OREGON
STATE
TREASURY

Oregon Investment Council

January 28, 2021

John Russell
Chair

Rex Kim
Chief Investment Officer

Tobias Read
State Treasurer

Investment Division
16290 SW Upper Boones Ferry Road
Tigard, OR 97224
503.431.7900

Main Office
350 Winter Street, Suite 100
Salem, OR 97301-3896
503.378.4000

oregon.gov/treasury
oregon.treasurer@state.or.us

OREGON INVESTMENT COUNCIL

Agenda

January 28, 2021
9:00 AM

Oregon State Treasury
Investment Division
16290 SW Upper Boones Ferry Road
Tigard, OR 97224

Time	A. Action Items	Presenter	Tab
9:00-9:05	**1. Review & Approval of Minutes, Vice-Chair Election** December 9, 2020	**John Russell** *OIC Chair*	**1**
	2. 2022 OIC Calendar Approval and Committee Reports	**Rex Kim** *Chief Investment Officer*	**2**
9:05-9:20	**3. Oregon Short Term Fund Policy Revision**	**Geoff Nolan** *Senior Investment Officer, Fixed Income*	**3**
	B. Information Items		
9:20-10:15	**4. Evolution of Private Equity**	**Jim Coulter** *Co-Founder and Co-CEO, TPG*	**4**
10:15-11:00	**5. OPERF Private Equity Program**	**Michael Langdon** *Director of Private Markets* **Thomas Martin** *Head of PE & RA Research, Aksia/TorreyCove* **Karen Jakobi** *Senior Managing Director, Pathway Capital* **Derrek Ransford** *Managing Director, Pathway Capital* **Pete Veravanich** *Managing Director, Pathway Capital*	**5**

11:00-11:30	**6. OPERF Opportunity Program**	**Mike Mueller** *Investment Officer, Opportunity Portfolio*	**6**
11:30-11:35	**7. Annual Placement Agent Report**	**John Hershey** *Director of Investments*	**7**
11:35-12:15	**8. General Consultant**	**Allan Emkin** *Managing Principal, Meketa Investment Group* **Mika Malone** *Managing Principal/Consultant, Meketa Investment Group* **Kristen Doyle** *Partner, Aon Investments* **Raneen Jalajel** *Senior Consultant, Aon Investments*	**8**
12:15-12:20	**9. Asset Allocation & NAV Updates** a. Oregon Public Employees Retirement Fund b. SAIF Corporation c. Common School Fund d. Southern Oregon University Endowment Fund	**Rex Kim**	**9**
	10. Calendar — Future Agenda Items	**Rex Kim**	**10**
12:20	**11. Open Discussion**	**OIC Members** **Staff** **Consultants**	

C. Public Comment

TAB 1 – REVIEW & APPROVAL OF MINUTES

December 9, 2020 Regular Meeting

OREGON
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State of Oregon
Office of the State Treasurer

16290 SW Upper Boones Ferry Road

Tigard, Oregon 97224

OREGON INVESTMENT COUNCIL

December 9, 2020

Meeting Minutes

Members Present:	John Russell, Patricia Moss, Cara Samples, Monica Enand, Tobias Read and Kevin Olineck.
Staff Present:	John Hershey, Michael Langdon, David Randall, Karl Cheng, Ben Mahon, Geoff Nolan, Tony Breault, Michael Viteri, John Lutkehaus, Rachel Wray, Rex Kim and May Fanning.
Staff Participating virtually:	Andrew Coutu, Taylor Bowman, Anna Totdahl, Roy Jackson, Mark Selfridge, Aliese Jacobsen, Andrey Voloshinov, Robin Kaukonen, Deena Bothello, Andrew Robertson, Steve Kruth, Paul Koch, Faith Sedberry, Dana Millican, Caitlyn Wang, Austin Carmichael, Amanda Kingsbury, Tiffany Zahas, Mike Mueller, Claire Illo, David Elott, Eric Messer, Sommer May, Kenny Bao, Andrew Hillis, Jen Plett, Monique Sadegh, Krystal Korthals, Kristi Jenkins, Sam Spencer, Tan Cao, Jeremy Knowles, Debra Day, Andrew Robertson, Ian Huculak, Perrin Lim, Wil Hiles, Mohammed Quraishi, Jo Recht, Tyler Bernstein, Will Hampson, Monique Sadegh, Sam Spencer, Tiffany ZhuGe, Lisa Pettinati, Ahman Dirks, Angela Schaffers, Robin Kaukonen
Consultants Present:	Allan Emkin, David Glickman and Christy Fields (Meketa Investment Group, Inc.); Jim Callahan, Janet Becker-Wold and Uvan Tseng (Callan LLC); Tom Martin and David Fann, (Aksia, TorreyCove Capital Partners LLC)
Legal Counsel Present:	Steven Marlowe, Department of Justice

Before proceeding with the OIC meeting, Director of Investments, John Hershey provided a disclosure pertaining to the virtual set-up of this OIC meeting, informing those in attendance (virtual and in person) of the guidelines in which this meeting will proceed.

The December 9th, 2020 OIC meeting was called to order at 9:00 am by John Russell, OIC Chair.

I. 9:00 am Review and Approval of Minutes

MOTION: Chair Russell asked for approval of the October 28th, 2020 OIC regular meeting minutes. Treasurer Read moved approval at 9:01 am, and Ms. Moss seconded the motion which then passed by a 5/0 vote.

II. 9:02 am Committee Reports and Opening Remarks

Committee Reports: Director of Private Markets, Michael Langdon, gave an update on the following committee actions taken since the October 28, 2020 OIC meeting:

Private Equity Committee:

November 30, 2020	USV 2021, L.P. & USV Climate Fund, L.P.	- $40M

Alternatives Committee:

December 2, 2020	Harrison Street Social Infrastructure Fund	- $200M + $50M sidecar
	Brookfield Super-Core Infrastructure Partners L.P.	- $250M

Opportunity Committee:
None

Real Estate Committee:
None

Mr. Langdon also provided opening remarks with an overview of the meeting agenda.

III. 9:05 am Oregon Intermediate Term Pool

Geoff Nolan, Senior Investment Officer, Fixed Income, and John Lutkehaus, Investment Officer, Fixed Income, provided the Council with a presentation on the Oregon Intermediate Term Pool.

Staff then made the recommendation to update INV 404. The modifications would include synchronizing State Agency benchmarks, Investment Policies and Investment Guidelines to enhance portfolio management efficiencies in terms of idea generation and trading purposes as well as cost savings. For accounts that have an ability to take risk beyond the OSTF, funds in excess of short-term cash needs would be invested in the Oregon Intermediate Term Pool ("OITP") rather than a bespoke blend of individual securities that do not have a benchmark, risk guidelines or consistent liquidity. For the Oregon Public University Fund ("OPUF"), Staff recommend changing the benchmark and guidelines to match those in OITP to the extent possible so that for investment idea generation and trading purposes, they can be treated in a pro-rata manner. These changes will allow the OSTFI team to focus on OSTF and OITP as the two primary active investment strategies rather than a complex web of 8 strategies with slightly varying requirements.

MOTION: Treasurer Read moved approval of the recommended updates to INV 404 at 9:26 am, and Chair Russell seconded the motion which then passed by a 5/0 vote.

IV. 9:26 am Discussion on Value Factor

Michael Viteri, Senior Investment Officer, Public Equity, Introduced and provided a short bio of a distinguished panel who have been invited to deliver an interactive discussion on Value Factor:
Mr. Ted Aaronson, Partner, AJO
Mr. Cliff Asness, Chief Investment Officer, AQR Capital Management, LLC
Mr. Gerard L. O'Reilly, Co-CEO/Chief Investment Officer, Dimensional Fund Advisors
Mr. Hal Reynolds, CIO, Los Angeles Capital Management

V. 11:10 am OPERF Public Equity Program

Michael Viteri and Janet Becker-Wold, Senior Vice President, Callan, provided an annual review of the Oregon Public Employees Retirement Fund (OPERF) Public Equity portfolio.

VI. 12:03 pm OPERF Fixed Income Program

Geoff Nolan, Janet Becker-Wold and James Callahan, President, Callan, presented the Fixed Income Portfolio 2020 Review and 2021 Plan.

VII. 12:29 pm OPERF Risk Parity Program

Karl Cheng, Senior Investment Officer, Portfolio Risk & Research, Janet Becker-Wold and James Callahan, presented the newly initialed portfolio, OPERF Risk Parity 2020 Annual Review.

VIII. 12:43 pm OPERF Q3 Performance

James Callahan, and Janet Becker-Wold, presented the quarterly OPERF investment performance and risk report for the calendar quarter and cumulative period ended September 30, 2020.

At the end of this segment and given the end to Callan's role as the OIC's general consultant, Chair Russell, took the opportunity to thank Callan for all the hard work and outstanding service provided during the past years.

IX. 12:53 pm Asset Allocation & NAV Updates

Mr. Langdon reviewed asset allocations and NAVs across OST-managed accounts for periods ended October 31, 2020.

X. 12:55 pm Calendar – Future Agenda Items

A calendar listing of future OIC meetings and scheduled agenda topics was included in the Council's meeting material.

XI. 12:56 pm Open Discussion

Chair Russell requested the newly appointed General Consultants, Meketa Investment Group, to consider dedicating time during the January OIC meeting, in order to provide their impressions of our program. Chair Russell then went on to address Mr. Viteri, and suggested finding time at some point in the future to have a discussion revolving around ESG and Public Equity.

XII. 12:59 pm Public Comments

None.

Mr. Russell adjourned the meeting at 12:59 pm.

Respectfully submitted,

May Fanning

May Fanning
Executive Support Specialist

TAB 2 – 2022 OIC Calendar Approval and Committee Reports

OREGON INVESTMENT COUNCIL

Proposed 2022 Meeting Schedule

Meetings Begin at 9:00 am

Oregon State Treasury
Investment Division
16290 SW Upper Boones Ferry Road
Tigard, OR 97224

Wednesday, January 26

Wednesday, March 9

Wednesday, April 20

Wednesday, June 1

Wednesday, July 20

Wednesday, September 7

Wednesday, October 26

Wednesday, December 7

TAB 3 – Oregon Short Term Fund Policy Revision

January 28, 2021 Oregon Investment Council

Oregon Short Term Fund INV 303 Policy Update

Geoff Nolan, Senior Investment Officer

OREGON STATE TREASURY

Agenda

OREGON STATE TREASURY

Policy Update Process

- Background
  - Oregon State Treasury ("OST") Investments division implementing a review of investment policies.
    - As part of that initiative, OST implemented an enhanced investment policy update process to increase oversight prior to OSTF & OIC review.

- Enhanced Policy Update Process
  - Investment team proposes policy changes to CIO.
    - Memo required providing analysis and rationale for updates.
    - Included in OIC packet.
  - Risk Management team to review and provide feedback.
  - Investment team, Risk Management team & CIO convene to discuss material differences, if any, regarding proposed updates.
  - Legal and Compliance team to review and provide feedback.
  - General Consultant to review on behalf of OIC.
  - Present policy update recommendation to OSTF for review and OIC for review and approval.
  - If approved, update PolicyStat.

Enhancing Policy Update Process Across OST Investment Division

Agenda

OSTF Policy Discussion: Background

- Background
  - INV 303 covers the investment of cash from all state and eligible local government participants in the Oregon Short Term Fund ("OSTF"). These rules are established under the authority of, and shall not supersede the requirements established under, ORS Chapter 293.

- OSTF and Repurchase Agreements
  - Repurchase agreements are an approved asset class under INV 303.
  - Historically, the OSTF has not used repurchase agreements due to documentation requirements and collateral eligibility requirements, the latter being of limited interest to counterparties.

- Benefits of Repurchase Agreements
  - Additional Investment Option:
    - complements other money market instruments OSTF invests in (commercial paper, T-bills, etc.);
    - At month & quarter ends, when investment opportunities & liquidity tend to lighten up, repurchase agreements are generally always available.
  - Secured: collateral topped up daily. Collateralization % depends on asset type, but no less than 102%; and,
  - Yield Pickup: Generally, pays more than unsecured commercial paper and T-bills.

Benefits of Repurchase Agreements to OSTF

OSTF Policy Discussion: Proposed Changes

- Proposed Changes to INV 303
  - More Conservative Counterparty Requirements:
    - Limits counterparties to Primary Dealers as recognized by the Federal Reserve Bank of New York.
      - Primary Dealers are amongst the largest and most heavily regulated financial institutions.
  - More Conservative Collateral Management:
    - Collateral to be held at a tri-party custodian. Tri-party arrangement minimizes counterparty risk.
    - Custodian acts as the intermediary between the parties in administering the transaction:
      - Daily collateral allocation, marking positions to market, collateral substitution, margin top ups.
    - Custodian manages collateral eligibility requirements as set by OST staff.
  - Broadens Eligible Collateral from just Treasuries & Agencies:
    - Enhances investment opportunities for OSTF given broader eligibility is more attractive to counterparties.
      - OSTF staff sets collateral eligibility standards.
  - Eliminates Unnecessary Counterparty Language:
    - Removes $100MM "net capital" requirement as counterparties are Primary Dealers who rank among the largest & strongest financial institutions in the world.
    - Removes "2%" cap of counterparty liabilities as it is superfluous.
      - More conservative counterparty exposure limit of 5% would be would be triggered first.

Improved Risk Mitigation & Language Clarity

OSTF Policy Discussion: Benefits & Recommendation

- Benefits:
  - More Conservative Counterparty Requirements;
  - More Conservative Collateral Management;
  - Broader Eligible Collateral enhances investment opportunities for OSTF, particularly in this low rate environment; and,
  - Eliminates Unnecessary Counterparty Language.

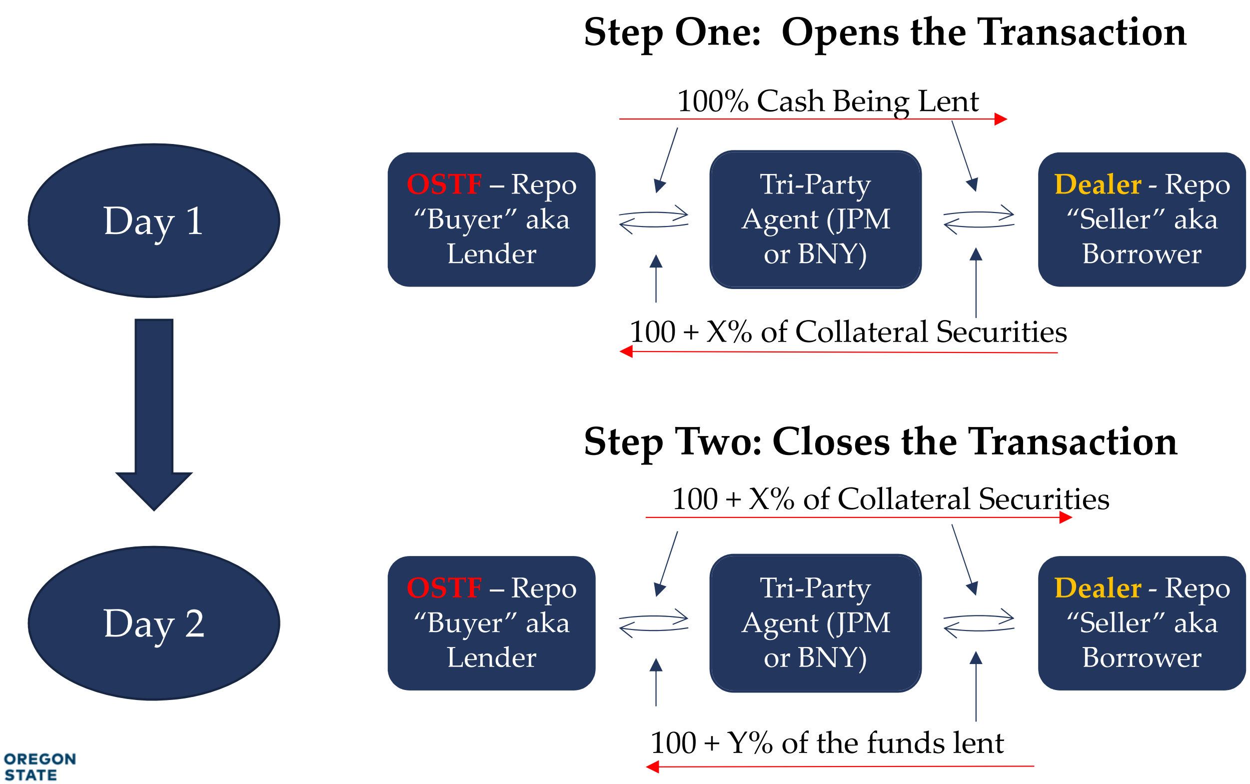
- Recommendation:
  - OST Staff recommend approval of policy INV 303 updates.

Enhanced Benefits of Policy Updates Support Recommendation

Agenda

The Mechanics of Tri-Party Repurchase Agreements

- A Repurchase Agreement (Repo) is a type of collateralized short-term borrowing for securities dealers and other market participants that competes for funds with T-bills, commercial paper and other safe money market investments.
- Functionally, a dealer sells government securities to investors like the OSTF / money market funds and agrees to buy them back at a slightly higher price (“Y”, a.k.a. “Implied Repo Rate”), typically the next day.
- To enhance safety, dealers post 100% of the cash being borrowed plus a margin (“X” in the charts below; 2% minimum by OST Policy) in the form of securities.



Step One: sale of securities by the dealer to OSTF.

Step Two: purchase of the same securities by the dealer from OSTF plus the Implied Repo Rate, “Y”

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Legal Disclaimer Information

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Updated Jan 2016

Oregon Short Term Fund - INV 303 Update

OREGON
STATE
TREASURY

Tobias Read
Oregon State Treasurer

350 Winter St NE, Suite 100
Salem, OR 97301-3896

oregon.gov/treasury

Executive Summary
OSTF INV 303 Policy Update
Staff Recommendation

Executive Summary

INV 303 covers the investment of cash from all state and eligible local government participants in the Oregon Short Term Fund ("OSTF"). These rules are established under the authority of, and shall not supersede the requirements established under, ORS Chapter 293.

Repurchase agreements are an approved asset class under INV 303. Historically, however, the OSTF has not used repurchase agreements due to documentation requirements and collateral eligibility requirements, the latter being of limited interest to counterparties.

The benefits of Repurchase Agreements include (1) an additional investment option even when liquidity in other asset classes lightens up at month ends, (2) they are secured investments and, (3) they provide yield pickup.

To improve risk mitigation and language clarity, the current policy regarding repurchase and reverse repurchase agreements needs to be updated to (1) improve clarity & risk mitigation on counterparty requirements & collateral management, (2) broaden eligible collateral beyond treasuries/agencies, thus increasing interest from counterparties, and (3) eliminate unnecessary counterparty language.

As proposed herein and detailed in the attached markup of INV 303, we recommend approving the proposed changes.

OSTF Policy Discussion:

Proposed Changes & Benefits

We propose the following changes to improve risk mitigation and language clarity.

1. More Conservative Counterparty Requirements:
   a. Limit counterparties to Primary Dealers as recognized by the Federal Reserve Bank of New York. Primary Dealers are amongst the largest and most heavily regulated financial institutions.
2. More Conservative Collateral Management:
   a. Collateral to be held at a tri-party custodian. Tri-party arrangement minimizes counterparty risk.
   b. Custodian acts as the intermediary between the parties in administering the transaction:
      i. Daily collateral allocation, marking positions to market, collateral substitution, margin top ups.
   c. Custodian manages collateral eligibility requirements as set by OST staff.
3. Broaden Eligible Collateral from just Treasuries & Agencies:
   a. Enhances investment opportunities for OSTF given broader eligibility is more attractive to counterparties.
   b. OSTF staff sets collateral eligibility standards.
4. Eliminate Unnecessary Counterparty Language:
   a. Removes $100MM “net capital” requirement as counterparties are Primary Dealers who rank among the largest & strongest financial institutions in the world.
   b. Removes “2%” cap of counterparty liabilities as it is superfluous.
      i. More conservative counterparty exposure limit of 5% would be would be triggered first.

Recommendation

OST Staff recommend approval of policy INV 303 updates.

INTRODUCTION & OVERVIEW

Summary Policy Statement

The Oregon Investment Council has, with advice from the State Treasurer, from OST investment staff, and from the Oregon Short Term Fund Board, adopted specific rules for investing the Oregon Short Term Fund.

Applicability

Classified represented, management service, unclassified executive service

Authority

ORS 293

POLICY PROVISIONS - Portfolio Rules for the Oregon Short Term Fund

I. **Scope**
   These rules apply to the investment of cash from all state and eligible local government participants in the Oregon Short Term Fund (OSTF). These rules are established under the authority of, and shall not supersede the requirements established under, ORS Chapter 293.
II. **Investment Objectives**
   The primary objectives of investment activities, in priority order, shall be preservation of principal, liquidity, and yield.
   A. **Preservation of Principal**: Capital preservation is the OSTF's foremost objective, and all OSTF investments shall be made in a manner consistent therewith. Credit and interest rate risks will be carefully managed and mitigated (see specific guidelines below).
   B. **Liquidity**: The OSTF shall remain sufficiently liquid to meet all state, agency and local government operating requirements as may be reasonably anticipated. The OSTF should consist largely of securities with active secondary or resale markets.
   C. **Yield:** The OSTF shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the aforementioned investment risk constraints and liquidity needs.
III. **Maturity Distribution of Portfolio**
   A. 50% of the OSTF must mature within 93 days.
   B. A maximum of 25% of the OSTF may mature over one year.
   C. No investment may mature later than 3 years from its settlement date.
   D. For purposes of this policy, maturity date will be calculated by using the following proxies, and if a security contains more than one of the following attributes, the shortest attribute will be used as the maturity date proxy:
      1. For securities that have been called by the issuer, the effective call date will be used as the maturity date proxy;
      2. For securities with a put option, the date upon which the put option is fully exercisable for a value of at least 100% of the investment's par or face amount will be used as the maturity date proxy;
      3. For variable rate securities, the period remaining to the next reset date will be used as the maturity date proxy; and
      4. For asset-backed securities, the weighted average life (WAL) will be used as the maturity date proxy.
IV. **Diversification and Portfolio Limitations**

A. Eligible Securities:

Issue Type	Maximum Holdings % or $	Minimum Ratings S&P/Moody's/Fitch
U.S. Treasury Obligations (1.)	100%	None
U.S. Agency Securities (1.) Per Issuer	100% 33%	None None
Foreign Government & Instrumentalities (1.) Per Issuer	25% 10%	AA-/Aa3/AA-
Corporate Securities (Total) Corporate Bonds Commercial Paper (2.) Per Issuer	50% 50% 50% 5%	A-/A3/A- A-1/P-1/F-1
Asset-Backed Securities Per Issuing Trust	25% 5%	AAA/Aaa/AAA A-1+/P-1/F-1+
Negotiable Certificates of Deposit Per Issuer	20% 5%	A-1/P-1/F-1
Bankers' Acceptances Per Issuer	20% 5%	A-1/P-1/F-1
Time Certificates of Deposit (3.) Per Issuer	20% 5%	None
Municipal Debt (Total) Municipal Commercial Paper Short Term Municipal	25% 25% 25% 10%	AA-/Aa3/AA- A-1/P-1/F-1 SP-1/(V)MIG1/F-1

Obligations Per Issuer		
Repurchase Agreements (4.) Per Counterparty	100% 5%	None
Reverse Repurchase Agreements (5.) Per Counterparty	100% 5%	None
Oregon Local Government Intermediate Fund ("OLGIF")	$250 Million	A-/A3/A-

1. Securities guaranteed by the U.S. Treasury, a U.S. Agency or a Foreign Government or its Instrumentality will be considered a U.S. Treasury, a U.S. Agency or a Foreign Government or its Instrumentality for the purposes of this policy.
2. Commercial Paper (CP) must have top-tier short term ratings by at least two of the nationally recognized statistical rating organizations (NRSROs) at the time of purchase.
3. Permitted Time Certificates of Deposit (TCDs) will be limited to qualified depositories as defined in ORS Chapter 295.005. Maximum TCD exposure per depository must be no more than 5% of the issuing bank's total deposits, or $250,000, whichever is greater. Maximum credit union exposure per depository shall be $250,000.
4. Repurchase Agreements must meet the following criteria:
    1. Maximum maturity will be 93 days;
    2. Counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank of New York;
    3. Counterparties must have a fully executed Master Repurchase Agreement with the Office of the State Treasurer (“Master Repurchase Agreement”);
    4. Collateral must be delivered on a tri-party basis to a mutually agreed upon third party custodian; and
    5. Collateral securing Repurchase Agreements must be maintained at not less than 102% of the amount of the Repurchase Agreement.
5. Reverse Repurchase Agreements must meet the following criteria:
    1. Maximum maturity will be 93 days;
    2. Counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank of New York;
    3. Counterparties must have a signed Master Repurchase Agreement;
    4. Acceptable reinvestment vehicles include securities that may otherwise be purchased outright;
    5. Securities will be reversed on a fully collateralized basis; and
    6. Reverse repurchase investments for interest rate arbitrage shall only be done on a matched book basis.

B. All OSTF investments must be denominated in U.S. dollar.

C. Total foreign exposure (government and corporate indebtedness) limited to 25% of OSTF.

D. Any one individual issuer of securities or support commitments limited to 10% of OSTF with the exception of the U.S. Treasury (100% maximum) and U.S. government agency securities (33% per issuer).

E. Securities that have been downgraded below the minimum ratings will be sold or held at the Fixed Income Senior Investment Officer's (SIO) or SIO designee's discretion.

