falling interest rate environment and concurrent rising PME market, that the positive impact of leverage would be significant. However, the contra would be true in a rising interest rate environment and falling PME capital market context, which we experienced in 2021 through 2023.

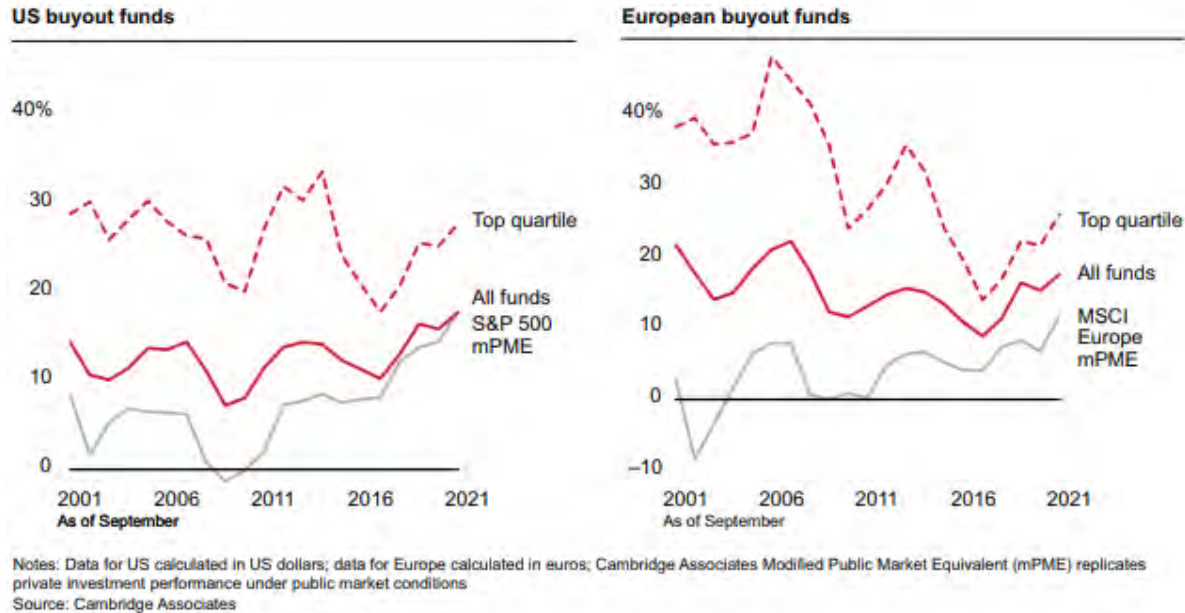
### *C. Average Versus Top Quartile PE Results*

The fundamental question becomes whether there is a material difference between the performance of average performance versus top quartile performance of PE funds. The case for investing in the average PE funds is tenuous at best. If the top quartile firms do not consistently outperform PMEs, then the case for PE becomes largely obliterated. However, top quartile firms do appear to outperform the S&P PMEs and the MSCI PMEs (Cambridge Associates) in the US and Europe over the past 20 years at the end of 2021.

**Figure 15** below illustrates the performance of the top and the aggregate average of PE quartiles against the public PME Index in the US and in Europe. One needs to focus on the more recent time period as the early time period from 2001 through 2008 with superior performance, as referenced above, distorts the results. Meaning, if we could separate out the performance of funds formed post 2008 the results might differ as the earlier better performing funds may have dropped out of the pool over the 20 year time period. The industry size exploded post 2008 and during this time period the practice of using fair value accounting was adopted as mentioned above. However, no matter what the underlying methodology was in creating this chart, it illustrates that the more recent **average** pooled PE net IRR results in the past five years have converged with the PMEs in the US.<sup>22</sup>

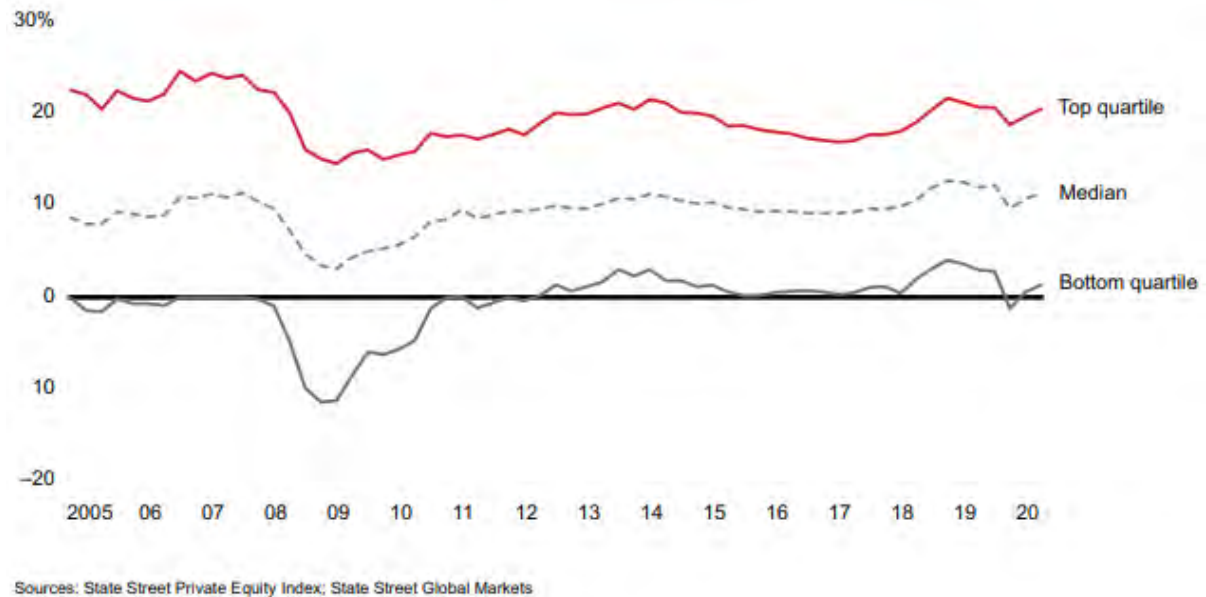
However, the **top quartile** funds did outperform the S&P 500 over the 20 year time period in the Cambridge Associates analysis. Similar results were reported by State Street over the time period of 2005 through 2021.<sup>23</sup> See **Figures 15** and **16**. Note again that these results may not be dollar weighted so the inclusion of the smaller, better performing funds early in the 20 year time period may distort the results. However, the early funds would likely have burned off after 2015 making the convergence of the more recent time periods more striking for the average funds.

**Figure 15** 10-year horizon pooled net IRR for...



Source: “Global Private Equity Report 2022,” p. 26, Figure 27, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

**Figure 16** 10-Year Annualized IRR Global Buyouts



Source: “Global Private Equity Report 2021,” p. 22, Figure 23, Bain & Company, 2021, [https://www.bain.com/globalassets/noindex/2021/bain\\_report\\_2021-global-private-equity-report.pdf](https://www.bain.com/globalassets/noindex/2021/bain_report_2021-global-private-equity-report.pdf), accessed November 2023.

While there are some methodology differences between **Figures 15** and **16**, one would draw the same conclusions.<sup>24</sup> The top quartile firms outperformed the PME's **substantially** over time in the US and Europe and the median firms did not. All one needs to do then is select those firms who will generate top quartile performance to obtain superior results relative to the PME's. It has been one of the fundamental precepts of the PE industry that past performance **IS** predictive of future results. So, an investor might ignore the fact that the average PE firm will not outperform PME's, indeed as historically that appears to be the case, so long as the investor can pick a prior top quartile performer.

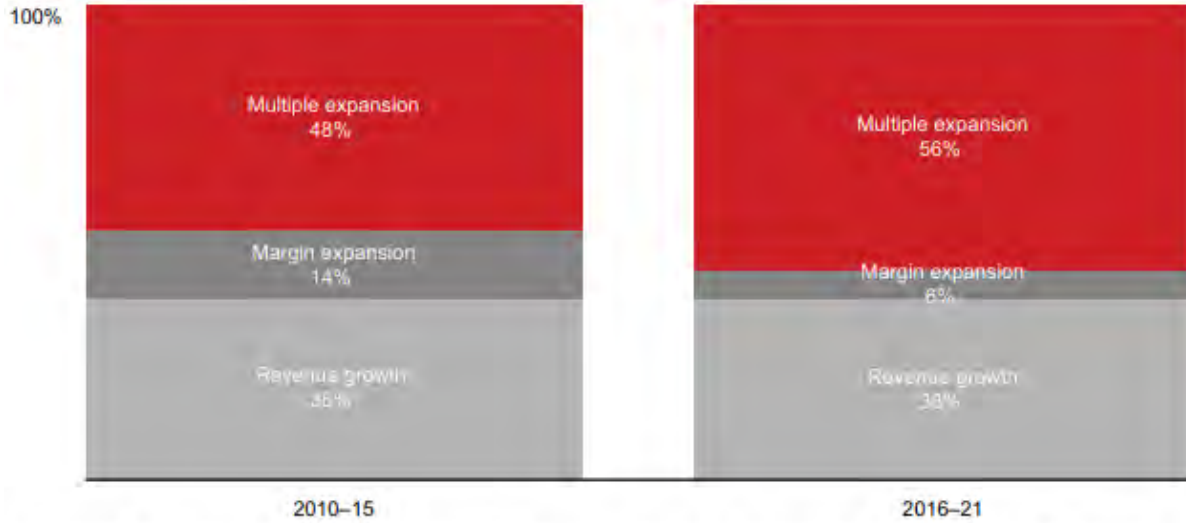
So, the critical question becomes can any investor consistently identify the top quartile firms who would hopefully outperform the PME's going forward and capture this relative outperformance? This question is addressed in Section 3.

#### *D. Adding Value Through Operational Improvements*

An additional premise justifying PE investments is the added value the firms create via operational improvements to their portfolio companies and not just produce leveraged beta. These improvements should result in top line revenue growth, improved profit margins, and EBIDTA and Adjusted EBIDTA growth. Increases in these factors would justify increased multiples for the company, which would result in a higher valuation. Are these operational improvements actually happening?

**Figures 17** and **18** below may call these assumptions into question as the impact of operational improvements as measured by margin expansion and revenue growth appear to have stalled. The primary driver of recent PE returns appears to be multiple expansion. This multiple expansion mirrors the multiple expansion that occurred in the PME's over the respective time periods raising the question of whether the multiple expansion was actually attributable to operational improvements or capital market effects.

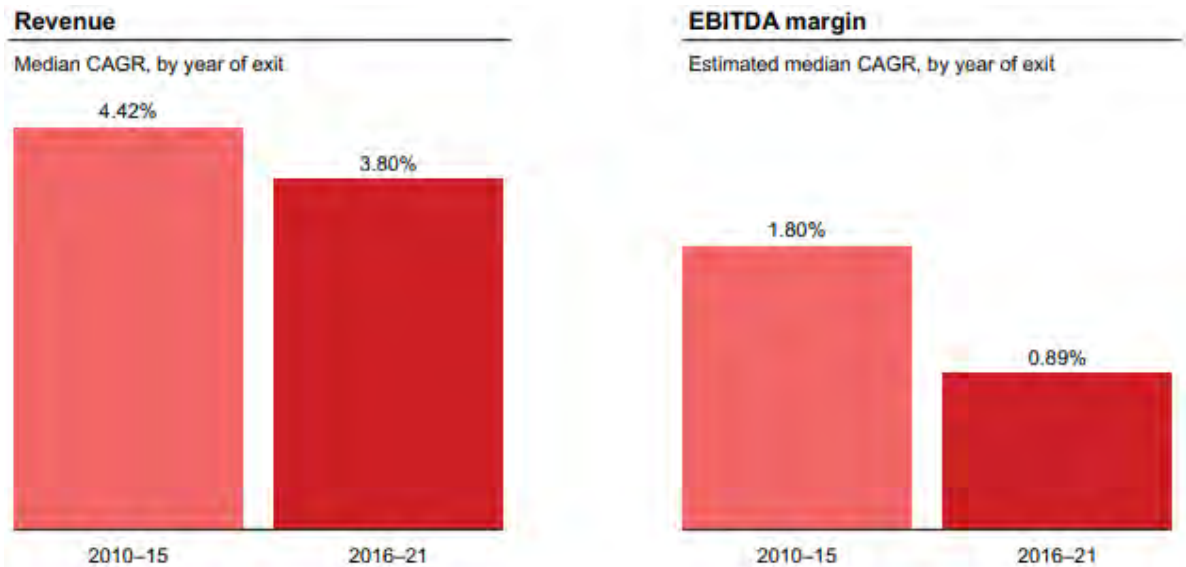
**Figure 17** Median Value Creation, by Year of Exit



Notes: Includes fully realized global buyout deals with more than \$50 million in invested capital; excludes deals with missing data; excludes real estate and infrastructure deals; 2021 data as of December 14, 2021  
Source: CEPRES Market Intelligence

Source: “Global Private Equity Report 2022,” p. 76, Figure 2, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

**Figure 18** Median Value Creation by Revenue and EBITDA Margin Growth



Notes: Includes fully realized global buyout deals with more than \$50 million in invested capital; excludes real estate and infrastructure deals; 2021 data as of December 14, 2021  
Sources: CEPRES Market Intelligence; Bain analysis

Source: “Global Private Equity Report 2022,” p. 77, Figure 3, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

Note that Bain did not include updated charts in their Bain Global Private Equity Report 2023.

In the past six years over half of PE returns appear to be attributable to multiple expansion. Multiple expansion can be attributable to several factors. If the PE firm, in fact, drives operational improvements by accomplishing one or more of the factors enumerated above, then multiple expansion should be warranted. The trend line for revenue growth and margin improvements has declined suggesting the PE performance enhancements impacts may be waning. Given the PME performance over the past 13 years, one can question whether the multiple expansion for PE was generated as much by market beta as actual operational improvements.

Academics have struggled to analyze operational improvements as most GPs do not publish the financial results of their portfolio companies other than realized and forecasted IRRs. Some academic studies generally found some improvement in operations at the portfolio company level for buyouts that occurred in the 1980's by analyzing the results of corporate tax returns.<sup>25</sup>

However, more recent studies have questioned this conclusion. One academic study examined the tax returns of the portfolio companies and stated “... *we find little evidence that LBOs in the 1990s and 2000s result in improvements in operating performance on average*”.<sup>26</sup> Another study reviewed the financial statements provided by the portfolio companies to mezzanine lenders and reached a similar conclusion.<sup>27</sup> This study was updated and reviewed the operating results of 933 transactions from 1996-2021 with data sourced from Capital IQ. The methodology reviewed the SEC public filings for companies that had issued public debt. They examined whether accelerated revenue growth, expanded profit margins and increased capital expenditures post-acquisition occurred when compared to the prior three years of operations. While admittedly a small sample, they concluded, “*The industry mythology of savvy and efficient operators streamlining operations and directing strategy to increase growth just isn't supported by data.*”<sup>28</sup>

Clearly, more research needs to be done to dissect how much value PE firms are adding to their portfolio companies. PE firms need to be more transparent regarding the actual performance of the portfolio companies, so investors can differentiate the factors driving performance: actual operational improvements versus market beta.

In short, even if PE firms are enhancing returns at the portfolio company level, it does not appear that these enhancements are translating into superior investor returns for their LPs based upon the more recent average industry results. Whether this fact is due to GPs (i) paying too much for their portfolio companies, thereby offsetting operational improvements; or (ii) buying inferior companies which can be operationally improved but are still unattractive; or (iii) not really adding value via operational improvements is unclear.

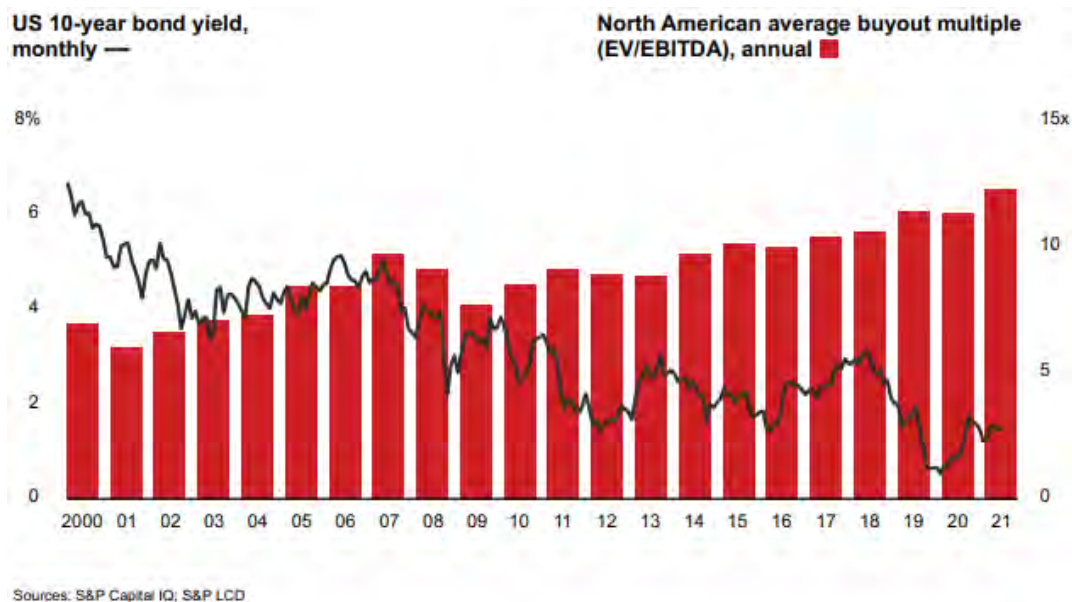
Without operational improvements and without falling interest rates, it is unclear how superior results will be generated.

### *E. Negotiating the Transaction*

The fact that the impact of operational improvements appears to have declined over the past five years overlaps with the fact that PE firms are paying ever higher entry multiples on their

transactions driven in part by the decline in Treasury yields. In short, PE firms are on average paying more to acquire portfolio companies. As interest rates rise and multiples likely contract, PE firms will be under greater pressure to improve operations in their portfolio companies to make up for the doubtful near-term ability to rely on multiple expansion to bolster their returns. **Figure 20** shows the relationship between entry multiples on PE transactions versus PMEs. Other than the last year shown in the chart, they have generally been in the 200 bp range and increasing over time from 2008 through 2021.

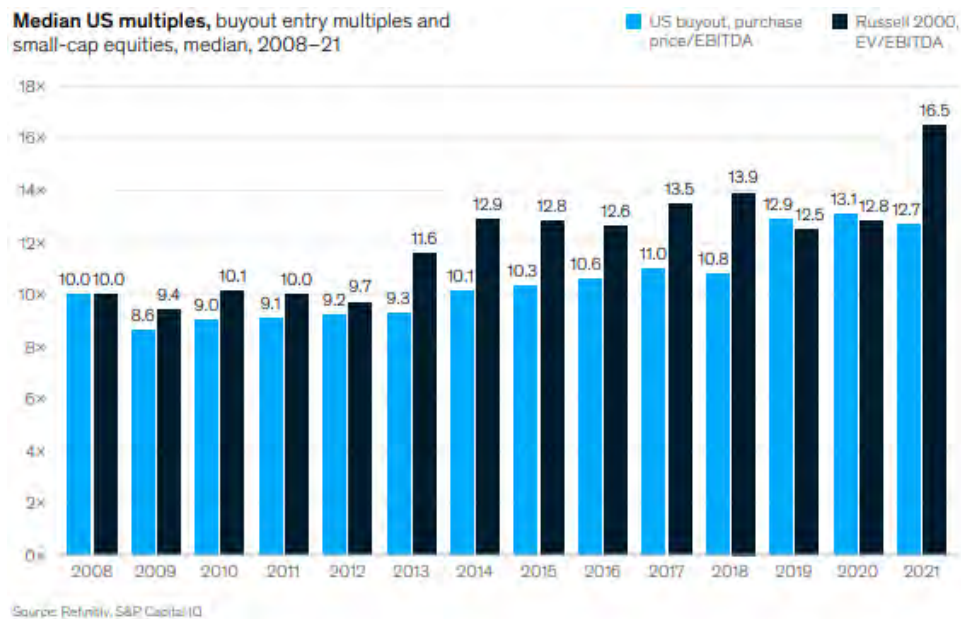
**Figure 19** US Bond Yields Versus North American Annual EV/EBITDA Multiples



Source: “Global Private Equity Report 2022,” p. 75, Figure 1, Bain & Company, 2022, [https://www.bain.com/globalassets/noindex/2022/bain\\_report\\_global-private-equity-report-2022.pdf](https://www.bain.com/globalassets/noindex/2022/bain_report_global-private-equity-report-2022.pdf), accessed November 2023.

Part of the convergence of the US PE returns to the public market may be due to the fact that PE firms appear to be paying more for their portfolio companies when compared to historical prices. Entry EBITDA multiples have grown higher over the past decade and have approached the same levels as those of comparable public companies except for 2021 as **Figure 20** illustrates. Indeed, in 2019 and 2020 PE firms actually paid higher entry multiples than the multiples of the Russell 2000.

**Figure 20** Median US Multiples, Buyout Entry Multiples and Small-cap Equities, Median, 2008-2021



Source: “Private Markets Rally to New Heights,” p. 28, Exhibit 20, McKinsey & Company, March 2022, <https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdfm>, accessed November 2023.

In the late 70’s underpinning the rationale for investing in PE was the notion that GPs could exploit market inefficiencies. They could make attractive acquisitions of portfolio companies at more attractive prices than those available in the public markets. However, in today’s market environment this assumption may no longer hold.

Compounding the increased entry multiple issue, making companies more expensive, is the fact that most large transactions are no longer “off market”. They are brokered sales or auctions. Sellers, especially larger companies, have become quite sophisticated over time and are willing to retain expert advice in selling all or a portion of their companies. This clearly makes the acquisition market much more competitive and efficient, which should have a deleterious impact on returns. Indeed, part of the premise for potentially superior returns was predicated on the GP’s ability to exploit market inefficiencies in the private markets. The academic research suggests that the VC market has produced more consistent, persistent results than large cap PE firms. Perhaps this is since VCs invest in a much smaller segment of the capital markets, which may, in fact, be more inefficient than the market segment in which large cap PE firms direct their attention.

## Section 3: What Does Academic Research Suggest?

Academics have long struggled to better understand and interpret PE industry returns due in large part to poor data quality. It has taken years to aggregate sufficient data at the partnership level to be able to draw definitive conclusions as returns are only reported quarterly. Complicating matters is the fact that the data is poorly disclosed with regards to portfolio company performance other than IRR calculations both realized and unrealized. Audited financial statements are typically presented at the PE partnership level, not at the portfolio company level. Cash flows tracked by some monitoring firms again represent contributions and distributions primarily made only at the partnership level.

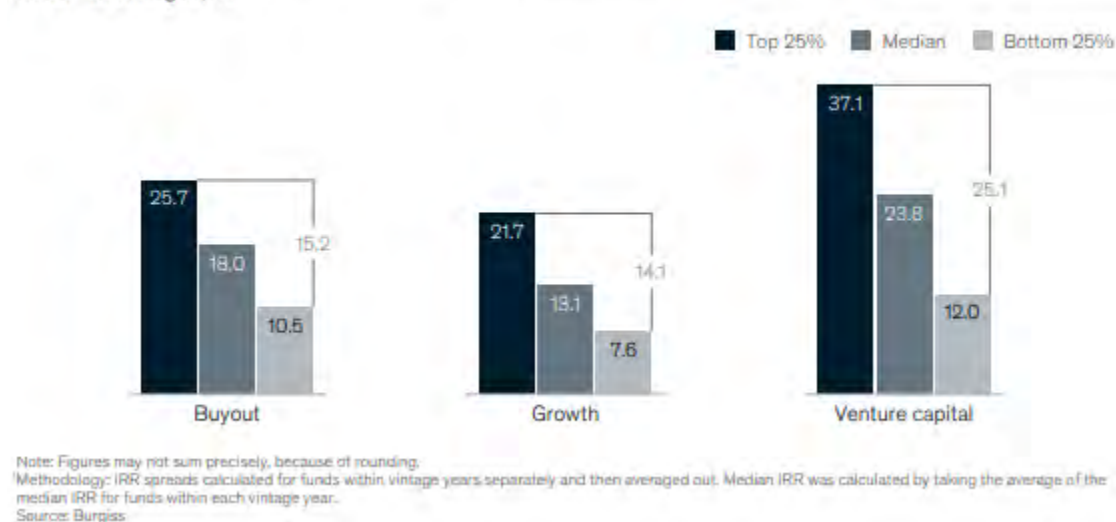
Since the GFC, data sources have improved materially, and academics have been pouring over the partnership level data leading to some startling conclusions. The primary questions they have addressed include: Is there persistence in returns that would serve as the basis for future investment decisions? Does a GP raising sequentially larger and larger partnerships have a negative impact on their performance? How do capital flows into the PE industry impact performance?

### *A. Persistence of Returns*

One of the fundamental PE precepts is that a firm's track record is important and needs to be dissected. Investors have believed that unlike the public markets, past performance of PE funds **is** indicative of future results. The investment thesis is that one must ascertain the top quartile performing firms as it has been believed they are more likely to produce top quartile results in their subsequent funds. Given the dispersion in returns between the highest versus lowest quartiles, as illustrated in **Figure 21** below, return driven investors have had a laser focus on a firm's track record in the hopes of obtaining future top quartile results.

**Figure 21** Dispersion of IRR Returns Across PE, Growth Equity and VC (globally)

Global PE fund performance by strategy, net IRR to date through Sept 30, 2021, 2008–18 vintages, %



Source: “Private Markets Rally to New Heights,” p. 25, Exhibit 17, McKinsey & Company, March 2022,

<https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdf>, accessed November 2023.