F. A single rating will be determined for each investment based on the following methodology:

i. When three nationally recognized statistical rating organizations (NRSROs) rate an issue, a median rating is used to determine eligibility by dropping the highest and/or lowest rating;
ii. When a rating from only two NRSROs is available, the lower ("most conservative") of the two ratings will be used; and
iii. When a rating from only one NRSRO is available, that rating will be used. To determine average rating for each security, a numeric value will be assigned to each NRSRO rating based on the following scheme:

Value	**S&P Rating**	**Moody's Rating**	**Fitch Rating**
29	U.S. Treasury & Agency AAA/A-1+(1)	U.S. Treasury & Agency Aaa/P-1(1)	U.S. Treasury & Agency AAA/F-1+(1)
28	AA+	Aa1	AA+
27	AA/A-1+/SP-1+	Aa2	AA/F-1+
26	AA-	Aa3/P-1/ MIG1/VMIG1	AA-
25	A+	A1	A+
24	A/A-1/SP-1	A2	A/F-1
23	A-	A3	A-
22	BBB+/A-2/SP-2	Baa1/P-2/ MIG2/VMIG2	BBB+/F-2
21	BBB	Baa2	BBB
20	BBB-/A-3/SP-3	Baa3/P-3/ MIG3/VMIG3	BBB-/F-3

1. Limited to Asset-Backed Securities rated A-1+, P-1 and F-1+ by Standard & Poor's, Moody's and Fitch respectively.

G. The target weighted average credit quality of the OSTF shall be AA (or > 26.50), excluding repurchase agreements.

H. For newly issued securities, and absent assigned ratings, "expected ratings" may be used as a proxy for actual ratings for not more than 30 business days after the anticipated settlement date.

I. No commitments to buy or sell securities may be made more than 14 business days prior to the anticipated settlement date, or receive a fee other than interest for future deliveries.

J. For purposes of compliance, eligible funds will be treated as a single investment and exempt from maturity or exposure restrictions except for maximum exposure and minimum ratings.

V. Reinvestment of Securities Lending Cash Collateral

A. Acceptable reinvestment vehicles include securities that may otherwise be purchased outright in accordance with the diversification and portfolio limitations described above in Section IV. Within the securities lending program only, cash collateral may also be reinvested in:
    1. Repurchase agreements collateralized by U.S. Treasury or U.S. Government Agency securities with a maximum original maturity of 30 years. No more than 25% of assets shall be placed with the same counterparty. Repurchase agreements may also be placed with the Federal Reserve Bank's Repo facility.

B. Net capital of lending counterparties must be over $100 million.
C. Securities will only be loaned on a fully collateralized basis.
D. Lending counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank, and have a signed master securities lending agreement.
E. The market value of the delivered collateral must be maintained at not less than 102% of the market value of the securities loaned.
F. Notwithstanding Section IV.A.5 hereof, Reverse Repurchase Agreements are prohibited within the securities lending program.

PROCEDURES

I. Standards of Care

A. **Prudence**: Investment officers shall use the "prudent investor" standard to guide their OSTF management efforts. Pursuant to ORS Chapter 293.726:
    1. The investment funds shall be invested and the investments of those funds managed as a prudent investor would do, under the circumstances then prevailing and in light of the purposes, terms, distribution requirements and laws governing each investment fund; and
    2. The standard in subsection (1) of this section requires the exercise of reasonable care, skill and caution, and is to be applied to investments not in isolation but in the context of the investment portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the particular investment fund.

B. **Ethics and Conflicts of Interest**: Officer involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program or that could impair their ability to make impartial decisions. Officers and employees shall, at all times, comply with the State of Oregon Government Standards and Practices code of ethics set forth in ORS Chapter 244, as well as all policies of the OST.
C. **Delegation of Authority**: The Senior Investment Officer and Investment Officer(s) (or the Investment Analyst acting under the direction of the Investment Officers) of the Fixed Income team shall act in accordance with established written procedures and internal controls for the operation of the investment program consistent with these Portfolio Rules. No person may engage in an investment transaction except as provided under the terms of these Portfolio Rules and the procedures established by OST staff. The Senior Investment Officer and Investment Officer(s) are jointly responsible for all transactions undertaken, and shall establish a reasonable system of controls to regulate the activities of subordinate employees.

II. Compliance

A. **Compliance Monitoring:** OST shall provide an investment compliance program to accomplish the following objectives: a) monitor and evaluate portfolios, asset classes, and other investment funds to determine compliance with OST policies and contractual obligations; b) identify instances of non-compliance and develop appropriate resolution strategies; c) provide relevant compliance information and reports to OST management and the Oregon Investment Council, as appropriate; and d) verify resolution by the appropriate individual or manager within the appropriate time frame.
B. **Correction of Non-compliance:** If the OSTF is found to be out of compliance with one or more adopted investment guidelines or is being managed inconsistently with its policy and objectives, investment staff shall bring the OSTF portfolio into compliance as soon as is prudently feasible. Actions to bring the portfolio back into compliance and justification for such actions, including documentation of proposed and actual resolution strategies shall be coordinated with the OST investment compliance program.

III. Safekeeping and Custody

A. **Authorized Financial Dealers and Institutions:** All financial institutions and broker/dealers who desire to become qualified for investment transactions must supply, as appropriate:
   1. Audited financial statements,
   2. Licensing Representation form provided to OST, and
   3. Understanding and acknowledgment of OSTF Portfolio Rules.
B. **Internal Controls:** The Senior Investment Officer and Investment Officer(s) jointly collaborate to establish and maintain an adequate internal control structure designed to reasonably protect the assets of the OSTF from loss, theft or misuse.
C. **Delivery vs. Payment**: All trades where applicable will be executed by delivery vs. payment (DVP) to ensure that securities are deposited in an eligible financial institution prior to the release of funds.
D. **Safekeeping:** Securities will be held by a third-party custodian as evidenced by safekeeping receipts.

Exceptions

None.

Failure to Comply

Failure to comply with this policy may be cause for disciplinary action up to and including dismissal.

PROCEDURES AND FORMS

1. Upon approval of changes to this policy, the policy owner shall contact the Banking Operations Manager to update the Oregon Short Term Fund Finance and Investment pages on the external OST website.

ADMINISTRATION

Feedback

Your comments are extremely important to improving the effectiveness of this policy. If you would like to comment on the provisions of this policy, you may do so by e-mailing the Policy Owner. To ensure your comments are received without delay, *please list the policy number and name in your e-mail's subject*. Your comments will be reviewed during the policy revisions process and may result in changes to the policy.

INTRODUCTION & OVERVIEW

Summary Policy Statement

The Oregon Investment Council has, with advice from the State Treasurer, from OST investment staff, and from the Oregon Short Term Fund Board, adopted specific rules for investing the Oregon Short Term Fund~~ (OSTF).~~.

Applicability

Classified represented, management service, unclassified executive service

Authority

ORS 293

POLICY PROVISIONS - Portfolio Rules for the Oregon Short Term Fund

I. **Scope**
These rules apply to the investment of cash from all state and eligible local government participants in the Oregon Short Term Fund ~~("~~(OSTF~~").~~). These rules are established under the authority of, and shall not supersede the requirements established under, ORS Chapter 293.

II. **Investment Objectives**
The primary objectives of investment activities, in priority order, shall be preservation of principal, liquidity, and yield.
   A. **Preservation of Principal**: Capital preservation is the OSTF's foremost objective, and all OSTF investments shall be made in a manner consistent therewith. Credit and interest rate risks will be carefully managed and mitigated (see specific guidelines below).
   B. **Liquidity**: The OSTF shall remain sufficiently liquid to meet all state, agency and local government operating requirements as may be reasonably anticipated. The OSTF should consist largely of securities with active secondary or resale markets.
   C. **Yield:** The OSTF shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the aforementioned investment risk constraints and liquidity needs.

III. **Maturity Distribution of Portfolio**
   A. 50% of the OSTF ~~portfolio~~ must mature within 93 days.
   B. A maximum of 25% of the OSTF ~~portfolio~~ may mature over one year.
   C. No investment may mature later than 3 years from its settlement date.
   D. For purposes of this policy, maturity date will be calculated by using the following proxies, and if a security contains more than one of the following attributes, the shortest attribute will be used as the maturity date proxy:
      1. For securities that have been called by the issuer, the effective call date will be used as the maturity date proxy;
      2. For securities with a put option, the date upon which the put option is fully exercisable for a value of at least 100% of the investment's par or face amount will be used as the maturity date proxy;
      3. For variable rate securities, the period remaining to the next reset date will be used as the maturity date proxy; and
      4. For asset-backed securities, the weighted average life (WAL) will be used as the maturity date proxy.

IV. **Diversification and Portfolio Limitations**

A. Eligible Securities:

Issue Type	Maximum Holdings % or $	Minimum Ratings S&P/Moody's/Fitch
U.S. Treasury Obligations (1.)	100%	None
U.S. Agency Securities (1.) Per Issuer	100% 33%	None None
Foreign Government & Instrumentalities (1.) Per Issuer	25% 10%	AA-/Aa3/AA-
Corporate Securities (Total) Corporate Bonds Commercial Paper (2.) Per Issuer	50% 50% 50% 5%	A-/A3/A- A-1/P-1/F-1
Asset-Backed Securities Per Issuing Trust	25% 5%	AAA/Aaa/AAA A-1+/P-1/F-1+
Negotiable Certificates of Deposit Per Issuer	20% 5%	A-1/P-1/F-1
Bankers' Acceptances Per Issuer	20% 5%	A-1/P-1/F-1
Time Certificates of Deposit (3.) Per Issuer	20% 5%	None
Municipal Debt (Total) Municipal Commercial Paper Short Term Municipal	25% 25% 25% 10%	AA-/Aa3/AA- A-1/P-1/F-1 SP-1/(V)MIG1/F-1

Obligations Per Issuer		
Repurchase Agreements (4.) Per Counterparty	100% 5%	None
Reverse Repurchase Agreements (5~~)~~.) Per Counterparty	100% 5%	None
Oregon Local Government Intermediate Fund ("OLGIF")	$250 Million	A-/A3/A-

1. Securities guaranteed by the U.S. Treasury, a U.S. Agency or a Foreign Government or its Instrumentality will be considered a U.S. Treasury, a U.S. Agency or a Foreign Government or its Instrumentality for the purposes of this policy.
2. Commercial Paper (CP) must have top-tier short term ratings by at least two of the nationally recognized statistical rating organizations (NRSROs) at the time of purchase.
3. Permitted Time Certificates of Deposit (TCDs) will be limited to qualified depositories as defined in ORS Chapter 295.005. Maximum TCD exposure per depository must be no more than 5% of the issuing bank's total deposits, or $250,000, whichever is greater. Maximum credit union exposure per depository shall be $250,000.
4. Repurchase ~~agreements~~Agreements must meet the following criteria:
   ~~1.~~ Maximum maturity will be ~~90~~93 days;
   ~~2. Net capital of counterparties must be greater than $100 million;~~
   ~~3.~~1. ~~Repurchase Agreements must equal no more than 2% of a counterparty's liabilities;~~
   ~~4.~~2. Counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank~~. The only exception is OST's custodial agent as a non-primary dealer counterparty;~~ of New York;
   ~~5.~~ Counterparties must have a ~~signed repurchase agreement;~~
   3. ~~Collateral must be delivered to the OST's account at its custodian or to an account established for the OST pursuant to the terms of the specific~~fully executed Master Repurchase Agreement ~~in the name of~~with the Office of the State Treasurer ("Master Repurchase Agreement");
   ~~6.~~4. Collateral must be delivered on a tri-party basis to a mutually agreed upon third party custodian; and
   ~~7.~~5. Collateral ~~for repurchase agreements may be U.S. Treasury or U.S. Agency Discount and Coupon securities only. Collateral must have a final maturity of three years or less. The market value of the delivered collateral must~~ securing Repurchase Agreements must be maintained at not less than 102% of the ~~cash invested~~ amount of the Repurchase Agreement.
5. Reverse Repurchase Agreements must meet the following criteria:
   ~~1.~~ Maximum maturity will be ~~90~~93 days;
   ~~2. Net capital of counterparties must be greater than $100 million;~~
   ~~3.~~1. ~~Reverse Repurchase Agreements must equal no more than 2% of a counterparty's liabilities;~~

~~4.~~2. Counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank of New York;
~~5.~~3. Counterparties must have a signed ~~repurchase agreement; and~~ Master Repurchase Agreement;
~~6.~~4. Acceptable reinvestment vehicles include securities that may otherwise be purchased outright;
~~7.~~5. Securities will be reversed on a fully collateralized basis; and
~~8.~~6. Reverse repurchase investments for interest rate arbitrage shall only be done on a matched book basis.

B. All OSTF ~~portfolio~~ investments must be denominated in U.S. ~~$.~~dollar.

C. Total foreign exposure (government and corporate indebtedness) limited to 25% of OSTF ~~portfolio~~.

D. Any one individual issuer of securities or support commitments limited to 10% of OSTF ~~portfolio~~ with the exception of the U.S. Treasury (100% maximum) and U.S. government agency securities (33% per issuer).

E. Securities that have been downgraded below the minimum ratings will be sold or held at the Fixed Income Senior Investment Officer's (SIO) or SIO designee's discretion.

F. A single rating will be determined for each investment based on the following methodology:

i. When three nationally recognized statistical rating organizations (NRSROs) rate an issue, a median rating is used to determine eligibility by dropping the highest and/or lowest rating;
ii. When a rating from only two NRSROs is available, the lower ("most conservative") of the two ratings will be used; and
iii. When a rating from only one NRSRO is available, that rating will be used. To determine average rating for each security, a numeric value will be assigned to each NRSRO rating based on the following scheme:

Value	**S&P Rating**	**Moody's Rating**	**Fitch Rating**
29	U.S. Treasury & Agency AAA/A-1+(1)	U.S. Treasury & Agency Aaa/P-1(1)	U.S. Treasury & Agency AAA/F-1+(1)
28	AA+	Aa1	AA+
27	AA/A-1+/SP-1+	Aa2	AA/F-1+
26	AA-	Aa3/P-1/MIG1/VMIG1	AA-
25	A+	A1	A+
24	A/A-1/SP-1	A2	A/F-1

23	A-	A3	A-
22	BBB+/A-2/SP-2	Baa1/P-2/ MIG2/VMIG2	BBB+/F-2
21	BBB	Baa2	BBB
20	BBB-/A-3/SP-3	Baa3/P-3/ MIG3/VMIG3	BBB-/F-3

1. Limited to Asset-Backed Securities rated A-1+, P-1 and F-1+ by Standard & Poor's, Moody's and Fitch respectively.

G. The target weighted average credit quality of the OSTF ~~portfolio~~ shall be AA (or > 26.50~~).~~), excluding repurchase agreements.

H. For newly issued securities, and absent assigned ratings, "expected ratings" may be used as a proxy for actual ratings for not more than 30 business days after the anticipated settlement date.

I. No commitments to buy or sell securities may be made more than 14 business days prior to the anticipated settlement date, or receive a fee other than interest for future deliveries.

J. For purposes of compliance, eligible funds will be treated as a single investment and exempt from maturity or exposure restrictions except for maximum exposure and minimum ratings.

V. Reinvestment of Securities Lending Cash Collateral

A. Acceptable reinvestment vehicles include securities that may otherwise be purchased outright in accordance with the ~~Portfolio Rules for the Oregon Short Term Fund (Sections VI).~~diversification and portfolio limitations described above in Section IV. Within the securities lending program only, cash collateral may also be reinvested in:
   1. Repurchase agreements collateralized by U.S. Treasury or U.S. Government Agency securities with a maximum original maturity of 30 years. No more than 25% of assets shall be placed with the same counterparty. Repurchase agreements may also be placed with the Federal Reserve Bank's Repo facility.

B. Net capital of lending counterparties must be over $100 million.
C. Securities will only be loaned on a fully collateralized basis.
D. Lending counterparties must be a Primary Dealer as recognized by the Federal Reserve Bank, and have a signed master securities lending agreement.
E. The market value of the delivered collateral must be maintained at not less than 102% of the market value of the securities loaned.
F. Notwithstanding Section ~~VI~~IV.A.~~11~~5 hereof, Reverse Repurchase Agreements are prohibited within the securities lending program.

PROCEDURES

I. Standards of Care

A. **Prudence**: Investment officers shall use the "prudent investor" standard to guide their OSTF management efforts. Pursuant to ORS Chapter 293.726:
   1. The investment funds shall be invested and the investments of those funds managed as a prudent investor would do, under the circumstances then prevailing and in light of the purposes, terms, distribution requirements and laws governing each investment fund; and
   2. The standard in subsection (1) of this section requires the exercise of reasonable care, skill

and caution, and is to be applied to investments not in isolation but in the context of ~~each investment fund's~~the investment portfolio and as a part of an overall investment strategy, which should incorporate risk and return objectives reasonably suitable to the particular investment fund.

B. **Ethics and Conflicts of Interest**: Officer involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program or that could impair their ability to make impartial decisions. Officers and employees shall, at all times, comply with the State of Oregon Government Standards and Practices code of ethics set forth in ORS Chapter 244, as well as all policies of the OST.

C. **Delegation of Authority**: The Senior Investment Officer and Investment Officer(s) (or the Investment Analyst acting under the direction of the Investment Officers) of the Fixed Income team shall act in accordance with established written procedures and internal controls for the operation of the investment program consistent with these Portfolio Rules. No person may engage in an investment transaction except as provided under the terms of these Portfolio Rules and the procedures established by OST staff. The Senior Investment Officer and Investment Officer(s) are jointly responsible for all transactions undertaken, and shall establish a reasonable system of controls to regulate the activities of subordinate employees.

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Exceptions

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PROCEDURES AND FORMS

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ADMINISTRATION

Feedback

Your comments are extremely important to improving the effectiveness of this policy. If you would like to comment on the provisions of this policy, you may do so by e-mailing the Policy ~~Analyst~~Owner. To ensure your comments are received without delay, *please list the policy number and name in your e-mail's subject*. Your comments will be reviewed during the policy revisions process and may result in changes to the policy.

TAB 4 – Evolution of Private Equity

(CONFIDENTIAL DOCUMENT)

TAB 5 – OPERF Private Equity Program

January 28, 2021

OPERF Private Equity Annual Review & 2021 Plan

OREGON STATE TREASURY

Agenda

Section	Pages	1A	1B	1C	1D	2A	2B	3A	4A	4B	5A	5B	6A	6B	7A	7B	8A	8B	9A
		OIC Investment and Management Beliefs Mapping																	
Agenda	2																		
Private Equity Strategic Role	3				■	■		■	■		■								
Private Equity Portfolio Positioning	4						■			■									
Executive Summary	5																		
Investment Environment	6																		
2020 Year In Review	7-9								■	■	■		■	■					
Implementation Review	10-14				■				■	■							■	■	■
Return Attribution	15-17								■	■									
Pathway Program Update	18-21									■			■	■					
Forward Pacing Plan	22				■				■	■									
2021 Initiatives	23								■	■									
Closing	24																		

LEGEND: OIC INVESTMENT AND MANAGEMENT BELIEFS

1 **THE OIC SETS POLICY AND IS ULTIMATELY RESPONSIBLE FOR THE INVESTMENT PROGRAM**

A. Investment management is dichotomous -- part art and part science.

B. The OIC is a policy-setting council that largely delegates investment management activities to the OST and qualified external fiduciaries.

C. The OIC is vested with the authority to set and monitor portfolio risk. Both short-term and long-term risks are critical.

D. To exploit market inefficiencies, the OIC should be long term, contrarian, innovative, and opportunistic in its investment approach.

2 **ASSET ALLOCATION DRIVES RISK AND RETURN**

A. Asset allocation is the OIC's primary policy tool for managing the investment program's long-term risk/return profile.

B. Portfolio construction, including diversification and correlation considerations, is essential to maximizing risk-adjusted returns.

3 **THE EQUITY RISK PREMIUM WILL BE REWARDED**

A. Over the long-term, equity-oriented investments provide reliable return premiums relative to risk-free investments.

4 **PRIVATE MARKET INVESTMENTS CAN ADD SIGNIFICANT VALUE AND REPRESENT A CORE OIC/OST COMPETENCY**

A. The OIC can capitalize on its status as a true, long-term investor by making meaningful allocations to illiquid, private market investments.

B. Dispersion in private market investment returns is wide; accordingly, top-quartile manager selection, diversification across vintage year, strategy type, and geography, and careful attention to costs are paramount.

5 **CAPITAL MARKETS HAVE INEFFICIENCIES THAT CAN BE EXPLOITED**

A. Inefficiencies that can be exploited by active management may exist in certain segments of the capital markets.

B. Passive investment management in public markets will outperform the median active manager in those markets over time.

6 **COSTS DIRECTLY IMPACT INVESTMENT RETURNS AND SHOULD BE MONITORED AND MANAGED CAREFULLY**

A. All fees, expenses, commissions, and transaction costs should be diligently monitored and managed in order to maximize net investment returns.

B. External incentive structures should be carefully evaluated to ensure proper alignment with investment program objectives.

7 **FAIR AND EFFICIENT CAPITAL MARKETS ARE ESSENTIAL FOR THE LONG-TERM INVESTMENT SUCCESS**

A. The OIC recognizes that the quality of regulation and corporate governance can affect the long-term value of its investments.

B. The OIC also recognizes that voting rights have economic value.

8 **THE INTEGRATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS, SIMILAR TO OTHER INVESTMENT FACTORS, MAY HAVE A BENEFICIAL IMPACT ON THE ECONOMIC OUTCOME OF AN INVESTMENT AND AID IN THE ASSESSMENT OF RISKS ASSOCIATED WITH THAT INVESTMENT**

A. The consideration of ESG factors within the investment decision-making framework is importantin understanding the near-term and long-term impacts of investment decisions.

B. Over time, there has been an evolution of multi-factor, or more holistic approaches, to identify opportunities and remediate risks, in a large globally-diversified investment portfolio.

9 **DIVERSITY, IN ALL ASPECTS, IS ACCRETIVE TO MEETING OIC OBJECTIVES**

A. By embracing and enhancing diversity and inclusion efforts, the OIC ensures that the investment program will be exposed to and informed by a wide range of perspectives, ideas and opinions.

Private Equity Strategic Role

INV 1201: Investment Belief #4 – Private market investments can add significant value and represent a core OIC/OST competency

- The OIC can capitalize on its status as a true, long-term investor by making meaningful allocations to illiquid, private market investments
  - Private markets provide a diversifying risk/return profile relative to public market analogues
  - Private markets offer excess return opportunities that may be exploited by patient, long-term investors
- Dispersion in private market investment returns is wide; accordingly, top-quartile manager selection, diversification across vintage year, strategy type, and geography, and careful attention to costs are paramount
  - Private market investment success is predicated on identifying skilled managers and developing long-term investment relationships with those managers that enable the application of skill to manifest in the form of excess returns
  - Proper investment pacing, including deliberate vintage year diversification is also an integral element of superior private market investment results

INV 701: Private Equity Portfolio Standards and Procedures – Policy Statement II – Objective #1 Performance

- The performance objective is long-term, net returns above a public market analog plus an appropriate premium to compensate for illiquidity, principal risk and related investment costs and expenses. Specifically, Program performance should exceed a net internal rate of return equal to the Russell 3000 Index plus 300 basis points

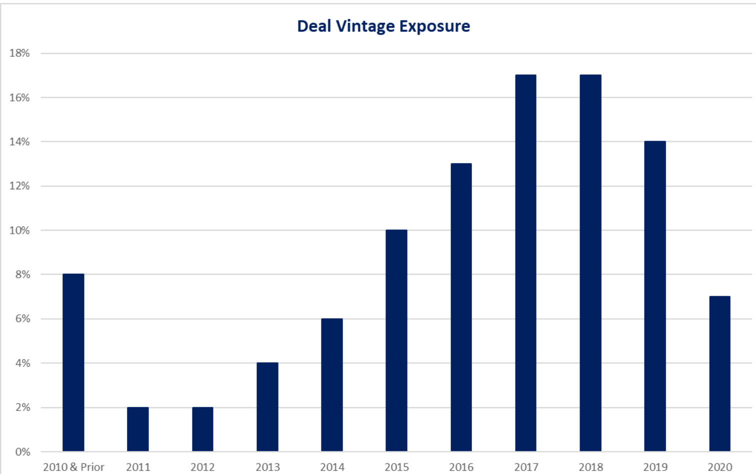
9/30/2020	1 Yr.	3 Yr.	5 Yr.	10 Yr.	20 Yr.
OPERF Private Equity	**15.1%**	**14.2%**	**12.9%**	**13.1%**	**11.2%**
Russell 3000 + 3%	18.8%	14.2%	17.2%	17.3%	9.7%
OPERF Value-Add:	*-3.7%*	*0.0%*	*-4.3%*	*-4.2%*	*1.5%*
MSCI ACWI + 3%	14.1%	9.6%	13.8%	12.0%	7.8%
OPERF Value-Add:	*1.0%*	*4.6%*	*-0.9%*	*1.1%*	*3.4%*
Burgiss All Funds Ex. Real Assets	13.9%	13.5%	12.9%	13.1%	9.7%
OPERF Value-Add:	*1.2%*	*0.7%*	*0.0%*	*0.0%*	*1.5%*

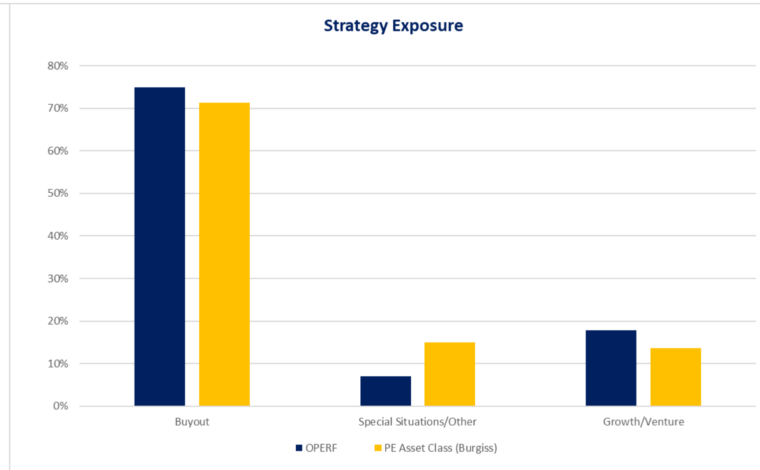
Source: OST, Aksia, Russell, MSCI, Burgiss

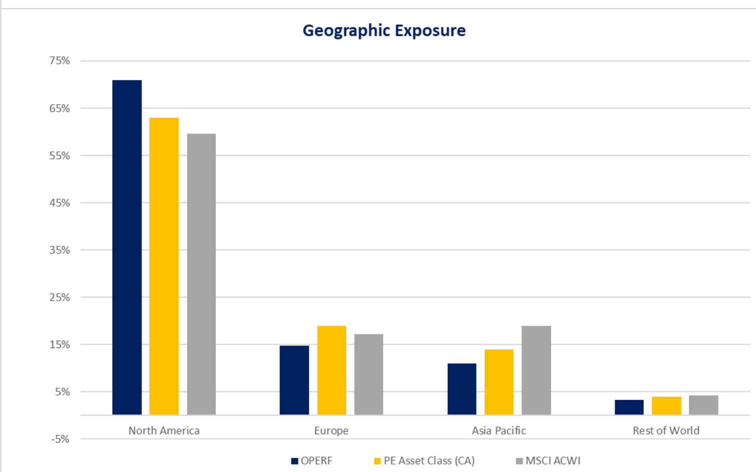
Private Equity Portfolio Positioning

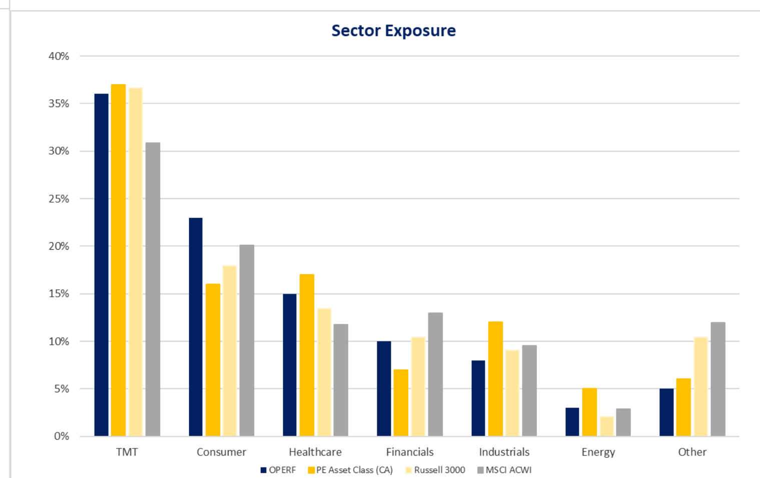
INV 701: Private Equity Portfolio Standards and Procedures – Policy Statement II – Objective #2 Diversification

- Diversification reduces risk among Program investments. The following types of diversification should be considered by Staff, including, but not limited to stage (strategy), sector, size, geography and time









OREGON STATE TREASURY

Source: OST, Aksia, Cambridge Associates, Burgiss, MSCI, Russell – exposure data as of 6/30/20

Executive Summary

Key Takeaways…

1. Performance is strong on an absolute basis, but historical pacing issues and recent public market volatility make the relative return view more challenging

2. Current exposure is above the target asset allocation range, but all of the tools are in place to rectify in the medium term with some actions already taken

3. The revised implementation plan is in place and working, and consistency and discipline should be rewarded over the long-term

Investment Environment

- **M&A Activity**
  - In total, volumes through the 3Q 2020 were nearly 25% behind where they stood through the first three quarters of 2019. However, Q4-20 volumes have been strong
  - Prices remain at record levels despite market volatility and economic uncertainty
  - PE sponsors led 40% of deal activity through the first three quarters of the year
- **Corporate Leveraged Finance**
  - Global new issue volumes remained strong as has been the case for the last several years with a continued mix shift to HY versus loans
  - The pandemic related shock was meaningful in Q2 with respect to revolver draws, downgrades, defaults and amendments & waivers, but intervention has been very effective in stabilizing leveraged finance markets so far
- **Private Equity Returns**
  - Returns for the asset class were strong over the past year at ~14% for All Funds excluding Real Assets (real estate, infrastructure and natural resources)
  - VC is the strongest performing asset class over the past decade, but the strategy trailed meaningfully in the previous decade
- **Private Equity Activity**
  - U.S. fundraising through the first three quarters of 2020 was well behind the record set in 2019
  - U.S deployment through Q3 2020 was ~35% behind where they stood at the same time in 2019. Volumes for the second quarter of 2020 were the lowest they have been since 2013. However, Q4-20 is expected to be very strong from a U.S. PE deployment perspective
  - U.S. exit pace through 3Q 2020 was roughly 24% behind the pace set at the same time in 2019, but the second half rebound was strong led by an open IPO window
- **Additional information in Appendix A**

2020 was a mixed year with depressed activity in Q2 but a strong rebound in 2H

2020 Year In Review – Priorities

- **OST Staff made progress on all five initiatives set out in the 2020 PE Annual Review & Plan:**

2020 OST Private Equity Staff Priorities

1. **$2.5-3.5 billion of new commitments**
   - 10-15 commitments of $100-500 million
2. **Drive savings via existing fee mitigation strategies**
   - Focus on sourcing and relationship management for the co-investment program
3. **Introduce additional portfolio & pacing management tools**
   - Implement the recently approved enhanced monitoring & liquidity management program
4. **Private equity team capacity**
   - Recruit to fill open Investment Analyst position
5. **Continue enhancements to due diligence and monitoring capabilities**
   - Introduce new structure to Staff's existing market mapping and prospecting program

2020 Year In Review – Approvals

- **Over the course of 2020, the OIC approved 13 new private equity commitments totaling $2.9 billion**

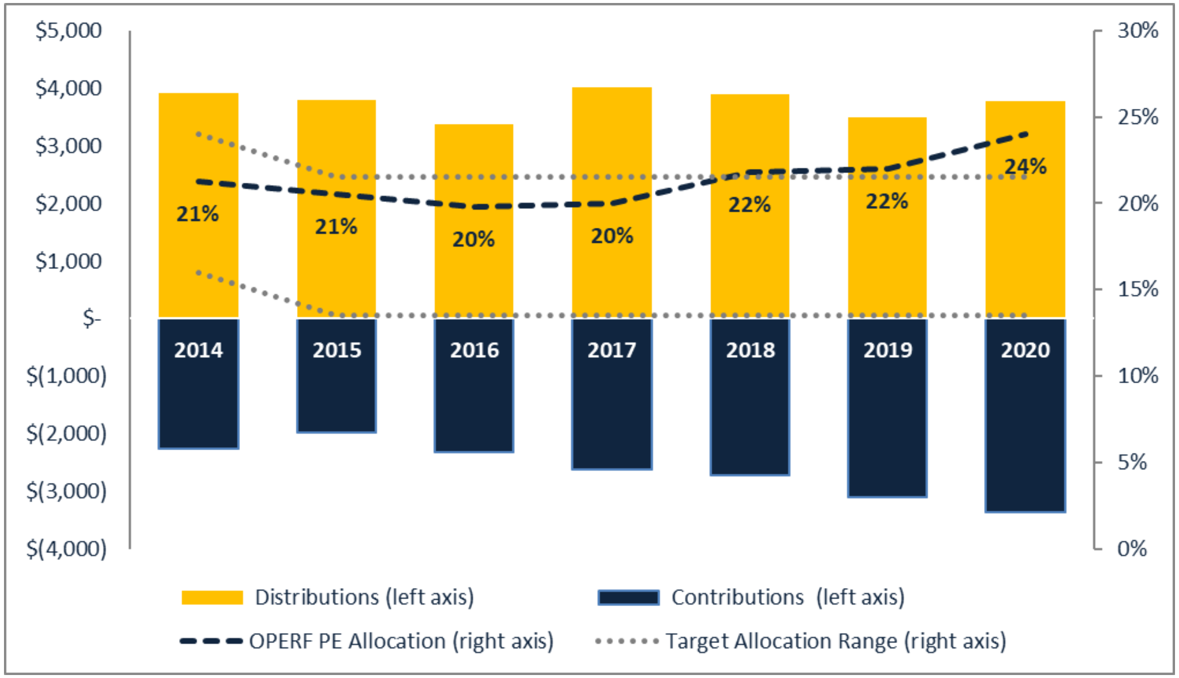
  - **Pacing** – the $2.9 billion committed in 2020 is on target relative to plan ($2.5-3.5 billion per annum) and compares to $3.0 billion, $3.3 billion, $3.0 billion and $2.7 billion for 2016, 2017, 2018 and 2019, respectively
  - **Strategy** –2020 approvals include more Growth/VC exposure than recent years with the strategy group representing 27% of overall commitments
  - **Geography** – 63% North America, 25% Europe, 11% Asia, and 1% rest-of-world

	FUND NAME	SEGMENT	STRATEGY	GEOGRAPHY		COMMIT (MM)	
1	Centerbridge Capital Partners IV	Buyout	Middle Market Buyout & Distressed Debt	NA & Europe	$	250	
2	CVC Capital Partners VIII	Buyout	Large Market Buyout	Global - Europe Bias	€	325	*
3	Francisco Partners VI & Agility II	Buyout	Middle Market Buyout - Diversified Technology	NA & Europe	$	300	
4	GTCR XIII	Buyout	Upper Middle Market Buyout	North America	$	205	
5	Pathway Co-Invest Follow-On	Buyout	Co-Investment	Global	$	350	
6	Thoma Bravo XIV	Buyout	Large Market Buyout - Software	North America	$	250	
	BUYOUT TOTAL				**$**	**1,756**	
7	GGV VIII, VIII-Plus & Discovery II	Growth/VC	Multi-stage VC	US & China	$	150	
8	Mayfield XVI & Select II	Growth/VC	Early Stage Venture Capital	North America	$	50	
9	Sherpa I & Sidecar	Growth/VC	VC/Growth Equity - Healthcare Focus	Asia - China	$	100	
10	TPG Growth V	Growth/VC	Growth Equity	Global	$	250	
11	USV 2021 & Climate	Growth/VC	Early Stage Venture Capital	North America	$	30	
12	Vitruvian Investment Partners IV	Growth/VC	Thematic Growth Equity & Growth Buyout	Europe	€	150	*
	GROWTH/VC TOTAL				**$**	**765**	
13	Oaktree Opportunities Fund XI	Distressed Debt	Large Market Corporate Distressed Debt	Global	$	350	
	TOTAL				**$**	**2,871**	

* - Euro/USD - 0.82

2020 Year In Review – Cash Flows

- **In 2020, the private equity portfolio processed capital calls totaling $3.4 billion and distributions totaling $3.8 billion for net distributions of ~$400 million**
  - OPERF's capital call activity accelerated briefly in the spring as underlying partnerships paid down subscription line borrowings
  - OPERF's distributions for 2020 consisted primarily of regular course portfolio company exits, but the Enhanced Monitoring & Liquidity Management Program approved at the end of 2019 was also utilized to pull forward distributions balancing vintage exposure and modestly reducing overall exposure
  - At December 31, 2020 (9/30/20 valuations adjusted for cash flows), the portfolio's net asset value of $19.2 billion represented 24% of the full OPERF portfolio. This is above the top end of the OPERF's target allocation range (17.5% +/- 4%)



OREGON STATE TREASURY

Source: OST, Aksia, SSB

Implementation Review

- **<u>In 2015, the OIC directed OST Staff and Aksia to create a revised implementation plan for OPERF's PE portfolio</u>**

  - This request was made in connection with the 2015 strategic asset allocation study where the objectives of the private equity allocation were re-affirmed – target returns at or above diversified public equities plus 3% per annum in a risk aware manner
  - The OIC's directive was informed by the realization that OPERF's legacy private equity implementation was increasingly challenged in the PE asset class that is becoming exponentially more complex and competitive
  - The plan focuses on solving three existential challenges:
    1. Create and maintain scale private equity exposure consistent with OPERF's asset allocation plan
    2. Deliver the excess return target at scale while remaining mindful of risk
    3. Create a sustainable framework to deliver within the confines of OPERF/OIC/OST's unique paradigm
  - Finally, OPERF/OIC/OST leverages three primary resources to deliver the plan; 1) Non-Discretionary Investment Consultant (Aksia), 2) Discretionary Solutions Provider (Pathway) and 3) General Partners

Implementation Review

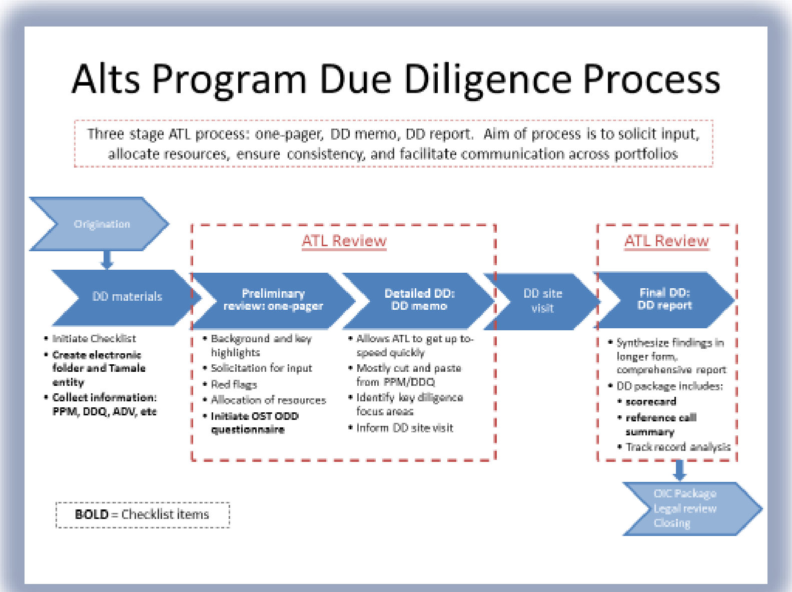
- **OPERF's PE implementation plan is built on three core principles:**

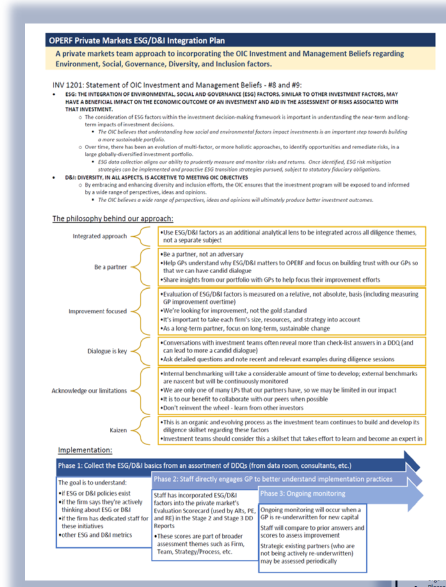
1. Focused Primary Program
    1. **~45 General Partner relationships** emphasizing an average commitment of **~$250 million per fund** to create a portfolio that is balanced by style, geography, sector, size, etc.
    2. Focus on managers capable of generating consistently strong returns via operating performance
2. Fee Mitigation
    1. **Co-investment** (via the outsourced program with Pathway) currently represents 10% of pacing – the goal is to grow this to **20%+** in the coming years
    2. Negotiated and structured discounts where possible
3. Smooth Pacing
    1. Commitment to balanced vintage year pacing – current pacing plan is **$2.5-3.5 billion per annum** of new commitments to 10-15 opportunities
    2. The Enhanced Monitoring & Liquidity Program with Pathway available to dynamically manage legacy investments/relationships as well as vintage exposures

OREGON STATE TREASURY

Implementation 1) Refocused Primary Program

- **<u>OPERF's revised plan calls for a more focused and flat manager roster</u>**
  - Given OST's modest Staff resources and increasing diligence and monitoring demands, a more focused GP roster is required. That narrowed roster needs to summarize to a set of balanced exposures by strategy, geography, sector, etc. The revised roster further needs to be leverageable to deliver on OPERF's fee mitigation objectives
  - With increasing competition and complexity, the challenge of effectively sourcing allocations, performing due diligence, and monitoring GP relationships has increased materially over the past decade. In the past five years, all of Staff's prospecting, due diligence, monitoring, and internal approval procedures have been updated
  - Building on work done in recent years and acknowledging the OIC's reinforced focus on Environmental Social & Governance and Diversity & Inclusion, OST's private market "ESG Champions" (Ahman Dirks, Faith Sedberry and Sam Spencer with the oversight of Anna Totdahl) led a project in 2020 to more formally integrate these factors into the due diligence process





OPERF Private Markets ESG/D&I Integration Plan

A private markets team approach to incorporating the OIC Investment and Management Beliefs regarding Environment, Social, Governance, Diversity, and Inclusion factors.

INV 1201: Statement of OIC Investment and Management Beliefs - #8 and #9:

- **ESG: THE INTEGRATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS, SIMILAR TO OTHER INVESTMENT FACTORS, MAY HAVE A BENEFICIAL IMPACT ON THE ECONOMIC OUTCOME OF AN INVESTMENT AND AID IN THE ASSESSMENT OF RISKS ASSOCIATED WITH THAT INVESTMENT.**
  - The consideration of ESG factors within the investment decision-making framework is important in understanding the near-term and long-term impacts of investment decisions.
    - *The OIC believes that understanding how social and environmental factors impact investments is an important step towards building a more sustainable portfolio.*
  - Over time, there has been an evolution of multi-factor, or more holistic approaches, to identify opportunities and remediate risks, in a large globally-diversified investment portfolio.
    - *ESG data collection aligns our ability to prudently measure and monitor risks and returns. Once identified, ESG risk mitigation strategies can be implemented and proactive ESG transition strategies pursued, subject to statutory fiduciary obligations.*
- **D&I: DIVERSITY, IN ALL ASPECTS, IS ACCRETIVE TO MEETING OIC OBJECTIVES**
  - By embracing and enhancing diversity and inclusion efforts, the OIC ensures that the investment program will be exposed to and informed by a wide range of perspectives, ideas and opinions.
    - *The OIC believes a wide range of perspectives, ideas and opinions will ultimately produce better investment outcomes.*

<u>The philosophy behind our approach:</u>

Integrated approach	•Use ESG/D&I factors as an additional analytical lens to be integrated across all diligence themes, not a separate subject
Be a partner	•Be a partner, not an adversary •Help GPs understand why ESG/D&I matters to OPERF and focus on building trust with our GPs so that we can have candid dialogue •Share insights from our portfolio with GPs to help focus their improvement efforts
Improvement focused	•Evaluation of ESG/D&I factors is measured on a relative, not absolute, basis (including measuring GP improvement overtime) •We're looking for improvement, not the gold standard •It's important to take each firm's size, resources, and strategy into account •As a long-term partner, focus on long-term, sustainable change
Dialogue is key	•Conversations with investment teams often reveal more than check-list answers in a DDQ (and can lead to more a candid dialogue) •Ask detailed questions and note recent and relevant examples during diligence sessions
Acknowledge our limitations	•Internal benchmarking will take a considerable amount of time to develop; external benchmarks are nascent but will be continuously monitored •We are only one of many LPs that our partners have, so we may be limited in our impact •It is to our benefit to collaborate with our peers when possible •Don't reinvent the wheel - learn from other investors
Kaizen	•This is an organic and evolving process as the investment team continues to build and develop its diligence skillset regarding these factors •Investment teams should consider this a skillset that takes effort to learn and become an expert in

<u>Implementation:</u>

Phase 1: Collect the ESG/D&I basics from an assortment of DDQs (from data room, consultants, etc.)

The goal is to understand:
- if ESG or D&I policies exist
- if the firm says they're actively thinking about ESG or D&I
- if the firm has dedicated staff for these initiatives
- other ESG and D&I metrics

Phase 2: Staff directly engages GP to better understand implementation practices

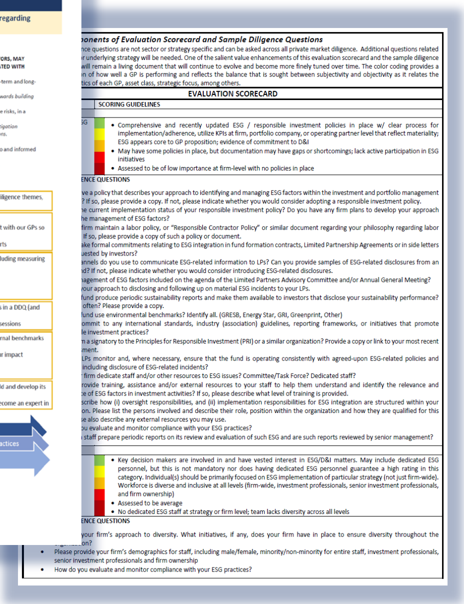
Staff has incorporated ESG/D&I factors into the private market's Evaluation Scorecard (used by Alts, PE, and RE) in the Stage 2 and Stage 3 DD Reports
- These scores are part of broader assessment themes such as Firm, Team, Strategy/Process, etc.

Phase 3: Ongoing monitoring

Ongoing monitoring will occur when a GP is re-underwritten for new capital

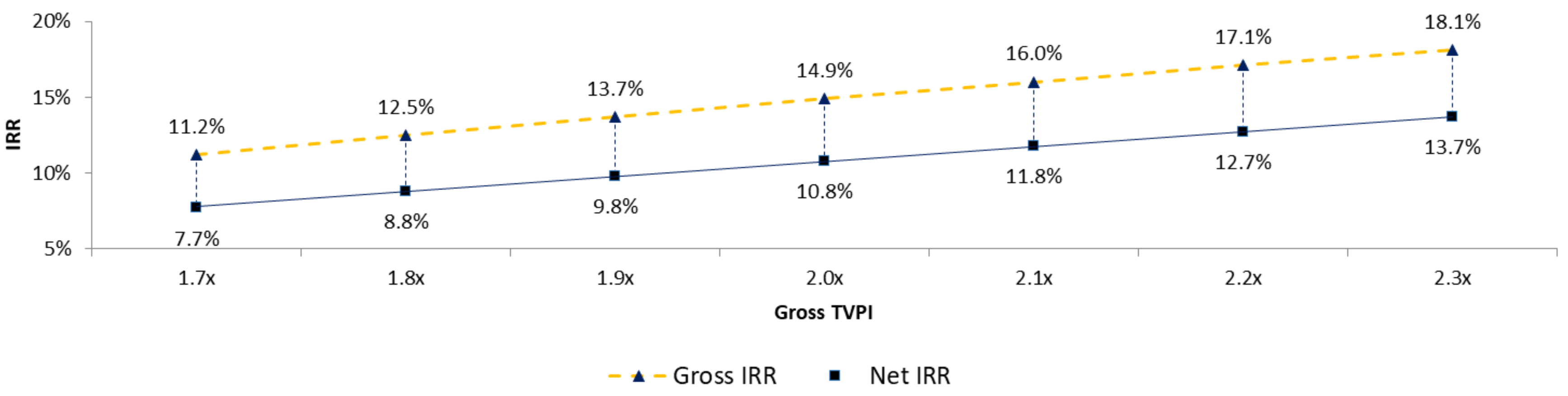
Staff will compare to prior answers and scores to assess improvement

Strategic existing partners (who are not being actively re-underwritten) may be assessed periodically



Implementation 2) Fee Mitigation

- **OPERF's revised plan focuses on fee mitigation strategies to narrow gross-to-net return spread**
  - As the asset class grows more competitive, high levels of gross returns will be increasingly challenging to generate. With that as a backdrop, OPERF needs to exploit the portfolio's scale to pursue fee mitigation strategies to reduce the gross-to-net spread
  - The chart below approximates PE's fee drag across various gross return scenarios. In the range of gross return scenarios outlined below, the gross-to-net spread is ~350-450bps per annum
  - In the revised plan, OPERF's fee mitigation strategies include a combination of negotiated discounts, structured sidecar vehicles, and the portfolio's new, systematic co-investment program
  - With the tools now in place, Staff hopes to be in a position to reduce carried interest exposure by at least $100 million per annum in the coming decade which could reduce fee drag by 15-25%

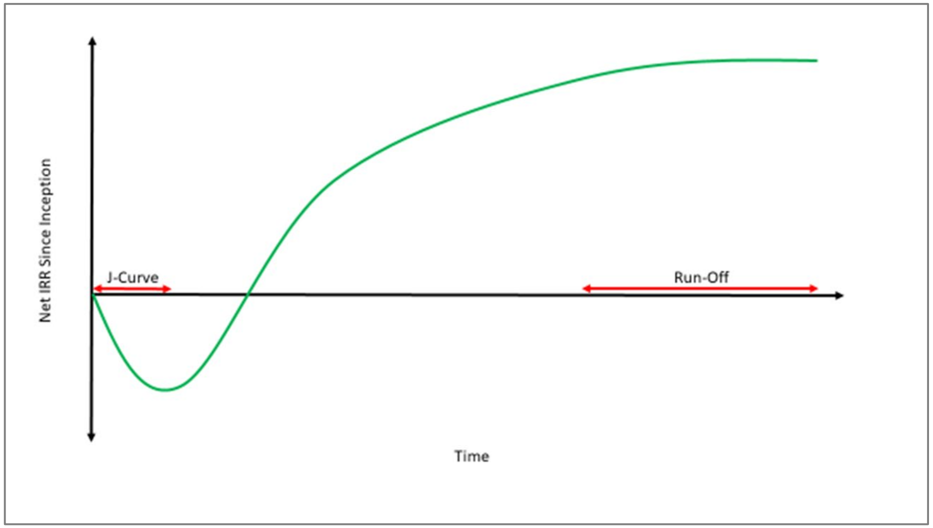


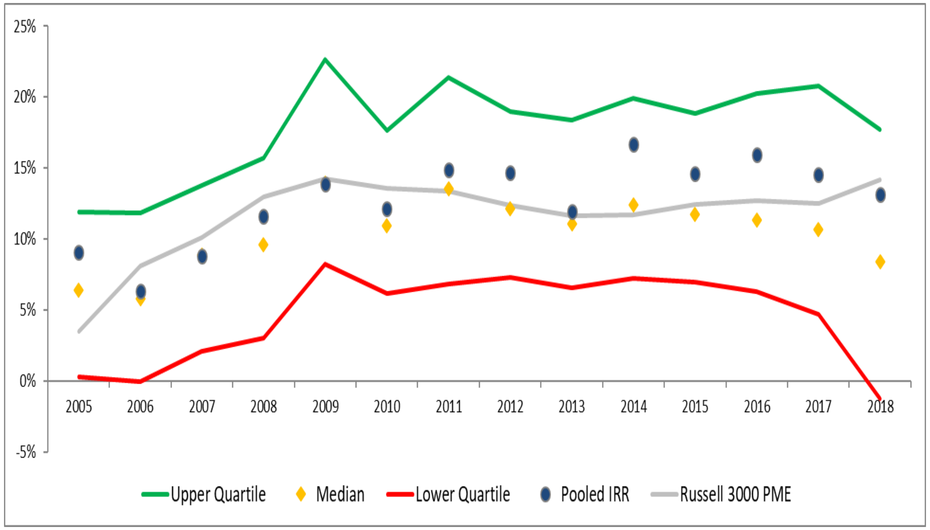
Implementation 3) Smooth Pacing

- **OPERF's revised plan includes a commitment to smoothed pacing which matters for two primary reasons:**