In a seminal piece, Private Equity Performance: Returns, Persistence (2005)<sup>29</sup>, Kaplan and Schoar analyzed the returns of PE and VC firms. The authors found persistence in the PE returns and even stronger evidence of persistence among VC firms. Similar studies, some using different databases, reached similar conclusions again for firms raising funds in the pre-2010 time.<sup>30</sup> These early studies were primarily focused on the results from US based funds.

In Performance Persistence in PE Funds, Chun (2012), using data for funds raised pre 2000 found that there was persistence between the first fund and the follow on fund, but that persistence was short lived. Performance dropped materially in subsequent funds thereafter. Indeed, he stated “...that it is more difficult for funds in the top performing portfolios to sustain their performance.”<sup>31</sup> He found, as others have, that the strongest persistence is among the poorer performing funds. His most disconcerting conclusion comparatively early in the industry analysis was that the data “...raises doubts as to whether private equity partnerships have proprietary skills enabling them to maintain consistent performance.”<sup>32</sup> Further, he stated, “...the results do not support buyout funds have differential or proprietary skills.”<sup>33</sup>

It should be noted that different databases (Burgiss, Preqin, PitchBook, Cambridge Associates being the primary sources) use different methodologies in presenting their results. While one might quibble as to which data source is superior, and whether one should analyze IRR only, IRR, MOIC, Multiple on Committed Capital (“MOCC”), cash flows, PMEs or all of them, the salient point is that while the data is imperfect, the early and subsequent studies directionally

reached similar conclusions over approximately comparable time periods. It is also important to note that the conclusions below relate to the aggregate conclusions based on the data samples. There may be performance outliers meaning there may indeed be some firms who exhibit performance persistence on the positive side and more conclusively on the negative side.

The early conclusions regarding persistence in PE and VC performance for the pre 2010 time period were important because the industry generally adopted the belief that analyzing a PE firm's track record was a critical component of an LP's due diligence for the subsequent fund. The belief in persistence became engrained among the LP community. The Kaplan and Schoar conclusions became the basis of the relentless pursuit of top quartile performing PE and VC firms. The entire gatekeeping industry was largely predicated on the assumption that their databases would enable them to identify the top quartile GPs and avoid those GPs who were "persistently" in the fourth quartile. All of this occurred notwithstanding the fact that a few academics early on raised some cautionary flags.

Similarly, in the analysis of LP performance, academics found there was return persistence of some LPs in the pre-2008 era, especially those following the so-called Yale investment model, which led to their outperformance relative to peers and benchmarks.<sup>34</sup> However, their outperformance evaporated in the post GFC era.<sup>35</sup>

Harris, Kaplan, and colleagues ("Harris et.al.") did an additional study in 2014<sup>36</sup> and updated their work in 2020 evaluating the performance of buyout partnerships from 1982 through 2014 and importantly reached different conclusions.<sup>37</sup> The authors noted material changes in the industry in terms of the size of the market and segregated the results between the performance results of PE partnerships pre-2001 and post-2000. Their conclusions are potentially profound.

In their latest paper the authors examined the data several ways. They looked at the cash flows, IRR and MOIC performance of over 2,220 PE and VC funds at the end of June 2019 for the vintages from 1984 to 2014. They excluded subsequent vintages as they believed they were still in their investment period. They grouped the partnerships by vintage years and performance quartiles and deciles. They also compared their performance to PMEs as well and ran regression analyses on both the PE and VC funds. The authors also adopted a novel strategy analyzing the GP's preceding funds' performance. They examined the information investors would have had at the time the GP was raising its next fund. In essence, this was the performance information and quartile rankings the investor would have had at the time when they were making the investment decision to invest in the next fund.

The results for VC and PE were different. The authors continued to find persistence among VC firm performance even in the post 2000 time period. This conclusion held even when using various analytic methodologies. They found:

"Our results on VC funds have two implications. First, the persistence in VC suggests that the industry rule of thumb is to invest with GPs that have previously performed well and to avoid those that have not remains consistent with our results. The stronger performance persistence for VC as compared to buyout suggests that GP skills and networks for successful VC investing are harder to replicate than is true in buyout."<sup>38</sup>

In the case of VC, 44.6% of GPs that had been in the top quartile for the prior fund were in the top quartile subsequently, and 26.9% of those prior top quartile funds were subsequently in the second quartile.<sup>39</sup>

The PE firm results were mixed. When the authors looked at the results at the end of June 2019, they confirmed some persistence using quartile rankings for both the pre and post 2000 and 2001 funds, respectively, when looking at performance after the fact at June 2019. The persistence level among the top quartile funds for the next fund for pre-2001 funds was stronger than post-2000 funds at 41% and 33%, respectively. But, stated differently, two-thirds of the post 2000 funds in the top quartile were not subsequently in the top quartile for their subsequent funds.

However, the authors concluded that ***“For our overall sample, as well as for both pre-2001 and post 2000 funds, fund performance is persistent. The conventional wisdom would appear to hold.”***<sup>40</sup> They also noted buyout performance persistence was described as “modest” when using PME regressions.<sup>41</sup> Indeed, the PME regression analyses and the persistence they found was driven by the funds in the **4<sup>th</sup> quartile**, not the top quartile, analogous to Chun’s findings.<sup>42</sup> **Surprisingly, the persistence conclusions are driven more by the worst performing, not best performing funds.**

The predictive quality of using the top quartile rankings **fell** for the post-2000 funds. The predictive power of the 4<sup>th</sup> quartile results increased for funds in this time period, which is somewhat counterintuitive. 1984-2019 is a long time period; why are the poorer performing funds in the database still in existence? While the authors noted a large attrition rate in the 4<sup>th</sup> quartile, there were still sufficient firms in the quartile with results from prior funds to be able to draw these conclusions. The data suggests the most predictive information for the investor to know is which firms to avoid.

When Harris et. al. examined the predictive indication of quartile rankings looking at the available information at the time of the LP’s investment, they found vastly different results. There was some persistence for the pre-2001 funds in that they found 37% of the top quartile in those vintage years produced top quartile results in the subsequent fund. For the post-2000 funds the persistence fell to 24% and they concluded ***“performance persistence based on fund quartiles disappears.”***<sup>43</sup> Their conclusion was that ***“The conventional wisdom [for PE], therefore, does not appear to hold for buyout funds”***<sup>44</sup> when looking at the available information at the time of the fund raise. ***“There is still no evidence of reliable outperformance by the top previous performers.”***<sup>45</sup> They also found **first time funds were just as likely to be in the top quartile as more seasoned investors contradicting the conventional wisdom of avoiding them until the firm has proven itself.**

These conclusions held regardless of which performance metric (IRR, MOIC, PMEs or regression analyses) was used. They found using PMEs as a metric was slightly more predictive than using quartile rankings.

The most recent 2023 study by Pitchbook confirms these conclusions. They analyzed multiple asset classes (PE, VC, Real Estate and Fund of Funds). They found ***“At a high level we found no to weak performance persistence across asset classes.....Persistence was nonexistent for PE and fund of funds”***.<sup>46</sup>

Using their updated database, Preqin found comparable results in using quartile rankings of the 1<sup>st</sup> through 4<sup>th</sup> quartiles at December 31, 2021.<sup>47</sup> Preqin used similar analytic methodologies as Harris et. al. They also bifurcated the results pre and post the GFC and also examined the results utilizing the information investors would have at the time of the GP fundraising. In their analysis they found that North American focused funds persistence declined post the GFC. Only 23% of top quartile firms in their database were in the top quartile in their next fund. Only 46% of the top quartile firms were subsequently above the median.<sup>48</sup>

Preqin concluded, “[Results] show that relying on past performance would not necessarily increase the odds of a top quartile rank in the future for North America-focused funds”.<sup>49</sup> They found similar results in Europe. Preqin also found similar results concerning the bottom quartile funds as Harris et. al. and Chun papers.

Preqin stated, “These findings tell us that conventional investment wisdom has not always led to expected outcomes. ....The fact that performance persistence is neat and intuitively sensible means that any research that conflicts with this conventional wisdom is usually met with skepticism.”<sup>50</sup>

We examined the Preqin database of the “Flagship Funds” of the firms within the Preqin database from 2008 through 2018 vintage years. We excluded the non-Flagship funds of the firms, or their ancillary products. In the Harris et. al. updated study, they found that the GP core funds performed better than their later “*secondary style funds ...launched later.*”<sup>51</sup> We excluded funds from 2019 through 2022 as they were still in their investment phases. The time period was selected due to the industry structural transformation as shown in **Figures 3** through **6** in the preceding section. We also segregated the returns associated with the largest 20 mega firms of portfolios over \$1 Billion and those associated with 20 largest funds under \$1 Billion.<sup>52</sup>

Again, we focused on the so-called “Flagship Funds” of PE firms, not their ancillary products. The results are illustrated in Panels A through V in **Exhibit 2**. These exhibits contain the raw data and identify the 954 funds and 444 firms in each quartile by vintage year measured by both IRR and MOIC.

Through 2021 the capital fund raising process had condensed to less than two years and less than a year in some instances, as shown in **Figure 4**. So, over the past decade one would expect each GP would have approximately three or four funds. Consequently, no firm could be in the top quartile in each vintage year, but one can draw conclusions as to how their more recent three funds performed in a rising market context.

**Figures 22** and **23** depict the performance results of the top 20 firms in terms of size for funds over and under \$1 billion, respectively. These firms were selected as they have raised the most capital in their respective categories. As illustrated above, there is a significant concentration of capital among the very largest firms. **The question this raises is whether the money is flowing to the best firms?**

The results of all these studies illustrate there is little persistence of the large (funds over \$1 Billion) firms being consistently in the top quartile with a few exceptions. It appears that those firms operating in the technology sector and KKR over the past 10 years exhibited greater persistent performance. See **Figure 24**.

Interesting is the fact that of the top 20 large firms in terms of Assets under Management (AUM), only six firms, or 30%, appeared in the top quartile more than once during the time period measured. Note that the top five firms, as **Figure 5** illustrates, raised 25% of all the buyout capital in the last five years. The top 20 firms have raised nearly 40% of the committed capital in the past 10 years. The top 20 quartile rankings of the 20 largest firms are depicted in **Figure 22**.

Of the top 5 capital raising firms shown in **Figure 6**, KKR, Thoma Bravo and Hellman & Friedman had funds in the top quartile more than once. Their capital allocations appear, with the benefit of hindsight, to be appropriate. Of the top 20 firms in terms of raising capital over the past 10 years, only 30%, or 6 firms, of the top quartile funds had top quartile performance more than once. Two of these six firms specialized in the technology sector over the past 10 years. Was their outperformance during this time period driven by sector selection, or market beta, or portfolio company selection and operational improvements? Given the material technology sector drawdown in 2022, it remains to be seen if Thoma Bravo, Silver Lake and Vista Equity Partners will continue to remain in the top quartile.

Note that some of the top 20 in raised AUM did not appear even once in the top quartile. Some appeared once in the top quartile but not in second quartile for their other flagship funds. Others, such as CVC, which recently announced the largest PE fund ever raised<sup>53</sup>, has only one fund in the second quartile and three in the third quartiles. Carlyle has more funds in the third and fourth quartiles than in the first quartile.

**Figure 22** Top 20 PE Fundraisers and Funds above \$1bn, Preqin Quartile Performance, at December 31, 2021

Fund Manager Name	Funds raised				
	last 10 years, \$mm	number of years top quartile	number of years 2nd quartile	number of years 3rd quartile	number of years 4th quartile
Blackstone Inc	140,361	1	0	2	0
KKR & Co Inc	118,116	1	3	0	0
Thoma Bravo LP	76,792	3	1	1	0
CVC Capital Partners SICAV FIS SA	67,507	0	1	3	0
Carlyle Group Inc	64,068	1	1	3	4
Ares Management LLC	63,192	0	0	1	1
TPG Capital Management LP	61,932	0	2	1	0
Apollo Asset Management Inc	53,551	0	1	1	0
Hellman & Friedman LLC	51,300	2	0	0	0
EQT Partners AB	48,652	2	2	1	1
Advent International Corp	45,475	1	1	1	1
Silver Lake Partners LP	45,300	2	0	0	1
Vista Equity Partners Management	41,611	1	3	1	0
Permira Advisers LLP	32,975	1	1	0	0
Leonard Green & Partners LP	28,688	0	1	0	0
Clearlake Capital Group LP	28,376	0	0	0	0
Clayton Dubilier & Rice LLC	28,000	2	1	0	0
Apax Partners LLP	27,517	2	0	1	0
Cinven Group Ltd	25,885	0	0	0	0
Oaktree Capital Management LP	24,527	1	0	1	0
<b>Total Top 20</b>	<b>1,073,822</b>				
<b>Total worldwide</b>	<b>2,776,256</b>				

Source: Created by authors using data from Refinitiv and Preqin.

**Figure 23** Top 20 PE mid-market fundraisers and Funds below \$1 Billion Preqin Quartile Performance, as of December 31, 2021

Fund Manager Name	funds raised	number of years	number of years	number of years	number of years
	last 10 years, \$mm	top quartile	2nd quartile	3rd quartile	4th quartile
Alpha Group	999	0	0	1	0
ICV Partners LLC	985	0	0	0	1
Warren Equity Partners LLC	983	0	0	0	0
Dignari Capital Partners HK Ltd	977	0	0	0	0
Lee Equity Partners LLC	970	0	1	1	0
Nonantum Capital Partners LLC	960	0	0	0	0
ECM Equity Capital Management C	958	0	0	0	1
Great Point Partners LLC	953	0	1	0	1
Crossharbor Capital Partners LLC	937	0	0	0	0
Diversis Capital LLC	930	0	0	0	0
Longreach Group Inc	925	0	0	0	0
Trinity Hunt Partners GP LLC	923	1	1	0	0
Birch Hill Equity Partners Managen	920	0	0	1	0
Fortissimo Captial Fund Israel LP	915	1	2	0	0
King Street Capital Management LF	911	0	0	0	0
Abris Capital Partners Sp z o o	896	0	0	0	0
Martis Capital Management LLC	895	0	0	0	0
Banc Funds Company LLC	893	0	0	0	0
Halifax Group LLC	893	0	0	1	0
ProA Capital de Inversiones SGEIC	892	0	2	1	0
<b>Total Top 20</b>	<b>18,715</b>				
<b>Total worldwide</b>	<b>2,776,256</b>				

Source: Created by authors using data from Refinitiv and Preqin.

With regards to the next category of firms and funds, in the under \$1 Billion sized funds, the data for the 20 top fundraisers with funds below \$1 Billion, shown in **Figure 23**, appears worse than for the largest firms in that they are even more inconsistent. **Figure 23** illustrates a few key observations. Only two firms (10%) in this category had one fund in the top quartile with a subsequent fund in the second quartile.

In this segment, there are many more funds than the mega funds (665 mega-funds versus 2008 mid-market funds or 293 mega-fund GPs and 1,191 mid-market GPs, according to Refinitiv database). This segment of the market is also far less concentrated than the mega fund category. The top 20 mid-market firms (with less than \$1 billion capital raised cumulatively during the last 10 years) represent only 0.6% of the total capital raised in the buyout space (\$18.7bn of total \$2.78 Trillion).

Why is the question of concentration important? Capital should flow to those firms that have exhibited performance persistence over time. Of the top five firms that have raised 25% of the recent capital allocations, three had more consistent performance based upon the reported data. This suggests capital to these firms had been allocated rationally. Query whether this conclusion will hold after the technology sector inevitable write-downs.

Overall, the largest 20 fundraisers in the mega category had inconsistent results. Only 30% had more than one fund in the top quartile. Stated differently, 70% of the mega funds were not in the top quartile more than once. Only 9 of the 20 had more than two funds in the top two quartiles or 45%. This is hardly overwhelming evidence of persistence. This group of GPs raised

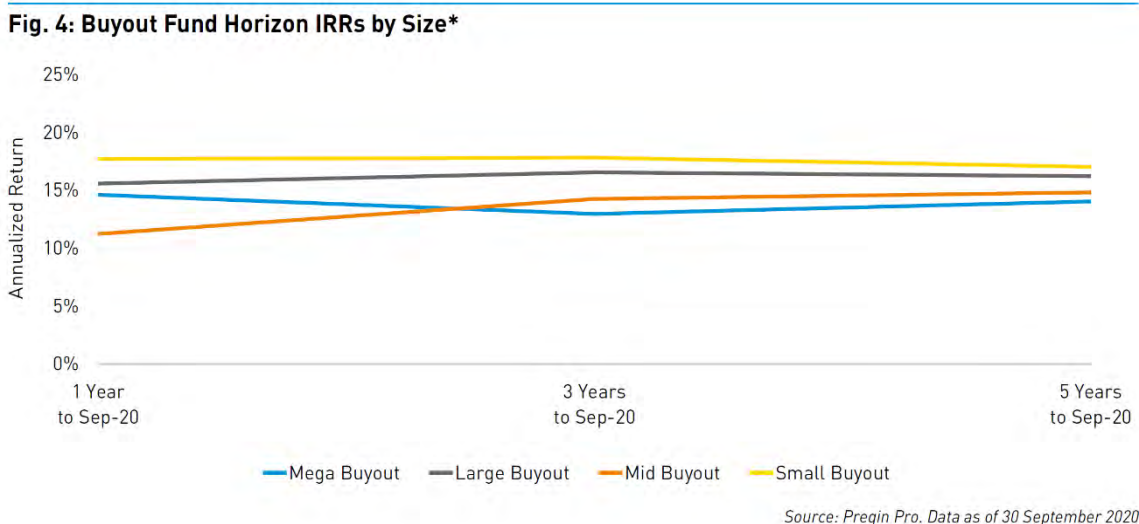
39% of the capital over the past 10 years. Investors appear to be chasing past returns with those firms in the mega fund category.

In the second category of funds under \$1 Billion, only 10% of the top 20 fund raisers had even one fund in the top quartile. Fortississimo Capital and Trinity Hunt Partners had funds in both the top and second quartiles. **Figures 22 and 23** and the concentration figures suggest that capital may not have flowed to the correct firms.

Further, in terms of performance, capital appears to be flowing to the wrong subsector of PE. Small buyout funds consistently outperformed large cap buyout funds over the recent time period as **Figure 24** illustrates. It appears that the capital flows were inconsistent with the objective of obtaining the highest nominal returns. While the smaller funds as a group outperformed, the question becomes can one select the individual firms that will be in the top quartile in this subsector?

This analysis also raises the question of whether the same firms will remain in each of the respective categories. It has been documented that the more successful funds subsequently raise increasingly larger funds, discussed below, which tend to underperform the prior fund. A more successful investment strategy should focus on smaller buyout firms and those who have remained in this subsector. It also reaffirms the Kaplan conclusion that first time funds should be considered as they tend to raise smaller buyout funds and have as much of a probability of success as their larger counterparts. LPs may also have greater leverage in negotiating terms with first time funds further enhancing the probability of receiving higher returns.

**Figure 24** Buyout Fund Horizon IRRs by Size (on a net-to-LP basis)



Source: “Private Capital Performance Update: Q3 2020,” p.3, Figure 4, 30 September 2020, <https://docs.preqin.com/reports/Preqin-Private-Capital-Performance-Update-Q3-2020.pdf>, accessed November 2023.

In their paper on private equity performance, Kaplan and Schoar analyzed the relationship between past performance and the flow of capital into subsequent funds.<sup>54</sup> They found that capital flows into PE are positively and significantly related to past performance and that during boom times, capital flows disproportionately to funds with lower performance instead of flowing to the best GPs.<sup>55</sup> In other words, the better the GP did in a prior fund, the more the GP can subsequently raise. The conclusion academia generally reached was that size does matter. Having significantly more capital to invest was negatively correlated to performance from an early fund to a later fund.<sup>56</sup> This concept became an industry accepted thesis.

The researchers offered two suggestions as to why the best performing funds might prefer staying smaller: (i) it is possible that the number of good deals in the economy is limited at each point in time; and (ii) better funds might face constraints, if GP human capital is not easily scalable, and new, qualified individual GPs are scarce.<sup>57</sup> In another paper, Brown, Fei and Robinson (Brown *et al*), were able to analyze performance at the transaction level using the Burgiss database. They found that larger transactions had lower returns, but exhibited less volatility, than smaller transactions.<sup>58</sup>

This PE behavior contrasts with the VC industry. The most successful VCs in terms of performance have not attempted to raise the largest possible sequential funds, with some notable exceptions. While they have increased their fund size, they have limited access to new LPs. Indeed, the most successful VCs in Silicon Valley have closed their funds to new investors. Scarcity of capital does impose a measure of investment discipline. Perhaps this investment discipline coupled with operating in a smaller, more inefficient market segment accounts for VC return persistence.

However, the conclusion that raising increasingly larger funds is deleterious for later performance due to the increased size of the subsequent fund has been challenged in a recent peer reviewed paper by Andrea Rossi.<sup>59</sup> He, like others, did find a ***“negative and significant relationship between fund growth and fund performance”***.<sup>60</sup> Rossi notes that many investors have been disappointed when they invest in a top quartile fund only to experience poorer performance in subsequent funds. The industry has attributed this trend to the subsequent increase in fund size. Rossi, however, hypothesized a different reason for the decline not related to fund growth. “I show that a substantial portion of the spread [decline in return from one fund to the next] in realized returns between funds whose follow-ons grow the most and funds whose follow-ons grow the least is attributable to noise or, in other words, luck.”<sup>61</sup>

This suggests that the higher returns of the preceding fund were possibly more attributable to “luck” rather than skill. So, the subsequent, larger fund would be based on “luck” not superior investment acumen. Thus, he concludes that since there is no reason why “luck” will necessarily continue, the follow on funds will likely revert to the industry mean or have poorer returns than the prior fund. This is a potentially damning conclusion.

Most of the investor “disappointment” in his words is ***“due to luck in past winners reverting to zero rather than to the effects of fund growth”***. In short, firms raising successively larger funds based on their past performance, and whether this will negatively impact future performance, is not the right question. The better question is whether the prior fund generated superior results as a consequence of luck versus skill. This conclusion parallels the public equity

markets in which public equity money managers have had<sup>62</sup> significant difficulty outperforming their relevant indices.

Rossi's analysis suggests poorer subsequent performance due to its larger size is a classic example of correlation not causation result.

Brown *et al* reached similar conclusions when they performed an attribution analysis at the transaction level. They found that only 4% of the results were attributable to the GP's skill and over 90% of the results were attributable to "luck". They found more of an impact from the GP's portfolio construction.

The illustration of the recent success of the technology orientated funds being in the top quartile more consistently in the past 10 years may be consistent with Rossi's analysis. Sector selection by the GP may have had as much of an impact on their results as their ability to select individual companies. Brown *et al* found that more specialized funds in terms of sector and geographies had better performance than the more diversified portfolios. The conclusion one might draw from this analysis is that investors would be better served by focusing on sector selection first based on then existing market opportunities, and then finding the best specialists in that sector, as opposed to chasing returns of the past successful investment strategies.

Given the more recent performance (from 2008 to 2018) of PE firms, the assumption that analyzing past performance at the time of the investment decision will be predictive of future results is tenuous based on academic studies and the Preqin data when examining performance of the larger firms in both the mega fund and smaller fund subsectors. Investors have not consistently selected the top quartile firms based on to whom the capital has been allocated. The ramifications of this conclusion are discussed below. Capital has flowed to firms based more on early performance (in the 1980s and 1990s) or the "brand" name of the firm versus more recent performance over the past decade. Investor intransigence in terms of continuing commitments to firms not generating top quartile performance is discussed below.

## *B. Impact of Capital Flows*

Notwithstanding Rossi's controversial conclusions, suggesting that "luck" not scale accounts for declining performance, there have been additional academic studies on the impact of capital flows on investment performance in the public markets<sup>63</sup>. In their research on the mutual funds industry, Berk and Green addressed the question why financial intermediaries are so highly rewarded despite the seeming uncertainty about whether their activities add value. Their econometric model confirmed the idea that active management did not outperform passive benchmarks, and the explanation they offered was based on the idea that ***"investors competitively supply funds to managers and there are decreasing returns for managers in deploying their superior ability; managers increase the size of their funds, and their own compensation, to the point at which at which expected returns to investors are competitive going forward"***<sup>64</sup>. In plain words, excess capital flows to a firm decreases their performance as they scale having a negative impact on their future performance.

The example of Fidelity's Flagship Magellan Fund provides an interesting example of performance declines due to growth. The Magellan Fund was initially run by Peter Lynch, one of the paragons of the mutual fund industry. It became a victim of its own success. The fund had extraordinary success when the portfolio size was quite small. The fund was initially only

available to Fidelity principals from 1963 until 1981 when it opened to the public. Based on its spectacular track record, Lynch's portfolio grew from \$20 million to \$52 Billion. Under Lynch's guidance the Magellan Fund became one of the most successful actively managed mutual funds, usually outperforming its benchmark.

Lynch retired in 1990 and the Magellan Fund had a series of subsequent portfolio managers. However, Fidelity continued to grow Magellan's AUM and the outperformance declined with the fund lagging the S&P. Its performance declined to the point that the Magellan Fund was closed to new investors in 1997 due to the belief it had become too large to outperform. Indeed, the Magellan Fund largely underperformed the S&P for the 20 year period from 2000 through 2020. It was not reopened until 2008. The fund shrank in size from ~\$100 billion in 2000 to \$23.6 billion in July 2022 (including a major capital distribution while the fund was closed). The performance of the smaller portfolio of late has improved. Notwithstanding the downsizing, the Magellan Fund performance relative to the S&P was 13.05% vs 13.08% over the past trailing 10 years at August 31, 2022.<sup>65</sup> In short, its returns were essentially comparable to the public benchmark.

**Figure 20** above indicates that PE entry multiples increased over time overlapping the increase in capital flows into PE as well as the increase in multiples of public PMEs. The industry has raised unprecedented amounts of capital in recent years which does not augur well for the future performance generally for the PE industry.

**The preponderance of PE capital has been concentrated with a comparatively small number of firms with inconsistent performance.** Perhaps these PE funds are beginning to mirror the issues associated with Magellan's portfolio managers at Fidelity and the other large mutual funds as illustrated in **Figure 25** below. One can legitimately ask whether the mega fund GP sponsors have gotten too large and whether the market in which they operate has become too efficient. Should the focus instead be on smaller funds that as a category have performed better and to which less capital has flowed? They are closer in size to some of the successful VC firms who have demonstrated more persistent performance.

The PE industry may be ripe for disruption. The evolution of other financial services companies who have faced disruptive forces may provide some insights as to the challenges the PE industry may face. The mutual fund industry and its trends over the past 15 years are especially relevant.

## **Section 4: Disruptive Potentials for PE**

### *A. Mutual Fund Trends*

Why do mutual funds have any bearing on the PE industry? There are several reasons. Structurally, the large PE GPs have essentially become mutual funds focusing on the private markets as opposed to the public markets. Like the large mutual fund managers, large PF firms have a "smorgasbord" of investment products ranging from their original flagship funds to numerous specialized products in a variety of asset classes. They have become "one stop" shopping platforms for private investing. As an example, Blackstone offers their flagship PE fund, Real Estate, Credit, Tactical Opportunities, Infrastructure, Hedge Funds, Secondaries, Life Sciences, Growth Equity, and registered products for retail investors.<sup>66</sup> The evolution of the mutual fund industry could provide guidance as to what may happen to the PE industry. Large

public mutual funds companies essentially have the same multi-product structure. Rarely has any mutual fund become the industry leader in each sector in which they had an investment strategy raising the question of whether one stop shopping works.

There have been multiple academic papers beginning with Eugene Fama documenting the difficulty active managers have in consistently outperforming their respective benchmarks.<sup>67</sup> The Efficient Market Hypothesis (EMH) coined by Fama in the 1960-1970s states that public markets are efficient, if current publicly traded security prices reflect all relevant information including past market data (such as stock prices and trading volume) as well as all publicly available and private information<sup>68</sup>. Therefore, if EMH holds, few active equity investors consistently “beat” the market, i.e., generate excess returns above their benchmark with a commensurate level of market risk over the long term.

The very term “random walk” in security selection suggested that *“a blindfolded monkey throwing darts at a newspaper’s financial pages could select a portfolio that would do just as well as one carefully selected by experts.”*<sup>69</sup> In other words, investment manager results may be as much a function of luck versus skill. This conclusion results from stock price movements that are unpredictable and public markets that are too efficient, as well as the costs of trading. These conclusions are consistent with Rossi’s about PE mentioned before.

EMH is a convenient theoretical framework that helps analyze how useful different investment toolkits could be under different market circumstances when trying to outperform a passive management approach. These toolkits include technical analysis, fundamental analysis, portfolio management techniques, and identifying various market anomalies.

These are the same acquisition tools used in PE. Historically, the argument has been that the private markets are inefficient so that market anomalies can be identified and exploited. The GP might try to achieve excess returns by gaining a competitive edge in analyzing various forms of information that can be costly or not readily available to other market participants. Such an approach requires extensive use of fundamental analysis that encompasses assessing the intrinsic value of assets using different valuation tools, using accounting data, incorporating management forecasts, and analyzing various macroeconomic assumptions. In short, if the PE firm is acquiring a private company, they can trade on inside information with management’s cooperation. If the target is a public company, the PE firm must sign “stand off” agreements in which they cannot trade the company’s securities in exchange for receiving inside information utilized to acquire the company.

The primary difference between the public and private market money managers is in the management of their portfolio companies post-acquisition. PE GPs typically take control over their portfolio companies and exert considerable influence over the company’s strategy, and management’s execution of that strategy, which public money managers do not do. One might ask how effective PE GPs have been in adding value via operational improvements based on the discussion above.

The markets in which PE GPs operate have changed so radically over the past decade that previous assumptions regarding their inefficiencies are subject to question. Information concerning potential acquisition targets is far more readily available. Couple this fact with the increased competition for transactions, the ability to exploit private market inefficiencies may be declining particularly at the larger cap size of the market. The ability for large cap PE GPs to

consistently outperform the average PE market performance may mirror the results of public active equity managers who historically do not consistently outperform their benchmarks net of fees. Fama’s conclusions may now bear on large cap PE firms.

Historical data on the mutual fund industry showcases that the largest actively managed mutual funds have trailed the S&P and have not outperformed the index as **Figure 25** illustrates. The largest flagship mutual funds have outperformed the S&P Index only episodically.

**Figure 25** Performance of Largest Actively Managed Mutual Funds vs. S&P 500



Source: Bloomberg, accessed November 2023.

Note: S&P is shown in white, Fidelity Magellan Fund in blue, Vanguard Prime Cap Fund in red, and American Funds Core Fund Class A in purple.

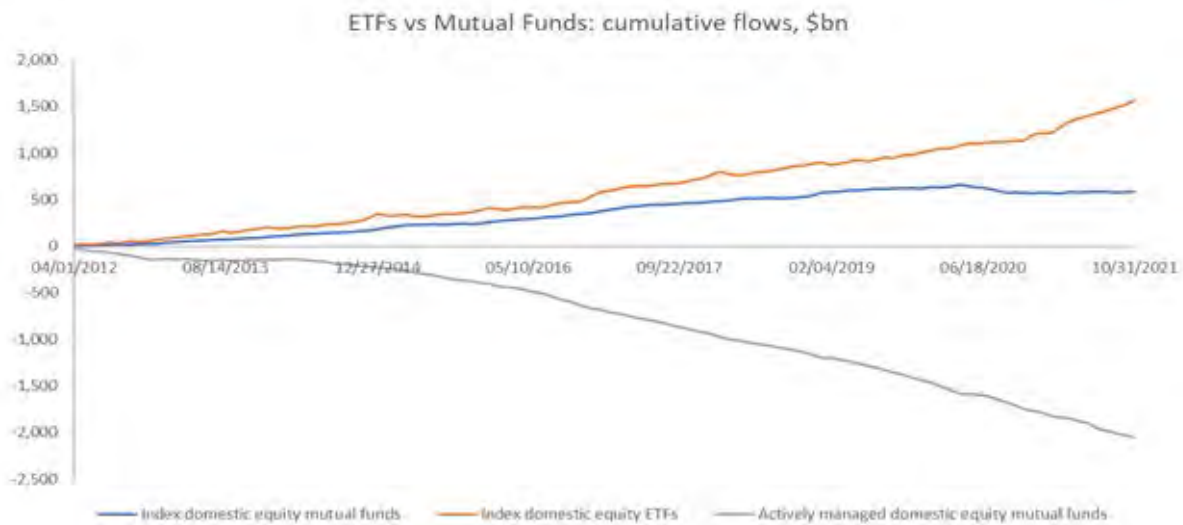
It took decades for the public market to realize and to accept this information. In recent years the investment community has begun to vote with their money and shift into passive products as illustrated in **Figures 26** and **27**.<sup>70</sup>

**Figure 26** Net New Cash Flow of Mutual Funds in the US from 2000 to 2020, by Fund Management Type (in billion US dollars)



Source: “Net new cash flow of mutual funds in the United States from 2000 to 2022, by fund management type,” Statista, May 2023, <https://www.statista.com/statistics/1263876/active-passive-mutual-funds-net-new-cash-flow-usa/>, accessed November 2023.

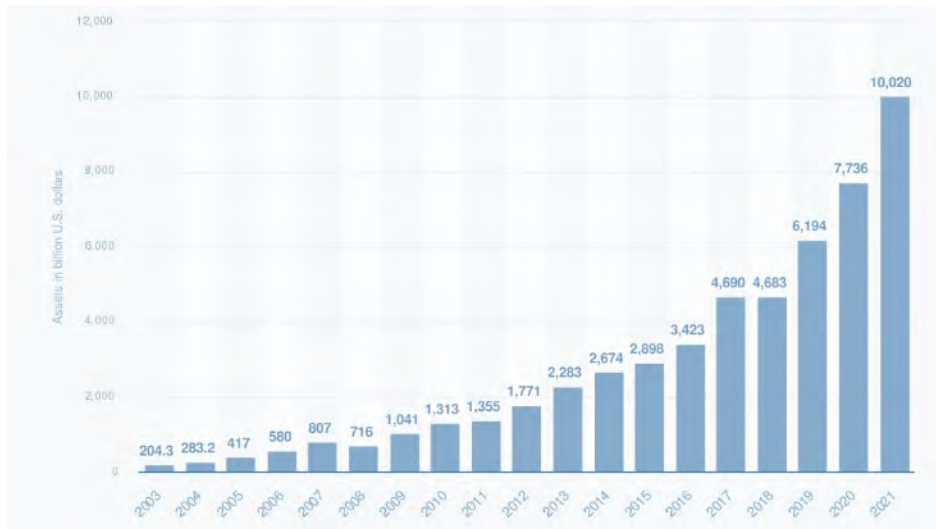
**Figure 27** ETFs vs. Mutual Funds: cumulative flows, \$bn



Source: Adapted by authors, from “2022 Investment Company Fact Book,” Fig. 3.16, p. 62. Investment Company Institute, 2022, [https://www.ici.org/system/files/2022-05/2022\\_factbook.pdf](https://www.ici.org/system/files/2022-05/2022_factbook.pdf), accessed November 2023.

The mutual fund industry has become materially disrupted over the past 10 years because of active equity managers' difficulty in achieving and sustaining alpha. Other products offering passive replicating alternatives in the form of Index Funds and ETFs were developed. These products offer near benchmark returns at a fraction of the cost of active management. **Figure 28** illustrates the growth of the passive ETF investment strategies.

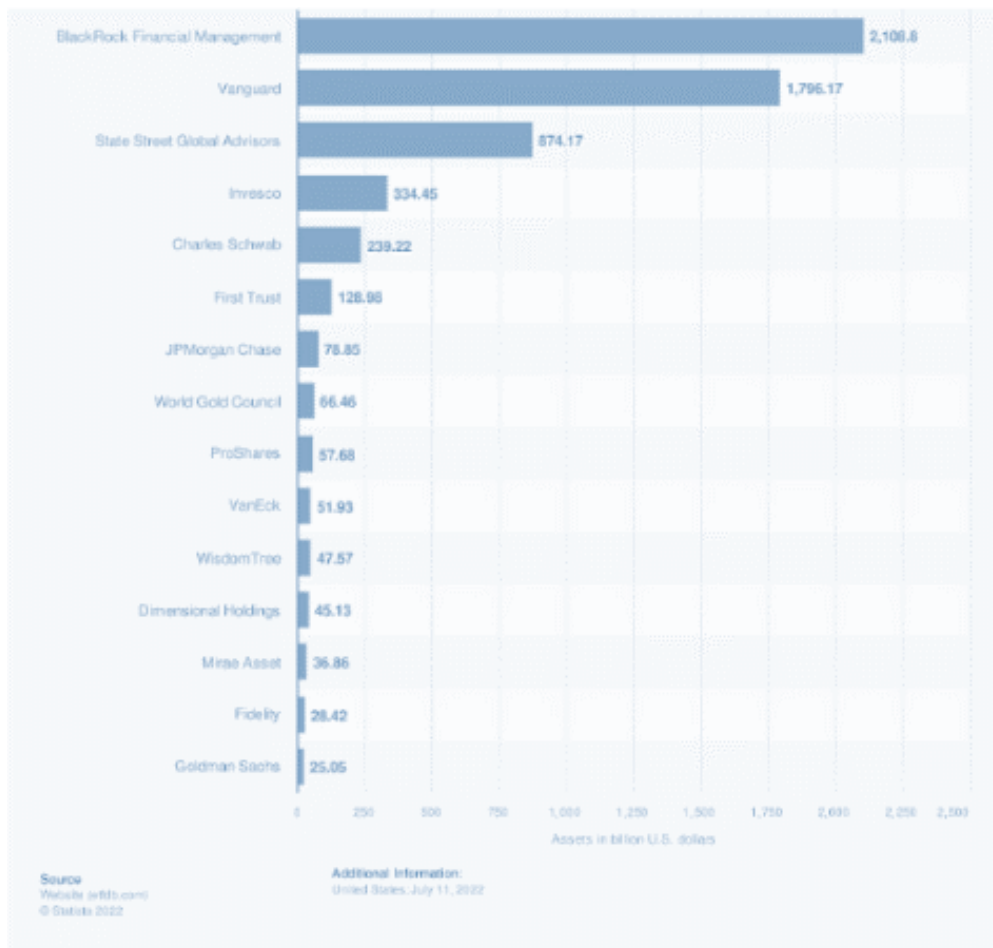
**Figure 28** Development of Assets of Global ETFs from 2003 to 2021 (in billion US dollars)



Source: “Development of assets of global exchange traded funds (ETFs) from 2003 to 2022,” Statista, February 2023, <https://www.statista.com/statistics/224579/worldwide-etf-assets-under-management-since-1997/>, accessed November 2023.

Mutual fund companies reacted by adapting and offering both active and passive management services: actively managed vehicles have historically considerably exceeded passively managed vehicles although passive management has recently demonstrated substantial growth. In 2018, passively managed assets comprised a fifth of global AUM with the top three managers (iShares, Vanguard, and State Street) accounting for 70% of the passively managed industry assets. According to the CFA Institute, there are two main catalysts for passive management development: first, more clients are attracted by lower fees compared to those in actively managed products; and second, greater challenges in generating alpha by active managers.

**Figure 29** Largest ETF providers in the US, by AUM, as of July 2022



Source: “Largest providers of ETFs in the United States as of September 2023, by assets under management,” Statista, September 2023, <https://www-statista-com.ezp-prod1.hul.harvard.edu/statistics/269928/assets-under-management-of-the-largest-etf-providers-in-the-us/>, accessed November 2023.

**Figure 30** Largest ETF Providers Globally, by AUM

ETP Provider	Assets (US\$ billions)	Market Share (%)
iShares	1,583	37
Vanguard	803	19
State Street Global Advisors	596	14
PowerShares	132	3
Nomura	100	2

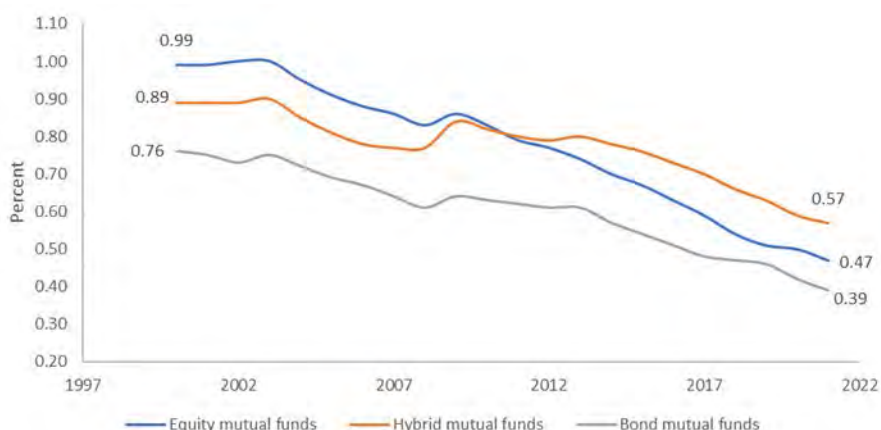
Source: ETFGI.

Source: “The Asset Management Industry,” Fixed Income, Derivatives, Alternative Investments, Portfolio Management, vol. 5, CFA Institute, 2022, p. 522.

This concentration of assets mirrors what has happened in the PE industry notwithstanding the performance of some of the larger PE firms. Smaller PE firms will struggle to raise capital relative to the “brand” name firms, as has happened in the past few years comparable to what happened in the mutual fund industry. Capital has been disproportionately allocated to the larger PE firms at the expense of the smaller PE firms. So how are they likely to compete?

The public active equity managers’ reaction to the potential disruption from ETFs and Index funds was clear. If you cannot compete on the basis of performance, the way to enhance performance is to reduce fees; in other words, compete on the basis of price. To stave off the capital outflows active equity managers began to offer their own passive products and began to compete on price by reducing their management fees on their active products. **Figure 31** below illustrates the expense ratios, of which the management fee is the largest component, trend for active public equity managers. In short it has been a race to the bottom. The mutual fund industry has become commoditized. So will the PE industry. Only the most consistent active equity managers have not yet sought to compete based on price.

**Figure 31** Expense Ratios Incurred by Mutual Fund Investors



Source: Created by authors using data from “2022 Investment Company Fact Book,” Fig. 6.1, p. 100, Investment Company Institute, 2022, [https://www.ici.org/system/files/2022-05/2022\\_factbook.pdf](https://www.ici.org/system/files/2022-05/2022_factbook.pdf), accessed November 2023.

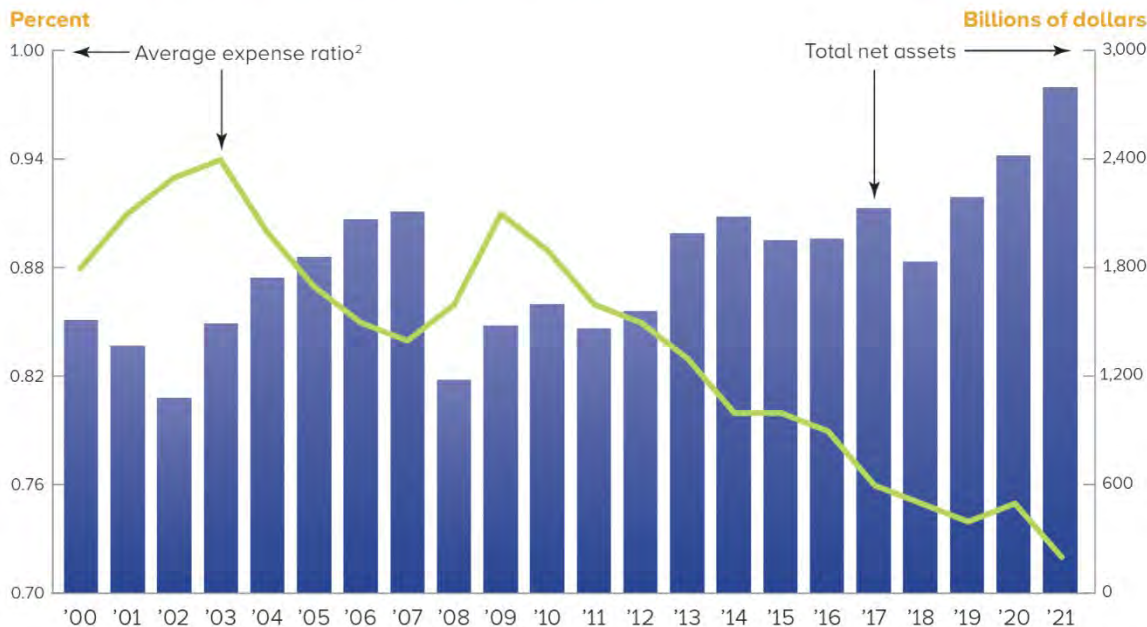
Note: See ICI Research Perspective, “Trends in the Expenses and Fees of Funds, 2021.”

**Figure 32** illustrates that the expense ratios declined precipitously notwithstanding the fact that AUM grew. Since asset management fees are fixed as a percentage of AUM, one would have expected the line to parallel the growth of the industry. The decline illustrates the impact of the reduced fees associated with the competition from passive management.

**Figure 32 Mutual Fund Expense Ratios**

**Mutual Fund Expense Ratios Tend to Fall as Fund Assets Rise**

Share classes of actively managed domestic equity mutual funds continuously in existence since 2000<sup>1</sup>



<sup>1</sup> Calculations are based on a fixed sample of share classes. Data exclude mutual funds available as investment choices in variable annuities and index mutual funds.

<sup>2</sup> Expense ratios are measured as asset-weighted averages.

Sources: Investment Company Institute, Lipper, and Morningstar. See *ICI Research Perspective*, "Trends in the Expenses and Fees of Funds, 2021."

Source: "2022 Investment Company Fact Book," Fig. 6.2, p. 101, Investment Company Institute, 2022, [https://www.ici.org/system/files/2022-05/2022\\_factbook.pdf](https://www.ici.org/system/files/2022-05/2022_factbook.pdf), accessed November 2023.

Why did this structural change take so long given the fact that Fama et. al. identified the issues about the lack of alpha in active management decades before? There are two primary reasons, the first of which is the lack of products until the late 1990s that were widely accepted. John Vogel of Vanguard is credited with establishing the first indexed mutual fund in 1976, although it was not initially well received. He did not publish his classic Common Sense on Mutual Funds until 1999.<sup>71</sup>

The second reason why it took so long is attributable to human inertia and delays in modifying long held opinions. Although most researchers agree that public markets tend to be efficient, they have also identified various market anomalies (time-series, cross-sectional, and some others) that can be explained by various theories stemming from behavioral economics popularized by Kahneman and Tversky in the 1970-1980s.

Their ideas focus on understanding human beings' decision-making processes and the degree of their rationality. A key concept of behavioral economics is that people often deviate from

rational behavior, exhibit various cognitive errors and emotional biases (representativeness, herding, overconfidence, naïve diversification, etc.), and tend not to use all available information when making decisions. In the investment arena, they often resort to herd thinking and buy into bubbles and sell into crises.<sup>72</sup>

Kahneman's in his *tour de force* Thinking Fast and Slow,<sup>73</sup> showed a group of active investment managers that they had not produced any consistent alpha over time and even when confronted with the data, they could not believe it, nor more importantly, incorporate it. In short, the inertia associated with holding a strongly held belief makes it exceedingly difficult to change that belief.

Kahneman showed the firm that they were rewarding luck not skill and that:

“The illusion of skill is not only an individual aberration; it is deeply engrained in the culture of the industry. Facts that challenge such basic assumptions – and thereby threaten people’s livelihood and self-esteem -are simply not absorbed....the illusions of validity and skill are supported by a powerful professional culture. ....Given the professional culture of the financial community, it is not surprising that large numbers of individuals in that world believe themselves to be among the chosen few who can do what they believe others cannot.”<sup>74</sup>

This quote could have been written about the PE industry.

In sum, the PE data suggest that (i) traditional methods of evaluating a given GP partnership are questionable; (ii) evaluating performance persistence post 2008 may be subject to doubt at the time the investment is made; (iii) selecting a given GP in the hopes of obtaining top quartile results may be a random walk; (iv) investment performance may possibly be as much attributable to luck rather than skill; (v) the recent median PE investments do not outperform PME's and one is just as likely to select a median GP as a top quartile GP; and (vi) PE performance may actually underperform PME's on a risk adjusted basis given the amount of leverage they employ generating equivalent results on a nominal basis.

The conclusions, should they become widely accepted, have the potential to materially disrupt the PE industry in terms of how capital is allocated. However, given the entrenched interests not only of the PE firms and those firms who support them in maintaining the status quo it may take years for these conclusions to be accepted by LPs and will most certainly be strongly resisted by the entrenched interests. Eventually, though, the data should prevail.

### *B. Other Disruptive Potentials for PE*

There is no question that disruptive forces have radically changed the mutual fund industry that may be paralleled in PE. As it became apparent that active equity managers on average did not outperform their benchmarks on a sustained basis, investors sought alternative methods to invest on a more cost effective basis. What are potential disruptive forces in PE that could structurally change the industry?

These disruptive factors may include:

- PE firms converting from entrepreneurial incentives (carried interests) to asset gatherers (management fee orientated)
- Lower return expectations
- Increased competition from clients
- Alternative investment executions or products
- Industry consolidation and the hollowing out of the “middle”
- Structural changes to PE organizations
- Commodization of the PE industry

## Need to Grow AUM and Change of Incentives

The dynamics of the PE industry have changed profoundly since the 1980's and 1990's. In the early years of the industry the GP's primary economic motivation was the carried interest they might earn. GPs then invested substantial amounts of their own capital alongside the LPs. Their collective interests were aligned.

The early successful market entrants are now large public companies. As public entities their primary motivation is to increase AUM and increase their base management fees. This is directly analogous to the mutual fund industry. The value of public PE firms is primarily driven by their AUM growth, and the derivative management fees that are easily quantifiable, as opposed to the value of carried interests that are generally viewed by the capital markets as non-recurring income. In short, public GPs have become asset gatherers and their incentive is to grow AUM as much as possible. While carried interests are still important there is a profound shift in the incentives of these GPs from the early days of the industry.

Indeed, the consequences of these incentives were identified 17 years ago by Howard Marks in one of his famous Memos, entitled “The New Paradigm”. He stated,

**“...[Large] amounts of money are demanding access to the alternative markets... For this reason, investors may attach more importance to the ability to put large sums to work than to be able to attain historic returns and risk premiums, clear high due diligence hurdles, or structure fee arrangements that channel managers' energies for the benefit of clients.** (emphasis in the original).”<sup>75</sup> Marks identified the new paradigm as:

- **“First, raise a lot of money.**
- **Second try for a rate of return that clients will find acceptable.**
- **Third, don't take enough risk to possibly preclude an encore.**
- **Fourth, invest as prudently as possible, so that another fund can be raised while the markets are accommodating.”** (emphasis in the original)<sup>76</sup>

Marks turned out to be prophetic. The trends he identified and the attitudes towards investors' attitudes towards risk and return have largely come to pass.

Their sheer current size requires these firms to continually invest as they keep raising capital or lose their commitments after the investment period. This business model takes away flexibility on the GP's part to put their "foot on the brake" when the market cycle hits a peak.