1. As depicted in the stylized chart on the left, each private equity partnership commitment has its own lifecycle with weak returns in the early and late years surrounding strong returns in the middle part of the curve. All of the funds in a given year summarize to an aggregate curve at the vintage level, and staggering of vintages over time amalgamates to an aggregate curve at the total PE portfolio level. Smooth pacing represents an effort to "layer" vintage curves to ensure that a significant majority of the total portfolio remains in the middle part of the curve

2. Intentional or not, pacing amounts to market timing as returns among vintages can vary significantly (depicted in the chart of vintage level returns on the right). The long-lifecycle and access/relationship dynamics associated with private partnership investing make effective market timing impossibly challenging. Smooth and consistent pacing represents an effort to neutralize the timing impact to the extent possible





Source: OST, Burgiss, Russell – 9/30/20

Return Attribution

- **OPERF's performance attribution with respect to the "asset allocation" and "security selection" factors is reasonable**

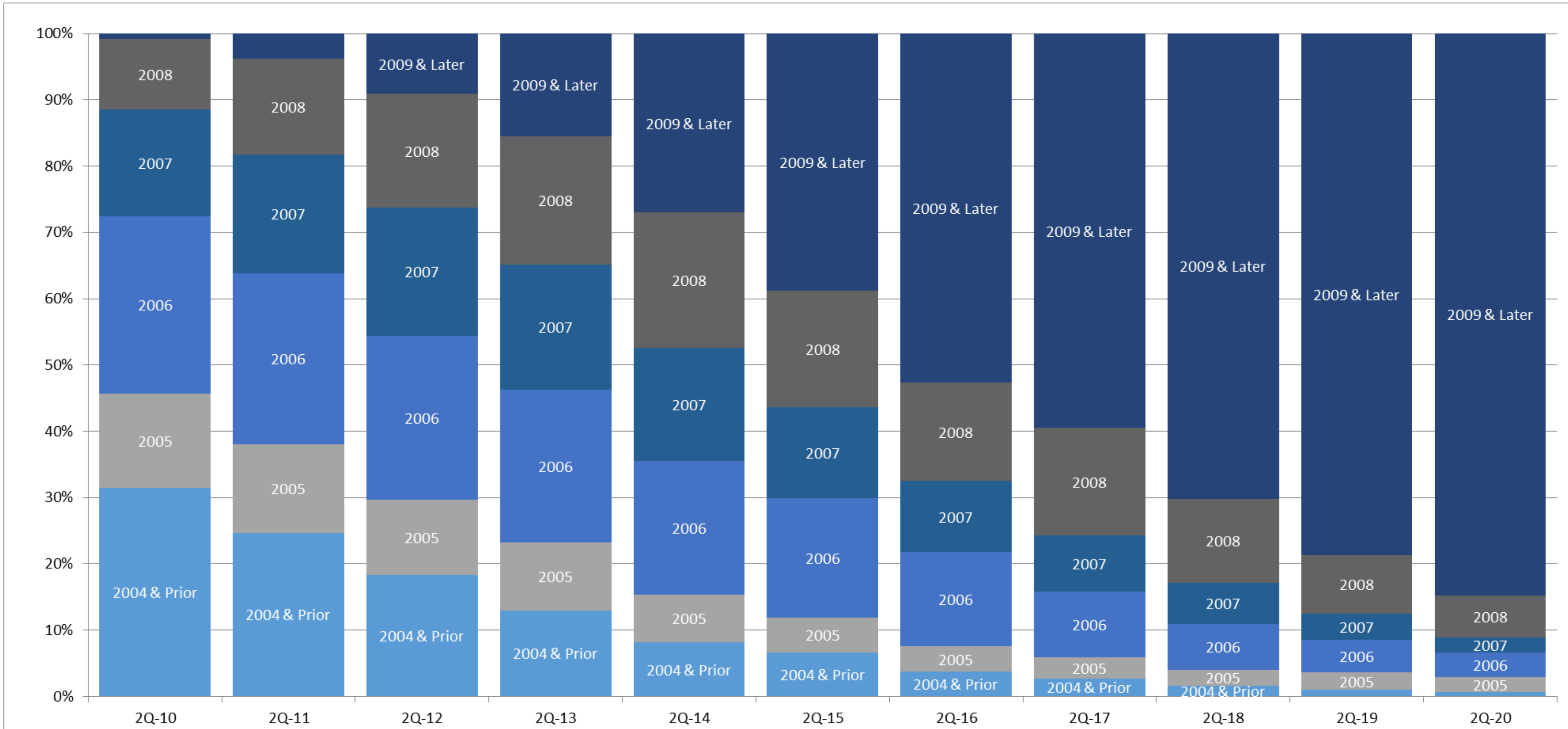
  - **Asset Allocation** – as a consequence of the scale of the program, OPERF is fairly index-like as compared to the PE asset class with respect to strategy, size, geography, sector, etc. There is not capacity at OPERF's scale to efficiently make meaningful tilts to small managers, emerging markets, venture capital, etc.
  - **Security Selection –** in this context, security selection amounts to manager selection. Again OPERF's scale is limiting as the first and fourth quartiles in most vintages will be overweight small managers. As a result, a realistic goal is to consistently plot high in the second quartile, which is where the program has been since 2012
  - Implementation was fine in the pre-GFC years but the asset class lagged public markets, relative results were mixed immediately after the GFC and performance since the GFC has been strong on a relative basis

Vintage Year	Commit. (mm)	FMV at 9/30/20 (mm)	FMV %	Exp. %	TVPI	IRR	Burgiss Quart. TVPI	Burgiss Quart. IRR	Russell 3000 PME	MSCI ACWI PME
1981-2004	$ 11,303	$ 122	1%	1%	2.0	17.1%	N/A	N/A	N/A	N/A
2005	$ 2,371	$ 447	2%	2%	1.7	7.9%	2nd	2nd	3.5%	5.0%
2006	$ 4,733	$ 684	3%	3%	1.5	6.7%	2nd	2nd	8.1%	7.0%
2007	$ 3,064	$ 400	2%	2%	1.6	9.2%	2nd	2nd	10.1%	10.0%
2008	$ 4,194	$ 1,158	6%	5%	1.7	12.1%	2nd	2nd	13.0%	11.3%
2009	$ 427	$ 47	0%	0%	1.5	9.3%	3rd	3rd	14.2%	10.8%
2010	$ 980	$ 462	2%	2%	1.7	10.9%	2nd	3rd	13.6%	11.2%
2011	$ 2,429	$ 1,505	7%	6%	1.8	12.8%	2nd	3rd	13.4%	10.2%
2012	$ 2,001	$ 1,543	8%	6%	1.9	18.2%	2nd	2nd	12.4%	9.4%
2013	$ 1,515	$ 1,387	7%	5%	1.7	13.6%	2nd	2nd	11.6%	9.3%
2014	$ 984	$ 968	5%	4%	1.9	19.0%	2nd	2nd	11.7%	9.6%
2015	$ 2,893	$ 3,107	15%	12%	1.6	16.8%	2nd	2nd	12.4%	9.6%
2016	$ 2,839	$ 3,521	17%	13%	1.5	19.0%	2nd	2nd	12.7%	8.9%
2017	$ 3,393	$ 2,683	13%	13%	1.3	20.6%	2nd	2nd	12.5%	10.3%
2018	$ 3,037	$ 1,104	5%	10%	1.1	9.5%	N/A	N/A	N/A	N/A
2019	$ 2,760	$ 1,170	6%	9%	1.1	16.8%	N/A	N/A	N/A	N/A
2020	$ 3,272	$ 155	1%	11%	1.2	63.3%	N/A	N/A	N/A	N/A
Total	**$ 52,193**	**$ 20,461**	**100%**	**100%**	**1.7**	**15.4%**	**N/A**	**N/A**	**N/A**	**N/A**

Source: OST, Aksia, Burgiss, Russell, MSCI

Return Attribution

- **The dominant factor in OPERF's return attribution over the past decade is the "timing" factor**
  - As a consequence of uneven timing going into and coming out of the global financial crisis in 2008, OPERF's portfolio was overexposed to the 2005-2008 vintage years



OREGON STATE TREASURY

Source: OST, Aksia

Return Attribution

- **The result of uneven investment pacing can be clearly seen when horizon returns are broken into vintage year cohorts**
  - More recently, OPERF has been very consistent with respect to new commitment pacing remaining in the $2.5-3.5 billion target range despite a hot fundraising market
  - The co-investment program has been structured to allow for a modest degree of active pacing management to avoid disrupting GP relationships
  - The Enhanced Monitoring & Liquidity Management Program will allow for more active management of vintage exposures going forward

9/30/2020

Vintage Co-Hort	Total Commit (bn)	Avg. Annual Commit (bn)	IRR 1 year	IRR 3 year	IRR 5 year	IRR 10 year
1981-2004	$ 11.3	NM	(2.1%)	4.4%	0.4%	11.7%
2005-2008	$ 14.4	$ 3.59	8.3%	8.6%	8.3%	12.1%
2009-2012	$ 5.8	$ 1.46	12.3%	12.9%	13.9%	13.6%
2013-2017	$ 11.6	$ 2.32	17.6%	18.2%	17.8%	N/A
2018-2020	$ 9.1	$ 3.02	20.3%	13.8%	N/A	N/A
All Vintages	**$ 52.2**	**NM**	**15.1%**	**14.2%**	**12.9%**	**13.1%**

Pathway Program Update

PRIVATE MARKET SPECTRUM		GLOBAL REACH		FULL-SERVICE MODEL
1991 Founded	**100%** owned by its 21 partners	**183** Staff	**>$65 billion** in global AUM[b]	**22 years'** average investment experience[c]

[a]Strategic alliance with Tokio Marine Asset Management
[b]Represents roll-forward market value plus undrawn capital as of 9/30/20
[c]Represents Pathway's 19 investment partners.

Pathway Program Update

OPERF and Pathway Enjoy a Long Relationship

Program	Year	Focus	Amount[a]
PPEF III	2001	Sub-$400m PE Funds	$251 million
PPEF III-B	2009	Sub-$1b PE Funds	$403 million
PPEF III-Co	2019	Co-investments	$1.1 billion[b]
Pathway IMA	2020	Monitoring & Liquidity	$2.6 billion

[a]Represents total fund size or committed capital to date.
[b]Includes an expected $250 million commitment from proceeds of partnership interests liquidated through the Pathway IMA.

Current programs—PPEF III-Co and Pathway IMA—address key strategic focus areas for OPERF:

- Mitigate gross-to-net spread by investing in co-investments that may eliminate GP annual management fee and carried interest[1]
- Leverage OPERF private equity team's capacity by providing a solution for monitoring legacy fund portfolio
- Opportunistically seek liquidity from legacy portfolio with a portion of proceeds redeployed into co-investments

1. Excluding administrative and transaction fees.

Pathway Program Update

Enhanced Monitoring and Managed Liquidity Program Overview

- Pathway assists OPERF staff with
  - advisory board coverage;
  - analysis and execution of advisory board consents, extensions, amendments, etc.;
  - annual meeting participation;
  - market value reporting
- Program included 79 partnerships representing cumulative market value of approximately $2.6 billion at June 30, 2020

Managed Liquidity Program

- During the third quarter of 2020, Pathway initiated a process to explore liquidity solutions on behalf of OPERF
  - Pathway manages liquidity processes through
    - issuing RFPs, interviewing, and selecting secondary advisers;
    - analyzing the current performance of the enhanced monitoring portfolio;
    - overseeing the sale process managed by the secondary adviser, including marketing, assessing offers, and assisting with closing and transfer processes
  - Pathway also actively assesses liquidity opportunities initiated by general partners in the Enhanced Monitoring Program portfolio

Pathway Program Update

Co-investment Program Overview

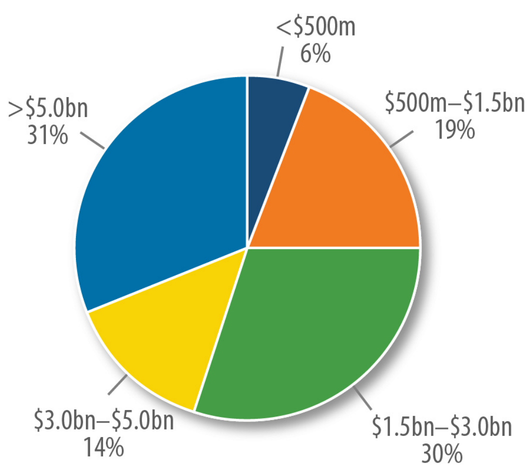
Commenced in 2019, the co-investment program consists of $1.1 billion[1] of capital committed across 3 tranches

- $682 million invested across 38 co-investments[2]
- Completed co-investments with 19 OPERF GPs
- No annual management fee or carried interest on any co-investment
- Systematic deployment of capital with risk-based approach
- Focus on diversification
- The program, albeit young, is developing in accordance with expectations

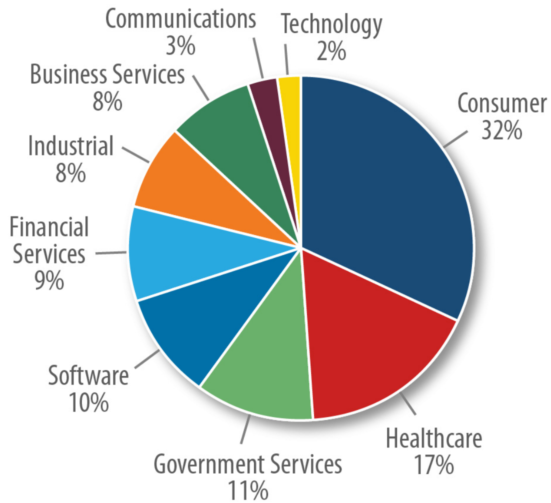
Diversification

At December 31, 2020 (includes approved and pending co-investments)

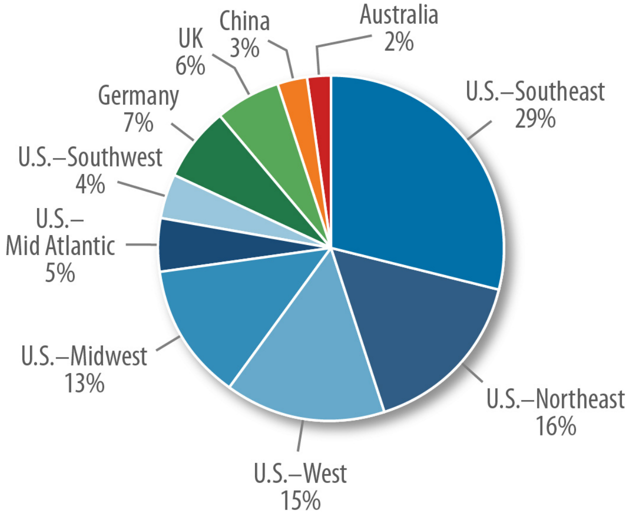
ENTERPRISE VALUE



INDUSTRY



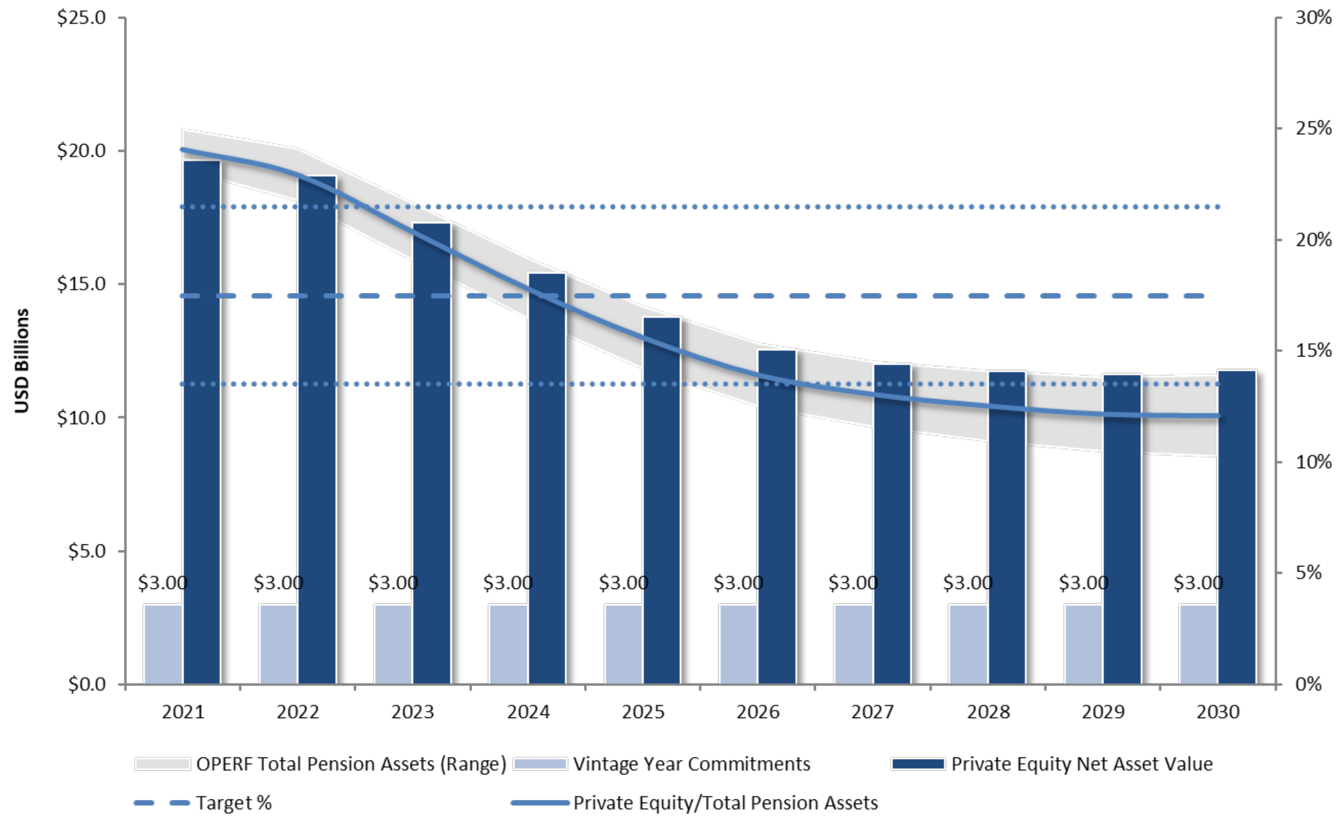
REGION



1. Includes an expected $250 million commitment from proceeds of partnership interests liquidated through the Pathway IMA
2. Includes six co-investments representing $143 million of committed capital that have been approved by Pathway's Investment Committee but are pending close

Forward Pacing Plan

- **<u>In keeping with the principal of maintaining flat pacing, Staff is recommending $2.5-3.5 billion of new commitments again in 2021</u>**
  - Consistent with prior years, Staff anticipates recommending 10-15 commitments of $100-500 million over the course of the year. It is anticipated that this will be the recommendation for the next several vintage years as the program remains above the target allocation range
  - The output of the horizon model used to create this forward pacing recommendation is presented in the chart below. Further detail on this exercise is available in Aksia's review of the program (Appendix B)



Source: OST, Aksia

2021 Initiatives

2021 OST Private Equity Staff Priorities

1. **$2.5-3.5 billion of new commitments**
    - 10-15 commitments of $100-500 million
2. **Drive savings via existing fee mitigation strategies**
    - Focus on sourcing and relationship management for the co-investment program
3. **Leverage portfolio & pacing management tools**
    - Explore additional enhanced liquidity opportunities
4. **Private equity team capacity**
    - Recruit to fill open Investment Officer position
5. **Continue enhancements to due diligence and monitoring capabilities**
    - Further formalize the integration of ESG and DEI factors

Closing

Key Takeaways…

1. Performance is strong on an absolute basis, but historical pacing issues and recent public market volatility make the relative return view more challenging

2. Current exposure is above the target asset allocation range, but all of the tools are in place to rectify in the medium term with some actions already taken

3. The revised implementation plan is in place and working, and consistency and discipline should be rewarded over the long-term

OREGON
STATE
TREASURY

Tobias Read
Oregon State Treasurer

350 Winter St NE, Suite 100
Salem, OR 97301-3896

oregon.gov/treasury

January 28, 2021

OPERF Private Equity Annual Review & 2021 Plan

Appendix A – 2020 Private Equity Market Review

OREGON STATE TREASURY

2020 Private Equity Market Review – Agenda

- **Executive Summary**

- **Investment Environment**
  - M&A Activity
  - Corporate Leveraged Finance
  - Private Equity Returns
  - U.S. Private Equity Update
  - Europe Private Equity Update

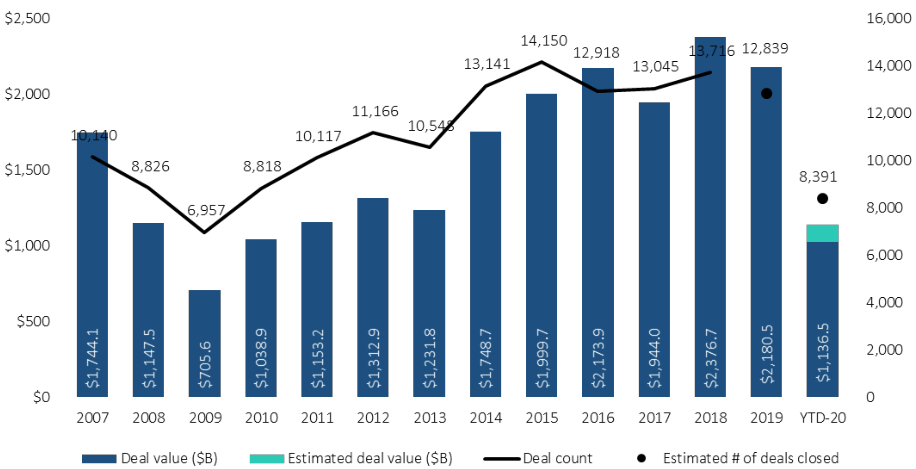
Executive Summary

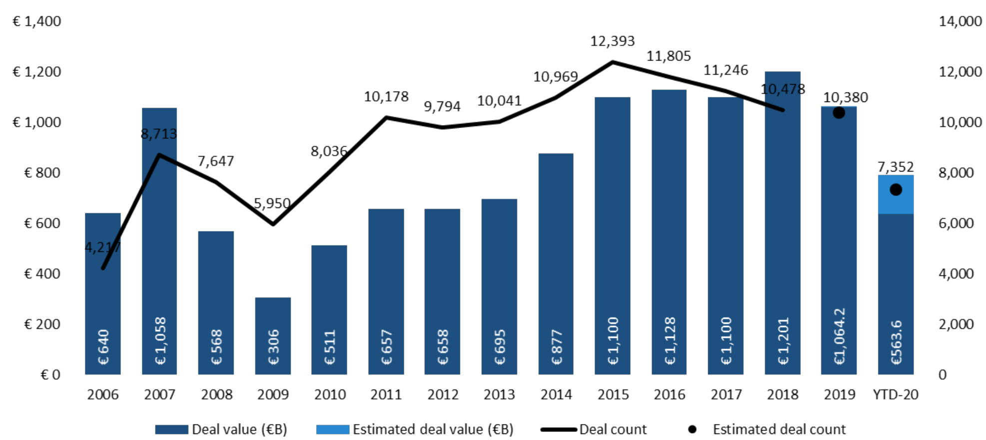
- **M&A Activity**
  - In total, volumes through the 3Q 2020 were nearly 25% behind where they stood through the first three quarters of 2019. However, Q4-20 volumes have been strong
  - Prices remain at record levels despite market volatility and economic uncertainty
  - PE sponsors led 40% of deal activity through the first three quarters of the year
- **Corporate Leveraged Finance**
  - Global new issue volumes remained strong as has been the case for the last several years with a continued mix shift to HY versus loans
  - The pandemic related shock was meaningful in Q2 with respect to revolver draws, downgrades, defaults and amendments & waivers, but intervention has been very effective in stabilizing leveraged finance markets so far
- **Private Equity Returns**
  - Returns for the asset class were strong over the past year at ~14% for All Funds excluding Real Assets (real estate, infrastructure and natural resources)
  - VC is the strongest performing asset class over the past decade, but the strategy trailed meaningfully in the previous decade
- **Private Equity Activity**
  - U.S. fundraising through the first three quarters of 2020 was well behind the record set in 2019
  - U.S deployment through Q3 2020 was ~35% behind where they stood at the same time in 2019. Volumes for the second quarter of 2020 were the lowest they have been since 2013. However, Q4-20 is expected to be very strong from a U.S. PE deployment perspective
  - U.S. exit pace through 3Q 2020 was roughly 24% behind the pace set at the same time in 2019, but the second half rebound was strong led by an open IPO window

2020 was a mixed year with depressed activity in Q2 but a strong rebound in 2H

M&A Activity – Developed Market Volumes

- **Through 3Q 2020, Pitchbook recorded over 15k M&A transactions in North America & Europe with an aggregate value of $1.8 trillion**
  - In total, volumes through the 3Q 2020 were nearly 25% behind where they stood through the first three quarters of 2019. However, Q4-20 volumes (not captured) have been strong
  - As has been the case in recent years, Europe volume represented roughly a third of developed market M&A activity
  - The charts below presents the annual developed market M&A volumes since 2007 for North America (left) and Europe (right)