The recent behavior of GPs supports the conclusion of the shift to asset gathering. GPs have reduced the time period between fund raises shown in **Figure 4**. Indeed, it was announced in July 2022 that Blackstone intended to raise its next \$30 Billion real estate opportunity fund this year even before its prior \$30 Billion real estate opportunity fund, BREP X, had closed.<sup>77</sup> Blackstone announced it had passed the \$1 Trillion mark in terms of AUM in its most recent earnings call.<sup>78</sup>

GPs have a new emphasis on the retail sector in an effort to tap into a new market, thereby augmenting their base fees. This trend results from the declining importance of defined benefit plans and the rise of defined contribution plans going forward. Again, this is to support the continued growth of their AUM. This investor category generally is less sophisticated than their institutional counterparts and more subject to marketing influences.

This business model shift incentivizes GPs to invest as quickly as possible so they can then raise the next fund to capture additional management fees. Most of the Limited Partnership agreements require the committed capital to be substantially committed (~70%) to investments before the next fund can be raised. **The fact that GPs are then continuously in the market forces them to become dollar cost averagers as opposed to opportunistic investors.** Dollar cost averagers generally do not exceed the market returns.

Additionally, to lock in fee streams, there is a new emphasis on creating long dated funds and engaging in secondary transactions in which the GP asks existing LPs to approve the transfer of all or a portion of an existing partnership into a new partnership for another 10 year term. According to PEI "...*buying, holding and selling within five years is largely a thing of the past.*"<sup>79</sup> GP attempts to raise capital to acquire or seek approval from LPs to rollover their commitments increased by 113% between 2020 and 2021.<sup>80</sup> Clearly, the intent on the part of the GPs is to lock in the management fees for a longer term as that is the primary driver of how the public markets value these companies.

Perhaps GPs see the clouds on the horizon for their future performance from the various factors identified above, which have also been identified in the press, including rising interest rates, and falling company entry multiples, as well as the fact that larger funds have underperformed prior funds.<sup>81</sup> Future performance issues may present challenges for future fundraising given the drawdown in the public capital markets in 2022. So, raising as much capital as possible today may protect them in the future.

The industry changes coupled with recent market changes have the potential to change GP incentives. At the inception of the industry the primary motivation of GPs was to maximize performance because the preponderance of their compensation was derived from the carried interest. Now, with multiple funds and new long-duration funds, the value of the management fee is as, if not more, valuable. These fees are "risk free" in that they are locked in for essentially 10 years. Given the importance of this category of fees the GP is highly motivated to ensure their continuity.

Does the shift to become asset gatherers matter? Incentive changes within GPs that they themselves have created may become a disruptive force as there is a potential for an impact on

future returns. It has been previously documented that increasing the size of subsequent funds has had a negative impact on performance. In the mutual fund industry as funds scaled, they had difficulty maintaining their alpha. **Scale was the enemy of returns.** Indeed, in 1997 Fidelity's flagship Magellan Fund closed to new investors due to the decline in performance as the fund had become too large. The shift to index funds was mirrored in the large public pension fund community when they realized that in aggregate their performance did not continually outperform a passive benchmark.

Further, the emphasis on increasing AUM, which is the same incentive for traditional mutual funds, may be at odds with PE firm's LPs in an actual partnership. From their perspective, the LPs want the highest possible returns and top quartile performance, not necessarily the returns associated with a dollar cost averaging approach. LPs are not interested in the GPs increasing their AUM, especially if it has the potential to negatively impact performance. They are not interested in the firm's stock price; they are interested in the performance of the fund in which they are invested. For LPs bigger isn't better; better is better. But when a material component of the firm's value is attributable to AUM, this incentive may be at odds with the LPs. Query whether the incentive today is to be just "good enough," as Marks suggested, to raise the next fund at a lower risk level as opposed to truly attempting to achieve the highest possible returns and assuming commensurate risks with those they historically took to maximize their carried interests.

The public shareholder interests are potentially at odds with the private LPs in that they are interested in the continued increase in AUM, which should help the stock price, as well as the potential to make distributions in the form of dividends. Managing these conflicts has the potential to disrupt the industry should the private LPs come to believe the conflicts are not being managed in their best interests.

### *C. PE Performance Attributes Changing*

Historically, GPs promised their investors "2x and 20%" referenced above. Return expectations generally have declined in the past decade for PE. Investors today do not expect to receive a PE 20% return. Indeed, in **Exhibit 1** the asset allocation assumption for PE is 12%, which is materially lower. The recent net returns for the average global buyout funds approximated 12-13%.

As stated above, PE should generate excess returns against PMEs to compensate for the lack of liquidity and the higher leverage ratios. During the past decade the average pooled fund IRRs in the US, where the preponderance of capital has been invested, converged with the US public markets. Return expectations appear to be declining and the correlations with the PMEs may have increased making the case for PE less compelling. If this hypothesis is correct, then PE is beginning to behave more like the public markets suggesting certain segments of the private markets may have become more efficient. This appears to be particularly the case for the very large cap PE funds as the data above (concerning the median results) may be skewed by the market cap of these funds.

Intuitively this makes sense. The larger funds have moved into a larger market cap segment versus VC. The data suggests that the VC firms continue to have performance persistence perhaps in large part because they operate in a more inefficient market segment. The EMH

theory suggests that when the markets are efficient, active management strategies cannot consistently outperform passive holdings of a diversified market portfolio over time.

In the past decade the amount of market information in the private sector has increased dramatically. Research firms publish reams of data concerning the multiples of all companies in each sector. Larger PE firms have been investing larger transactions, in part because of the larger amount of capital they must deploy, and that sector of the market is far more transparent than VC and very small companies. Further, as mentioned earlier, many of these larger transactions are essentially auctions, because sellers have become more sophisticated, and buyers are subject to the “winner’s curse” of paying the highest price. Fama’s EMF conclusions may apply to PE, which would also support Rossi’s conclusions.

Given the preponderance of capital raised and invested in the US, investors should closely monitor these trends. If the private markets have profoundly changed by becoming so large and more efficient thereby changing the fundamental assumptions driving the asset allocation models, this fact could disrupt the PE industry.

#### *D. Potential Disruptions from Alternative Methods of Investing*

When investors received 20% returns, they were somewhat indifferent to PE fund costs. When the median net returns are in the 12-13% range, the returns and costs associated with PE investments come into focus more clearly.

As returns come down and if alpha declines, the dilution associated with costs, primarily management fees and carried interests, becomes an investor concern. The simplest way to increase returns is to reduce fees. **Figures 31** and **32** illustrate what happened in the mutual fund industry. Investors gravitated towards lower cost alternatives. A number of PE investors now seek to replicate PE returns on a more cost effective basis.

It has been documented that the costs of investing in PE are considerable. It has been estimated that the return dilution from gross to net returns at a 20% return level is 600-700 basis points, suggesting net returns are then in the 13%-14% range.<sup>82</sup> These numbers do not include the costs of internal management and external hired consultants to monitor their investments. In fact, net returns for PE reported by numerous sources suggest that average net global returns are in the 10% range as shown in **Figure 16** above.

Should PE returns converge with the public markets over a longer time period, and if the other predicate assumptions concerning the rationale for investing in PE diminish, investors will seek alternatives as they did in the mutual fund industry. The primary pressure will be on PE fees.

Many large institutions have attempted to reduce PE costs by investing directly. Initially, they attempted to maximize the amount of their co-investments in which they would invest in an individual transaction alongside the PE fund. These investments were typically made on a no-fee, no carry basis. Such investments allowed the LP to reduce the overall PE investment costs by averaging down the aggregate fees they paid thereby increasing their net returns.

Why would GPs do this as they lose the associated fees with the co-investments? There are two primary reasons. First, if the GP wanted to acquire a particularly large transaction, it allowed the GP to avoid undue concentration in their fund. Second, GPs are acutely aware that investors

are very fee sensitive. This practice allows them to curry favor with the largest GPs by offering, in essence, a fee cut without having to advertise that fact to their smaller clients. This practice has historically been largely nontransparent, prompting the Securities and Exchange Commission to require GPs to disclose to all their LPs what these arrangements are on a going forward basis.

Many large LPs have gone beyond co-investments to reduce their costs. The fact that PE is so expensive has caused several large investors, such as the Canadian pension funds, Singapore's GIC and Temasek, to create their own internal PE teams on the theory that with a 600 basis point spread, they could invest themselves more effectively than investing in a PE fund managed by an external GP. They now have large internal investment teams.

Many large family offices are following suit. The rise of family offices has been an important development in the last decade. Many are consolidating and creating their own internal investment teams including individuals capable of making direct PE investments. UBS, one of the largest wealth managers in the world, surveyed 221 of the world's largest single family offices representing \$493 Billion in assets about their investment activities.<sup>83</sup> They found these firms had increased their allocation to PE by 5% to 21% from 2019 to 2021 of their total portfolios. Forty-two percent were investing in both funds and directly. However, 21% were only investing directly and this percentage is anticipated to rise significantly. The rationale is how bad do they have to be, if they have a 600 basis point margin for error? In short, former PE LP clients, both large sovereigns and family offices, have become competitors and could materially disrupt the industry.

As potential competitors these organizations have a significant advantage over traditional PE firms in that their cost of capital is materially lower. These direct investors can target 17% gross returns and still be better off on a net basis than investing in a PE fund in which the net return would be 14% should the PE firm produce a 20% gross return. This 300 basis point delta theoretically allows the family offices and large institutional investors to be able to pay more than the PE firm and still achieve a better net return, due to their lower cost of capital. It remains to be seen whether companies will prefer to align themselves with this new category of investors as opposed to the traditional PE firms, again potentially disrupting the PE industry.

A few other alternatives are beginning to percolate in the investment community. There have been recent articles about the attempts to "democratize PE". For example, Hamilton Lane offers a product in which retail investors can invest.<sup>84</sup> These products are both for accredited investors and small investors who can invest in tokenized amounts as small as \$10,000. Others, mentioned above, are similarly exploring other products at a reduced entry ticket to offer to the public. But to be clear, these are not "disruptive" products. These are fund of funds, and the retail investor will bear the higher costs due to higher distribution costs and consequently even lower returns relative to the institutional market.

The truly disruptive products are taking different forms. Some companies are executing with leveraged PME<sup>85</sup>, others using Equity Index Option products<sup>86</sup>. The major issue with some of these products is the fact they have proposed to use REPO financing as their leverage source. In the 2022 drawdown of the public markets and the corresponding interest rate increases, the inevitable margin calls would have been difficult for a firm to cover unless the LPs were amenable to adding additional capital to the program to cover them. However, there should eventually be a practical solution to leveraging PMEs that product sponsors could arrange with the expanding private credit lender market. GPs should be able to duration match their debt

secured by the portfolio companies in which they invest. Others are using hedged leverage positions to structure their portfolios.<sup>87</sup> In the latter instance, the proposed fees are zero management fees and 15% over a designated benchmark.

Alternatively, on-line platforms have been created in venture capital, such as AngelsList and Funders Club, and real estate, such as Cadre and Alteinvest. These platforms offer investors an opportunity to invest directly into specific companies or individual buildings. They are, for now, available to accredited investors and institutions to potentially democratize investments in these asset classes. They also offer these investment opportunities at a fraction of the cost of traditional venture capital and real estate.

Even Vanguard is rumored to be exploring a synthetic product in lieu of the more traditional fund of funds product it has with HarbourVest. Should Vanguard be able to create such a product, it could be highly disruptive to the PE industry. These products will be offered at a drastically reduced cost to conventional PE. Further, as the market contracts due to the denominator effect referenced above, and capital commitments concentrate with fewer firms, GPs will have to choose how to attract capital. The mutual fund industry response was to reduce fees dramatically.

### *E. Structural Industry Changes in other Financial Services Industries and Consolidation*

Other financial service industries such as law, accounting, private wealth management, and even investment banking have already exhibited trends that are relevant to the PE industry. These industries have been profoundly affected by disruptive alternatives in their organizational structures. These changes have impacted their ability to attract and retain talent.

All these firms followed similar evolutionary tracks in terms of their corporate organizational structures. At their inception these firms originated as true partnerships. They had comparatively flat organizational structures with a few partners and a few associates beneath them. When the firm had up to 100 employees, the founders still knew all the individuals with whom they worked. Over time the successful firms grew substantially and became large corporations, not traditional partnerships, and operated as such with all the ensuing corporate bureaucracies. Their organizational structures evolved into a pyramid. At the top of the pyramid the C Suite management/Executive Committee controlled all aspects of the firm. Over the past 40 years small law and accounting firms grew and merged until there were comparatively few very large firms that evolved into global organizations. Smaller firms chose to remain more specialized boutiques, or general mid-sized regional firms, or merged with others to become larger firms. They had to determine how to compete. Smaller PE firms are likely to follow a similar transition.

The impact of the structural evolution of PE firms when compared to other financial service companies is a topic for another paper. The patterns are very similar and do not necessarily bode well for PE. If incoming talent views going to a large cap PE firm as the equivalent of signing on with an investment bank, which appears to be the case among many business school students, it may impact large PE firms' ability to attract and more importantly retain the best talent. This is a consequence of the "institutionalization" of the PE industry which emphasizes scale, fees, margins and efficiencies when compared to more boutique firms.

The very best talent may prefer to gravitate to other organizations or create their own companies as their means to wealth creation. How the PE firms have grown and how they are

now institutionally configured has the potential to be disruptive. Even one of the original founders of Terra Firma, Guy Hands, has questioned the “institutionalization” of the PE industry as potentially negatively affecting the future “dealmakers” to execute like those who were the industry pioneers.<sup>88</sup>

## Conclusion

### *So, What Does All of the Above Mean for PE?*

There are certain key assumptions investors made for investing in PE. If one queried any PE investor, 100% would state they only want to invest in top quartile funds.<sup>89</sup> They assumed that the top quartile funds would outperform the public market alternatives over time. They assumed that examining the PE firms’ track records was a critical exercise to determine which firms would be in the top quartile going forward. The key assumption was that there was persistence in performance and past top quartile performance would predict future outperformance. Lastly, top quartile performance was attributed to the investment skills of the GP and their ability to add value to their portfolio companies.

These assumptions have been called into question by recent research. The PE data suggest that traditional methods of evaluating a given GP partnership are questionable. While it is technically true that the top quartile firms outperform the public markets over time as illustrated in **Figure 12** above, the fact is that the **top quartile firms** generating that performance **are not** necessarily the **same** firms over time. The academic research by Harris et.al. suggests that if one examines the track records of PE firms at the time the investor is making the investment decision, the performance information they have at that time is essentially irrelevant in selecting a future top quartile fund. **Harris et.al. conclusions suggest that the selection of any PE firm by any investor based on the information they have at the time of the commitment may be a random walk.** The data from multiple sources illustrates that performance persistence has waned materially post 2008.

All one needs to do is review panels A through V to see a lack of consistent performance across the board, with a few exceptions. Query whether sector selection or market beta is the primary driver of superior performance as much as portfolio company selection. So perhaps the requirement of all public offering documents to state “***Past performance does not guarantee future results***” should apply to PE.

If the selection of any PE firm based on past performance is a poor basis on which to make an investment decision to select any firm, at the time they make the investment, the investor should assume that the probability of top quartile performance is substantially less likely than the probability of average or median performance. Will this conclusion be acceptable to investors?

If picking a given GP is a random walk, how should LPs react? Pick smaller firms? Select first time funds and negotiate the pricing? Reject firms that continue to successively raise larger and larger funds? Larger funds perform less well, based on the data, than the prior funds regardless of whether this fact is due to the size of the subsequent fund or the “luck” of the GP in the prior fund. Rossi’s conclusions, if further substantiated, could disrupt the conventional wisdom concerning the factors driving PE performance in the same way as Eugene Fama’s

conclusions did concerning the value of active equity management in his pioneering work in the 1960's and 1979's.<sup>90</sup> More research is required to answer these questions.

If one assumes that the investor will more likely receive over time the average performance of all PE funds, then the comparison to public markets becomes important. In the US, as shown in **Figure 12**, the aggregated pooled PE funds IRR performance in the past decade has converged with the public market notwithstanding the higher leverage ratios of the PE firms relative to the PME's. The comparison may be even worse if the data is not dollar weighted. PE performance may actually underperform PME's on a risk adjusted basis given the amount of leverage they employ should they generate equivalent results on a nominal basis.

Are these conclusions surprising? The PE results may be attributable to several factors. One is the fact that the concentration of capital among the top 20 firms has caused them to shift towards larger transactions, which is a more efficient segment of the market when compared to the early years of the industry. Large PE firms must focus on larger transactions given the amount of capital they have to deploy. This results in an increasingly smaller number of target companies in which they can invest. Further exacerbating the efficiency of the market is the concentration of capital in the US market. Many of the larger transactions are held via auctions, not off market transactions. The markets in Europe and Asia have received comparatively less capital and may be more inefficient than the US market. Another factor may be that GPs in the private markets behave more akin to their brethren in the public markets where it has been well documented that it is difficult to outperform the market consistently. Lastly, the sheer number of new firms and products has made the US overall market far more competitive.

As referenced above, the smallest segment of the PE buyout market has been the better performer over the past five years. But the statistics suggest that even this market segment is quite competitive, and its results are even more inconsistent than those of the mega funds.

What do these factors mean generally for the PE industry? What conclusions can we reach based upon the performance since the GFC when the industry changed profoundly as well as the behavior of the larger firms? Examining the mutual fund industry and its trends over the past 15 years may provide insights for the PE industry's future. Some thoughts for industry participants:

- The PE industry is simply different since the GFC
  - The capital concentration among a small number of firms is profound; is this a good thing?
  - Query whether the firms with the best performance are attracting capital, meaning are investors are rewarding the "brand" and early performance, not the performance of the past 10 years? Are investors allocating capital looking primarily in the rear view mirror?
  - Does the one stop shop approach to investing with a firm lead to optimal results?
  - The largest buyout firms are now public which has incentivized them to be AUM gatherers as opposed return optimizers. There are also potential conflicts between the private LP interests and the interests of the public shareholders.

- The increase in long duration funds and secondary funds (rollovers from prior funds) supports the suggestion that PE firms are attempting to secure long term management fees based on AUM.
- The industry appears ripe for disruption.
- Students coming out of college and business schools may reevaluate their prospects within these firms. The path to wealth may be in creating their own firms versus securing a position within a large PE firm.
- Investors may have to fundamentally change their investment approach to achieve the best possible nominal results.
  - The assumption that past performance for large cap and smaller cap PE firms predicts future performance is tenuous.
  - The return assumptions for large cap PE firms should be revisited.
  - The correlation assumptions between and among PE, public equities and fixed income should be reexamined.
  - Investors should consider that past results may be a function as much of luck versus skill.
  - Investors should consider that their future results, should they continue to invest in the same manner, will lead to average or median results.
  - Investors should consider alternative, disruptive investment strategies to achieve comparable results given the high costs associated with PE investments.
  - Investors should recognize that large GPs, both public and private, are now motivated by increasing their AUM, not necessarily producing the highest nominal returns. This fact has led to a shortened time between fund raising. This fact forces GPs to invest their committed capital as soon as possible because they cannot raise the next fund until 70-75% of the prior fund's committed capital has been "committed". The pressure to invest as quickly as possible has caused the large funds to essentially become "dollar cost averagers" as opposed to being able to respond to market cycles on a more opportunistic basis.
  - More direct investments and/or investments in lower cost vehicles with similar investment objectives may produce superior returns given the cost differentials, if the expected net returns are in the 13% range.
  - Investors may conclude that investing in the private markets is just another tool in their in their portfolio construction "toolkit" and that they want exposure to a large segment of the capital markets. However, if that is the conclusion, benchmarking, monitoring, and return expectations should be rethought. If some excess return premium is required, the data suggest the only obvious mechanism to achieve it is to reduce investment costs.
- GPs may need to rethink their investment strategies given the relative underperformance to the public PMEs

- Strategies focused on larger cap companies may be operating in a market that has become too efficient.
- GPs may need to return to their origins to better ensure their interests are better aligned with their investors, meaning they have actual “skin in the game”, not corporate balance sheet co-investments, and that their primary compensation is derived from carried interests.
- When the facts that actively equity managers generally produced no alpha over time became accepted in the mutual fund business, profound changes occurred. Will that happen in PE?

As stated at the outset, this paper is not an indictment of the PE industry. Investors should want exposure to the large number of private companies that have opted to grow in the private markets. It is a call for investors to question **how to invest in the future, not whether they should invest in the industry** to avoid “average” PE returns. Average returns are, in essence, a “C”. Is that good enough? Indeed, the academic literature suggests that the superior PE performance of certain private investors, such as the Yale Endowment, has waned over time.<sup>91</sup> These historically superior investors have regressed to the mean as the market has grown and become more efficient.

In the face of achieving only persistently average returns, investors in the mutual fund industry opted for passive alternatives that were less expensive. In essence, the clear trend in the public mutual fund industry has been to price investment management services as a commodity. This is the “race to the bottom” in terms of pricing. Will PE firms follow suit and cut their fees to attract capital? If current market conditions persist that is likely to happen.

When will this happen? The inertia associated with the belief in the benefits of active equity management was sustained for decades even after research clearly called this belief into doubt. As Kahneman said, *“Cognitive illusions can be more stubborn than visual illusions.”*<sup>92</sup> The very same factors exist and will likely persist in the PE industry, as the GPs, LPs, and the entire derivative service providers to it have an extraordinary interest in maintaining the status quo, for a very long time notwithstanding the evidence to the contrary regarding the fundamental assumptions concerning whether and how to invest in PE.

In the mutual fund industry, in addition to the inertia associated with strongly held beliefs supporting the belief in active management was the undeniable influence of pervasive and persuasive marketing. These efforts by the mutual fund industry to perpetuate the belief in the value of active management strongly reinforced these beliefs. The same powerful factor exists in the PE industry. The personal relationships between the GPs and LPs are strongly sustained by some of the most effective marketing professionals in the entire financial industry. These products are often “sold” not “bought” possibly explaining why so many of the GPs in the 4<sup>th</sup> quartile still exist and raise capital.

These conclusions, should they become widely accepted, have the potential to materially disrupt the PE industry in terms of how capital is allocated. However, given the entrenched interests not only of the PE firms and those firms who support them in maintaining the status quo, it may take an inordinate amount of time for these conclusions to be accepted by LPs and

will most certainly be strongly resisted by the entrenched interests. Eventually, though, the data should prevail, and the inexorable conclusion will be that the industry must change.

## Exhibit 1 Assumptions on Returns, Volatilities, and Correlations for Various Asset Classes

Name	US Stock Market	Global ex-US Stock Market	Total US Bond Market	REIT	Commodities	Buyouts Proxy	Annualized Return	Annualized Standard Deviation	Sharpe ratio
US Stock Market	1	0.06	0.79	-0.05	0.76	0.21	14.72%	14.30%	0.925
Global ex-US Stock Market	0.06	1	0.05	0.6	0.18	0.26	6.59%	14.22%	0.358
Total US Bond Market	0.79	0.05	1	-0.02	0.61	-0.03	1.82%	3.60%	0.091
REIT	-0.05	0.6	-0.02	1	0.13	0.23	10.57%	15.98%	0.568
Commodities	0.76	0.18	0.61	0.13	1	0.27	-0.89%	22.02%	(0.108)
Buyouts Proxy - Accelerate Private Equity Alpha Fund ALFA.TO	0.21	0.26	-0.03	0.23	0.27	1	21.45%	21.75%	0.918

Covariance Matrix						
	US Stock Market	Global ex-US Stock Market	Total US Bond Market	REIT	Commodities	US Buyouts
US Stock Market	0.02045	0.00122	0.00407	-0.00114	0.02393	0.00653
Global ex-US Stock Market	0.00122	0.02022	0.00026	0.01363	0.00564	0.00804
Total US Bond Market	0.00407	0.00026	0.00130	-0.00012	0.00484	-0.00023
REIT	-0.00114	0.01363	-0.00012	0.02554	0.00457	0.00799
Commodities	0.02393	0.00564	0.00484	0.00457	0.04849	0.01293
US Buyouts	0.00653	0.00804	-0.00023	0.00799	0.01293	0.04731

Risk-free rate		1.49%
<b>Weights: Portfolio #1 with 5% standard deviation</b>		
US Stock Market	7.87%	
Global ex-US Stock Market	–	
Total US Bond Market	68.18%	
REIT	11.71%	
Commodities	–	
Buyouts Proxy - ALFA.TO	12.23%	
<b>Total</b>	<b>100%</b>	

<b>Weights: Portfolio #2 with 5% standard deviation</b>		
US Stock Market		22.86%
Global ex-US Stock Market		–
Total US Bond Market		43.71%
REIT		17.41%
Commodities		–
Buyouts Proxy - ALFA.TO		16.02%
<b>Total</b>	<b>100%</b>	

Source: Compiled by authors from Refinitiv; Prequin; Portfoliovisualizer.com.