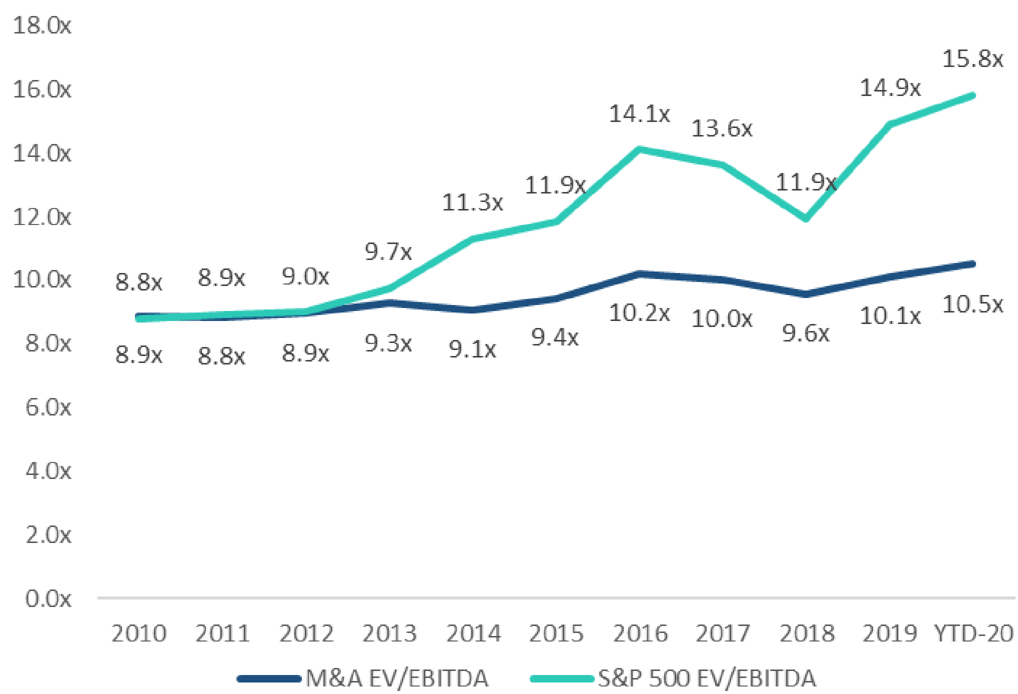




Source: Pitchbook

M&A Activity – Transaction Multiples

- **<u>Through 3Q 2020, median transaction multiples remained high at 10.5x in North America</u>**
  - Transaction multiples in North America remain at peak levels, but M&A multiples continue to trail those of the listed markets
  - However, the M&A multiples listed below likely remain somewhat understated due to aggressive EBITDA adjustments
  - The chart below presents median multiples since 2010 in North America

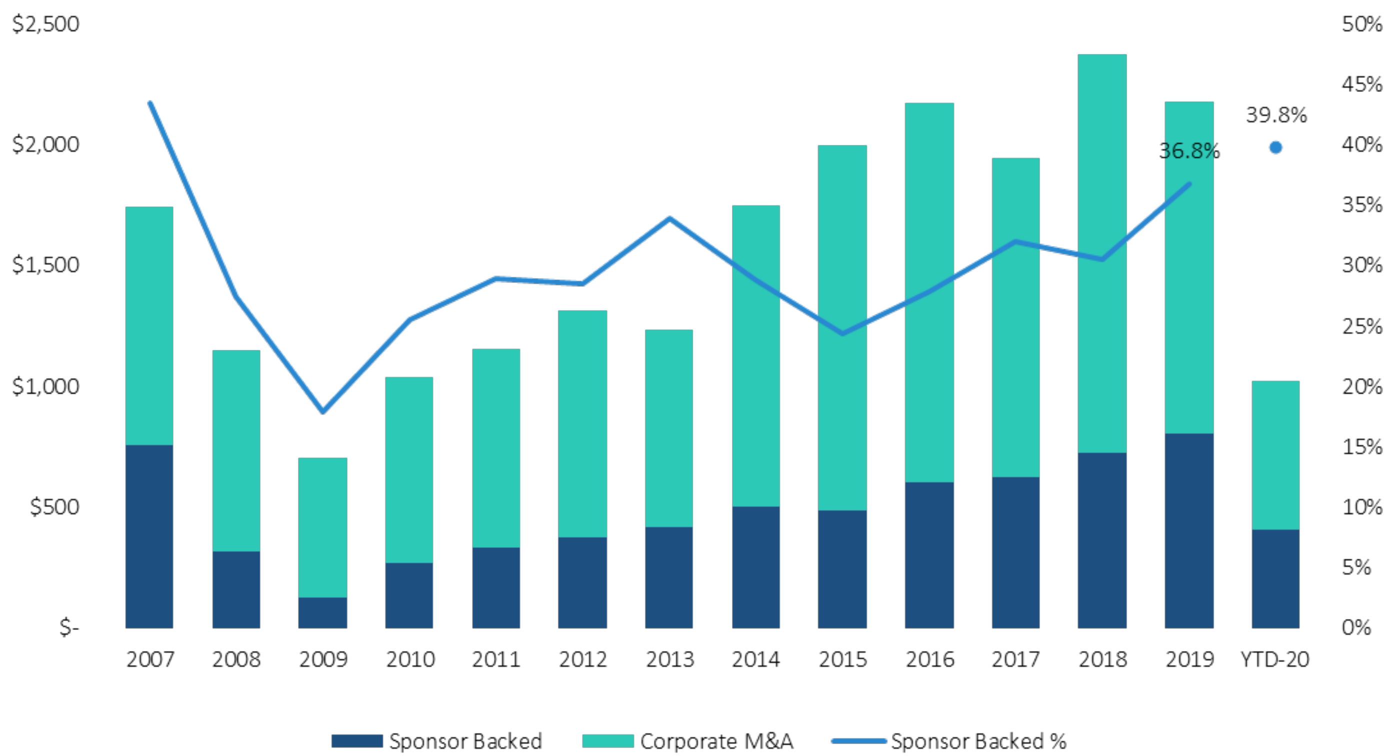


OREGON STATE TREASURY

Source: Pitchbook

M&A Activity – Private Equity Market Share

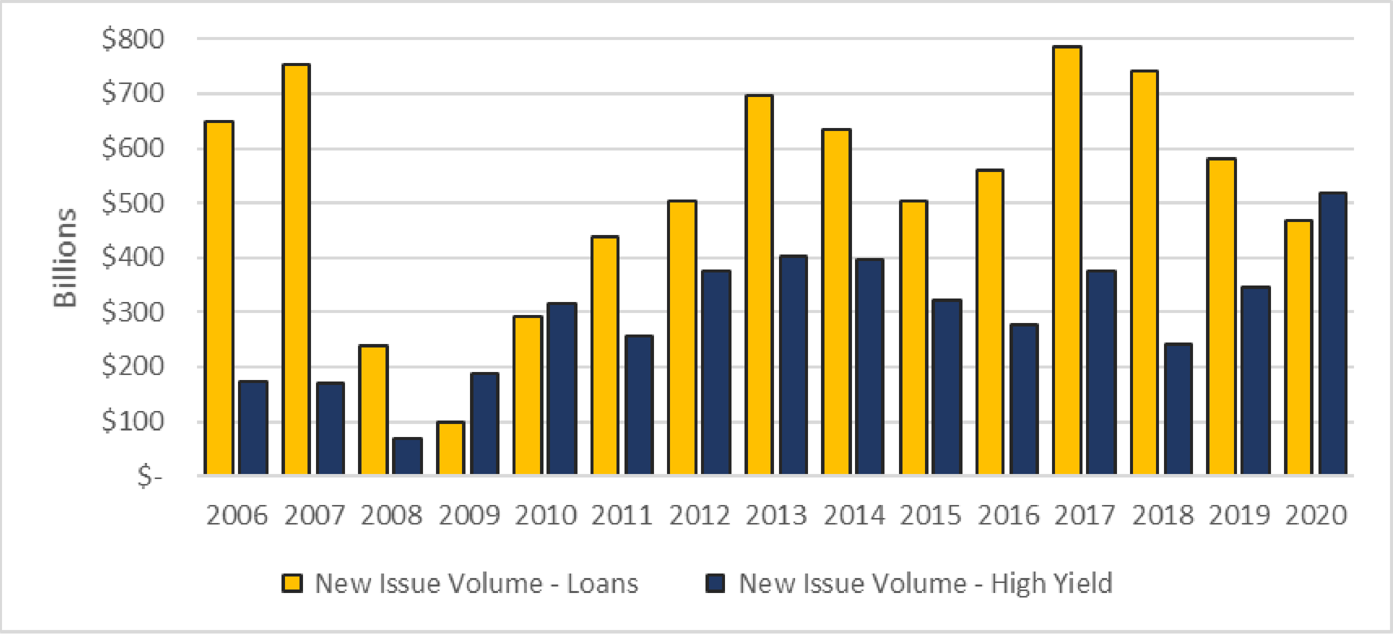
- **<u>The share of North America PE driven M&A activity reached record levels through the first three quarters of 2020</u>**
  - Through 3Q 2020, PE sponsors led 40% of deal activity (as measured by value) which was broadly in line with the record levels seen in 2007. As noted already, Q4-20 has seen strong M&A volumes largely driven by PE sponsors
  - The chart below presents PE sponsors' share of North America M&A activity per year since 2007



Source: Pitchbook

Corporate Leveraged Finance

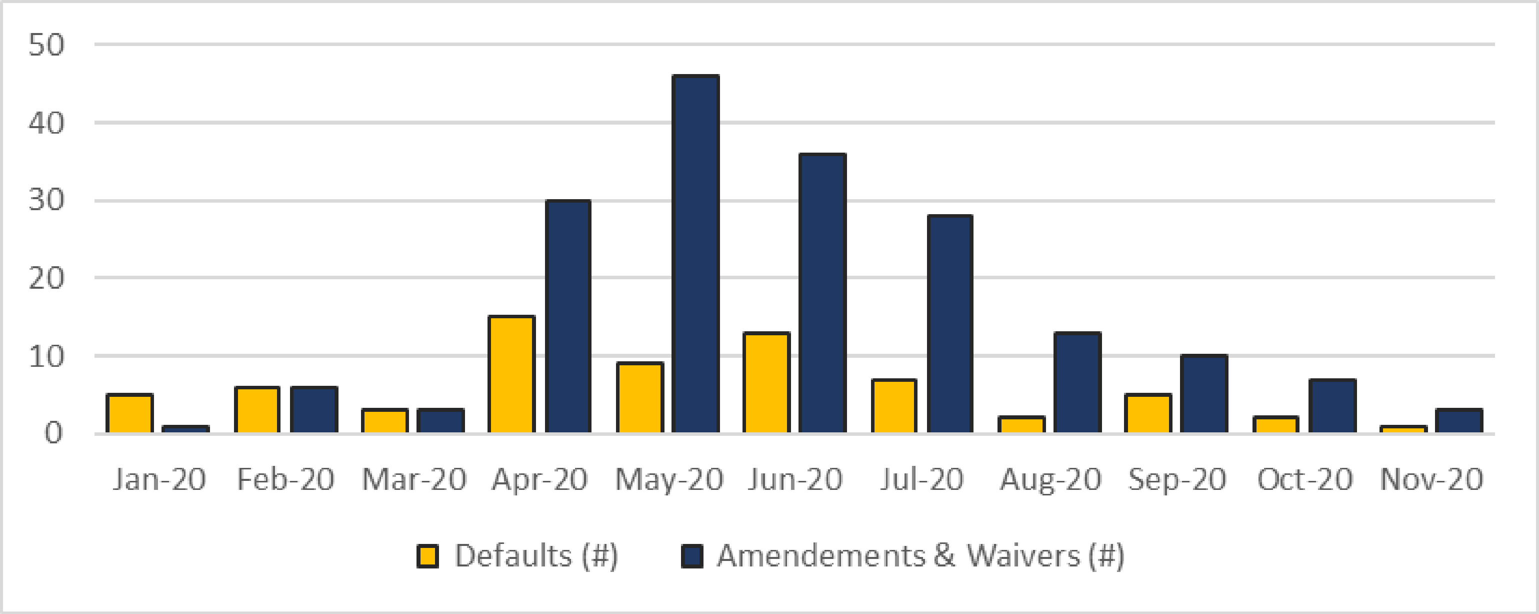
- **<u>In 2020, gross global new issue volumes for corporate loans and high yield totaled roughly $985 billion</u>**
  - 2020 total new issue volumes compare to $982 billion and $926 billion in 2018 and 2019, respectively
  - As noted in the chart below, recent years have seen a material mix shift from loans to HY
  - M&A represented about half of all new issue volume in 2020, which was fairly evenly divided between new platform financing (LBO) and add-on acquisition financing
  - The chart below presents new issue volumes for loans and HY since 2006



Source: S&P Global Market Intelligence LCD

Corporate Leveraged Finance

- **Unsurprisingly, there was a material uptick in defaults in the Q2-2020 which has largely subsided due to intervention**
  - In March and April of 2020, nearly $300 billion was drawn on corporate revolving credit facilities to bolster liquidity going into the pandemic
  - In total, more than a third of all issuers were downgraded during the year
  - The chart below presents the number of defaults and amendments & waivers through the first 11 months of 2020



Source: S&P Global Market Intelligence LCD, Moody's, Fitch

Private Equity Returns – Absolute

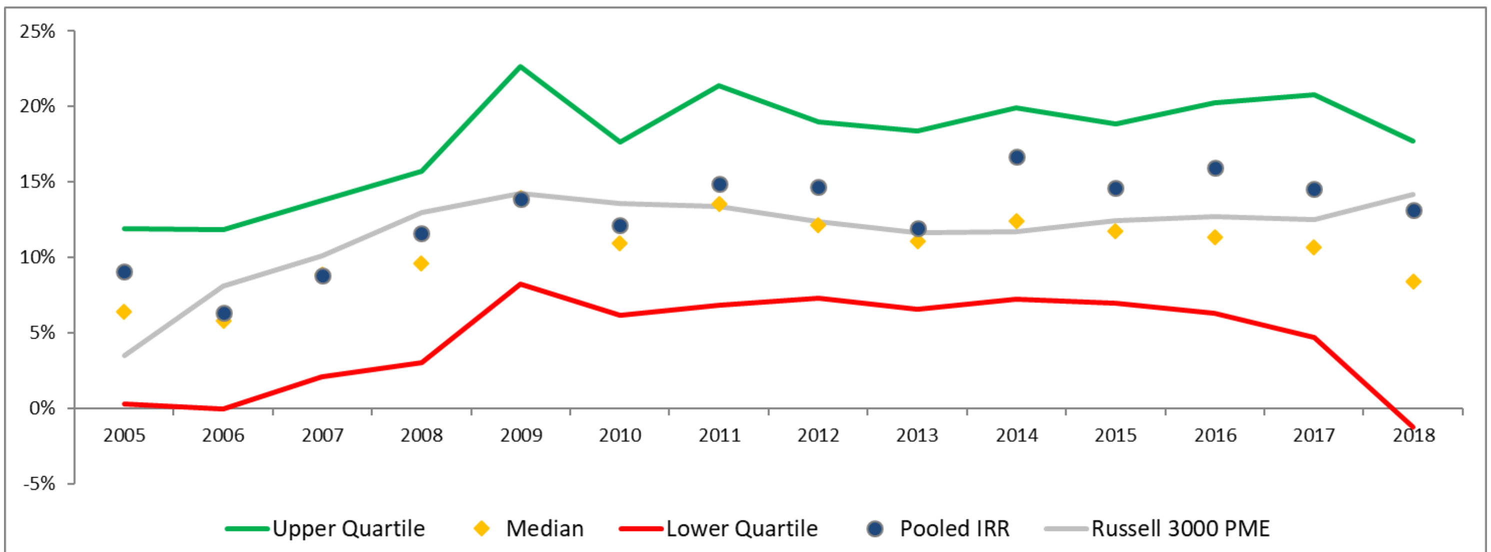
- **The chart below presents trailing horizon net IRRs for the Private Equity industry as of September 30, 2020**
  - Returns for the asset class were strong over the past year at ~14% for All Funds excluding Real Assets (real estate, infrastructure and natural resources)
  - VC is the strongest performing asset class over the past decade, but the strategy trailed meaningfully in the previous decade

	1 Year	3 Year	5 Year	10 Year	20 Year
All Funds ex. Real Assets	13.9%	13.5%	12.9%	13.1%	9.7%
Global Buyout	12.6%	13.2%	14.2%	13.6%	11.6%
North America Buyout	13.8%	14.9%	14.7%	15.1%	11.2%
Europe Buyout (USD)	12.5%	12.0%	15.3%	12.4%	14.8%
Global Venture Capital	27.0%	21.7%	15.3%	16.8%	7.0%
Asia/Pacific PE & VC (USD)	16.6%	14.4%	14.1%	13.3%	12.7%
Private Credit	2.4%	5.0%	6.2%	8.4%	8.4%

Source: Burgiss 9/30/20

Private Equity Returns – Relative

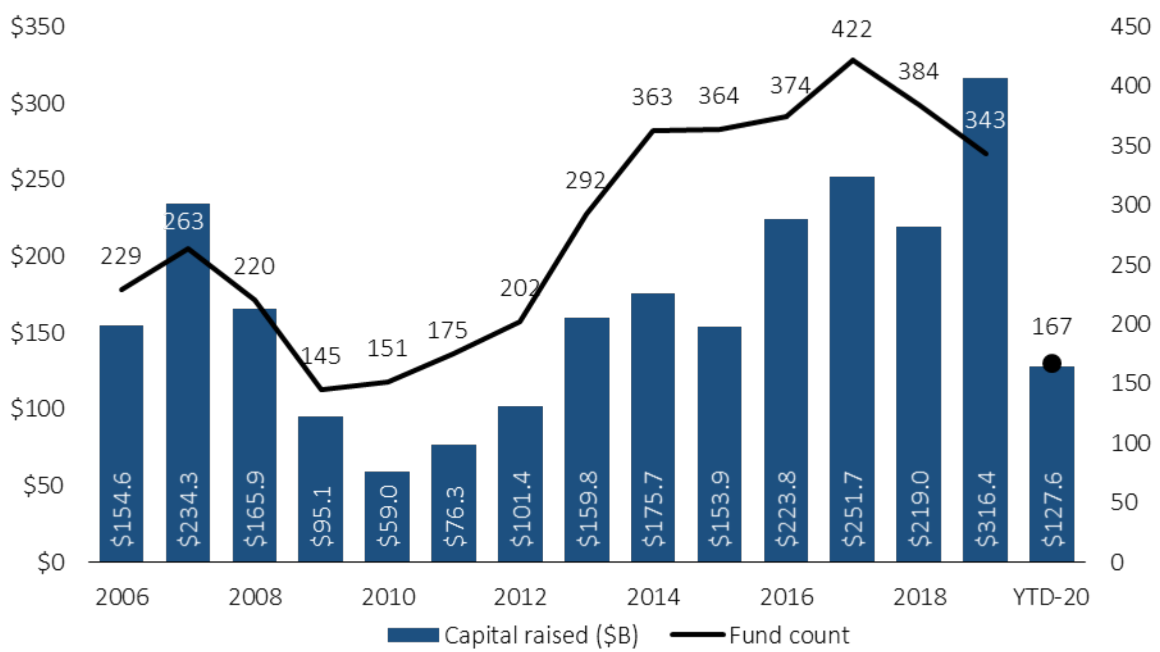
- **From a relative return perspective, implementation continues to matter in the PE asset class**
  - The chart below presents the quartile IRR marks, pooled average IRR, and Russell 3000 modified public market equivalent using Burgiss All Funds ex. Real Assets for each vintage year since 2005
    - As the chart reflects, investing in private equity in an index-like manner (pooled average IRR) would have produced alpha relative to the Russell 3000 most vintage years since the financial crisis
    - Top quartile results have always produced meaningful value-add and bottom quartile results have always lagged materially
    - Median results have generally failed to produce alpha relative to public equities, and the fact that median results plot below the pooled average would suggest larger funds have been additive in the aggregate over this time period



Source: Burgiss 9/30/20

U.S. Private Equity Update – Fundraising

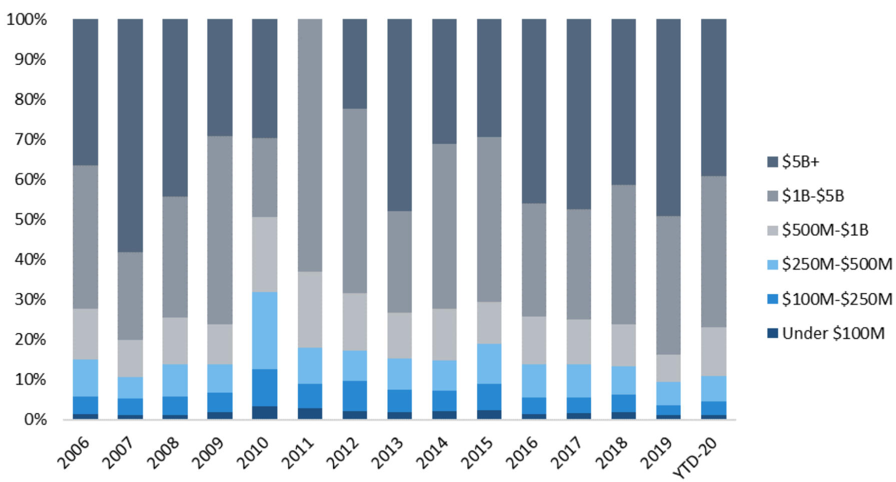
- <u>**Through 3Q 2020, $128 billion had been raised across 167 U.S. private equity funds**</u>
  - Fundraising through the first three quarters of 2020 was well behind the record set in 2019
  - In keeping with recent years, GPs came back to market less than four years after raising predecessor funds on average, and fundraising processes continue to take less than a year on average
  - The chart below presents annual U.S. private equity fundraising activity since 2006



Source: Pitchbook

U.S. Private Equity Update – Fundraising

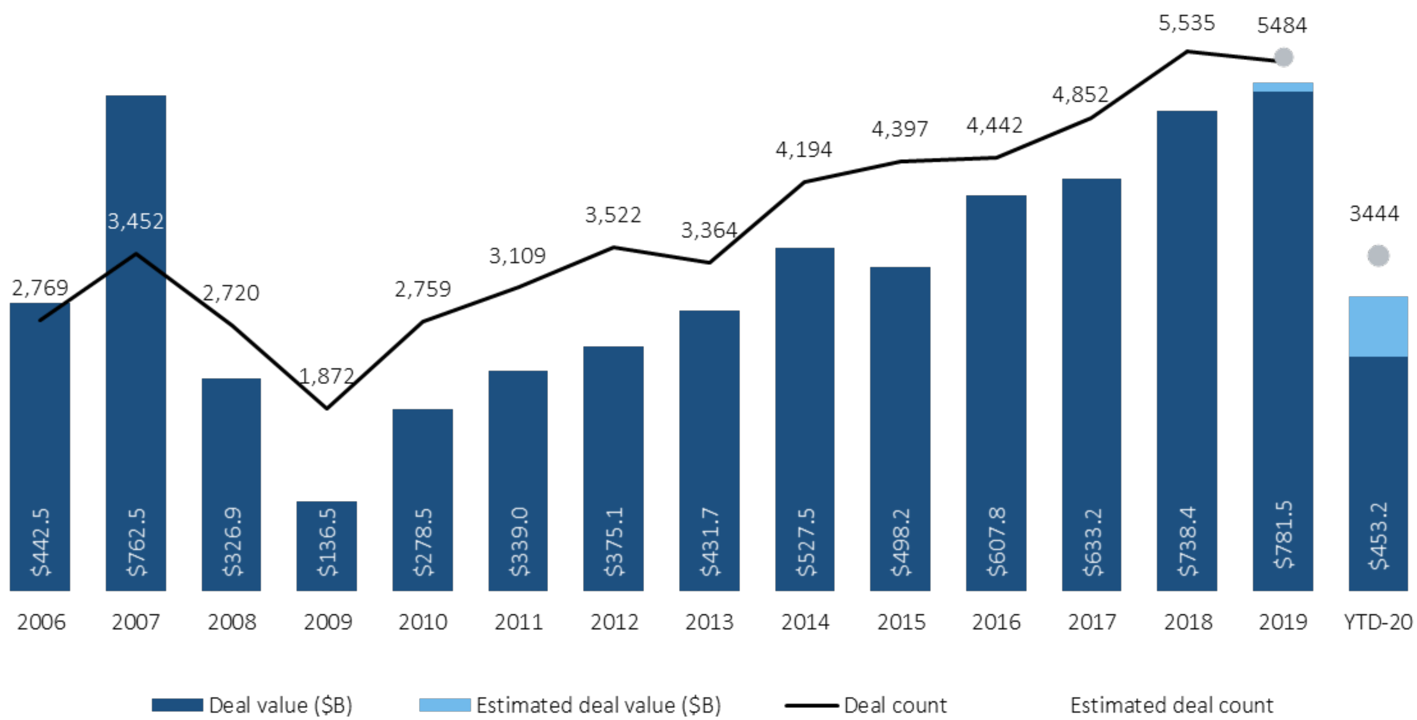
- **Larger funds continued to play a dominant role in U.S. PE fundraising**
  - As the chart on the left reflects, roughly 77% of capital raised through the first three quarters of 2020 went to funds targeting $1 billion or more of capital commitments
  - At ~$900 million, the average size of a buyout fund raised through the first three quarters of 2020 remains high by historical standards
  - As always, smaller funds dominate by count with 77% of funds formed receiving less than $1 billion of commitments
  - The charts below show the fund size mix (left) and average fund size (right) annually for U.S. private equity fundraising activity since 2006



Source: *Pitchbook*

U.S. Private Equity Update – Deployment

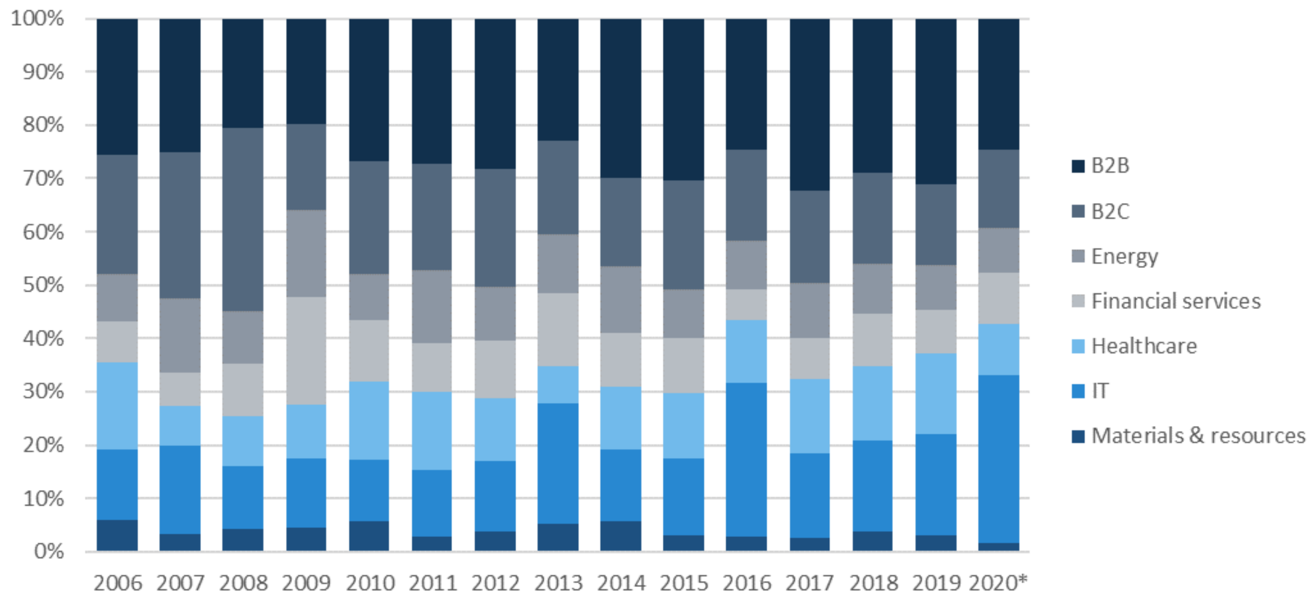
- **Through 3Q 2020, roughly 3,400 private equity deals have been announced with a total value of $453 billion**
  - Volumes through Q3 2020 were ~35% behind where they stood at the same time in 2019. Volumes for the second quarter of 2020 were the lowest they have been since 2013. However, Q4-20 is expected to be very strong from a U.S. PE deployment perspective
  - Add-on acquisitions represented ~72% of all deals done in the first nine months of the year setting a new all-time high
  - The chart below presents annual U.S. investment activity since 2006



Source: Pitchbook

U.S. Private Equity Update – Deployment

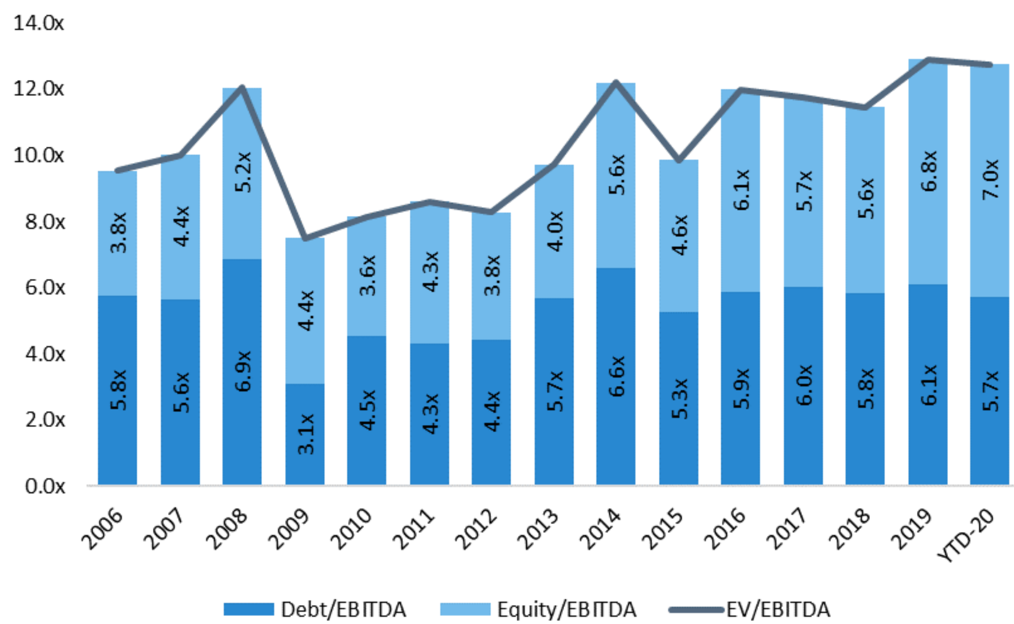
- **The well established sector shift to information technology accelerated through the first three quarters of 2020**
  - The allocation to IT represented 32% of overall volume through 3Q 2020 setting a new all-time high. This understates total exposure as it misses material "tech-enabled" exposure in the B2B, financial services and healthcare sectors
  - Deals in the more cyclical consumer, energy, and materials verticals represented only 25% of all deals announced through the first three quarters of 2020
  - The chart below presents the sector mix (by $) for annual U.S. investment activity since 2006



Source: Pitchbook

U.S. Private Equity Update – Deployment

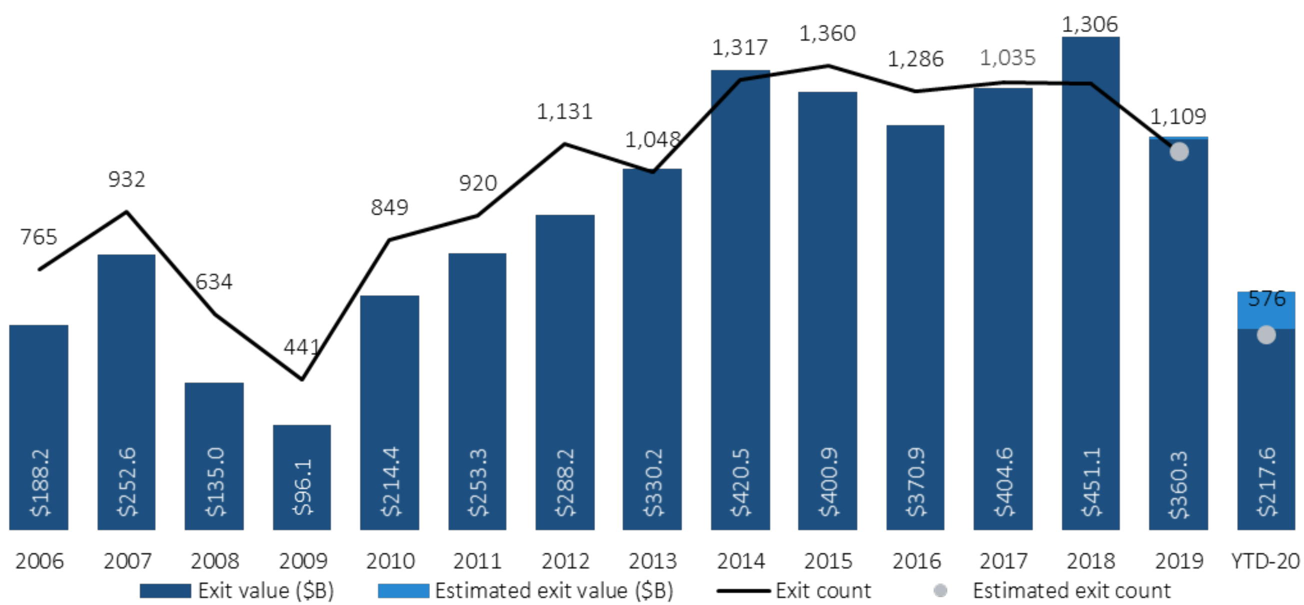
- **<u>At a median entry multiple of 12.7x enterprise value/EBITDA, transaction pricing remained at peak levels through Q3-2020</u>**
  - While entry prices are at an all time high, median debt multiples remained where they have been for most of the past decade
    - As noted previously, this data likely benefits from material EBITDA adjustments. Further, purchase price multiples through the first half of the year were meaningfully higher than in the Q3, and reported transaction multiples in a busy Q4 have been full
  - Equity contribution as a percentage of the going-in capital structure stands at roughly 55% through the first three quarters of 2020
  - The chart below presents median transaction multiples for U.S. investment activity since 2006



Source: Pitchbook

U.S. Private Equity Update – Exits

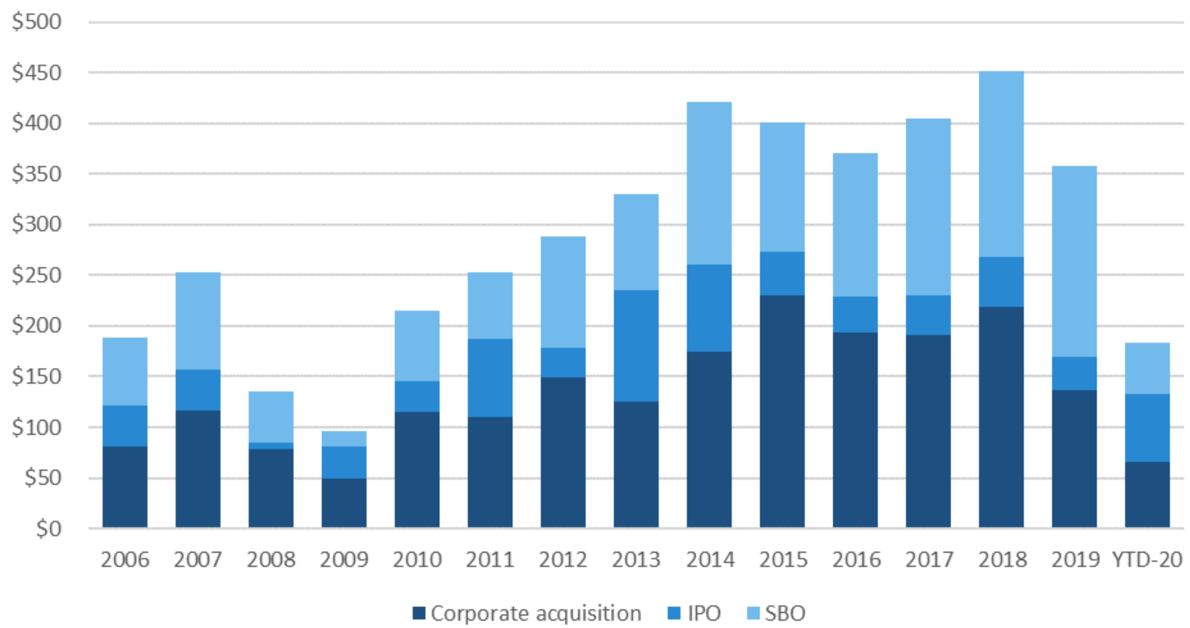
- **Through 3Q 2020, nearly 600 exits of U.S. private equity backed companies have been consummated for a total value of $218 billion**
  - Exit pace through 3Q 2020 was roughly 24% behind the pace set at the same time in 2019
  - Q2-20 was the slowest quarter in terms of exit volumes since 2013, but Q4-20 is expected to be an extremely active period for PE backed companies
  - The chart below presents the annual U.S. exit activity since 2006



Source: Pitchbook

U.S. Private Equity Update – Exits

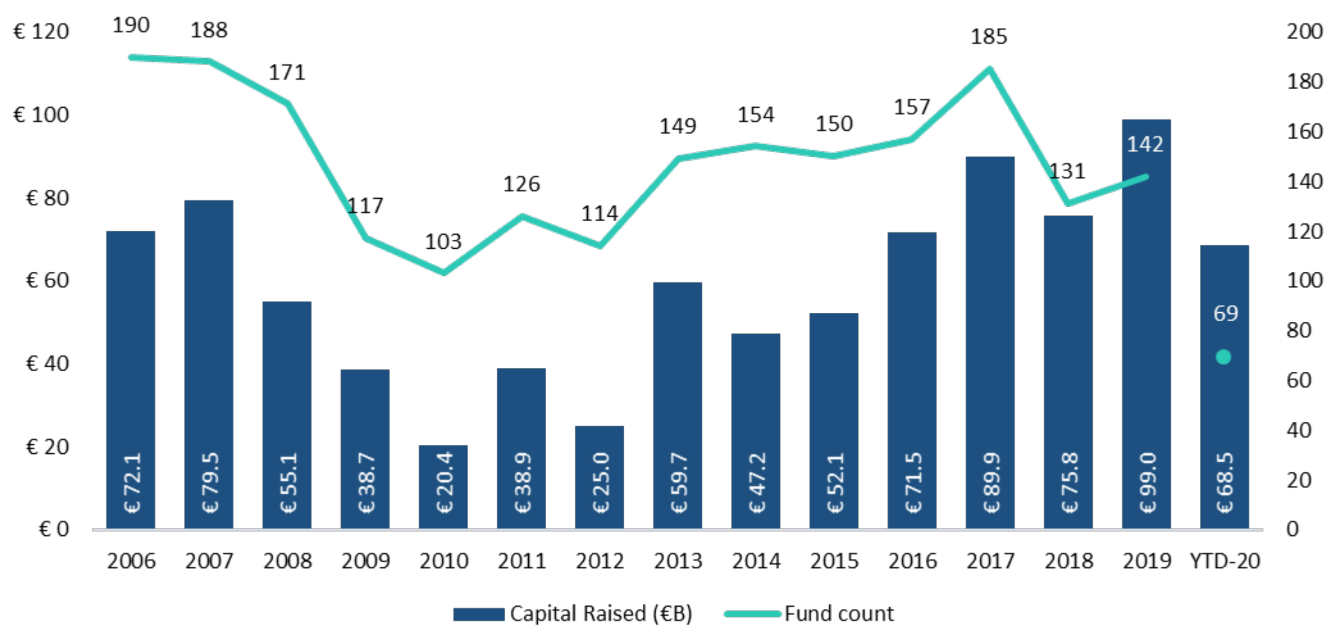
- **<u>Through 3Q 2020, public market exits represented more than a third of deal volume (by $)</u>**
  - PE exits via IPO are on pace for their strongest year in the past decade. More than half of realized value came via IPO in the third quarter, and Q4-20 was on pace for an equally strong year
    - Special Purpose Acquisition Companies (“SPACs”) were a major factor in PE exits in 2020. SPAC formation (SPAC IPOs) totaled roughly $40 billion through the first three quarters of 2020 which compares to only $10 billion total in 2019
  - The chart below presents annual U.S. exit activity by type since 2006



Source: Pitchbook

Europe Private Equity Update – Fundraising

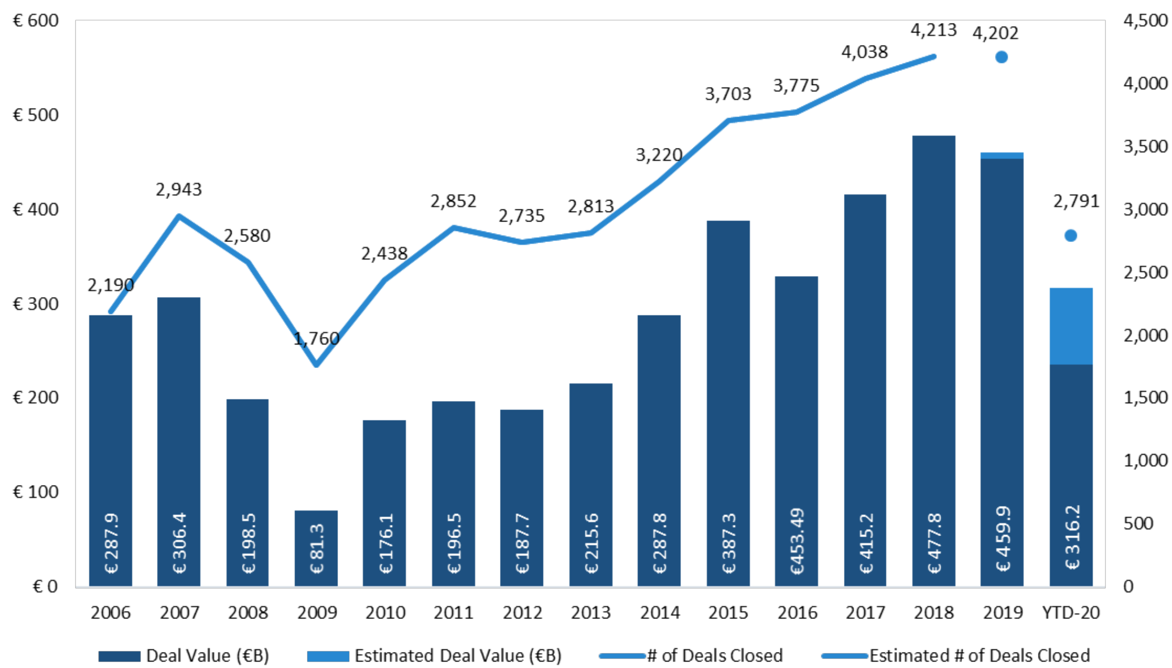
- **<u>Through 3Q 2020, €69 billion had been raised across 69 funds</u>**
  - Fundraising for the first three quarters of the year was slightly behind the record pace set in 2019 but still on track to make 2020 among the strongest years ever
  - Average fund sizes in Europe continue to move up topping €1 billion for the first time in 2020
  - The chart below presents annual European private equity fundraising activity since 2006



Source: Pitchbook

Europe Private Equity Update – Deployment

- **Through 3Q 2020, roughly 2,800 private equity deals have been announced with a total value of €316 billion**
  - Despite a slower first half, total volumes for the year are on pace to broadly match those of 2019
  - As in the U.S., deals in the IT sector accounted for nearly a quarter of all European deal volume in the first three quarters of 2020. This compares to 19% of total year volumes in 2019 and 16% in 2018
  - The chart below presents the annual private equity investment activity in Europe since 2006

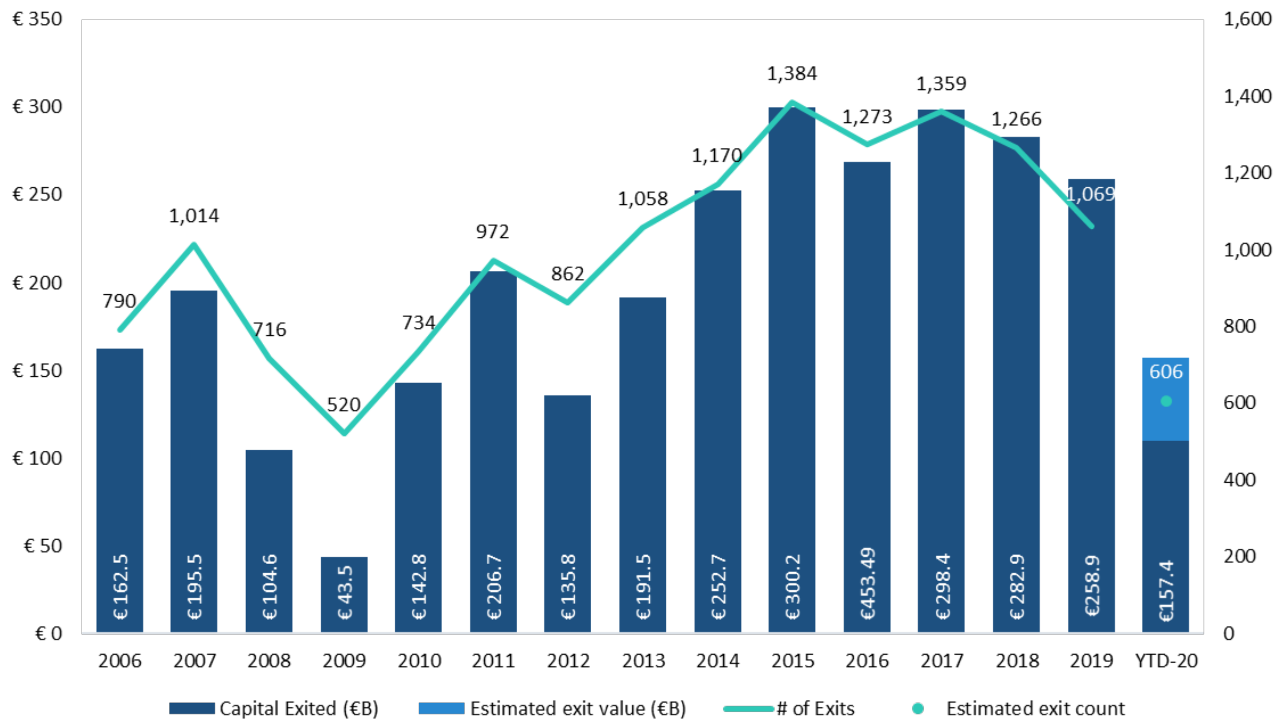


Source: Pitchbook

OREGON STATE TREASURY

Europe Private Equity Update – Exits

- **Through 3Q 2020, more than 600 exits of private equity backed companies have been announced with a total value of €157 billion**
  - The pace of exit activity (as measured by €) through the first three quarters of the year is slower than 2019
  - Unlike in the U.S., IPOs continue to play a limited role in European PE exit activity accounting for ~3% of volume (as measured by #)
  - The chart below presents the annual private equity exit activity in Europe since 2009



Source: Pitchbook

OREGON STATE TREASURY

OREGON
STATE
TREASURY

Tobias Read
Oregon State Treasurer

350 Winter St NE, Suite 100
Salem, OR 97301-3896

oregon.gov/treasury

TAB 6 – OPERF Opportunity Program

January 28, 2021

OPERF Opportunity Portfolio
2020 Annual Review

Mike Mueller, Investment Officer

OREGON STATE TREASURY

Agenda

		OIC Investment and Management Beliefs Mapping																	
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LEGEND: OIC INVESTMENT AND MANAGEMENT BELIEFS

1 **THE OIC SETS POLICY AND IS ULTIMATELY RESPONSIBLE FOR THE INVESTMENT PROGRAM**

A. Investment management is dichotomous -- part art and part science.

B. The OIC is a policy-setting council that largely delegates investment management activities to the OST and qualified external fiduciaries.

C. The OIC is vested with the authority to set and monitor portfolio risk. Both short-term and long-term risks are critical.

D. To exploit market inefficiencies, the OIC should be long-term, contrarian, innovative, and opportunistic in its investment approach.

2 **ASSET ALLOCATION DRIVES RISK AND RETURN**

A. Asset allocation is the OIC's primary policy tool for managing the investment program's long-term risk/return profile.

B. Portfolio construction, including diversification and correlation considerations, is essential to maximizing risk-adjusted returns.

3 **THE EQUITY RISK PREMIUM WILL BE REWARDED**

A. Over the long-term, equity-oriented investments provide reliable return premiums relative to risk-free investments.

4 **PRIVATE MARKET INVESTMENTS CAN ADD SIGNIFICANT VALUE AND REPRESENT A CORE OIC/OST COMPETENCY**

A. The OIC can capitalize on its status as a true, long-term investor by making meaningful allocations to illiquid, private market investments.

B. Dispersion in private market investment returns is wide; accordingly, top-quartile manager selection, diversification across vintage year, strategy type, and geography, and careful attention to costs are paramount.

5 **CAPITAL MARKETS HAVE INEFFICIENCIES THAT CAN BE EXPLOITED**

A. Inefficiencies that can be exploited by active management may exist in certain segments of the capital markets.

B. Passive investment management in public markets will outperform the median active manager in those markets over time.

6 **COSTS DIRECTLY IMPACT INVESTMENT RETURNS AND SHOULD BE MONITORED AND MANAGED CAREFULLY**

A. All fees, expenses, commissions, and transaction costs should be diligently monitored and managed in order to maximize net investment returns.

B. External incentive structures should be carefully evaluated to ensure proper alignment with investment program objectives.

7 **FAIR AND EFFICIENT CAPITAL MARKETS ARE ESSENTIAL FOR THE LONG-TERM INVESTMENT SUCCESS**

A. The OIC recognizes that the quality of regulation and corporate governance can affect the long-term value of its investments.

B. The OIC also recognizes that voting rights have economic value.

8 **THE INTEGRATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS, SIMILAR TO OTHER INVESTMENT FACTORS, MAY HAVE A BENEFICIAL IMPACT ON THE ECONOMIC OUTCOME OF AN INVESTMENT AND AID IN THE ASSESSMENT OF RISKS ASSOCIATED WITH THAT INVESTMENT**

A. The consideration of ESG factors within the investment decision-making framework is important in understanding the near-term and long-term impacts of investment decisions.

B. Over time, there has been an evolution of multi-factor, or more holistic approaches, to identify opportunities and remediate risks, in a large globally-diversified investment portfolio.

9 **DIVERSITY, IN ALL ASPECTS, IS ACCRETIVE TO MEETING OIC OBJECTIVES**

A. By embracing and enhancing diversity and inclusion efforts, the OIC ensures that the investment program will be exposed to and informed by a wide range of perspectives, ideas and opinions.

Opportunity Portfolio Overview

- Primary Role of the Opportunity Portfolio
  - Enable Staff to consider investments for OPERF that are outside current strategic asset class allocations
  - Provide enhanced, risk-adjusted returns and diversification to OPERF
  - Investments are expected to comprise both shorter-term (1-3 years) and longer-term holdings
  - No strategic target allocation; may comprise no more than 5% of total Fund assets (increased from 3% in January 2020).