## Exhibit 2 Buyouts Performance: Mega funds (more than \$1bn), by vintage

### Panel A

Buyouts Performance: 2018 Vintage		
Top Quartile		
Name	IRR	MOIC
Blackstone Group	73	3.0x
Hg	60	2.2x
Searchlight Capital Partners	56	1.5x
Thoma Bravo	56	2.0x
The Jordan Company	54	2.0x
Nordic Capital	51	2.0x
Kelso & Company	49	1.7x
EQT	48	2.0x
GTCR	40	1.8x
Carlyle Group	34	–
Reverence Capital Partners	33	1.5x
Silver Lake	30	1.8x
Roark Capital Group	27	1.7x
Second Quartile		
Name	IRR	MOIC
TPG	53	1.6x
Hg	35	1.7x
American Securities	32	1.3x
Hillhouse Capital Manager	29	1.4x
CVC	29	1.6x
PAI Partners	29	1.3x
Epiris	27	1.7x
Roark Capital Group	27	1.5x
Equistone Partners Europe	26	1.5x
Primavera Capital	26	–
Francisco Partners	25	1.7x
Siris Capital	25	1.6x
Wellspring Capital Management	24	1.3x
Vestar Capital Partners	23	1.4x
Certares	22	–
Third Quartile		
Name	IRR	MOIC
Inflexion Private Equity Partners	31	1.4x
PAI Partners	29	1.3x
Wellspring Capital Management	24	1.3x
Tailwind Capital	24	1.4x
Vestar Capital Partners	23	1.4x
Onex	22	–
Brookfield Asset Management	22	1.3x
Linden	22	1.3x
Charlesbank Capital Partners	20	1.3x
Centurium Capital	18	1.4x
Affinity Equity Partners	18	1.4x
H.I.G. Capital	17	1.3x
Nordic Capital	17	1.5x
Certares	15	–
Fourth Quartile		
Name	IRR	MOIC
Triton	18	1.2x
Silver Lake	15	1.3x
Palladium Equity Partners	13	1.3x
Novalpina Capital	13	1.1x
Platinum Equity	9	1.1x
Carlyle Group	8	1.1x
Pritzker Private Capital	7	–
Trilantic North America	5	–
Sycamore Partners	0	1.0x

### Panel B

Buyouts Performance: 2017 Vintage		
Top Quartile		
Name	IRR	MOIC
Veritas Capital	60	3.8x
Clayton Dubilier & Rice	53	2.1x
Vitruvian Partners	52	2.2x
KKR	42	2.2x
Altaris	38	1.9x
Parthenon Capital	37	2.2x
Genstar Capital Partners	33	2.4x
Second Quartile		
Name	IRR	MOIC
HGGC	34	1.8x
New Mountain Capital	33	2.0x
MidOcean Partners	32	–
EQT	29	1.8x
Leonard Green & Partners	28	2.1x
Permira	25	2.0x
Waud Capital Partners	24	1.7x
Third Quartile		
Name	IRR	MOIC
Waterland Private Equity Invest	33	1.5x
Brentwood Associates	27	1.4x
Kohlberg & Company	24	1.8x
Stone Point Capital	24	1.8x
Berkshire Partners	24	1.7x
MBK Partners	23	1.8x
Cornell Capital	23	1.4x
Quad-C	20	1.5x
BC Partners	19	1.6x
Lone Star Funds	18	1.5x
CVC	13	1.5x
Fourth Quartile		
Name	IRR	MOIC
GI Partners	23	1.6x
Corsair Capital	18	1.4x
Bain Capital	16	1.3x
Bernhard Capital Partners Mana	14	0.8x
Ares Management	10	1.3x
Levine Leichtman Capital Partners	8	1.2x
Chequers Capital	6	1.1x

## Panel C

Buyouts Performance: 2016 Vintage		
Top Quartile		
Name	IRR	MOIC
TA Associates	42	2.6x
Apax Partners France	38	2.5x
Thoma Bravo	38	3.1x
Oaktree Capital Management	35	3.1x
Apax Partners	30	2.3x
Vista Equity Partners	28	1.9x
Hellman & Friedman	27	–
Bain Capital	27	1.6x
Audax Group	27	2.1x
The Sterling Group	27	2.2x
Harvest Partners	24	2.0x
PAG	20	2.0x
Second Quartile		
Name	IRR	MOIC
Ardian	29	1.85
Morgan Stanley	28	1.90
Oak Hill Capital Partners	27	1.59
FIMI	26	1.80
Advent International	26	2.25
Platinum Equity	25	1.85
Rivean Capital	24	2.02
Vista Equity Partners	24	2.15
Thomas H Lee Partners	24	1.87
Charterhouse Capital Partners	22	1.72
IK Partners	19	1.63
Third Quartile		
Name	IRR	MOIC
Blackstone Group	21	1.7x
ACON Investments	20	1.7x
Thoma Bravo	18	1.9x
KSL Capital Partners	17	1.6x
Investindustrial	15	1.5x
Carlyle Group	13	–
Ardian	10	1.3x
Fourth Quartile		
Name	IRR	MOIC
Goldman Sachs Asset Managem	20	1.5x
American Securities	14	1.5x
ONCAP	14	–
FIMI	12	–
Gamut Capital Management	11	1.3x
Trustar Capital	9	1.3x
Harvest Partners	8	–
Roark Capital Group	7	1.4x
Hony Capital	1	1.0x

## Panel D

Buyouts Performance: 2015 Vintage		
Top Quartile		
Name	IRR	MOIC
Brookfield Asset Management	48	2.5x
Francisco Partners	35	3.7x
Lindsay Goldberg	35	2.2x
Genstar Capital Partners	35	2.6x
Aquiline Capital Partners	34	2.1x
Wynnchurch Capital	31	2.4x
Veritas Capital	29	3.7x
Waterland Private Equity Investments B.V.	28	2.4x
EQT	27	2.2x
Bridgepoint	25	2.3x
Irving Place Capital	20	4.3x
Second Quartile		
Name	IRR	MOIC
Welsh, Carson, Anderson & Stowe	30	2.5x
Vector Capital	27	–
Searchlight Capital Partners	25	1.9x
Rhône Group	22	1.7x
One Equity Partners	22	2.1x
Partners Group	21	2.0x
Pacific Equity Partners	21	1.7x
Thoma Bravo	20	2.3x
TPG	20	1.8x
KKR	19	1.8x
Third Quartile		
Name	IRR	MOIC
Advent International	19	1.7x
Centerbridge Partners	19	1.6x
FFL Partners	18	1.7x
AEA Investors	18	1.9x
Inflexion Private Equity Partners	17	1.7x
Hahn & Company	17	1.8x
Madison Dearborn Partners	16	1.6x
Astorg	16	1.7x
Charlesbank Capital Partners	15	1.6x
Exponent Private Equity	13	1.7x
Fourth Quartile		
Name	IRR	MOIC
Siris Capital	14	1.5x
Crestview Partners	13	1.5x
RRJ Capital	12	1.3x
Lone Star Funds	12	1.3x
Cortec Group	12	1.5x
ABRY Partners	11	1.4x
Equistone Partners Europe	9	1.5x
Carlyle Group	6	–

**Panel E**

<b>Buyouts Performance: 2014 Vintage</b>		
<i>Top Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
GTCR	43	4.4x
Thoma Bravo	31	3.8x
Vitruvian Partners	30	–
TowerBrook	26	2.2x
Permira	25	3.1x
Sentinel Capital Partners	22	2.0x
<i>Second Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
H.I.G. Capital	25	1.9x
Stone Point Capital	23	2.3x
Vista Equity Partners	22	2.3x
The Jordan Company	21	2.1x
PAI Partners	18	2.1x
Altor	18	2.0x
Carlyle Group	18	–
Tailwind Capital	12	1.6x
<i>Third Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
CVC	17	1.8x
Altor	17	2.0x
Carlyle Group	16	2.0x
Olympus Partners	15	1.6x
HitecVision	14	1.6x
Apollo Global Management	12	1.5x
Freeman Spogli & Co	11	1.6x
Palladium Equity Partners	10	1.5x
<i>Fourth Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
H.I.G. Capital	15	1.5x
Onex	9	–
Littlejohn & Co.	8	1.4x
Sycamore Partners	5	1.2x
Hopu Investment Management	1	1.1x
Odyssey Investment Partner	0	1.0x

**Panel F**

<b>Buyouts Performance: 2013 Vintage</b>		
<i>Top Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
TDR Capital	36	3.6x
Bain Capital	31	2.5x
Silver Lake	27	2.7x
New Mountain Capital	23	2.2x
Partners Group	19	2.4x
Hg	18	2.2x
<i>Second Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
Clayton Dubilier & Rice	27	2.4x
H.I.G. Capital	23	2.1x
Affinity Equity Partners	16	1.7x
IK Partners	15	1.9x
CCMP Capital Advisors	15	2.0x
<i>Third Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
Nordic Capital	17	1.8x
Vista Equity Partners	16	2.1x
Audax Group	15	1.8x
Carlyle Group	13	1.6x
CCMP Capital Advisors	13	1.8x
Archer Capital	13	1.7x
MBK Partners	12	1.7x
RRJ Capital	11	1.4x
<i>Fourth Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
EQT	9	–
Lone Star Funds	9	1.2x
Morgan Stanley Private Equi	8	1.4x

## Panel G

Buyouts Performance: 2012 Vintage		
<i>Top Quartile</i>		
Name	IRR	MOIC
Thoma Bravo	40	3.2x
Baring Vostok Capital Partners	23	2.9x
<i>Second Quartile</i>		
Name	IRR	MOIC
TSG Consumer Partners	30	2.7x
Platinum Equity	30	1.9x
Providence Equity	24	2.1x
KKR	20	2.2x
Bain Capital	19	–
<i>Third Quartile</i>		
Name	IRR	MOIC
Court Square	19	1.9x
Roark Capital Group	17	2.6x
AEA Investors	17	2.0x
Kohlberg & Company	16	1.7x
Ares Management	16	2.0x
Apax Partners	15	1.9x
Ardian	13	1.7x
Actera Group	8	1.4x
<i>Fourth Quartile</i>		
Name	IRR	MOIC
Audax Group	13	1.6x

## Panel H

Buyouts Performance: 2011 Vintage		
<i>Top Quartile</i>		
Name	IRR	MOIC
Waterland Private Equity Investments B.V.	41	3.3x
Sycamore Partners	29	2.2x
Hellman & Friedman	25	3.3x
Francisco Partners	24	3.5x
American Securities	23	2.3x
<i>Second Quartile</i>		
Name	IRR	MOIC
Harvest Partners	21	2.1x
GTCR	21	2.0x
PAG	19	2.0x
Berkshire Partners	18	2.1x
Wellspring Capital Management	17	1.7x
EQT	16	1.9x
Equistone Partners Europe	16	1.7x
Vista Equity Partners	16	2.1x
BC Partners	16	2.0x
Chequers Capital	16	1.9x
<i>Third Quartile</i>		
Name	IRR	MOIC
Equistone Partners Europe	16	1.7x
Wellspring Capital Management	16	1.7x
EQT	16	–
ABRY Partners	14	1.8x
Blackstone Group	13	1.8x
KSL Capital Partners	10	1.3x
BPEA EQT Asia	9	1.6x
<i>Fourth Quartile</i>		
Name	IRR	MOIC
Carlyle Group	8	–
Rhône Group	6	1.2x
Advent International	1	1.1x

## Panel I

Buyouts Performance: 2010 Vintage		
Top Quartile		
Name	IRR	MOIC
TA Associates	27	3.9x
Birch Hill Equity Partners	23	3.6x
Second Quartile		
Name	IRR	MOIC
NA	NA	NA
Third Quartile		
Name	IRR	MOIC
Littlejohn & Co.	14	1.9x
Oaktree Capital Managem	13	1.6x
Stone Point Capital	12	1.9x
Fourth Quartile		
Name	IRR	MOIC
The Gores Group	1	1.0x

## Panel J

Buyouts Performance: 2009 Vintage		
Top Quartile		
Name	IRR	MOIC
Clayton Dubilier & Rice	26	2.7x
Second Quartile		
Name	IRR	MOIC
Clessidra Capital Partners	16	1.5x
Third Quartile		
Name	IRR	MOIC
Waterland Private Equity Ir	17	1.6x
Clessidra Capital Partners	16	1.5x
Charterhouse Capital Partn	13	1.5x
Triton	10	1.6x
Fourth Quartile		
Name	IRR	MOIC
Onex	11	–
FFL Partners	4	1.0x

## Panel K

Buyouts Performance: 2008 Vintage		
Top Quartile		
Name	IRR	MOIC
Madison Dearborn Partners	23	2.3x
American Securities	21	1.9x
Ares Management	20	2.1x
MBK Partners	20	2.3x
Altor	19	2.6x
Bain Capital	18	2.0x
CVC	17	2.0x
Advent International	17	2.1x
Second Quartile		
Name	IRR	MOIC
Apollo Global Management	25	1.7x
ABRY Partners	20	2.1x
Avista Capital Partners	16	1.7x
PAI Partners	13	2.2x
KKR	13	1.8x
Bridgepoint	13	1.8x
Third Quartile		
Name	IRR	MOIC
CVC	13	1.6x
GI Partners	13	1.6x
Welsh, Carson, Anderson & St	12	1.7x
Lone Star Funds	12	1.6x
TA Associates	11	1.8x
HGGC	10	1.3x
TPG	10	1.5x
Bain Capital	10	1.6x
Riverside Company	9	1.5x
Fourth Quartile		
Name	IRR	MOIC
Carlyle Group	12	1.6x
Yucaipa Companies	9	1.7x
TowerBrook	8	1.3x
Lindsay Goldberg	8	1.4x
Nordic Capital	8	1.6x
Pacific Equity Partners	8	1.4x
Kelso & Company	7	1.4x
Lee Equity Partners	6	1.2x

## Buyouts Performance: Mid-Market Funds (less than \$1bn), by Vintage

### Panel L

Buyouts Performance: 2018 Vintage			
Top Quartile			
Name	IRR	MOIC	
Sole Source Capital	102	–	
CONSTELLATION CAPITAL	69	3.9x	
Periscope Equity	57	2.9x	
WestBridge Capital	55	1.8x	
INVL Asset Management	48	3.1x	
LFM Capital	46	1.6x	
New State Capital Partners	45	–	
Wind Point Partners	42	2.5x	
Exponent Private Equity	39	2.1x	
ArchiMed	36	1.6x	
ECI Partners	35	1.7x	
Verdane Capital Advisors	33	1.6x	
Acatia Capital	32	2.0x	
Cressey & Company	30	1.4x	
Revelstoke Capital Partners	30	1.6x	
Second Quartile			
Name	IRR	MOIC	
New Heritage Capital	43	1.6x	
Cressey & Company	39	1.6x	
Hastings Equity Partners	35	1.8x	
Glenwood Private Equity	35	–	
Miura Partners	31	1.6x	
Andera Partners	31	1.5x	
Advent Partners	28	1.5x	
Behrman Capital	27	1.6x	
Frazier Healthcare Partners	26	1.4x	
Presidio Investors	26	1.8x	
Lee Equity Partners	26	1.3x	
Borromin Capital Management	25	1.6x	
LightBay Capital	25	1.4x	
Innova Capital	25	1.5x	
B & Capital	24	1.4x	
Third Quartile			
Name	IRR	MOIC	
Lee Equity Partners	26	1.3x	
Blue Point Capital Partners	21	1.4x	
ParkerGale	20	1.3x	
Windjammer Capital Investors	19	1.3x	
Star Capital	19	1.3x	
Anacacia Capital	18	1.3x	
IK Partners	16	1.2x	
Down 2 Earth Capital	15	–	
Bolster Investment Partners	14	1.4x	
GCP Capital Partners	12	1.3x	
Progressio SGR	9	1.3x	
Ardian	8	1.2x	
Ethos	6	1.3x	
Fourth Quartile			
Name	IRR	MOIC	
Great Point Partners	11	1.1x	
Water Street Healthcare Partners	9	1.2x	
KJK Capital	3	1.1x	
Crescendo Equity Partners	3	1.1x	

### Panel M

Buyouts Performance: 2017 Vintage			
Top Quartile			
Name	IRR	MOIC	
Hg	90	2.1x	
GMT Communications Partners	89	2.1x	
Francisco Partners	81	3.7x	
Gemspring Capital	77	2.7x	
Sole Source Capital	60	–	
Value4Capital	57	2.9x	
Novacap	55	2.6x	
Prospect Hill Growth Partners	55	–	
LongueVue Capital	41	2.7x	
BV Investment Partners	39	1.9x	
Seidler Equity Partners	36	1.9x	
Marlin Equity Partners	33	2.1x	
Main Capital Partners	32	2.2x	
EmergeVest	28	3.0x	
Second Quartile			
Name	IRR	MOIC	
Trinity Hunt Partners	55	1.8x	
Frontenac Company	50	2.3x	
The Vistria Group	36	1.9x	
Kinderhook Industries	30	1.9x	
RUBICON Technology Partners	30	1.6x	
Argos Wityu	28	1.7x	
Incline Equity Partners	27	1.6x	
Gilde Equity Management Benelux	25	1.6x	
Procuritas Partners	23	1.5x	
Lightyear Capital	22	1.7x	
Montefiore Investment	20	1.7x	
Axcel	19	1.8x	
Amergent Capital	17	3.2x	
Third Quartile			
Name	IRR	MOIC	
New MainStream Capital	33	1.7x	
Bain Capital	31	1.7x	
Cotton Creek Capital	31	1.7x	
Incline Equity Partners	26	1.6x	
Gallatin Point Capital	22	1.4x	
Lightyear Capital	22	1.8x	
EmergeVest	20	–	
Palatine Private Equity	19	1.4x	
NB Renaissance Partners	16	1.4x	
August Equity	14	1.5x	
Innova Capital	11	2.1x	
Fourth Quartile			
Name	IRR	MOIC	
Centre Lane Partners	21	–	
Marlin Equity Partners	17	1.5x	
Riordan, Lewis & Haden Equity Partners	17	1.3x	
Procuritas Partners	15	1.3x	
Omaha Beach Capital	15	–	
Vista Equity Partners	12	1.4x	
Arcadia SGR	11	1.3x	
Vaaka Partners	10	1.2x	
Quadrant Private Equity	10	1.2x	
EQT	7	–	
Platte River Equity	6	1.1x	

## Panel N

Buyouts Performance: 2016 Vintage		
Top Quartile		
Name	IRR	MOIC
Renovus Capital Partners	79	6.4x
Falfurrias Capital Partners	75	6.9x
Nautic Partners	53	1.7x
Avista Capital Partners	48	2.1x
Bridgepoint	43	2.3x
Bertram Capital	39	2.4x
EagleTree Capital	36	2.7x
Synova	36	2.7x
YFM Equity Partners	32	2.1x
Imperial Capital Group	32	2.6x
Palm Beach Capital	32	2.2x
Veronis Suhler Stevenson	31	2.0x
Atlantic Street Capital	31	2.1x
Cordovan Capital Management	30	2.2x
Speyside Equity	30	3.1x
Accelmed	30	-
Altaris	30	2.7x
Key Capital Partners	30	2.3x
Vendis Capital	23	2.6x
Second Quartile		
Name	IRR	MOIC
Graycliff Partners	46	1.9x
CBPE Capital	33	1.8x
Wind Point Partners	31	1.9x
Arlington Capital Partners	29	2.0x
DC Capital Partners	29	1.5x
Artá Capital	28	1.7x
DW Healthcare Partners	28	2.2x
WindRose Health Investors	28	2.3x
Branford Castle	28	-
CenterOak Partners	27	2.0x
Levine Leichtman Capital Partners	26	2.1x
Seaport Capital	25	2.0x
Via Equity	24	2.0x
MCH Private Equity	23	1.8x
Endeavour Capital	21	2.0x
AEA Investors	20	2.0x
Holland Capital	20	1.8x
OpenGate Capital	19	2.0x
Third Quartile		
Name	IRR	MOIC
DC Capital Partners	26	1.5x
Excellere Partners	24	1.6x
CenterGate Capital	24	1.9x
Phoenix Equity Partners	24	1.7x
Seaport Capital	24	2.0x
Korona Invest	23	1.1x
Argand Partners	22	1.8x
Growth Capital Partners	21	1.7x
Oriens Investment Management	21	1.6x
AEA Investors	20	2.0x
Holland Capital	20	1.8x
NB Renaissance Partners	20	1.8x
Angeles Equity Partners	20	1.6x
Mason Wells	19	1.9x
OpenGate Capital	19	2.0x
NorthEdge	18	1.7x
STAR Capital Partners	17	1.6x
Liberty Hall Capital Partners	16	1.3x
Flexpoint Ford	15	1.8x
Endeavour Capital	15	1.6x
OpCapita	15	1.6x
Quadrant Private Equity	14	1.6x
Glenwood Private Equity	12	1.1x
L Catterton	9	1.3x
Fourth Quartile		
Name	IRR	MOIC
EOS Investment Management Group	15	1.5x
Shamrock Capital Advisors	14	1.3x
Century Equity Partners	14	1.3x
Flexpoint Ford	13	1.3x
Frazier Healthcare Partners	13	1.5x
Swander Pace Capital	13	1.4x
Gen Cap America	12	1.2x
Mobius Equity Partners	12	1.3x
MBO & Co	11	1.3x
PineBridge Investments	11	1.3x
DFW Capital Partners	10	1.4x
Livingbridge	9	1.3x
Omaha Beach Capital	8	-
Karmijn Kapitaal	8	1.4x
Arbor Private Investment Company	8	1.2x
TDR Capital	5	1.4x
Australis Partners	2	1.0x

## Panel O

Buyouts Performance: 2015 Vintage		
Top Quartile		
Name	IRR	MOIC
Gridiron Capital	55	6.1x
New State Capital Partners	42	-
Detong Capital	40	4.7x
Crescendo Equity Partners	39	2.9x
Linden	38	2.9x
Apax Partners	36	3.1x
J.F. Lehman & Company	35	2.6x
WM Partners	35	2.2x
Main Capital Partners	33	2.6x
Sumeru Equity Partners	32	2.8x
Sparring Capital	32	2.5x
Carlyle Group	32	-
EmergeVest	28	2.8x
Polaris Private Equity	26	2.1x
Lineage Capital	26	2.2x
Palatine Private Equity	25	2.0x
Evoco	24	2.1x
Crescent Capital Partners	22	3.3x
Revelstoke Capital Partners	21	2.4x
Second Quartile		
Name	IRR	MOIC
Riverside Company	46	1.5x
Cressey & Company	26	2.3x
Fortissimo Capital	25	2.0x
Invision	25	1.8x
Latour Capital	24	1.8x
Kedma Capital	24	2.1x
Panoramic Growth Equity	24	2.1x
Nippon Mirai Capital	23	2.1x
Amulet Capital Partners	23	2.1x
Hamilton Robinson	21	-
Kinderhook Industries	21	2.4x
SkyKnight Capital	20	-
Levine Leichtman Capital Partners	19	1.9x
Stirling Square Capital Partners	19	2.2x
Gilde Equity Management Benelux	16	1.9x
Third Quartile		
Name	IRR	MOIC
IK Partners	23	1.7x
Ridgemont Equity Partners	21	1.8x
Birch Hill Equity Partners	20	1.7x
Lovell Minnick Partners	20	1.7x
Encore Consumer Capital	19	1.8x
CapStreet Group	19	1.6x
Riverside Company	17	2.0x
Gilde Equity Management Benelux	16	1.9x
EQT	16	-
Shorehill Capital	14	1.6x
Bernhard Capital Partners Management	14	1.9x
IFM Investors	13	1.8x
MidOcean Partners	13	-
Azulis Capital	13	1.5x
Fourth Quartile		
Name	IRR	MOIC
Flexpoint Ford	16	1.6x
GHO Capital	14	1.6x
MSouth Equity Partners	14	1.6x
Brentwood Capital Advisors	13	1.2x
Comvest Partners	12	1.6x
AE Industrial Partners	12	1.5x
True North	12	1.6x
Linzor Capital Partners	11	1.4x
JZ Capital Partners	11	1.4x
Livingbridge	10	1.4x
ParkerGale	10	1.5x
Segulah	10	1.4x
Neuberger Berman	9	1.3x
AnaCap Financial Partners	9	1.2x
HCapital Partners	9	1.5x
Elysian Capital	9	1.4x
Harwood Capital Management Group	8	1.3x
CAI Capital Partners	8	1.4x

## Panel P

## Panel Q

Buyouts Performance: 2014 Vintage		
Top Quartile		
Name	IRR	MOIC
Detong Capital	82	4.7x
ArchiMed	46	2.3x
Nautic Partners	43	4.1x
Novacap	43	4.1x
Riverside Company	39	5.9x
Alpine Investors	38	3.7x
Marlin Equity Partners	34	2.5x
Aksia Group	34	2.6x
LFM Capital	32	2.6x
Harvest Capital	32	2.9x
Nordian Capital Partners	32	4.3x
Altaris	32	2.5x
Stripes	27	2.6x
Quadrant Private Equity	27	1.8x
Reverence Capital Partners	24	1.9x
Portobello Capital	23	1.9x
Second Quartile		
Name	IRR	MOIC
ACA Group	35	1.6x
ZMC	27	-
Glenwood Private Equity	27	1.7x
The Vistria Group	26	2.5x
Next Capital	26	2.3x
Tritium Partners	25	2.2x
Webster Equity Partners	24	2.5x
Andera Partners	23	1.9x
Miura Partners	20	2.3x
Seidler Equity Partners	19	2.3x
Novacap	19	1.9x
ProA Capital	18	1.8x
Egeria	18	1.9x
JLL Partners	17	1.8x
Bluegem Capital Partners	11	2.3x
Third Quartile		
Name	IRR	MOIC
Stellex Capital Management	21	1.5x
ProA Capital	19	2.0x
Hastings Equity Partners	18	1.8x
Blue Point Capital Partners	17	1.6x
RUBICON Technology Partners	16	1.6x
Timesbole Venture Capital	16	-
Sorenson Capital	16	1.8x
Union Park Capital	15	2.2x
Prospect Hill Growth Partners	15	-
Sovereign Capital Partners	13	1.5x
Sentica Partners	12	1.6x
STAR Capital Partners	8	1.6x
Ford Financial	8	1.7x
Fourth Quartile		
Name	IRR	MOIC
Content Partners	12	1.5x
Harbert Management Corporation	10	1.6x
New MainStream Capital	10	1.4x
Primary Capital Partners	10	1.5x
Paine Schwartz Partners	9	1.4x
Mill City Capital	8	1.5x
OpCapita	8	1.4x
EmergeVest	7	-