- Objectives
  - Policy benchmark of CPI + 5%
  - Often uncorrelated with other OPERF holdings
  - Less risk than OPERF public equity component
  - Historically has incubated new strategies or portfolios (e.g., bank loans & infrastructure)
  - May be non-diversified – concentration up to 25% at time of investment

- Strategies of Interest
  - Niche / innovation oriented (royalties, reinsurance, intellectual property, direct lending, multi-asset)
  - Tactical / dislocation oriented (historical examples: bank loans, convertible bonds, general credit)

- Robust Activity in 2020
  - $775 million committed to four funds in both dislocation and niche opportunity sets
  - One fund was terminated and $100 million was redeemed from an existing fund for rebalancing

Performance

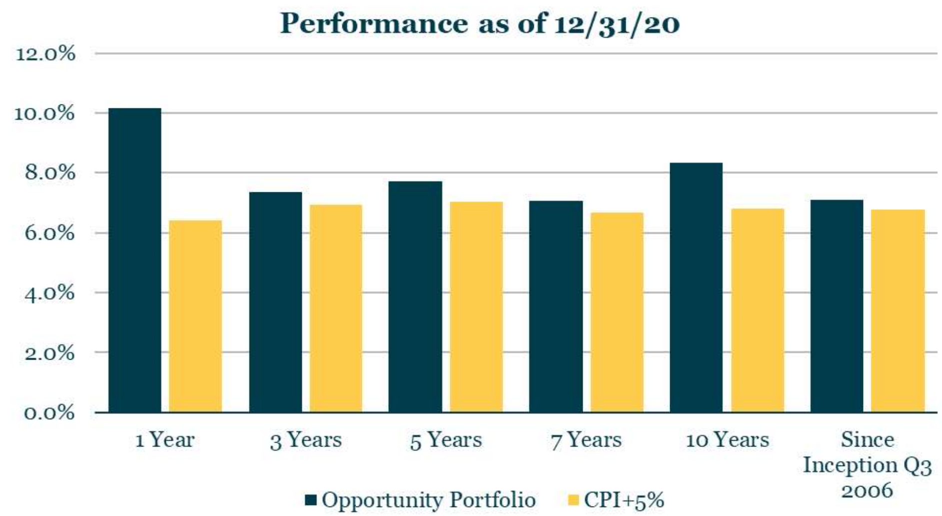
Measure	9/30/20	9/30/19
FMV + Distributions	$4,733 M	$4,513 M
FMV	$1,723 M	$1,740 M
Unfunded Commitments*	$1,362 M	$676 M
FMV % of OPERF	2.2%	2.3%
FMV + Unfunded Commitments % of OPERF	3.9%	3.2%

Multiple [(FMV + Distributions)/Drawn]	1.3x	1.3x
IRR Since Inception Q3 2006	7.4%	7.6%

Source: Aksia. Data as of 9/30/2020.
*Adjusted to include Clearlake and SS SLE II.

Time-Weighted Returns	Performance 12/31/20	CPI+5%	Performance 12/31/19	CPI+5%
1 Year	10.2%	6.4%	6.2%	7.4%
3 Years	7.4%	6.9%	7.5%	7.2%
5 Years	7.7%	7.0%	6.1%	6.9%
7 Years	7.1%	6.7%	7.7%	6.7%
10 Years	8.3%	6.8%	8.6%	6.8%
Since Inception Q3 2006	7.1%	6.8%	6.9%	6.8%

Source: State Street. Data as of 12/31/20.



15-Year History

2005	❖ Opportunity Portfolio inception	
2006	❖ Opportunity Portfolio first investment	
2007	❖ Early market fissures appear	• OPERF early to levered bank loan dislocation
2008	❖ Global Financial Crisis (GFC)	• Full-time Opportunity Portfolio Investment Officer hired • High-water mark in new commitments (number & dollars) • Heavy investment in levered bank loan strategies
2009-2010	❖ Relatively light deployment following significant investment post-GFC	
2011	❖ Three funds moved to seed new Alternatives Portfolio	
2012-2014	❖ Commitments to multi-strategy opportunistic mandates in response to limited staff resources	
2014	❖ Senior Opportunity Portfolio Investment Officer promoted to Director of Alternatives Program	
2015-2018	❖ Relatively stable to light deployment	
2019	❖ Appointment of Investment Officer dedicated to Opportunity Portfolio	
2020	❖ COVID-19 causes widespread market disruption, active pipeline of dislocation opportunities evaluated for potential investment	

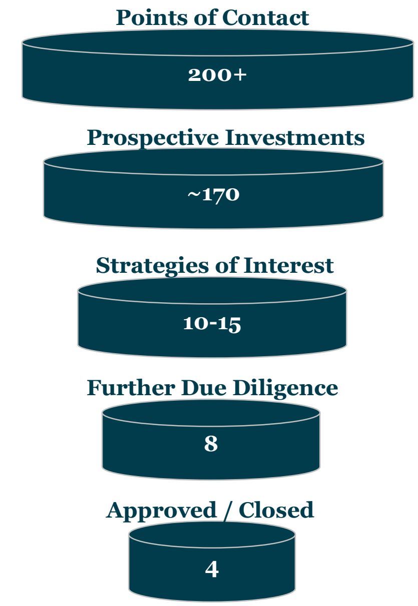
2020 Year in Review

- The Opportunity Portfolio's $1.7 billion market value remained at approximately 2.2% of OPERF over the past 18 months, within the 5.0% OIC Policy (see Appendix) limit.
- The Portfolio is concentrated among its five largest partners which currently comprise 80+% of Portfolio value.
- During 2020, the OIC re-upped with Owl Rock Capital Corporation and Sixth Street's Specialty European Lending Fund, with commitments of $150 million and $125 million, respectively.
- In 2018, the OIC made a $200 million commitment to the Sixth Street's Adjacent Opportunities Contingent Fund, which is the continuation of an existing relationship with Sixth Street, to provide additional "flex" capital in the event of a market dislocation over the ensuing ~3 years. That allocation was activated by Sixth Street on April 1, 2020.
- Two new commitments were authorized related to the perceived market disruptions caused by Covid-19 with a $300 million commitment to the Oak Hill Advisors Tactical Investment Fund and a $200 million commitment to the Clearlake Flagship Plus Fund.
- Historically, Staff has executed approximately three deals a year in the Portfolio, but over the previous five years, that number had declined to approximately one per year. That reduced investment pace was primarily a reflection of Staff patience during a "beta trade" bull market as well as limited internal resources dedicated to the Portfolio during the 2014-2019 period. As 2020 demonstrated, activity increases during times of market stress.

2020 Year in Review (cont.)

➢ <u>2020 Opportunity Portfolio Deal Flow</u>

- Scale, brand, existing relationships and open door policy leveraged to foster solid deal flow.
- Broad opportunity set has helped meeting count remain consistent over time; referrals from across team.
- Points of contact (in-person or calls) exceeded 200, including over 170 related to prospective investments.
- Sizable uptick in the number of private credit / direct lending opportunities as part of the flow (55+).
- Deep dives / further due diligence on eight opportunities: business development company (BDC); music royalties; private equity liquidity; European direct lending; special situations; and credit opportunities.
- Closed on four funds, detailed in table below.



Investment Name	Authorized Date	First OPERF Drawdown	Commitment Amount
Sixth Street Partners Specialty Lending Europe II	June 2020	November 2020	$125,000,000
Oak Hill Advisors Tactical Investment Fund	July 2020	July 2020	$300,000,000
Owl Rock Capital Corporation III	July 2020	September 2020	$150,000,000
Clearlake Flagship Plus Partners	October 2020	November 2020	$200,000,000
2020 Total Authorized			**$775,000,000**

Investments as of 9/30/20

Fund	Vintage Year(s)	Status	Strategy	Role	FMV as of 9/30/20 ($K)	Commitment ($M)
Fidelity Real Estate Opportunistic Income Fund	2007	Evergreen	Credit	Niche	$ 172,375	$ 100
Apollo Credit Opportunity Fund II	2008	Dissolution	Credit	Tactical	$ 794	$ 250
Providence TMT Special Situations Fund	2008	Dissolution	Credit	Tactical	$ 967	$ 100
Sanders Capital All Asset Value Fund	2010	Evergreen	Equity*	Niche	$ 420,650	$ 200
Nephila Advisors Juniper & Palmetto Funds	2012	Evergreen	Insurance	Niche	$ 123,643	$ 100
Galton Onshore Mortgage Recovery Fund III	2013	Dissolution	Credit	Niche	$ 7,365	$ 50
Blackstone Tactical Opportunities	2013, 2014	Active	Equity**	Niche	$ 219,463	$ 500
Content Partners Fund III	2014	Harvest	Royalties	Niche	$ 32,365	$ 50
Lone Star Residential Mortgage Fund I	2014	Harvest	Credit	Niche	$ 11,763	$ 43
Sixth Street Adjacent Opportunities	2014, 2015	Evergreen	Credit	Niche	$ 363,040	$ 500
OrbiMed Royalty Opportunities Fund II	2015	Harvest	Royalties	Niche	$ 6,653	$ 35
Sixth Street Specialty Lending Europe I	2015	Harvest	Credit	Niche	$ 60,551	$ 100
Lone Star Fund X	2016	Harvest	Equity	Niche	$ 120,498	$ 150
Clearlake Flagship Plus Partners, L.P.	2020	Active	Equity/Credit	Tactical	$ 0	$ 200
OHA Tactical Investment Fund	2020	Active	Credit	Tactical	$ 12,412	$ 300
Owl Rock Capital Corporation***	2016, 2020	Harvest	Credit	Niche	$ 124,153	$ 300
Sixth Street Adjacent Opportunities Contingent Fund	2020	Evergreen	Credit	Tactical	$ 46,366	$ 200
Sixth Street Specialty Lending Europe II L.P.	2020	Active	Credit	Niche	$ 0	$ 125
				Total Opportunity Portfolio:	**$ 1,723,058**	**$ 3,303**
				Allocation within OPERF:	**2.2%**	

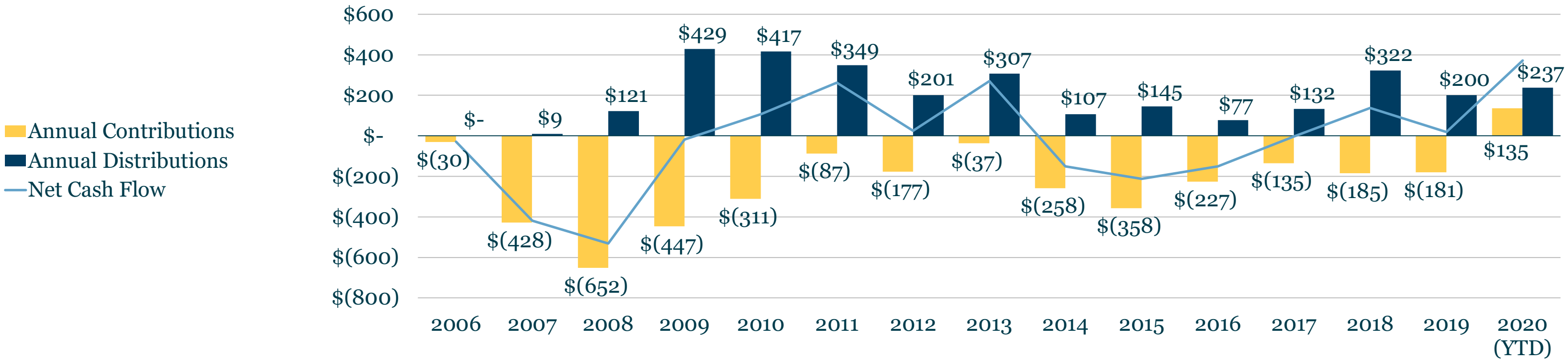
* The Sanders Capital All Asset Value Fund mandate allows multi-asset holdings; however, the portfolio is currently predominately in equity securities.

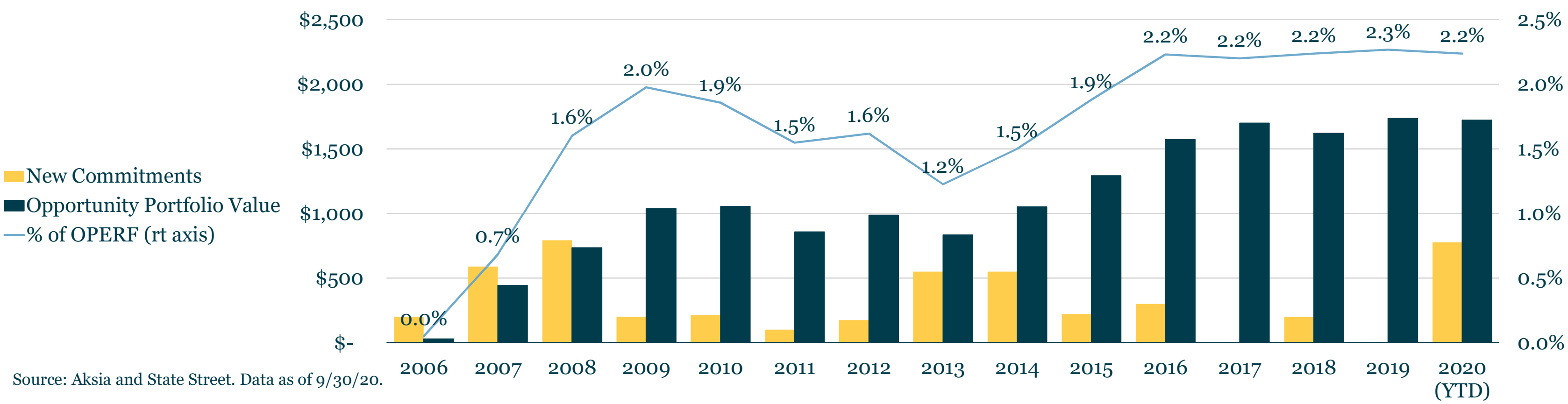
**While the fund strategy can pursue a broad range of equity and credit investments in private and public securities and instruments, the fund is outside the investment period and the remaining assets are over 95% equity-oriented.

***Includes Owl Rock Capital Corporation I (ORCC I, 2016), Owl Rock Capital Holdings (ORCH, 2016), and Owl Rock Capital Corporation III (ORCC III, 2020).

Source: Aksia and OST Staff.

Historical Cash Flows & New Commitments

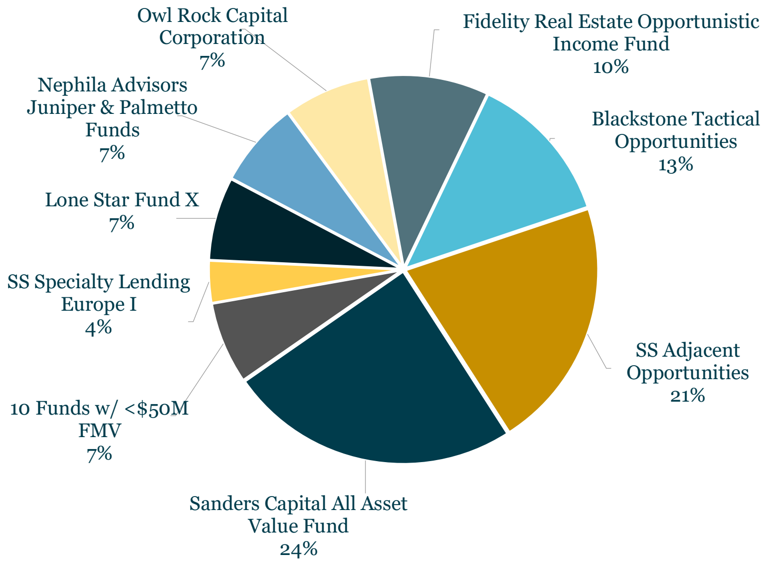




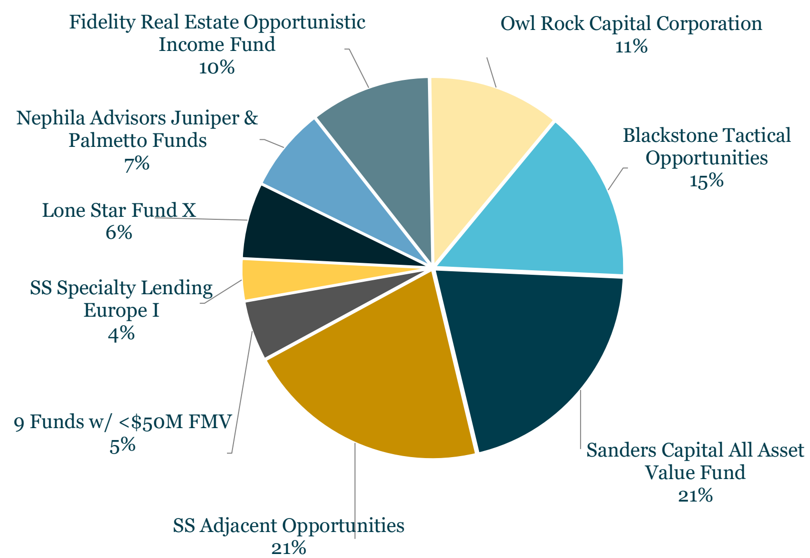
Source: Aksia and State Street. Data as of 9/30/20.

Portfolio Manager Snapshot

9/30/20
FMV $1.7 B

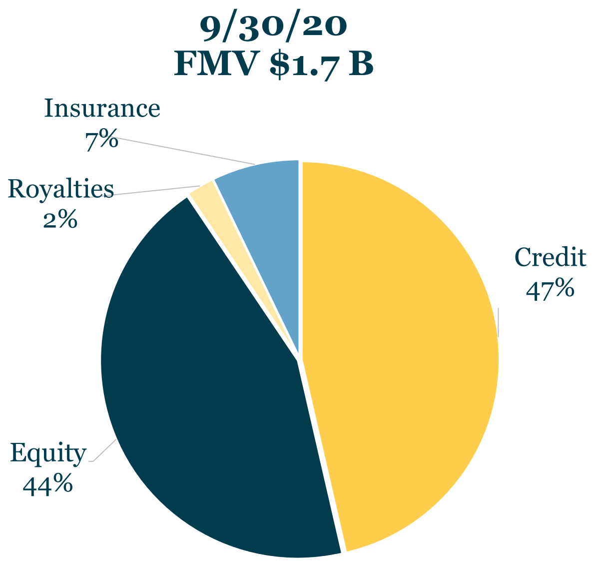


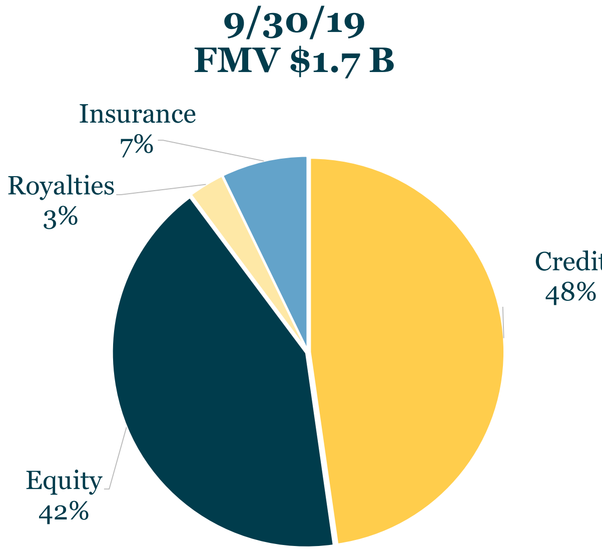
9/30/19
FMV $1.7 B



Source: Aksia and OST Staff.

Portfolio Strategy Snapshot

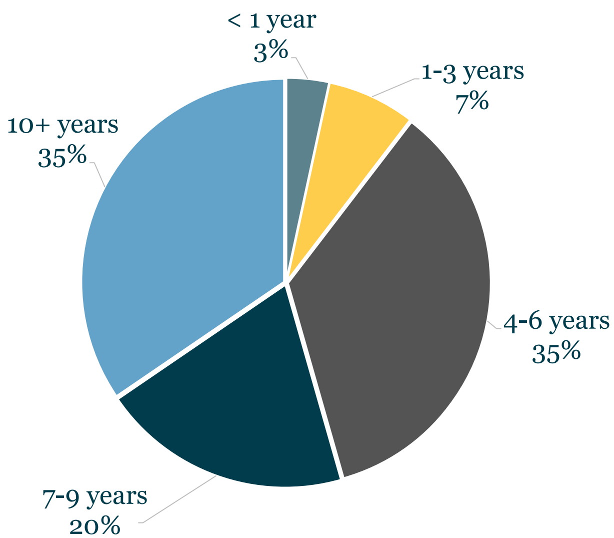




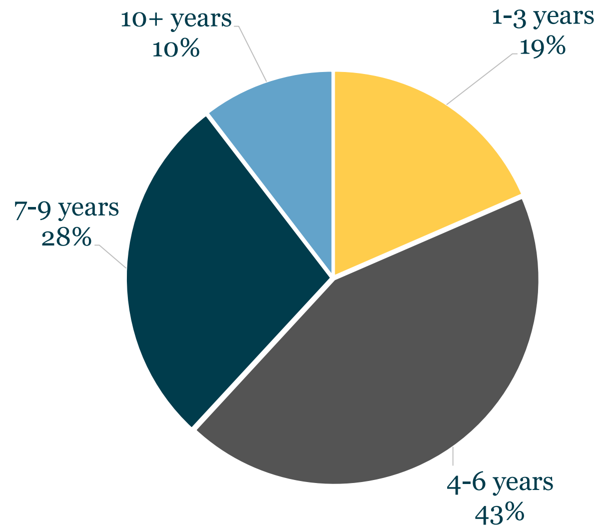
Source: Aksia and OST Staff.

Portfolio Age Snapshot

9/30/20 FMV
$1.7 B



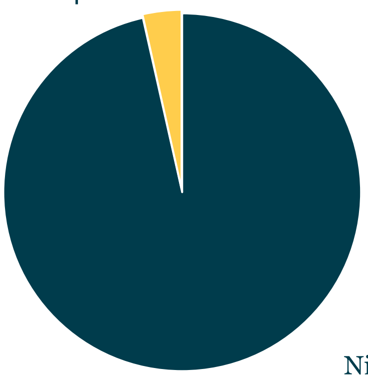
9/30/19 FMV
$1.7 B



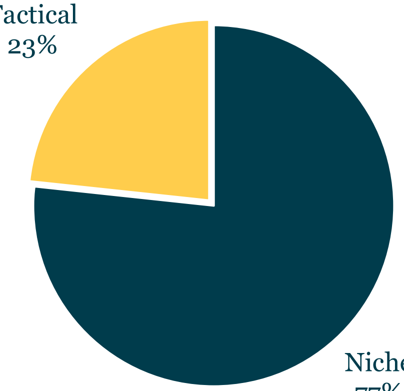
Source: Aksia and OST Staff.

Portfolio Role & Geography Snapshot

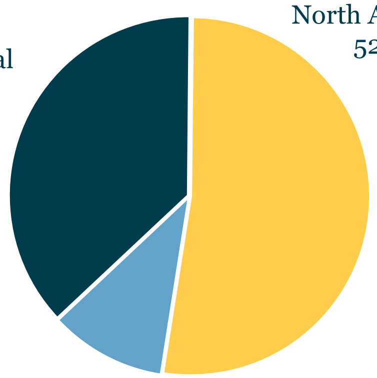
Role (FMV)



Role (Exposure)



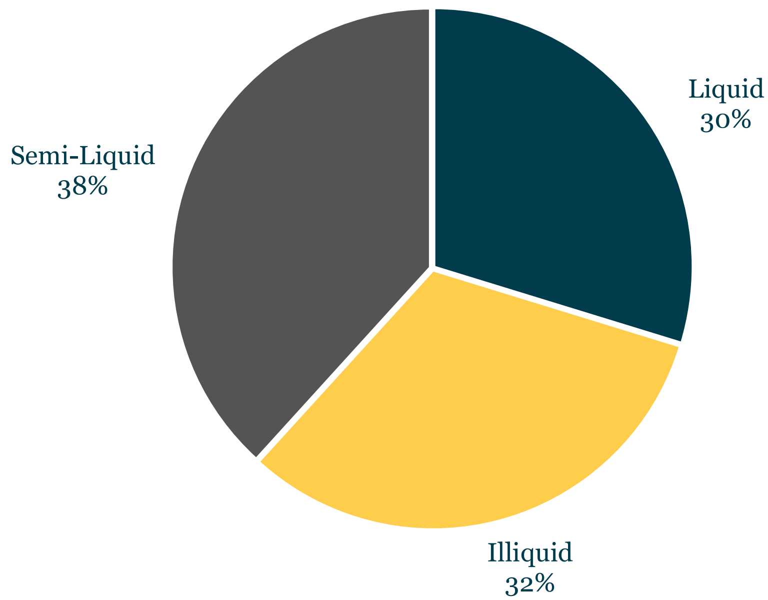
Geography



Source: Aksia and OST Staff.

OREGON STATE TREASURY

Portfolio Liquidity Snapshot



Liquid: Primarily publicly traded securities.
Semi-Liquid: Investments with quarterly or semi-annual redemption rights.
Illiquid: Traditional private equity-like investment structures.

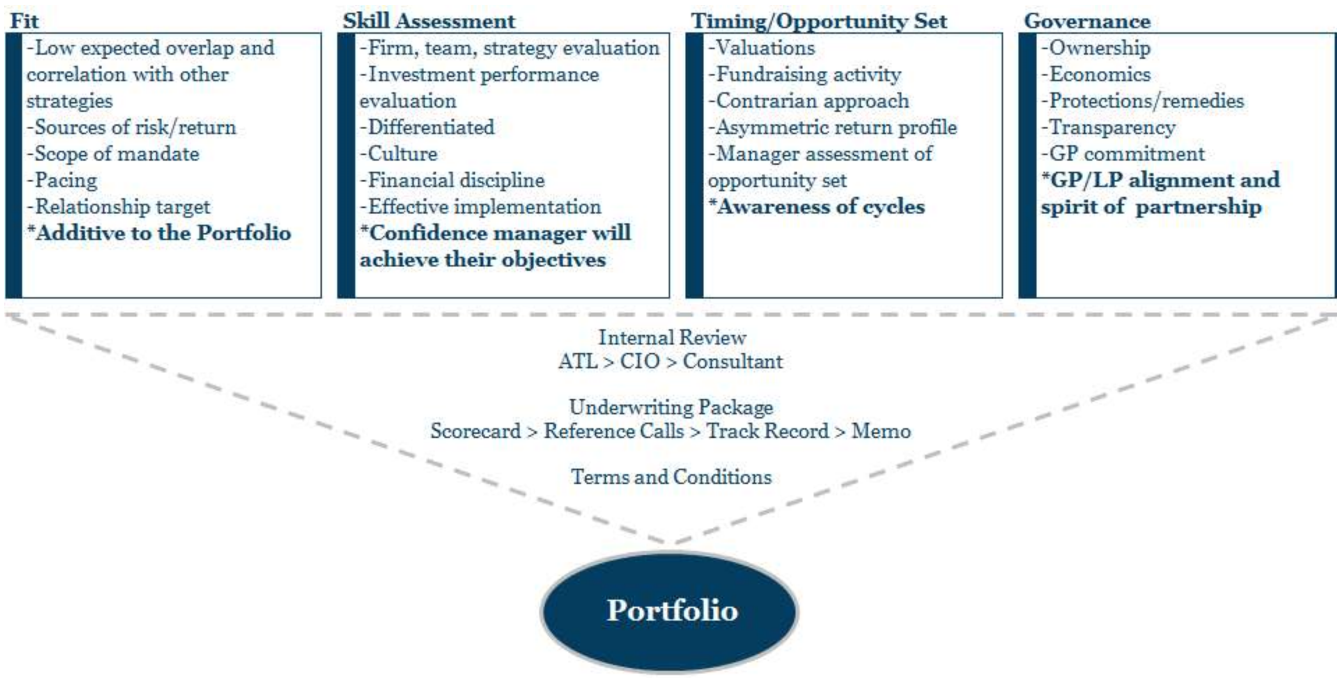
Source: OST Staff.