## Panel R

Buyouts Performance: 2013 Vintage		
Top Quartile		
Name	IRR	MOIC
Consonance Capital	74	3.5x
Holland Capital	74	5.1x
Eureka Equity Partners	41	3.0x
Down 2 Earth Capital	38	2.8x
Clarion Capital Partners	37	2.8x
Thoma Bravo	36	3.3x
Water Street Healthcare Partner	36	2.9x
Harren Equity Partners	36	3.3x
Accel-KKR	35	2.7x
Quad-C	30	2.6x
FSN Capital	28	2.9x
Synova	25	2.5x
Second Quartile		
Name	IRR	MOIC
Alvarez & Marsal Capital	27	2.1x
Clearview Capital	26	2.6x
Pencarrow Private Equity	23	2.0x
August Equity	23	2.2x
Montefiore Investment	22	2.3x
Insignia Capital Group	22	1.9x
Vaaka Partners	22	2.3x
Silver Oak Services Partners	22	2.6x
Great Point Partners	22	1.8x
CID Capital	20	2.2x
New Heritage Capital	19	1.9x
Windjammer Capital Investors	17	2.2x
HCI Equity Partners	15	2.2x
Third Quartile		
Name	IRR	MOIC
NorthEdge	18	1.6x
Invision	16	1.9x
GenNx360 Capital Partners	15	1.7x
High Road Capital Partners	15	1.9x
Guardian Capital Partners	13	1.8x
Parallax Capital Partners	13	1.6x
Anacacia Capital	10	1.4x
ACON Investments	10	1.6x
Nexus Group - Peru	9	1.5x
Swander Pace Capital	9	1.7x
Spire Capital	8	1.3x
Fourth Quartile		
Name	IRR	MOIC
Riverside Partners	12	1.7x
AAC Capital Partners	8	1.5x
ICV Partners	8	1.3x
Brentwood Associates	7	1.4x
JPB Partners	7	1.4x
Palatine Private Equity	6	1.3x
Graphite Capital Management	6	1.4x
CapMan	4	1.1x

## Panel S

Buyouts Performance: 2012 Vintage			
Top Quartile			
Name	IRR	MOIC	
CapVest	48	4.2x	
WindRose Health Investors	44	4.2x	
Imperial Capital Group	41	5.5x	
BV Investment Partners	40	2.4x	
Parthenon Capital	39	4.2x	
Incline Equity Partners	37	2.5x	
Frontenac Company	35	2.4x	
DFW Capital Partners	34	2.9x	
Cortec Group	31	4.1x	
Trinity Hunt Partners	27	3.3x	
Main Capital Partners	27	3.1x	
Livingbridge	27	2.7x	
The Growth Fund	21	2.7x	
Second Quartile			
Name	IRR	MOIC	
Excellere Partners	32	2.1x	
One Rock Capital Partners	26	2.2x	
Centre Lane Partners	25	-	
Ridgmont Equity Partners	25	2.5x	
Hg	23	2.4x	
Bridgepoint	23	1.9x	
Wicks Group	22	2.3x	
Linsalata Capital Partners	21	2.1x	
Thompson Street Capital Partners	21	1.8x	
FIMI	20	2.5x	
Elbrus Capital	20	2.9x	
DW Healthcare Partners	19	2.2x	
Procuritas Partners	18	2.3x	
Fortissimo Capital	17	2.2x	
Third Quartile			
Name	IRR	MOIC	
Ridgmont Equity Partners	25	2.5x	
Arsenal Capital Partners	25	2.4x	
Ardian	19	2.2x	
Yellow Wood Partners	18	1.5x	
FIMI	15	2.2x	
Juggernaut Capital Partners	14	1.9x	
The Gores Group	14	1.4x	
MSouth Equity Partners	14	1.7x	
Heartwood Partners	13	1.5x	
Summer Street Capital Partners	12	1.5x	
Stripes	11	1.9x	
The Halifax Group	3	2.1x	
Fourth Quartile			
Name	IRR	MOIC	
Harbour Group	13	1.6x	
EagleTree Capital	12	1.5x	
Fort Point Capital	10	1.3x	
RFE Investment Partners	9	1.5x	
Encore Consumer Capital	9	1.5x	
Renovus Capital Partners	9	1.7x	
ECM Equity Capital Management	8	1.3x	
Riverside Company	8	1.2x	
Karmijn Kapitaal	8	1.6x	
Crescent Capital Partners	7	1.4x	
KarpReilly	6	1.3x	
Siris Capital	6	1.2x	
LNK Partners	4	1.1x	
SG Private Equity	3	1.0x	
Turkven Private Equity	3	1.2x	
Victoria Capital Partners	2	1.1x	

## Panel T

Buyouts Performance: 2011 Vintage			
Top Quartile			
Name	IRR	MOIC	
Via Equity	49	3.3x	
Key Capital Partners	37	2.7x	
Atlantic Street Capital	37	3.3x	
Levine Leichtman Capital Partners	37	4.4x	
Alpine Investors	28	6.9x	
Novo Tellus Capital Partners	28	3.9x	
Vestar Capital Partners	24	2.0x	
Lightyear Capital	24	2.3x	
Second Quartile			
Name	IRR	MOIC	
Latour Capital	29	2.6x	
Falfurrias Capital Partners	24	2.5x	
Inflexion Private Equity Partners	21	1.8x	
Blue Sea Capital	21	3.4x	
Waud Capital Partners	20	2.1x	
ONCAP	19	-	
Rivean Capital	14	1.9x	
Third Quartile			
Name	IRR	MOIC	
Borromin Capital Management	26	2.4x	
Rising Japan Equity	22	1.6x	
Advent Partners	16	1.5x	
Litorina	13	1.9x	
Altus Capital Partners	13	1.7x	
Argos Wityu	11	1.6x	
Nexus Group - Peru	11	2.0x	
Alpha Group	11	1.4x	
Linden	10	1.8x	
GCP Capital Partners	9	2.0x	
American Industrial Partners	9	1.7x	
Endeavour Capital	9	1.5x	
Pegasus Capital Advisors	9	1.5x	
Carousel Capital	1	3.3x	
Fourth Quartile			
Name	IRR	MOIC	
Brass Ring Capital	8	1.5x	
Arcadia SGR	8	1.3x	

## Panel U

Buyouts Performance: 2010 Vintage		
Top Quartile		
Name	IRR	MOIC
Riverside Company	47	9.6x
Seaport Capital	40	5.0x
Quadrant Private Equity	32	2.1x
The Sterling Group	29	2.8x
Seidler Equity Partners	27	22.7x
Dominus Capital	26	–
ECI Partners	25	2.3x
Bertram Capital	23	3.1x
GEC	19	2.0x
Growth Capital Partners	19	1.9x
Second Quartile		
Name	IRR	MOIC
Comvest Partners	27	1.8x
Wynnchurch Capital	25	2.0x
Gen Cap America	24	2.6x
Freeman Spogli & Co	23	2.8x
Palm Beach Capital	22	2.3x
Mason Wells	20	3.0x
L Catterton	20	2.4x
CBPE Capital	19	2.1x
AEA Investors	19	2.4x
Green Arrow Capital	17	1.8x
WestBridge Capital	15	1.8x
Rizvi Traverse Management	15	2.7x
Risk Capital Partners	13	1.9x
Third Quartile		
Name	IRR	MOIC
Silverhawk Capital Partners	21	1.8x
Cressey & Company	20	2.2x
Green Arrow Capital	17	1.8x
WestBridge Capital	15	1.8x
Risk Capital Partners	14	2.1x
MBO & Co	14	1.7x
Commerce Street Holdings	13	1.9x
J.H. Whitney & Co	13	1.9x
Hahn & Company	13	1.8x
Phoenix Equity Partners	12	1.6x
Corsair Capital	11	1.6x
Fourth Quartile		
Name	IRR	MOIC
Lovell Minnick Partners	11	1.6x
TruArc Partners	9	1.5x
Insight Equity	9	1.6x
Aquiline Capital Partners	8	1.5x
Andera Partners	7	1.4x
Castle Harlan	6	1.2x
Innova Capital	6	1.2x
Progressio SGR	5	1.3x
True North	4	1.2x
Bunker Hill Capital	3	1.2x
Linzor Capital Partners	2	1.1x

Buyouts Performance: 2009 Vintage		
Top Quartile		
Name	IRR	MOIC
Vista Equity Partners	39	3.0x
Karnell	38	2.3x
Sentinel Capital Partners	37	2.7x
Vendis Capital	26	3.5x
Egeria	22	2.2x
Bruckmann Rosser Sherrill & Co	22	2.5x
Bridgepoint	20	2.4x
Sentica Partners	20	2.5x
Second Quartile		
Name	IRR	MOIC
Partnership Capital Growth Investors	33	1.7x
KSL Capital Partners	25	2.2x
KPS Capital Partners	23	2.0x
Riverside Partners	21	2.4x
Harwood Capital Management Group	20	2.4x
Polaris Private Equity	19	2.0x
Leeds Equity Partners	18	2.5x
Elysian Capital	15	2.2x
Third Quartile		
Name	IRR	MOIC
Wind Point Partners	19	2.0x
Pfingsten Partners	16	2.1x
Stripes	13	1.7x
Azulis Capital	10	1.7x
Riverside Company	7	1.4x
Vision Capital	5	1.3x
Fourth Quartile		
Name	IRR	MOIC
Chart Capital Partners	11	1.9x
Lincolnshire Management	9	1.4x
21st Century Group	7	1.3x
Halder	3	1.2x
ACON Investments	2	1.1x
Carlyle Group	1	–
KKR	0	1.0x

KKR has small fund

## Panel V

<b>Buyouts Performance: 2008 Vintage</b>		
<i>Top Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
OFS Energy Fund	123	3.5x
Thoma Bravo	45	3.8x
ZMC	44	2.7x
Anacacia Capital	41	3.4x
Helix Kapital	37	–
Egis Capital Partners	37	3.7x
Vaaka Partners	28	2.4x
Water Street Healthcare Partners	28	2.3x
Altaris	27	2.6x
MSouth Equity Partners	27	2.4x
CAI Capital Partners	26	5.1x
Fortissimo Capital	26	3.8x
Accel-KKR	24	5.6x
Procuritas Partners	22	2.3x
Imperial Capital Group	20	3.0x
FIMI	19	2.3x
Partners Group	17	2.6x
Carlyle Group	16	1.9x
<i>Second Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
CapStreet Group	25	2.1x
Graham Partners	23	2.3x
Evergreen Pacific Partners	22	2.0x
Guardian Capital Partners	21	2.6x
Chicago Growth Partners	20	2.1x
Amberjack Capital Partners	18	2.4x
Hamilton Robinson	18	–
Swander Pace Capital	17	2.3x
Pechel Industries	12	1.6x
FSN Capital	12	1.6x
ProA Capital	11	1.7x
Iwakaze Capital	11	2.1x
Capvis AG	8	1.4x
<i>Third Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
Calera Capital	14.93	1.7x
Transportation Resource Partners	14.51	1.9x
Hastings Equity Partners	12.76	1.5x
Brazos Private Equity Partners	12.71	1.6x
High Road Capital Partners	11.00	1.5x
Endeavour Capital	10.70	2.0x
MCH Private Equity	8.70	1.5x
RLJ Equity Partners	8.10	1.5x
RFE Investment Partners	7.95	1.7x
Halyard Capital	6.60	1.5x
Turkven Private Equity	6.20	1.5x
Accent Equity Partners	5.60	1.3x
Altra Investments	5.25	1.5x
Bowmark Capital	5.10	1.4x
<i>Fourth Quartile</i>		
<b>Name</b>	<b>IRR</b>	<b>MOIC</b>
Sparring Capital	5	1.3x
Vance Street Capital	4	1.2x
Riverside Company	4	1.1x
Riverlake Partners	2	1.1x

Source: Preqin, accessed December 21, 2021.

Note: Quartile performance is calculated by Preqin and includes both IRR and MOIC metrics

### Exhibit 3 Concentration Measures - Methodology

We use **Preqin** database to analyze aggregate capital raising dynamics of Top 100 fund managers that operate across buyouts verticals. We study the data in four dimensions: Top 25 and Top 100 fund managers in the world; Top25 and Top 100 fund managers in the US

The goal of the analysis is to gauge private capital industry consolidation in terms of concentration of funds in industry constituencies. For this purpose, we use two standard market concentration measures:

- **Herfindahl–Hirschman Index** defined as  $H = \sum_{i=1}^N S_i^2$  where  $S_i$  is the market share of fund manager  $i$  (funds raised by fund manager relative to total funds raised) and  $N$  is the number of fund managers. HHI below 2000 signifies relatively competitive markets.
- **Concentration Ratio** defined as  $CR = \frac{S_1 + \dots + S_n}{T}$  where  $S$  is fund manager,  $n$  is chosen to be 5, and  $T$  is the total funds raised during the period. CR between 40-70% implies medium concentration.

Source: Authors.

## Endnotes

- <sup>1</sup> What It Takes: Lessons in the Pursuit of Excellence, Stephen A. Schwarzman, 2019
- <sup>2</sup> Barbarians at the Gate, The Fall of RJR Nabisco, Bryan Burrough, and John Helyar, 1989.
- <sup>3</sup> Query why these firms opted to go public when the very nature of their business is buyouts. Why were the next generation of leaders unwilling to assume the risk of the leverage that would have been required to buy the firm? Instead they transferred the future risk of performance primarily to their public shareholders.
- <sup>4</sup> UBS Global Family Office Report 2022, <file:///C:/Users/nglie/Downloads/ubs-gfo-2022-single-pages.pdf>, accessed June 29, 2022. (UBS Report)
- <sup>5</sup> A. Lee, Why the Private Equity Model Needs to Evolve, Private Equity International May 13, 2021.
- <sup>6</sup> Thompson Reuters Refinitiv Private Equity/VC Research Tool, accessed July 17, 2022; Buyout Firms Seek \$1 Trillion of New Funding Even as Markets Drop and Deal Making Dries Up, M Gottfried and L Cooper, Wall Street Journal, July 18, 2022. <https://www.wsj.com/articles/buyout-firms-seek-1-trillion-of-new-funding-even-as-markets-drop-and-deal-making-dries-up-11658136602>, Accessed July 18, 2022.
- <sup>7</sup> Ibid.
- <sup>8</sup> Private Equity May Be Heading for a Fall, Economist, July 7, 2022.
- <sup>9</sup> Mendoza, Carmela, CPP: the World's Largest Investor Gets Bigger and Bigger, Private Equity International, July 1, 2022, accessed July 11, 2022.
- <sup>10</sup> [Blackstone Other Large Private-Equity Firms Turn Attention to Vast Retail Market - WSJ.pdf](#); [Blackstone Other Large Private-Equity Firms Turn Attention to Vast Retail Market - WSJ.pdf](#), June 7, 2022, accessed June 30, 2022.
- <sup>11</sup> Shi, Madeline, Wealth Managers Want to Pass the Baton ("Passing the Baton"). PE Firms are Ready, PitchBook, July 6, 2022, Accessed July 11, 2022.
- <sup>12</sup> Buyout Firms Seek \$1 Trillion of New Funding Even as Markets Drop and Deal Making Dries Up, M Gottfried and L Cooper, op cit.
- <sup>13</sup> This Figure depicts where the capital has been raised. Some of the capital has been raised by global firms to be invested outside the US. Some of the European capital may have also been invested in the US. However, the preponderance of the capital is presumably invested regionally.
- <sup>14</sup> Subscription Lines are credit facilities obtained by General Partners collateralized by the Limited Partners capital commitments used to finance early acquisitions and initial expenses so that the General Partners do not need to draw Limited Partner capital early in the life cycle of a fund. This practice can have the result of artificially increasing the reported returns early on by reducing or eliminating the so-called J Curve.
- <sup>15</sup> S. Kaplan and A. Schoar, Private Equity Performance: Returns, Persistence and Capital Flows, The Journal of Finance, Vol LX, No. 4, August 2005. ("Original Persistence Paper")
- <sup>16</sup> R. Harris, T. Jenkinson, and S. Kaplan, How Do Private Equity Investments Perform Compared to Public Equity? , Journal of Investment Management Volume 14, Number 3, Third Quarter 2016. In this study the authors examined cash flows of over 2000 funds through 2010.

They observed outperformance versus the public markets in the vintage years pre 2006. Funds formed post 2005 did not outperform, similar results to those depicted in **Figure 10**.

<sup>17</sup> L. Phalippou, Performance of Buyout Funds Revisited?, November 2012, <file:///C:/Users/nglie/Downloads/SSRN-id1969101.pdf> accessed July 22, 2022.

<sup>18</sup> L. Phalippou, Beware of Venturing into Private Equity, *Journal of Economic Perspectives*, Volume 23, Number 1, Winter 2009 p 147-166.

<sup>19</sup> Marks, Howard, Sea Change Memo, December 13, 2022, [Memos \(oaktreecapital.com\)](https://oaktreecapital.com) Accessed December 18, 2023.

<sup>20</sup> Marks, Howard, Further Thoughts on Sea Change Memo, October 11, 2023, [Further Thoughts on Sea Change \(oaktreecapital.com\)](https://oaktreecapital.com), Accessed December 18, 2023.

<sup>21</sup> FPA Risk is Where You're Not Looking, January 2, 2019, p. 10, <https://fpa.com/docs/default-source/funds/fpa-crescent-fund/literature/risk-is-where-you-re-not-looking.pdf?sfvrsn=8>, Accessed May 30, 2022.

<sup>22</sup> We have assumed this data reflects the average, not the median results. We contacted both Bain Capital and Cambridge Associates to ask whether the data reflects the average or median results and did not receive clarification.

<sup>23</sup> Note that State Street reported median results not average results and their results were for Global funds, not US funds.

<sup>24</sup> The performance discrepancies between **Figures 15** and **Figure 16** are explained by such factors as time horizon (**Figure 15** reflects the performance from 2001 to 2021 while **Figure 16** measures the performance during the period between 2005 and 2020), geography (**Figure 15** focuses on the US and European markets separately while **Figure 16** addresses the global market), as well as being annualized IRRs, calculated slightly differently than the pooled IRRs.

<sup>25</sup> S. Kaplan, The Effects of Management Buyouts on Operating Performance and Value, *Journal of Financial Economics* 24, 217-254, 1989; A. Smith, Corporate Ownership Structure and Performance: the Case of Management Buyouts, *Journal of Financial Economics* 27, 143-164; and S. Smart and J. Waldfogel, Measuring the Effect of Restructuring on Corporate Performance: The Case of Management Buyouts, *Review of Economics and Statistics* 76, 503-511.

<sup>26</sup> J Cohn, L Mills, E Towery, The Evolution of Capital Structure and Operating Performance after Leveraged Buyouts: Evidence from U.S. Corporate Tax Returns, April 2013, [https://faculty.mcombs.utexas.edu/jonathan.cohn/papers/CMT\\_2012\\_4.10.2013.pdf](https://faculty.mcombs.utexas.edu/jonathan.cohn/papers/CMT_2012_4.10.2013.pdf), accessed June 16, 2022.

<sup>27</sup> D Rasmussen, Private Equity Overvalued and Overrated? , *American Affairs Journal*, Vol II, Number 1, Spring 2018, 3-16. <https://americanaffairsjournal.org/2018/02/private-equity-overvalued-overrated/>, accessed June 16, 2022. The author examined the financial statements of 390 transactions aggregating over \$700 billion and hypothesized that if PE firms added value, they should see an increase in revenues, margins, and increased capital expenditures. In fact, they found in the companies, 54% had slower revenue growth, 45% had margin contraction, and 55% had reduced capital expenditures as a percentage of sales.

<sup>28</sup> Rasmussen, Dan, Private Equity Operational Improvements, Measuring Value Creation in LBOs, July 10, 2023, <https://verdadcap.com/archive/private-equity-operational-improvements>, accessed July 14, 2023.

<sup>29</sup> Kaplan, Steven and Schoar, Antionette Private Equity Performance: Returns, Persistence and Capital Flows, *Journal of Finance*, Vol. LX, No. 4, August 2005. Referred to herein as “the Original Persistence Paper”. They analyzed the essentially realized performance of 746 funds invested from 1980 through 1997.

<sup>30</sup> Robinson and Sensoy (2016) Chung (2012). While these authors used different data sources (Preqin versus Venture Economics), their conclusions were directionally consistent with those of Kaplan and Schoar in the Original Persistence Paper. In Private Equity Performance: Returns, Persistence, and Capital Flows, Robinson and Sensoy (2016) found analogous persistence results, using Venture Economics data, as well as superior results in liquidity constrained markets contexts.

<sup>31</sup> Chung, Ji-Woong, Performance Persistence in Private Equity Funds, February 2012, <file:///C:/Users/nglie/Downloads/SSRN-id1686112.pdf>, accessed June 15, 2022. Chung found directionally consistent results with the Original Persistence paper using Preqin data. However, Chung found somewhat different results such as a lack of persistence in the third and thereafter funds and with subsequently larger funds.

<sup>32</sup> Ibid. p. 4

<sup>33</sup> Ibid. p. 6

<sup>34</sup> J. Lerner, A. Schoar and W. Wongsunwai, Smart Institutions, Foolish Choices? The Limited Partner Performance Puzzle. *Journal of Finance* 62, 731-64., 2007.

<sup>35</sup> Sensoy, Berk, Y. Wang and M.S. Weisbach, Limited Partner Performance and the Maturing of the Private Equity Industry, *Journal of Financial Economics* Vol. 112, 320-343, 2014.

<sup>36</sup> Harris, Robert, Jenkinson, Tim, Kaplan Steven, and Stucke, Ruediger, Has Persistence Persisted in Private Equity? Evidence from Buyout and Venture Capital Funds, November 2020, NBR Working Paper No. 202-167, November 2020 Available at SSRN: <https://ssrn.com/abstract=3735676>, (“Updated Persistence Paper”). The authors utilized the Burgiss database of their LP client portfolios covering 893 buyout funds. The switch was made to Burgiss as some flaws in the original Venture Economics data were subsequently uncovered. The Burgiss database is the most comprehensive of the ones noted above in that it includes actual cash flows, the IRRs and MOICs from LP portfolios.

<sup>37</sup> Ibid

<sup>38</sup> Ibid., p.22

<sup>39</sup> Ibid., p 30

<sup>40</sup> Ibid., p. 2

<sup>41</sup> Ibid.p., 9

<sup>42</sup> Ibid.p., 3.

<sup>43</sup> Ibid., p. 2

<sup>44</sup> Ibid. p13

<sup>45</sup> Ibid. p20.

<sup>46</sup> Pitchbook, Allocator Solutions, Evaluating Persistence in Fund Performance, Q 3, 2023, p. 7.

<sup>47</sup> Persistence in Alternative Asset Strategies: Private Equity Buyouts, Preqin, 2022.

<sup>48</sup> Ibid., p. 8

<sup>49</sup> Ibid., p.8

<sup>50</sup> Ibid., p.3 and 8.

<sup>51</sup> Updated Persistence Paper, p. 3-4. These secondary products have investment strategies that vary from the original flagship fund and in all likelihood the anticipated return may well be lower. These secondary products need to be compared to those with comparable investment strategies, i.e., credit to credit, real estate to real estate, etc.

<sup>52</sup> The Preqin database ranks firms based on GP reported IRRs that include both realized and unrealized results to calculate the IRRs and MOICs. They equally weight both the IRR and MOIC over the time period measured to determine their quartiles. The Burgiss data contains the same information regarding unrealized returns reported by the GPs. Nonetheless Preqin provides directional guidance as to how firms are performing after the investment period and their results are consistent with those in the Harris et.al. paper.

<sup>53</sup> <https://www.privateequityinternational.com/cvc-confirms-close-on-largest-ever-buyout-fund-collecting-e26bn/> Accessed July 24, 2023.

<sup>54</sup> Steven N. Kaplan, Antoinette Schoar, Original Persistence Paper, 12 August 2005.

<sup>55</sup> Original Persistence Paper, Ibid.

<sup>56</sup> Original Persistence Paper, Ibid. But in the later Updated Persistence Paper, Kaplan et al reached the opposite conclusion. F. Lopez-de-Silanes, L. Phalippou, O. Gottschalg, Giants at the Gate: on the Cross-Section of PE Investment Returns, March 2009, [https://www.researchgate.net/publication/48376484\\_Giants\\_at\\_the\\_Gate\\_On\\_the\\_Cross-Section\\_of\\_Private\\_Equity\\_Investment\\_Returns](https://www.researchgate.net/publication/48376484_Giants_at_the_Gate_On_the_Cross-Section_of_Private_Equity_Investment_Returns), accessed July 21, 2022, which found diseconomies of scale which negatively impacted returns; Berk and Green (2004), Kaplan and Lerner 2010 Pastor and Stambaugh 2012

<sup>57</sup> Ibid.

<sup>58</sup> Portfolio Management In Private Equity, Gregory W. Brown, Celine Yue Fei, David T. Robinson (“Brown *et al*”) Working Paper 31664, <http://www.nber.org/papers/w31664>, National Bureau of Economic Research, September 2003.

<sup>59</sup> Decreasing Returns or Mean-reversion of Luck? The Case of Private Equity Fund Growth, Andrea Rossi, Working Paper Fischer College of Working Paper Series, 2017-03-026, Dice Center Working Paper 2017-26, referred to herein as Rossi Paper.

<sup>60</sup> Ibid, p.2

<sup>61</sup> Ibid, p. 2

<sup>62</sup> Brown *et al*, op cit.

<sup>63</sup> Mutual Fund Flows and Performance in Rational Markets, Jonathan B. Berk and Richard C. Green, Journal of Political Economy, Vol. 112, No. 6 (December 2004), pp. 1269-1295

<sup>64</sup> Ibid.

<sup>65</sup> <https://fundresearch.fidelity.com/mutual-funds/view-all/316184100>, Accessed September 2, 2022.

<sup>66</sup> Blackstone web site, <https://www.blackstone.com/our-businesses/private-equity/>, accessed June 13, 2022.

<sup>67</sup> Fama, Eugene F. 1970. “Efficient Capital Markets: A Review of Theory and Empirical Work.” *Journal of Finance*, vol. 25, no. 2:383–417. 10.2307/2325486. Other sources include Malkiel, Burton Gordon. *A Random Walk down Wall Street : the Time-Tested Strategy for Successful Investing*. New York :W.W. Norton, 2003.

<sup>68</sup> Fama, Eugene F. 1998. “Market Efficiency, Long-Term Returns, and Behavioral Finance.” *Journal of Financial Economics*, vol. 50, no. 3:283–306. 10.1016/S0304-405X(98)00026-9

<sup>69</sup> Forbes, “Any Monkey Can Beat the Market”  
<https://www.forbes.com/sites/rickferri/2012/12/20/any-monkey-can-beat-the-market/?sh=247da1f2630a>, Accessed June 13,2022.

<sup>70</sup> The first passively managed fund was created by Vanguard Group (then known as First Investment Trust) back in 1975.

<sup>71</sup> Bogel, John, *Common Sense on Mutual Funds: New Imperatives for the Intelligent Investor*, January 1, 1999.

<sup>72</sup> Nations, Scott, *The Anxious Investor : Mastering the Mental Game of Investing*, April 2022.

<sup>73</sup> Kahneman, Daniel, *Thinking Fast and Slow*, 2011.

<sup>74</sup> *Ibid.* page 216.

<sup>75</sup> Marks, Howard, *The New Paradigm*, October 19, 2006, [Memo to: \(oaktreecapital.com\)](https://www.oaktreecapital.com), accessed December 18, 2023, p. 2.

<sup>76</sup> *Ibid.*, p. 11.

<sup>77</sup> Blackstone Readies Back-to Back \$30 Billion Fundraises, *Private Equity Real Estate*, July 21,2022, Accessed July 22, 2022.

<sup>78</sup>Blackstone Becomes the First \$1 Trillion Private Equity Manager,  
<https://www.nytimes.com/2023/07/20/business/dealbook/blackstone-trillion.html>, accessed July 24, 2023.

<sup>79</sup> James, Rod, *Follow-on Funds Are a Sign of a New Private Equity Paradigm*, PEI International, June 30, 2022, accessed July 10, 2022.

<sup>80</sup> *Ibid.*

<sup>81</sup> [Private Equity May Be Heading for a Fall](#), *The Economist*, July 7, 2022; H de Beer and A Lynn, [PE’s Halcyon Days Might be Over – At Least for Now](#), *Private Equity International*, June 30,2022.

<sup>82</sup> Ludovic

<sup>83</sup> UBS Report op cit.

<sup>84</sup> Weitzman, *Buyouts*, December 6, 2021, <https://www.hamiltonlane.com/en-us/news/buyouts-retail-space-expansion>, accessed August 21, 2022.; Pitchbook, <https://pitchbook.com/news/articles/hamilton-lane-token-individual-investors-addx-private-markets>, March 29, 2022 which is offering tokenized investments in amounts as small as \$10,000.

<sup>85</sup> Erik Stafford, *Replicating Private Equity with Value Investing, Homemade Leverage, and Hold to Maturity Accounting*, December 2015. This concept uses REPO financing on a customized PME basket of securities. The premise is questionable as it presumes an investor will cover all margin calls from other asset classes.

- <sup>86</sup> Steve Ross and Mengu, Synthetic Private Equity Exposure Using Equity Index Options, January 2017.  
[https://static1.squarespace.com/static/5a95cf794611a042ed7831c3/t/5b6c8284cd83663c82c03371/1533837957627/Synthetic+Private+Equity+Exposure+Using+Equity+Index+Options\\_201701.pdf](https://static1.squarespace.com/static/5a95cf794611a042ed7831c3/t/5b6c8284cd83663c82c03371/1533837957627/Synthetic+Private+Equity+Exposure+Using+Equity+Index+Options_201701.pdf), Accessed June 16, 2022.
- <sup>87</sup> Accelerate PE Alpha Fund, TSX Alpha, which has an objective of achieving PE returns using hedged leverage positions. Marketing materials dated February 26, 2021. They charge zero management fees and 15% over a designated benchmark.
- <sup>88</sup> From trailblazing dealmakers to asset gathering giants: The Changing Face of European Private Equity, Private Equity International, August 30, 2023, [From trailblazing dealmakers to asset gathering giants\\_ The changing face of European private equity.pdf](#) accessed September 3, 2023.
- <sup>89</sup> Obviously, it is improbable for 100% of investors to invest only in top quartile funds.
- <sup>90</sup> Fama, Eugene F. 1970. "Efficient Capital Markets: A Review of Theory and Empirical Work." *Journal of Finance*, vol. 25, no. 2:383–417. 10.2307/2325486.
- <sup>91</sup> Updated Persistence Paper op cit.
- <sup>92</sup> Thinking Fast and Slow, op cit. page 216.

The logo for APFC (Alaska Permanent Fund Corporation) is displayed in white serif font on a dark teal rectangular background. The background of the entire slide is a semi-transparent blue overlay of a financial trading interface, showing various data tables, charts, and navigation menus.

APFC

ALASKA PERMANENT  
FUND CORPORATION



SUBJECT: FY26 Budget Projections

ACTION:

DATE: May 27, 2026

INFORMATION: X

## BACKGROUND

Per Board Resolution 25-01 – Pertaining to The Operating Budget of The Corporation:

*APFC staff shall, prior to the last meeting of the Board of Trustees of each fiscal year, prepare an analysis of expenditures to date and status of programs, identify projected shortfalls and surpluses by the objects of expenditures and allocations set out herein, and recommend transfers to the Board of Trustees.*

*The Board of Trustees may, following discussion and due consideration of staff recommendations, authorize the transfer of budgeted funds between allocations objects of expenditure set out herein pursuant to such recommendations as may be amended by the Board of Trustees.*

## STATUS

This memo and the following presentation outline the projected fiscal year-end status of the corporation's three appropriations within the APFC FY26 budget. The estimates are based on actual expenditures through the third quarter (March 31, 2026), and projections for April through June of 2026. Across all budget lines, funds not expended at the end of the year will remain in the Earnings Reserve Account (ERA).

## OPERATIONS APPROPRIATION

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Personal Services	\$ 23,881,800	\$ 14,736,780	\$ 4,612,619	\$ 19,349,400	\$ 4,532,400	81%
Travel	\$ 1,025,000	\$ 442,917	\$ 223,682	\$ 666,599	\$ 358,401	65%
Contractual Services	\$ 3,076,500	\$ 1,771,733	\$ 735,028	\$ 2,506,760	\$ 569,740	81%
<b>Total Operations Allocation</b>	<b>\$ 27,983,300</b>	<b>\$ 16,951,430</b>	<b>\$ 5,571,329</b>	<b>\$ 22,522,759</b>	<b>\$ 5,460,541</b>	<b>80%</b>
<b>Total Facilities Rent</b>	<b>\$ 618,000</b>	<b>\$ 534,532</b>	<b>\$ 81,047</b>	<b>\$ 615,579</b>	<b>\$ 2,421</b>	<b>100%</b>
<b>Appropriation Total</b>	<b>\$ 28,601,300</b>	<b>\$ 17,485,962</b>	<b>\$ 5,652,376</b>	<b>\$ 23,138,338</b>	<b>\$ 5,462,962</b>	<b>81%</b>

The Operations appropriation consists of two allocations, the Operations allocation and the Facilities Rent allocation. The total projected expenditure for the Operations appropriation is anticipated to be well within the authorized budget, with a projected surplus of \$5.4 million, the largest surplus being in personal services. Budget authority was transferred from the contractual services line within the Operations allocation to allow for payment of the Anchorage office lease.

## PERSONAL SERVICES

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Staff	\$ 20,620,800	\$ 13,364,042	\$ 4,604,274	\$ 17,968,317	\$ 2,652,483	87%
Incentive Compensation	\$ 3,245,000	\$ 1,366,283	\$ -	\$ 1,366,283	\$ 1,878,717	42%
Trustee Honoraria	\$ 16,000	\$ 6,455	\$ 8,345	\$ 14,800	\$ 1,200	92%
<b>Total</b>	<b>\$ 23,881,800</b>	<b>\$ 14,736,780</b>	<b>\$ 4,612,619</b>	<b>\$ 19,349,400</b>	<b>\$ 4,532,400</b>	<b>81%</b>

Since July 1, 2025, APFC has hired three staff for Operations, one staff member for Investments, and there was one internal promotion within Investments. During the same period, two employees, both from Operations, departed due to career advancement opportunities or personal relocation.

APFC currently has nine vacant positions. One position, an Information Technology Specialist, is awaiting OMB approval to recruit. Two hire requests, the Chief Operations Officer and an Investment Position, are pending OMB approval. In addition, two interns have been hired and are scheduled to start later this month.

Included in the \$4.5 million surplus projected on the Personal Services line is \$1.8 million in incentive compensation that was not earned per the policy.

## TRAVEL

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Staff Travel	\$ 627,000	\$ 258,011	\$ 168,382	\$ 426,393	\$ 200,607	68%
Trustee Travel	\$ 18,000	\$ 14,317	\$ 33,600	\$ 47,917	\$ (29,917)	266%
Moving Non-Employee	\$ 130,000	\$ 6,285	\$ 16,700	\$ 22,985	\$ 107,015	18%
Third Party Reimbursement	\$ 250,000	\$ 164,304	\$ 5,000	\$ 169,304	\$ 80,696	68%
<b>Total</b>	<b>\$ 1,025,000</b>	<b>\$ 442,917</b>	<b>\$ 223,682</b>	<b>\$ 666,599</b>	<b>\$ 358,401</b>	<b>65%</b>

In FY26, APFC had a total authorized budget of \$1,025,000 for travel and anticipates spending a total of approximately \$666.6k by fiscal year end (65%). With the issuance of the Governor's Administrative Order 358, APFC has limited its travel to that which is deemed necessary to conduct essential business, resulting in a surplus to the Staff Travel expenditure line of slightly over \$200k. In contrast, Board travel is projected to exceed its budget by almost \$30k. It is important that APFC maintain budget flexibility to ensure that travel funds are available when situations arise that necessitate travel. APFC travel includes travel for due diligence, asset visits, Limited Partner Advisory Committee meetings, training opportunities, conferences, and other engagements, as well as board meetings.

In FY26, APFC received Statutory Designated Program Receipts (SDPR) authority to facilitate transparency with third-party travel. Third-party travel has become material to APFC's travel budget and is part of portfolio management's regular responsibilities in some asset classes. Third-party payments, whether reimbursed or direct pay, are recorded as revenue, and the corresponding expenses are charged against it. The authorized budget for SDPR was \$250k and the projected spend is \$169.3k by fiscal year end (68%).

The funding for the Moving and Non-Employee expenditure line supports bringing candidates to Alaska in-person interviews as well as assistance with relocation expenses for successful applicants.

The ability to assist with relocation expenses enables APFC to remain a competitive employer. This fiscal year, we have relocated one employee to the Juneau office and brought four candidates to Alaska for in-person interviews. The nearly \$23k projected in Q4 for Moving and Non-Employee, is in anticipation of one relocation and several candidate visits before the end of the fiscal year.

## CONTRACTUAL SERVICES

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Audit, Legal, Consulting	\$ 733,000	\$ 93,786	\$ 332,400	\$ 426,186	\$ 306,814	58%
Public Communications	\$ 547,997	\$ 359,236	\$ 109,460	\$ 468,696	\$ 79,301	86%
Board Support and Meetings	\$ 97,400	\$ 29,119	\$ 8,600	\$ 37,719	\$ 59,681	39%
Information Technology	\$ 1,282,400	\$ 1,082,996	\$ 188,000	\$ 1,270,996	\$ 11,404	99%
HR and Recruitment	\$ 101,200	\$ 57,797	\$ 13,000	\$ 70,797	\$ 30,403	70%
Training and Conferences	\$ 102,003	\$ 43,794	\$ 18,000	\$ 61,794	\$ 40,209	61%
Office Support	\$ 212,500	\$ 105,004	\$ 65,568	\$ 170,572	\$ 41,928	80%
<b>Total</b>	<b>\$ 3,076,500</b>	<b>\$ 1,771,733</b>	<b>\$ 735,028</b>	<b>\$ 2,506,760</b>	<b>\$ 569,740</b>	<b>81%</b>

The Contractual Services line covers the services provided externally to support activities not directly related to investment activity, such as contractors, auditors, and interagency services.

### *Audit, Legal, Consulting*

This line of expenditure includes funding for services to perform the annual financial audit, advisory and consulting services, and Reimbursable Service Agreements (RSA) with the Department of Law (DOL) and the Department of Revenue (DOR). The RSAs include services from a Senior Assistant Attorney General to assist with matters such as procurement, securities litigation, public records, and compliance.

We anticipate a surplus on this line of close to \$307k this fiscal year. The largest contributors to the surplus in this category are the consulting and legal lines. These expenditures are difficult to anticipate due to their project-based nature and tend to be inconsistent from one year to the next.

### *Public Communications*

This line accounts for general communications contractual services as well as advertising and printing. We anticipate a surplus of about \$79.3k. A competitive procurement is currently underway for a new communications services contract with an anticipated start date of June 1, 2026. Additionally, the launch of the website refresh brings an enhanced user experience, including reporting updates such as public equities holdings information that makes information more accessible. Ongoing work may impact the projected surplus.

### *Board Support & Meetings*

This line item covers the costs related to facilitating Board meetings, including meeting room and equipment rental, catering, transcription, and printing expenses. Overall, we anticipate expending approximately 40% of this budget, leaving a projected surplus of \$59.7k. The surplus this fiscal year is attributed to a decrease in venue, meeting, and transcription costs. APFC has acquired sound equipment for use at Board meetings, reducing costs by eliminating the need to outsource equipment and professional services.

*Information Technology*

This Information Technology line represents 41% contractual services budget, including IT consulting, MIS system services, network/server software licensing and maintenance, equipment repair, and the datacenter lease.

Over 80% of this budget was spent in the first three quarters of the fiscal year; with large annual software renewal fees being invoiced in the fourth quarter of the budget cycle.

We anticipate fully expending this line. With the implementation of Artificial Intelligence in the workplace, this expenditure line shows increases in IT Consulting Services and Network and Server Software licensing. Additionally, this line was utilized to fix one of the cooling units located in the Juneau server room.

*HR and Recruitment*

This line includes both recruitment notices and inter-agency HR expenses (shared services) with DOR.

The \$30k surplus in this line is due to the shared services portion. The FY26 expense was approximately \$23k less than anticipated. Our Human Resources team utilized this budget line for job advertising, background checks, our Human Resources software, and other expenditures to ensure successful recruitment and HR needs.

*Training and Conferences*

Our team has taken advantage of a variety of training opportunities this year, with close to 25 different trainings completed so far. We anticipate a surplus of just over \$40k in this line. Some examples of training and certifications completed during the year include CFA, NCREIF, CPA, PRSA, accounting occupational endorsement, procurement, and leadership training. HR and Administration are working together to provide a professional development opportunity for APFC staff before the end of the year.

*Office Support*

The office support line is expected to be 80% expended by the end of the fiscal year, leaving a surplus of just under \$42k. The office support line includes overhead expenses, inter-agency expenses, and records retention. The largest portion of this line is for inter-agency chargeback expenses, cell phones, and records storage for both digital and hard-copy documents.

**INVESTMENT MANAGEMENT APPROPRIATION**

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
<b>Due Diligence &amp; Custody Fees</b>	\$ 8,313,400	\$ 3,765,692	\$ 1,014,545	\$ 4,780,237	\$ 3,533,163	58%
Due Diligence	\$ 5,813,400	\$ 2,286,085	\$ 764,152	\$ 3,050,237	\$ 2,763,163	52%
Custody Fees	\$ 2,500,000	\$ 1,479,607	\$ 250,393	\$ 1,730,000	\$ 770,000	69%
<b>Investment Management Fees</b>	\$ 178,251,000	\$ 115,304,894	\$22,999,418	\$138,304,312	\$ 39,946,688	78%
Public Equities	\$ 139,157,000	\$ 90,082,408	\$14,678,062	\$104,760,470	\$ 34,396,530	75%
Real Estate	\$ 3,594,000	\$ 1,513,783	\$ 697,807	\$ 2,211,590	\$ 1,382,410	62%
Alternative Market's	\$ 35,500,000	\$ 23,708,704	\$ 7,623,549	\$ 31,332,253	\$ 4,167,747	88%
<b>Total</b>	<b>\$ 186,564,400</b>	<b>\$ 119,070,586</b>	<b>\$24,013,963</b>	<b>\$143,084,549</b>	<b>\$ 43,479,851</b>	<b>77%</b>

The Investment Management appropriation consists of contractual service costs for portfolio management fees for public equities, public real estate, and alternatives. Also included are costs for due diligence functions, advisory services, consulting, and manager searches. Additionally, this appropriation covers fees associated with APFC's custodian bank.

## INVESTMENT DUE DILIGENCE

This line covers third-party fiduciary advice, subject-matter experts, performance measurement, manager searches, and investment-specific legal fees. We anticipate a surplus of just over \$2.7 million in this area. Fiduciary advice and legal fees make up 65% of the due diligence line. Due diligence expenses are dependent upon investment opportunity, which is difficult to predict. We request a level of funding for this work to enable reliable investment review as opportunities arise.

## CUSTODY FEES

This line provides funding for the Fund's custodial services in addition to collateral management and tax advisory services. APFC projects to expend slightly over \$1.7 million this fiscal year, leaving a surplus of \$770k. Given the small size of the middle office staff, recruitment challenges, and turnover in this necessary function, the surplus in the Custody Fees line is budgeted as a contingency for the potential need to outsource the middle office function should the need arise.

## INVESTMENT MANAGEMENT FEES

External management fees depend primarily on investment performance, which is difficult to predict, especially given the timeline of the budget development process. The budget is based on projected growth, Callan's capital-market assumptions by asset class, and the actual fee structures for external management contracts. Because of these difficult-to-forecast variables, APFC budgets this line to ensure it can honor the terms of its contracts with its investment partners.

We anticipated a surplus of close to \$40 million in manager fees. It is important that we have funding available to fulfill the contractual obligations with our investment partners.

### *Public Equities*

Public equities management fees include two fee structures: base and incentive. The projections for base fees for the fourth quarter are based on a slight increase in account values from March to June in accordance with capital market assumptions from Callan.

Incentive fees are paid under contractual terms that compensate managers for outperforming specified benchmarks on a calendar-year basis, making it extremely challenging to forecast. A total of \$44.7 million in incentive fees were paid out based on calendar 2025 performance, with no additional anticipated incentive fees to be paid this fiscal year.

Total fees paid for public equities in FY26 are forecasted to be \$104.8 million, leaving a surplus of approximately \$34.4 million.

*Real Estate*

Projected investment management fees for public real estate portfolios are \$2.2 million, leaving a surplus of almost \$1.4 million.

*Alternatives*

Management fees for alternative investments are primarily paid to the gatekeeper, who selects and monitors investments. These contracted fees are projected to be just over \$31.3 million for this fiscal year, leaving a surplus authority of \$4.1 million.

**IT AND SOFTWARE LICENSING APPROPRIATION**

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Investment Systems	\$ 11,877,700	\$ 4,802,170	\$ 4,410,896	\$ 9,213,066	\$ 2,664,634	78%
Commodities	\$ 145,000	\$ 109,378	\$ 24,299	\$ 133,677	\$ 11,323	92%
Equipment	\$ 443,000	\$ 438,691	\$ 2,000	\$ 440,691	\$ 2,309	99%
<b>Total</b>	<b>\$ 12,465,700</b>	<b>\$ 5,350,239</b>	<b>\$ 4,437,195</b>	<b>\$ 9,787,434</b>	<b>\$ 2,678,266</b>	<b>79%</b>

The IT and Software Appropriation includes contractual services, supplies, and equipment that are related to Information Technology. These services encompass investment systems (such as Bloomberg and Aladdin), modeling, access to investment/finance networks, as well as workstation and datacenter equipment.

INVESTMENT SYSTEMS

Nearly 80% of this line is used for shared services, analytics, and data, including investment-specific systems such as Bloomberg and Aladdin. It also covers investment/finance network access fees and investment consulting/modeling. We anticipate a \$2.7 million surplus on this line. The bulk of the surplus in this line comes from unused amounts authorized for the data warehouse project which was paused during the year pending assessment of corporate needs and developing technologies.

COMMODITIES

Close to 45% of the commodities line is budgeted for IT supplies; as is typical, we expect to fully expend most of it this year. The other items accounted for on this line include subscriptions, office supplies, and furniture.

EQUIPMENT

This budget line covers all network/service equipment which exceed \$5,000 in cost. The primary areas of focus during FY26 were the upgrade and relocation of the backup data center from Fairbanks to Anchorage. The backup datacenter in Anchorage allows for seamless transition for all workflows in the event of a disruption in business continuity in Juneau. Nearly all these funds were expended through Q3, with a minimal amount projected for Q4.

SUBJECT: FY27 Budget Approval

ACTION: X

DATE: May 27, 2026

INFORMATION:

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**BACKGROUND:**

Per Board Resolution, 98-6 Authorization to Expend Approved Funds:

*Before the end of the current fiscal year, APFC staff shall present to the Board of Trustees the final operating and capital budgets authorized by the Legislature for the succeeding fiscal year, and identify budget reductions by the Legislature, if any, along with an analysis of resulting corporate or program effect.*

*The Board of Trustees authorizes the Executive Director, following proper notification to the Trustees in accordance with the requirements of Resolution 98-6, to expend from appropriations as authorized by Trustee policy and the Legislature beginning July 1 of the fiscal year.*

**SUMMARY:**

The Board adopted the proposed FY27 budget at its September 5, 2025, meeting. The Governor's FY27 proposed operating budget introduced to the Legislature included the Board's budget recommendations, except for the increments for the Board Honorarium, Board travel, and Statutory Designated Program Receipts (SDPR) for third-party-funded travel.

APFC requested, and the Governor submitted a historical single-appropriation structure to support disciplined resource flexibility for managing a \$90+ billion fund. Both the House and the Senate rejected this structure and proposed four appropriations based on the current FY26 structure.

This memo was prepared for the Board packet prior to the final conference committee deliberations on HB 263, the FY27 operating budget. The House fully funded APFC's budget requests, except for the \$34.0k for the Anchorage lease. The Senate did not fund the increases for the Anchorage lease and the full funding of Incentive Compensation; they also proposed an additional \$500.0k reduction to Investment Systems. As a result, APFC's budget request remains under consideration in conference committee.

The separate board packet materials include a detailed presentation on the Corporation's operating budget and the status of FY27 requests, including the House and Senate conference committee items.

**RECOMMENDATION:**

Proposed Board Motion:

***"The Board moves to authorize the Chief Executive Officer to expend the APFC budget authorization as appropriated by the Legislature, consistent with the Board's 2024 Strategic Plan, and enacted into law, beginning July 1, 2026, and to make transfers as necessary to implement the Board's 2024 strategic plan."***



**APFC**

ALASKA PERMANENT  
FUND CORPORATION

# FY26 Projected Budget-to-Actual Expenditure

# FY26 Budget to Projected Expenditures

<u>Operations</u>	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	% Expended
Personal Services	\$ 23,881,800	\$ 14,736,780	\$ 4,612,619	\$ 19,349,400	\$ 4,532,400	81%
Staff	\$ 20,620,800	\$ 13,364,042	\$ 4,604,274	\$ 17,968,317	\$ 2,652,483	87%
Incentive Compensation	\$ 3,245,000	\$ 1,366,283	\$ -	\$ 1,366,283	\$ 1,878,717	42%
Board: Honoraria	\$ 16,000	\$ 6,455	\$ 8,345	\$ 14,800	\$ 1,200	92%
Travel	\$ 1,025,000	\$ 442,917	\$ 223,682	\$ 666,599	\$ 358,401	65%
Staff	\$ 627,000	\$ 258,011	\$ 168,382	\$ 426,393	\$ 200,607	68%
Trustees	\$ 18,000	\$ 14,317	\$ 33,600	\$ 47,917	\$ (29,917)	266%
Moving and Non-employee	\$ 130,000	\$ 6,285	\$ 16,700	\$ 22,985	\$ 107,015	18%
Third Party Reimbursed	\$ 250,000	\$ 164,304	\$ 5,000	\$ 169,304	\$ 80,696	68%
Contractual Services	\$ 3,076,500	\$ 1,771,733	\$ 735,028	\$ 2,506,760	\$ 569,740	81%
Audit, Legal, Consulting	\$ 733,000	\$ 93,786	\$ 332,400	\$ 426,186	\$ 306,814	58%
Public Communications	\$ 547,997	\$ 359,236	\$ 109,460	\$ 468,696	\$ 79,301	86%
Board Support and Meetings	\$ 97,400	\$ 29,119	\$ 8,600	\$ 37,719	\$ 59,681	39%
Information Technology	\$ 1,282,400	\$ 1,082,996	\$ 188,000	\$ 1,270,996	\$ 11,404	99%
HR and Recruitment	\$ 101,200	\$ 57,797	\$ 13,000	\$ 70,797	\$ 30,403	70%
Training and Conferences	\$ 102,003	\$ 43,794	\$ 18,000	\$ 61,794	\$ 40,209	61%
Office Support	\$ 212,500	\$ 105,004	\$ 65,568	\$ 170,572	\$ 41,928	80%
<b>APFC Operations Total</b>	<b>\$ 27,983,300</b>	<b>\$ 16,951,430</b>	<b>\$ 5,571,329</b>	<b>\$ 22,522,759</b>	<b>\$ 5,460,541</b>	<b>80%</b>
<b>Facilities Rent Total</b>	<b>\$ 618,000</b>	<b>\$ 534,532</b>	<b>\$ 81,047</b>	<b>\$ 615,579</b>	<b>\$ 2,421</b>	<b>100%</b>
<b>Operations Total</b>	<b>\$ 28,601,300</b>	<b>\$ 17,485,962</b>	<b>\$ 5,652,376</b>	<b>\$ 23,138,338</b>	<b>\$ 5,462,962</b>	<b>81%</b>

<u>Investment Management</u>	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	% Expended
Due Diligence & Custody	\$ 8,313,400	\$ 3,765,692	\$ 1,014,545	\$ 4,780,237	\$ 3,533,163	58%
Investment Due Diligence	\$ 5,813,400	\$ 2,286,085	\$ 764,152	\$ 3,050,237	\$ 2,763,163	52%
Custody Fees	\$ 2,500,000	\$ 1,479,607	\$ 250,393	\$ 1,730,000	\$ 770,000	69%
Investment Management Fees	\$ 178,251,000	\$ 115,304,894	\$ 22,999,418	\$ 138,304,312	\$ 39,946,688	78%
Public Equities	\$ 139,157,000	\$ 90,082,408	\$ 14,678,062	\$ 104,760,470	\$ 34,396,530	75%
Real Estate	\$ 3,594,000	\$ 1,513,783	\$ 697,807	\$ 2,211,590	\$ 1,382,410	62%
Alternative Markets	\$ 35,500,000	\$ 23,708,704	\$ 7,623,549	\$ 31,332,253	\$ 4,167,747	88%
<b>Investment Management Total</b>	<b>\$ 186,564,400</b>	<b>\$ 119,070,586</b>	<b>\$ 24,013,963</b>	<b>\$ 143,084,549</b>	<b>\$ 43,479,851</b>	<b>77%</b>

<u>IT and Software Licensing</u>	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	% Expended
Investment Systems	\$ 11,877,700	\$ 4,802,170	\$ 4,410,896	\$ 9,213,066	\$ 2,664,634	78%
Commodities	\$ 145,000	\$ 109,378	\$ 24,299	\$ 133,677	\$ 11,323	92%
Equipment	\$ 443,000	\$ 438,691	\$ 2,000	\$ 440,691	\$ 2,309	99%
<b>IT and Software Total</b>	<b>\$ 12,465,700</b>	<b>\$ 5,350,239</b>	<b>\$ 4,437,195</b>	<b>\$ 9,787,434</b>	<b>\$ 2,678,266</b>	<b>79%</b>

<b>Total APFC Appropriations</b>	<b>\$ 227,631,400</b>	<b>\$ 141,906,787</b>	<b>\$ 34,103,534</b>	<b>\$ 154,616,532</b>	<b>\$ 51,621,079</b>	<b>77%</b>
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<b>Legislative Appropriations</b>	<b>\$ 10,867,700</b>	<b>\$ 10,867,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>100%</b>
<b>Total Legislative Appropriations</b>	<b>\$ 10,867,700</b>	<b>\$ 10,867,700</b>	<b>\$ -</b>	<b>\$ 10,867,700</b>	<b>\$ -</b>	<b>100%</b>

# Operations

## Personal Services

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	% Expended
<b>Staff</b>	\$ 20,620,800	\$ 13,364,042	\$ 4,604,274	\$ 17,968,317	\$ 2,652,483	87%
<b>Incentive Compensation</b>	\$ 3,245,000	\$ 1,366,283	\$ -	\$ 1,366,283	\$ 1,878,717	42%
<b>Trustee Honoraria</b>	\$ 16,000.00	\$ 6,455	\$ 8,345	\$ 14,800	\$ 1,200	92%
<b>Total</b>	<b>\$ 23,881,800</b>	<b>\$ 14,736,780</b>	<b>\$ 4,612,619</b>	<b>\$ 19,349,400</b>	<b>\$ 4,532,400</b>	<b>81%</b>

Investment	Filled	Vacant	Total
Executive	3	0	3
Investments	1	0	1
Fixed Income	7	1	8
Public Equities	2	1	3
Real Estate	5	1	6
Private Equity	5	0	5
Private Income	2	2	4
Absolute Return	1	0	1
Cash	1	0	1
<b>Total</b>	<b>27</b>	<b>5</b>	<b>32</b>

Operations	Filled	Vacant	Total
Executive	3	1	4
Finance	7	1	8
Communications	2	0	2
Risk & Compliance	2	0	2
IT	6	1	7
HR	2	0	2
Admin. Operations	6	0	6
Legal	1	0	1
Middle Office	1	1	2
Interns	2	0	2
<b>Total</b>	<b>32</b>	<b>4</b>	<b>36</b>

	Filled	Vacant	Total
<b>Total Positions</b>	<b>59</b>	<b>9</b>	<b>68</b>

# Operations

## Travel

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	% Expended
Staff Travel	\$ 627,000	\$ 258,011	\$ 168,382	\$ 426,393	\$ 200,607	68%
Trustee Travel	\$ 18,000	\$ 14,317	\$ 33,600	\$ 47,917	\$ (29,917)	266%
Moving Non-Employee	\$ 130,000	\$ 6,285	\$ 16,700	\$ 22,985	\$ 107,015	18%
Third Party Reimbursement	\$ 250,000	\$ 164,304	\$ 5,000	\$ 169,304	\$ 80,696	68%
<b>Total</b>	<b>\$ 1,025,000</b>	<b>\$ 442,917</b>	<b>\$ 223,682</b>	<b>\$ 666,599</b>	<b>\$ 358,401</b>	<b>65%</b>

### FY26 Third Party Travel (SDPR)\*

- 53 trips
- \$101.1k Direct Pay
- \$63.2k Reimbursed
- Anticipate not to exceed \$170,000
- FY27: \$250,000



\*Travel totals through May 4, 2026

# Operations

## Contractual Services

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Audit, Legal, Consulting	\$ 733,000	\$ 93,786	\$ 332,400	\$ 426,186	\$ 306,814	58%
Public Communications	\$ 547,997	\$ 359,236	\$ 109,460	\$ 468,696	\$ 79,301	86%
Board Support and Meetings	\$ 97,400	\$ 29,119	\$ 8,600	\$ 37,719	\$ 59,681	39%
Information Technology	\$ 1,282,400	\$ 1,082,996	\$ 188,000	\$ 1,270,996	\$ 11,404	99%
HR and Recruitment	\$ 101,200	\$ 57,797	\$ 13,000	\$ 70,797	\$ 30,403	70%
Training and Conferences	\$ 102,003	\$ 43,794	\$ 18,000	\$ 61,794	\$ 40,209	61%
Office Support	\$ 212,500	\$ 105,004	\$ 65,568	\$ 170,572	\$ 41,928	80%
<b>Total</b>	<b>\$ 3,076,500</b>	<b>\$ 1,771,733</b>	<b>\$ 735,028</b>	<b>\$ 2,506,760</b>	<b>\$ 569,740</b>	<b>81%</b>

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Facilities Rent	\$ 618,000	\$ 534,532	\$ 81,047	\$ 615,579	\$ 2,421	100%

# Investment Management

## Due Diligence & Custody Fees

Due Diligence	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Fiduciary Advice	\$ 2,299,800	\$ 903,545	\$ 217,333	\$ 1,120,878	\$ 1,178,922	49%
Subject Matter Experts	\$ 900,000	\$ 301,197	\$ 182,000	\$ 483,197	\$ 416,803	54%
Performance Measurement	\$ 550,000	\$ 449,595	\$ 149,865	\$ 599,460	\$ (49,460)	109%
Research & Memberships	\$ 320,000	\$ 162,318	\$ 7,375	\$ 169,693	\$ 150,307	53%
Manager Searches	\$ 243,600	\$ -	\$ -	\$ -	\$ 243,600	0%
Legal Fees Investment Specific	\$ 1,500,000	\$ 469,429	\$ 207,579	\$ 677,008	\$ 822,992	45%
<b>Total</b>	<b>\$ 5,813,400</b>	<b>\$ 2,286,085</b>	<b>\$ 764,152</b>	<b>\$ 3,050,237</b>	<b>\$ 2,763,163</b>	<b>52%</b>

Custody Fees	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Custody Fees	\$ 2,500,000	\$ 1,479,607	\$ 250,393	\$ 1,730,000	\$ 770,000	69%
<b>Total</b>	<b>\$ 2,500,000</b>	<b>\$ 1,479,607</b>	<b>\$ 250,393</b>	<b>\$ 1,730,000</b>	<b>\$ 770,000</b>	<b>69%</b>

# Investment Management

## Investment Management Fees

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
Public Equities	\$ 139,157,000	\$ 90,082,408	\$ 14,678,062	\$ 104,760,470	\$ 34,396,530	75%
Real Estate	\$ 3,594,000	\$ 1,513,783	\$ 697,807	\$ 2,211,590	\$ 1,382,410	62%
Alternative Markets	\$ 35,500,000	\$ 23,708,704	\$ 7,623,549	\$ 31,332,253	\$ 4,167,747	88%
<b>Total</b>	<b>\$ 178,251,000</b>	<b>\$ 115,304,894</b>	<b>\$ 22,999,418</b>	<b>\$ 138,304,312</b>	<b>\$ 39,946,688</b>	<b>78%</b>

# IT and Software Licensing

	FY26 Authorized	Actuals through March 31, 2026	Q4 Projected	FY26 Projected Total Spend	Projected Surplus/Shortfall	%Expended
<b>Investment Systems</b>	\$ 11,877,700	\$ 4,802,170	\$ 4,410,896	\$ 9,213,066	\$ 2,664,634	78%
<b>Commodities</b>	\$ 145,000	\$ 109,378	\$ 24,299	\$ 133,677	\$ 11,323	92%
<b>Equipment</b>	\$ 443,000	\$ 438,691	\$ 2,000	\$ 440,691	\$ 2,309	99%
<b>Total</b>	\$ 12,465,700	\$ 5,350,239	\$ 4,437,195	\$ 9,787,434	\$ 2,678,266	79%

A photograph of an office interior, overlaid with a semi-transparent blue filter. In the background, a sign on the wall reads "APFC ALASKA PERMANENT FUND CORPORATION". There are two flags, one of which is the Alaska state flag, and a reception desk with a person behind it. In the foreground, there is a white sofa and a small round coffee table.

# FY27 Budget Update and Authorization to Expend

Action: Budget Authorization

# FY27 Board Request One Appropriation with Three Allocations

## Operations

-\$117.6 Delete 1 PCN  
+\$860.0 Incentive Comp  
+\$34.0 Anchorage Lease  
+\$32.0 Juneau Lease

Not in Governor's Request  
+\$2.0 Board Honorarium  
+\$111.3 3<sup>rd</sup> Party Travel  
+\$37.0 Board Travel

## Investment Management

-\$18,926.0 Investment Management Fees

## IT Software and Licensing

+\$196.0 Workstation Replacement  
+\$41.7 Research Subscriptions  
+\$307.0 Datacenter Upgrades  
+\$384.1 IT Firewall & Office Sup.  
-\$1,065.0 Investment Systems

# FY27 Conference Committee Consideration

## Four Appropriations

### Operations

- ✓ -\$117.6 Delete 1 PCN
- CC +\$860.0 Incentive Comp
- ✓ +\$384.1 IT Firewall and Office Sup.
- ✓ +\$32.0 Juneau Lease
- ✗ +\$34.0 Anchorage Lease

### Anchorage Operations

- ✓ +\$1.0 Decommission Office

### Investment Management

- ✓ -\$18,926.0 Investment Management Fees

### IT Software and Licensing

- ✓ +\$196.0 Workstation Replacement
- ✓ +\$41.7 Research Subscriptions
- ✓ +\$307.0 Datacenter Upgrades
- ✓ -\$1,065.0 Investment Systems
- CC -\$500.0 Investment Systems

A blue-tinted landscape photograph showing a range of mountains in the background and a body of water in the foreground. The text "Questions?" is centered over the image.

# Questions?

# Motion to Authorize Expenditure

Proposed Board Motion: "The Board moves to authorize the Chief Executive Officer to expend the APFC budget authorization as appropriated by the Legislature, consistent with the Board's 2024 Strategic Plan, and enacted into law, beginning July 1, 2026, and to make transfers as necessary to implement the Board's 2024 strategic plan."



SUBJECT: Benchmarking  
Janet Becker-Wold, APFC Investment Advisor

ACTION: \_\_\_\_\_

DATE: May 27, 2026

INFORMATION: \_\_\_\_\_ X \_\_\_\_\_

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BACKGROUND:

Janet Becker-Wold is under contract with APFC to act as a member of the Investment Advisory Group (IAG) for the Board of Trustees. Ms. Becker-Wold's presentation at this meeting is in fulfillment of the contractual requirement to annually present a topic for the Board's consideration on best practices in the management of large institutional funds.



# Alaska Permanent Fund Corporation

## Educational Presentation on Benchmarking

Janet Becker-Wold, CFA, Advisor

May 2026

# Outline of Presentation

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- Overview of the importance of benchmarking
- Relationship to asset allocation
- Hierarchy of benchmarks
- Governance surrounding benchmarking
- Alaska Permanent Fund Corporation's (APFC) asset class benchmarks
- Characteristics and considerations in selecting a benchmark
- Benchmark review and implementation process
- Next steps

*The presentation does not include specific benchmark analysis or recommendations – this will be completed utilizing the Benchmark Review Process once it is approved.*

# Importance of Benchmarks

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- Performance evaluation and accountability
  - Benchmarks establish a consistent, objective standard to monitor whether the total fund, asset class, or individual managers are adding value
- Risk control
  - Help ensure that risk is consistent with that assumed in the asset allocation process
- Incentive compensation
  - Provide an appropriate baseline for calculation of incentive compensation

# Relationship of Asset Allocation to Benchmarking


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## Asset Allocation

- Is tied to overall objective of the Fund (Callan utilizes asset class benchmarks in modeling)
- Sets overall return and risk expectations
- Defines opportunity set for each asset class
- Total fund benchmark is a composite of asset class benchmarks

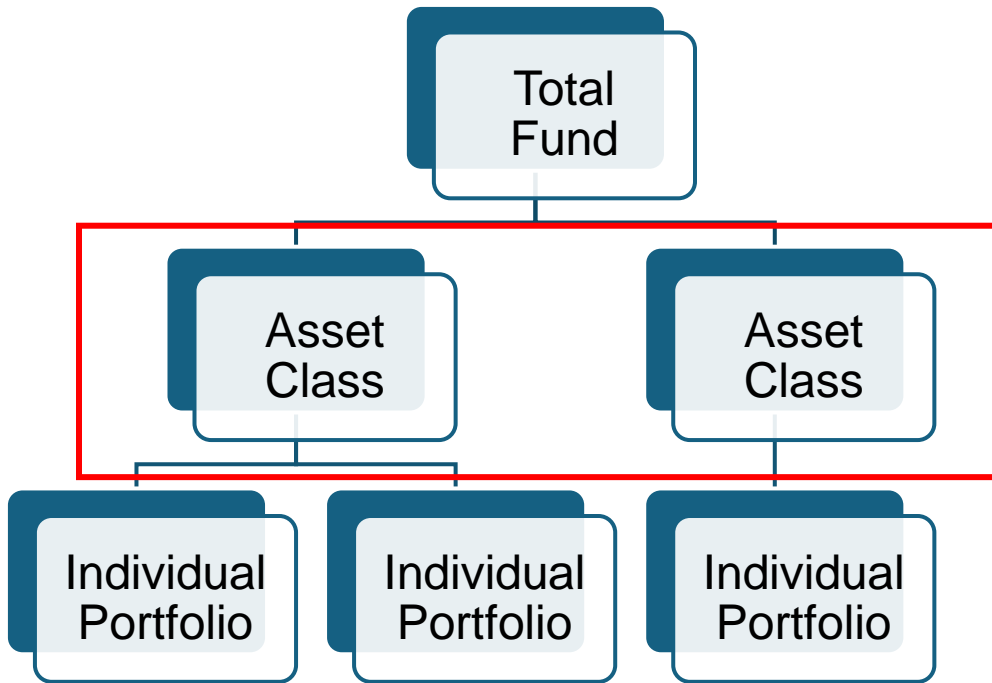
## Asset Class Benchmarks

- Specifies implementation of asset allocation
- Defines passive (for public markets) baseline
- Used to measure value add and tracking error



Who is accountable?  
What is rewarded?  
How is performance interpreted?

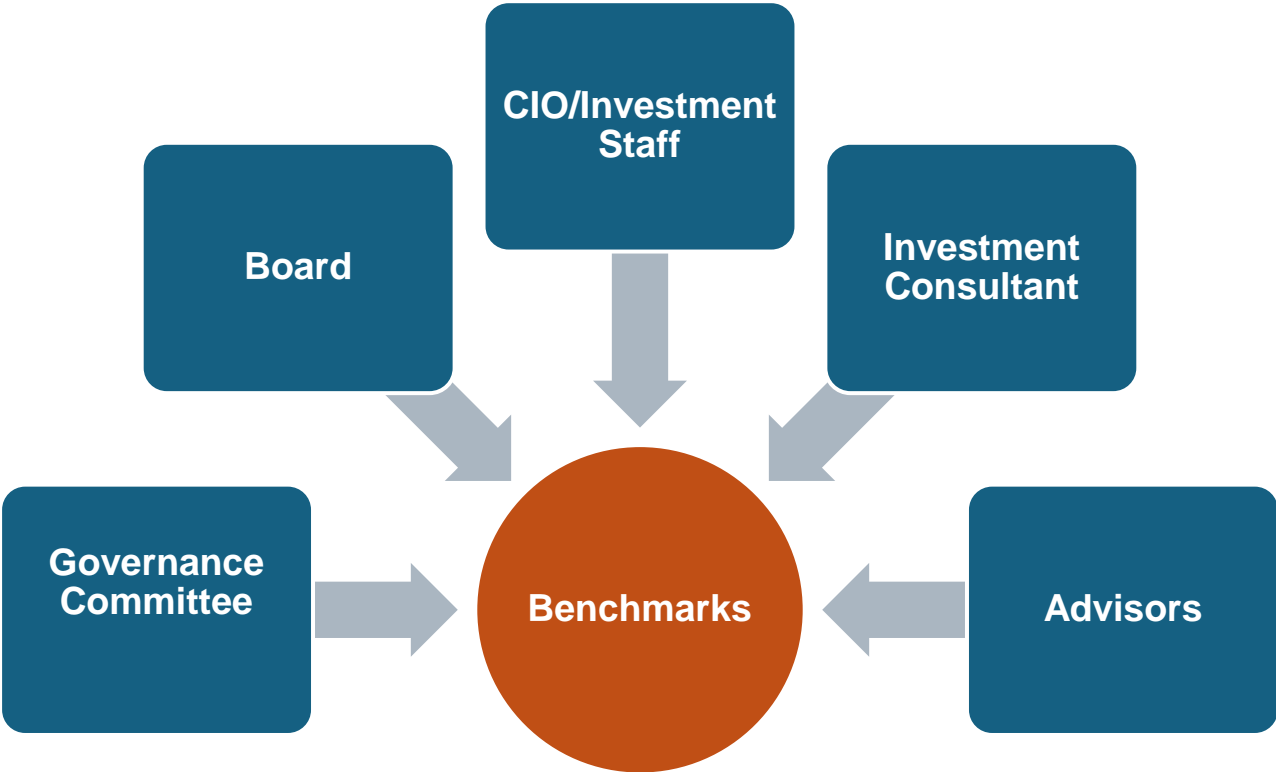
# Hierarchy of Benchmarks



Policy Benchmark	Did the total fund meet return and risk objectives? (most important)
Asset Class	Did asset class deliver its role in the portfolio, was implementation effective?  <b>Focus of presentation</b>
Manager	Did individual managers/portfolios meet their objectives (peers/benchmarks)?

# Governance Structure Around Benchmark Selection

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# Overview of APFC’s Asset Class Benchmarks

Asset Class	Benchmark
Global Equity	MSCI ACWI IMI (Broad Industry Benchmark)
Fixed Income	Custom* (Composite Benchmark)
Real Estate	NCREIF Total Property Index Lagged 1Q
Private Equity	Cambridge Private Equity Index Lagged 1Q
Absolute Return	50% HFRI Macro (Total) Index, 50% HFRI EH: Eq Market Neutral
Private Income (Private Credit and Infrastructure)	40% Cliffwater Direct Lending Index Lagged 1 Q, 60% Cambridge Global Private Infra Lagged 1Q
Tactical Opportunities	S&P 500

\*27.5% Agg; 27.5% Corp; 10% HY; 10% Sec; 15% Gbl Treas ex-US Hgd; 5% TIPS; 5% 90d TBIL

# Characteristics of a Good Benchmark - SAMURAI

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**S – Specified in advance** – constructed before measurement period

**A – Appropriate** – consistent with the investment style

**M – Measurable** – measure benchmark return on frequent and timely basis

**U – Unambiguous** – individual securities and weights clear

**R – Reflective of Current Investment Opinions** – non-obscure securities

**A – Accountable** – management team accepts ownership of benchmark

**I – Investable** - benchmark is replicable

*Peer groups generally do not meet the SAMURAI criteria.*

# Considerations When Choosing a Benchmark

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## **Benchmarks should reflect both policy intent and operational reality**

- Alignment to policy targets
  - Should **reflect the investable universe** informed by the strategic asset allocation and expected long term risk and return characteristics of the asset class
  - **Adjusted only when necessary** and avoid excessive customization which can reduce comparability or transparency
- Incentive compensation alignment
  - **Measure relevant value add** over an appropriate time horizon
- Benchmarking private markets is challenging
  - **No real investable market equivalent** benchmarks
  - Institutional **best practices include multiple types of benchmarks** – public market equivalents, peer groups and industry specific benchmarks
  - Lagging benchmarks is necessary due to delayed timing of valuations
- Potential behavioral implications
  - May cause Staff/Managers to **move towards the benchmark** especially if IC is involved

# Broad Industry vs. Composite Benchmark Comparison

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The MSCI ACWI IMI used for public equity is an example of a broad industry benchmark. The Custom Benchmark used for fixed income is an example of a composite benchmark.

## Broad Industry Benchmark

**Pros:** Simplicity and clarity; strong comparability; low governance burden; minimizes gaming; reduces benchmark manipulation risk in incentive structures; represents opportunity set

**Cons:** Potential misalignment with actual portfolio; hard to tell alpha from beta; weak diagnostic power; potential incentive distortions

## Composite Benchmark

**Pros:** reflects actual exposures and strategic asset allocation; better isolates skill and policy decisions; strong attribution; better for incentive structure

**Cons:** ongoing maintenance and rebalancing; needs clear rules; difficult peer comparisons; more difficult to communicate; overfitting

# Summary Comparison

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Choosing between broad industry and composite/custom benchmarks involves trade offs.

Dimension	Broad Index	Composite Benchmark
Objectivity	High	Medium
Relevance to portfolio	Low–Medium	High
Ease of governance	High	Low–Medium
Attribution usefulness	Low	High
Incentive alignment	Weak	Strong
Peer comparability	Strong	Weak

Broad industry benchmarks are best for high level reporting and comparing to peers. Composite benchmarks work best for performance measurement and attribution.

# Benchmark Implementation and Review Process

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## **Process Objectives:**

- Alignment with the Alaska Permanent Fund Corporation's asset allocation decisions
- Expresses the Board's objectives for the implementation of each asset class
- Is governance led, evidence-based, and independent
- Manage potential conflicts of interest, or appearance of conflict, by the Board and Staff
- Implementation is clearly defined and consistently applied

# What the Process Covers and Does Not Cover

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## **The process covers:**

- Asset class benchmarks at the policy level for the following:
  - Public Equity and Fixed Income; Private Equity; Private Income; Real Estate; Absolute Return; Tactical Opportunities; and Cash
- Benchmarks used for performance reporting, policy evaluation and performance-based incentive compensation (IC) metrics ties to asset class results
- Establish rules for lagged benchmarks for private markets for reporting and IC metrics

## **The process does not cover:**

- External manager benchmarks that are determined and maintained by Staff
- Strategic Asset Allocation
  - Asset allocation remains separate from benchmark determination
  - Asset class benchmarks are subordinate to, yet informed by, the Board's asset allocation and implementation framework

# Benchmark Policy Components

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- Statement of purpose, objective and scope
- Benchmarking philosophy (public and private markets)
- Governance structure and roles and responsibilities
- Benchmark selection criteria including required supporting documentation
  - Proposed benchmark with rationale; implementation issues; impact on IC calculation; assessment of stakeholder perceptions; peer practices
- Establish a formal cadence for regular benchmark review
  - Changes should be made judiciously, avoiding frequent modifications and prospectively
- Establish criteria for interim benchmark review
  - Material change in asset allocation or implementation that changes the complexion of the asset class
  - Persistent evidence that the benchmark is no longer representative of the asset class (e.g., index methodology changes, structural market change etc.)
  - Board directed strategic shift requiring a change
- Incentive compensation linkages
- Identify policy review process (cadence and frequency)

# Oversight For Benchmark Selection/Changes

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## Effective governance anchors the credibility and durability of benchmarks

### Who may be involved:

- Outside fiduciaries including outside council, general consultant, and external advisors acting in their fiduciary capacity as appropriate
- Staff/CIO
  - Leads discussion and analysis and prepares a written recommendation package for the Governance Committee (*input from Investment Consultant and/or Advisors?*)
  - Presents recommendation(s) to the *Governance Committee* with supporting documentation
- Governance Committee:
  - Reviews the recommendation, reviews process including the rationale and documentation
  - Makes a recommendation to the full Board
- Board- approves benchmark policy and any proposed changes

*Final details of oversight roles and responsibilities will be in defined in the Benchmark Policy document.*

# Next Steps

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## **Policy Approval and Benchmark Review Timeline**

- Prior to the September Board meeting, the Governance Committee will meet to recommend a policy incorporation process and formality around benchmark review
- At the September Board meeting, the Board will be asked to adopt the benchmark policy
- Prior to May 2027, staff will establish the baseline under the new policy and identify potential changes
- Benchmark changes would be recommended for implementation at the full Board meeting in May 2027
- Any future benchmark adjustments would conform to policy