Looking Forward

- The Opportunity Portfolio is well-positioned to continue to deploy capital as attractive, niche strategies arise or if presented with new market stresses.
- At present, the Opportunity Portfolio has significant capacity to invest capital before the 5% policy limit would be exceeded.
- Staff are currently engaged in due diligence on various strategies with a robust pipeline through at least Q2 2021.
- Bond spreads remain low, and equity multiples are relatively high; as such, Staff view the current environment as less conducive to tactical opportunities in which over $700 million was committed or activated in 2020.
- General partner consideration of ESG risks as well as diversity and inclusion efforts will be explored with managers as part of our standard due diligence efforts.

Appendix: Investment Process

- Evaluation framework
  - Very high-level framework summary illustrated below.
  - In practice, a non-linear process with many more variables and numerous feedback channels.



Appendix: Fund Snapshots

Blackstone Tactical Opportunities	
Strategy	Equity
FMV	$219.5 M
Vintage(s)	2013, 2014
Performance	6.1% net IRR since inception 2013 1.29x net TVPI
Highlights	• OPERF's investment period has completed, but freed up $40 million of unfunded capital in 2020 to pursue new investments. • Blackstone Tac Ops pursues a broad range of equity and debt structures using a global, multi-disciplinary approach across their platform. • Very diversified portfolio across 66 opportunities since inception. • OPERF realized a significant distribution of $23 million in December 2020.

Appendix: Fund Snapshots (cont.)

Fidelity Real Estate Opportunistic Income Fund	
Strategy	Credit
FMV	$172.4 M
Vintage(s)	2007
Performance	6.5% net IRR since inception 2007 2.22x net TVPI
Highlights	• Strategy launched before the onset of the GFC in 2007, creating significant early headwinds. • Stable and highly seasoned team with a boutique-like structure with the benefit of Fidelity's vast resources. • Evergreen structure with quarterly liquidity and semi-annual distributions. • Largest portfolio allocation today is to private debt at approximately one-third. • Low leverage at 7% of gross assets (limit is 50%); average cash yield of 6.8%.

Appendix: Fund Snapshots (cont.)

Owl Rock Capital Corporation	
Strategy	Credit
FMV	$124.2 M
Vintage(s)	2016, 2020
Performance	10.9% net IRR since inception 2016 1.24x net TVPI
Highlights	• Private BDC which became publicly traded in July 2019 under the ticker symbol “ORCC." • OIC approved $150 million to new private BDC launched in 2020. • Owl Rock benefitted from much lower leverage than others entering 2020. • Recently announced a transformative business merger with Dyal Corporation; expected to close in 2021.

Appendix: Fund Snapshots (cont.)

Sanders Capital All Asset Value Fund	
Strategy	Multi-Asset
FMV	$420.6 M
Vintage(s)	2010
Performance	9.9% net IRR since inception 2010 2.60x net TVPI
Highlights	• Targeting a 10% rate of return for each underlying investment. • Since inception, fund has exceeded MSCI ACWI by 1.66% annually, with 17% less volatility. • Based on current market conditions, only finding opportunity in select public equity sectors. • Portfolio is defensively positioned with significant cash position awaiting opportunities. • Trimmed fund by $100 M in Q4 2020 as the investment approached 25% of Opportunity Portfolio. OPERF's initial investment has been fully recovered through redemptions.

Appendix: Fund Snapshots (cont.)

Sixth Street Adjacent Opportunities & Contingent Fund	
Strategy	Credit
FMV	$409.4 M
Vintage(s)	2014, 2015, 2020
Performance	Net IRR is 8.8% 1.38x net TVPI
Highlights	• Highly diversified portfolio of over 90 active investments focused on special situations primarily anchored by debt with a downside protection focus. • Size, speed and certainty of execution in complex transactions for firms that cannot access the public markets. • $200 M commitment to TAO Contingent Fund made by OIC in 2018 was triggered on April 1, 2020. • OPERF is also invested in Sixth Street's European focused direct lending funds, including a $125 M commitment in 2020. • Sixth Street completed its disaffiliation with TPG in March of 2020 with the entire team intact.

Appendix: OIC Policy

Current Status: *Active* PolicyStat ID: *7747637*

OREGON STATE TREASURY

Origination:	*03/2015*
Last Approved:	*03/2020*
Last Revised:	*03/2020*
Next Review:	*03/2021*
Owner:	*Mike Mueller: Alternatives Investment Officer*
Policy Area:	*Investments*
References:	*OST Policy 4.06.03*

INV 703: OPERF Opportunity Portfolio Standards & Procedures

INTRODUCTION & OVERVIEW

Summary Policy Statement

To accomplish the prudent and efficient implementation of investment policies established by the Oregon Investment Council ("OIC" or "Council"), Oregon State Treasury ("OST") created the Opportunity Portfolio (the "Portfolio") as an investment strategy within the Oregon Public Employees Retirement Fund ("OPERF" or the "Fund"). The Portfolio may be populated with investment approaches across a wide range of investment opportunities with no limitation on asset classes or strategies employed, subject to (i) a total current fair market value that is no more than five percent of the Fund's total value and (ii) a reporting requirement at any time that such value exceeds three percent (as described below). The Opportunity Portfolio seeks to achieve its investment objective by making investments and partnership commitments that, for any one or more reasons, do not conform to the guidelines and objectives of the OIC's previously identified asset classes (i.e., public equities, fixed income, real estate, private equity, alternative investments and cash). The Chief Investment Officer ("CIO") shall report to the OIC the Portfolio increase above three percent and not to exceed five percent of the Fund's total value at the next, most feasible OIC meeting.

Purpose and Goals

The goal of this policy is to provide guidance to OST staff ("Staff") and advisors regarding the Portfolio and its investment objectives.

Applicability

Classified represented, management service, unclassified executive service

Authority

ORS 293.726

ORS 293.731

ORS 293.736

POLICY PROVISIONS

Definitions

Advisor: One or more independent third party (consultant) firms retained by the OIC and working in concert with Staff to provide expert investment counsel, due diligence, and ongoing portfolio monitoring.

Benchmark: The Consumer Price Index plus a premium defined as 500 basis points.

Policy Statements

I. GENERAL POLICY

Portfolio investments provide an appropriate complement to OPERF's other investments, and are consistent with OPERF's general objectives, including:

A. Providing a means to pay benefits to OPERF participants and their beneficiaries;

B. Investing to produce a return based on prudent and reasonable levels of liquidity and investment risk;

C. Attaining an adequate real return over the expected rate of inflation; and

D. Complying with all applicable laws and regulations concerning the investment of pension assets.

Portfolio investments should exhibit differentiated (i.e., less correlated) returns relative to other Fund assets and therefore the Portfolio is expected to provide diversification benefits to the Fund.

Staff and the Advisor will provide the OST and OIC with an annual Portfolio investment review.

II. OBJECTIVES

A. Portfolio Investment Performance Objective

The Portfolio's investment performance objective is to generate long-term net returns to OPERF (i.e., after management fees and general partners' carried interest) above the Benchmark. The premium portion of the Benchmark compensates for illiquidity, principal risk and related investment costs and expenses. OST Staff will periodically evaluate the Portfolio's performance objective and the Benchmark.

B. Diversification

1. The Portfolio may be non-diversified, meaning that Staff may concentrate its investments. However, with the exception of cash, the Portfolio's allocation to a particular investment or partnership commitment cannot exceed 25%, at the time of investment..

2. Certain investments may be allocated to the Portfolio for incubation purposes and, if successful, may be recommended for transfer into one of the other, primary OPERF asset classes.

3. Investments will be diversified among a range of commitment sizes, generally with a minimum commitment of $50 million and a maximum commitment equal to 25% of any particular co-mingled partnership. Staff will document and report to the OIC any deviations from these guidelines.

4. Given the truly opportunistic nature and objective of the Portfolio, Staff expects its investments and partnership commitments may be highly episodic and inconsistent over time.

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4. Given the truly opportunistic nature and objective of the Portfolio, Staff expects its investments and partnership commitments may be highly episodic and inconsistent over time.

5. A low correlation between OPERF and Portfolio returns is expected over time.

III. OPPORTUNITY PORTFOLIO COMMITTEE

A. The Portfolio Committee ("Committee") acts on behalf of, and subject to the review of, OST. The Committee is comprised of the following individuals: the Deputy State Treasurer; the CIO; and an OIC member invited by the OST to participate as a voting member on the Committee. OST will consider input from the OIC in extending such invitations.

B. OST, through the Committee, may invest OPERF amounts up to and including $250 million per investment for new general partner, fund sponsor or manager relationships, and an amount up to and including $350 million for existing relationships, consistent with OIC policies (see Appendix B). If consideration of a particular investment opportunity is deemed urgent or otherwise less suited for presentation to the OIC, the CIO may seek OIC approval for Committee consideration of that particular investment opportunity.

C. The Committee will only exercise its investment authority by unanimous vote and acting upon a favorable due diligence determination by the Advisor. The Committee may only consider proposed investments if agreement exists between the Advisor and Staff that the proposed investment is consistent with Portfolio standards. Proposed investments or partnership commitments presented to the Committee are subject to review by OST, which may choose to cancel or refer such proposed investments or partnership commitments to the OIC for broader review and consideration.

D. In connection with a proposed investment or partnership commitment, Staff shall furnish any favorable due diligence determination, including the underlying rationale, market conditions and portfolio impact, to the OIC as soon as practical and at least two weeks prior to a Committee meeting called for purposes of considering the proposed investment or partnership commitment. If OST objects to the proposed investment or partnership commitment or is advised by any OIC member that he or she objects to the proposed investment or partnership commitment, OST will cancel the proposed investment or partnership commitment and determine whether or not Staff will bring same as a separate agenda item at a subsequent OIC meeting.

E. Staff shall report any investment or partnership commitment made by the Committee at the next, most feasible OIC meeting.

IV. OST STAFF AUTHORITY

The CIO, upon a favorable recommendation from both the Director of Alternative Investments and the Advisor, has authority to accomplish the following:

A. Approve OST administrative activities and guideline exceptions if a plan is established to conform the investment exception(s) to applicable guidelines within a reasonable period of time;

B. Acquire, retain, manage and dispose of investment or partnership interests consistent with the authority granted to the Office of the State Treasurer pursuant to ORS 293.736. Review and approve other activities as necessary to further the interests of the Portfolio consistent with its standards; and

C. Approve up to an additional $50 million, per action, to an existing investment or partnership commitment for the following purposes: (1) recapitalize the investment or partnership with additional equity; (2) acquire all or part of another manager's or limited partner's interest in an investment or partnership; (3) re-balance between or among investments or partnership commitments; or (4) co-invest alongside a partnership in an individual investment. Any such additional investments or partnership commitments shall be on terms equal to or better than the existing terms

D..Staff shall report any of the foregoing activities at the next, most feasible OIC meeting.

V. ADVISOR AND OST REQUIREMENTS

Staff manages the Portfolio in collaboration with the Advisor. Subject to budget limitations, OST will assign an appropriate number of Staff to manage Portfolio design and construction, the Portfolio's investment decision-making schedule and process, and the Advisor's contract. The OIC will retain a qualified, independent Advisor and will delegate to that Advisor substantial duties such as performing due diligence on investment opportunities, monitoring Portfolio investments, performing Portfolio analytics and valuation analyses and preparing performance reports.

Staff retains the primary responsibility to ensure that Portfolio investments and prospective investments receive appropriate due diligence, monitoring, and valuation analyses.

VI. MONITORING

A. **Reports**. The Advisor will furnish Portfolio activity and performance reports to Staff on both a quarterly and annual basis.

B. **Adherence to Strategy**. Staff and the Advisor will evaluate the actual strategy employed by investment managers or general partners relative to stated Portfolio objectives, strategies or other industry standards. The Advisor will interact with investment managers and general partners periodically and as necessary to verify adherence to such objectives, strategies and standards.

Exceptions

None

Failure to Comply

Failure to comply with this policy may be cause for disciplinary action up to and including dismissal.

PROCEDURES and FORMS

Appendix A: OST Procedures for INV 703

Appendix B: OIC/OST Alternative Investments Authority

ADMINISTRATION

Feedback

Your comments are extremely important to improving the effectiveness of this policy. If you would like to comment on the provisions of this policy, you may do so by e-mailing the Policy Analyst. To ensure your comments are received without delay, *please list the policy number and name in your e-mail's subject*. Your comments will be reviewed during the policy revisions process and may result in changes to the policy.

Attachments

Appendix A: OST Procedures for INV 703

Appendix B: OIC/OST Alternative Investments Authority

Approval Signatures

Step Description	Approver	Date
	John Skjervem: Chief Investment Officer	03/2020
	John Hershey: Director of Alternative Investments	03/2020
	Deena Bothello: General Counsel	03/2020
PolicyStat Admin	Carmen Leiva: Operations Analyst	03/2020
	Ben Mahon: Senior Investment Officer Alternatives	03/2020

OREGON
STATE
TREASURY

Tobias Read
Oregon State Treasurer

350 Winter St NE, Suite 100
Salem, OR 97301-3896

TAB 7 – Annual Placement Agent Report

Annual Placement Agent Disclosure

January 28, 2021

Purpose

In accordance with its Policy COM 201: Conflict of Interest and Code of Conduct, OST shall disclose, in all investment recommendations to the Oregon Investment Council, any Placement Agent used by the investment firm *that has had any contact with Treasury investment staff*. Staff shall present to the OIC an annual summary of the foregoing, which will also be made available to the public on the Treasury website.

Placement Agent Contact Summary for Calendar Year 2020

Partnership	OPERF Commitment	Placement Agent
None	None	None

Note that Placement Agents are retained by investment funds' General Partner, and OST investment staff does not rely on such placement agent firms for access or analysis.

TAB 8 – General Consultant

MEKETA

Oregon Investment Council

Ongoing Projects 2021

Ongoing Meketa Work	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22 or after	Comments
Investment Related Policy Statements							
Consolidate, Revise, and Streamline OIC Policies							Collaborating with Staff
Review Short Term Investment Fund FI Policy							Provided Feedback per Geoff Nolan Request
Meet OIC Members, Receive Feedback							
Virtual, then In Person Meetings with each Council Member							Ensure Strong Basis for Working Relationship
Asset Allocation & Asset Liability Modeling							
Create Risk Survey for OIC and Staff							Survey to be released electronically after Jan meeting
Work with Staff to identify inputs/asset classes to model							2021 CMEs will be released in February
Begin Modeling Process							
Show Asset-driven outputs							
Discuss Full Asset Liability Modeling							
Performance Reporting							
Send request for data to Staff at OST							Staff has been working on this request
Upload historical data into InvestorForce							
Create new Performance Reporting for Q1 report cycle							Simple Executive Summary, with supplementary data
ESG/Diversity Initiatives							
Work with Staff to enhance efforts and integration							Ongoing
Manager Searches							
Provide Feedback to Staff on HY Manager Search							Call with Meketa Research Team- Jan 2021
Provide Feedback to Staff on IGB Manager Search							
Other							
Provide Feedback on Compensation Policy							Provided as requested

TAB 9 – Asset Allocation & NAV Updates

Asset Allocations at December 31, 2020

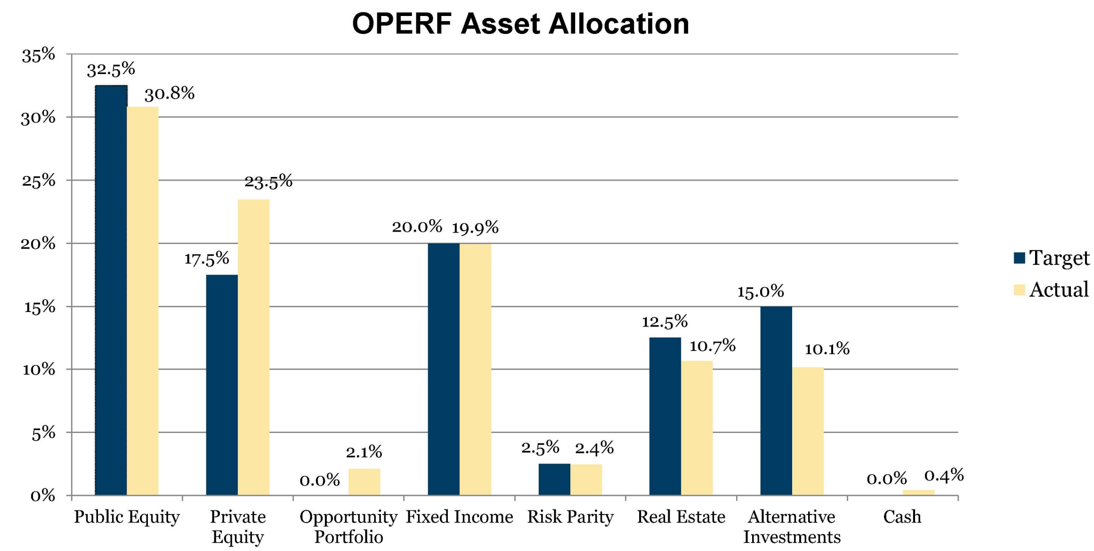
			Regular Account					Target Date Funds	Variable Fund	Total Fund
OPERF	**Policy**	**Target[1]**	**$ Thousands**	**Pre-Overlay**	**Overlay**	**Net Position**	**Actual**	**$ Thousands**	**$ Thousands**	**$ Thousands**
Public Equity	27.5-37.5%	32.5%	26,609,605	32.5%	(1,348,820)	25,260,786	30.8%	1,191,486	435,387	26,887,660
Private Equity	13.5-21.5%	17.5%	19,245,718	23.5%		19,245,718	23.5%			19,245,718
Total Equity	**45.0-55.0%**	**50.0%**	**45,855,323**	**55.9%**	**(1,348,820)**	**44,506,504**	**54.3%**			**46,133,378**
Opportunity Portfolio	**0-5%**	**0.0%**	**1,718,880**	**2.1%**		**1,718,880**	2.1%			**1,718,880**
Fixed Income	**15-25%**	**20.0%**	**13,472,002**	**16.4%**	**2,870,823**	**16,342,826**	19.9%	1,808,017		**18,150,842**
Risk Parity	**0.0-2.5%**	**2.5%**	**2,001,324**	**2.4%**		**2,001,324**	2.4%			**2,001,324**
Real Estate	**9.5-15.5%**	**12.5%**	**8,739,069**	**10.7%**	**(1,900)**	**8,737,169**	10.7%			**8,737,169**
Alternative Investments	**7.5-17.5%**	**15.0%**	**8,319,181**	**10.1%**		**8,319,181**	10.1%			**8,319,181**
Cash[2]	**0-3%**	**0.0%**	**1,858,261**	**2.3%**	**(1,520,104)**	**338,157**	0.4%		6,950	**345,108**
TOTAL OPERF		**100%**	**$ 81,964,041**	**100.0%**	**$ -**	**$ 81,964,041**	**100.0%**	**$ 2,999,503**	**$ 442,338**	**$ 85,405,883**

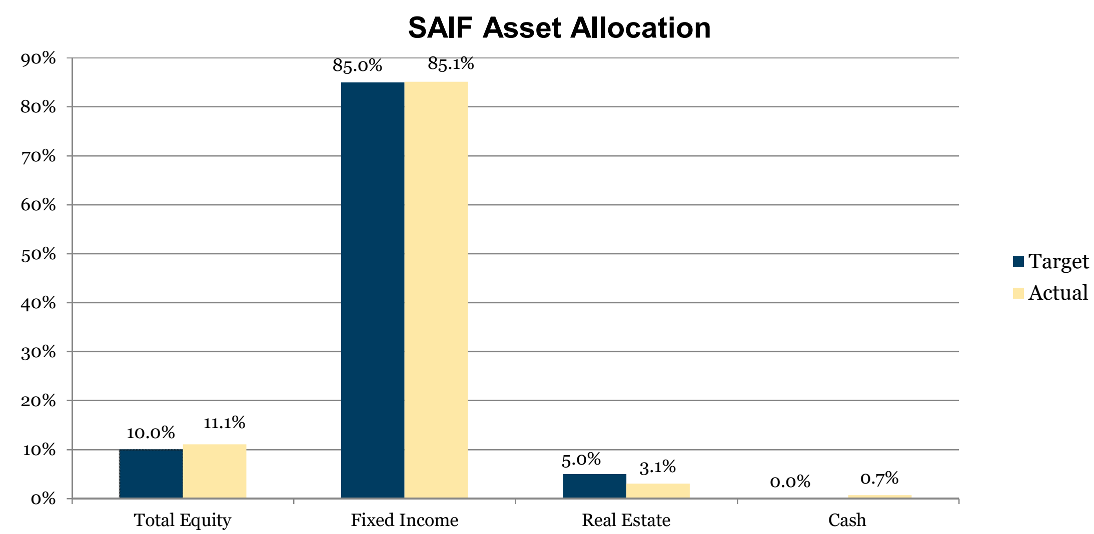
[1] Targets established in April 2019. Interim policy benchmark effective July 1, 2020, consists of: 33.5% MSCI ACWI IMI Net, 20% Custom FI Benchmark, 19% Russell 3000+300bps (1 quarter lagged), 12.5% NCREIF ODCE net (1 quarter lagged), 12.5% CPI+400bps, & 2.5% S&P Risk Parity - 12% Target Volatility.

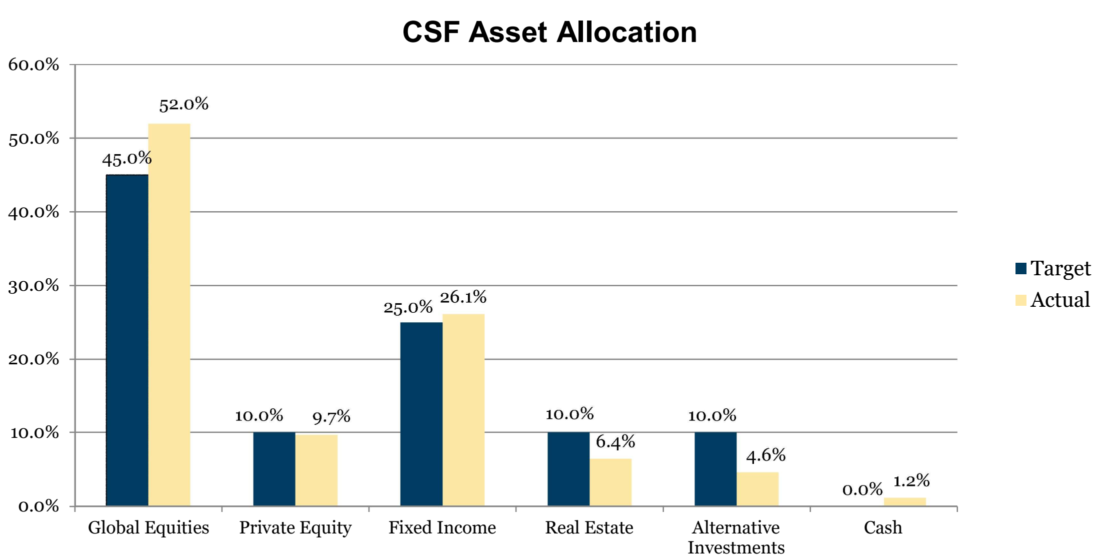
[2] Includes cash held in the policy implementation overlay program.

SAIF	**Policy**	**Target**	**$ Thousands**	**Actual**
Total Equity	**7-13%**	**10.0%**	**574,301**	**11.1%**
Fixed Income	**80-90%**	**85.0%**	**4,401,585**	**85.1%**
Real Estate	**0-7%**	**5.0%**	**159,455**	**3.1%**
Cash	**0-3%**	**0.0%**	**36,874**	**0.7%**
TOTAL SAIF			**$ 5,172,215**	**100.0%**

CSF	**Policy**	**Target**	**$ Thousands**	**Actual**
Global Equities	40-50%	45.0%	1,055,346	52.0%
Private Equity	8-12%	10.0%	195,979	9.7%
Total Equity	**58-62%**	**55.0%**	**1,251,325**	**61.6%**
Fixed Income	**25-35%**	**25.0%**	**530,637**	**26.1%**
Real Estate	**8-12%**	**10.0%**	**130,777**	**6.4%**
Alternative Investments	**8-12%**	**10.0%**	**93,818**	**4.6%**
Cash	**0-3%**	**0.0%**	**23,592**	**1.2%**
TOTAL CSF			**$ 2,030,149**	**100.0%**


OPERF Asset Allocation
35%
30%
25%
20%
15%
10%
5%
0%
32.5%
30.8%
17.5%
23.5%
0.0%
2.1%
20.0%
19.9%
2.5%
2.4%
12.5%
10.7%
15.0%
10.1%
0.0%
0.4%
Public Equity
Private Equity
Opportunity Portfolio
Fixed Income
Risk Parity
Real Estate
Alternative Investments
Cash
Target
Actual


SAIF Asset Allocation
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
10.0%
11.1%
85.0%
85.1%
5.0%
3.1%
0.0%
0.7%
Total Equity
Fixed Income
Real Estate
Cash
Target
Actual


CSF Asset Allocation
60.0%
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9.7%
25.0%
26.1%
10.0%
6.4%
10.0%
4.6%
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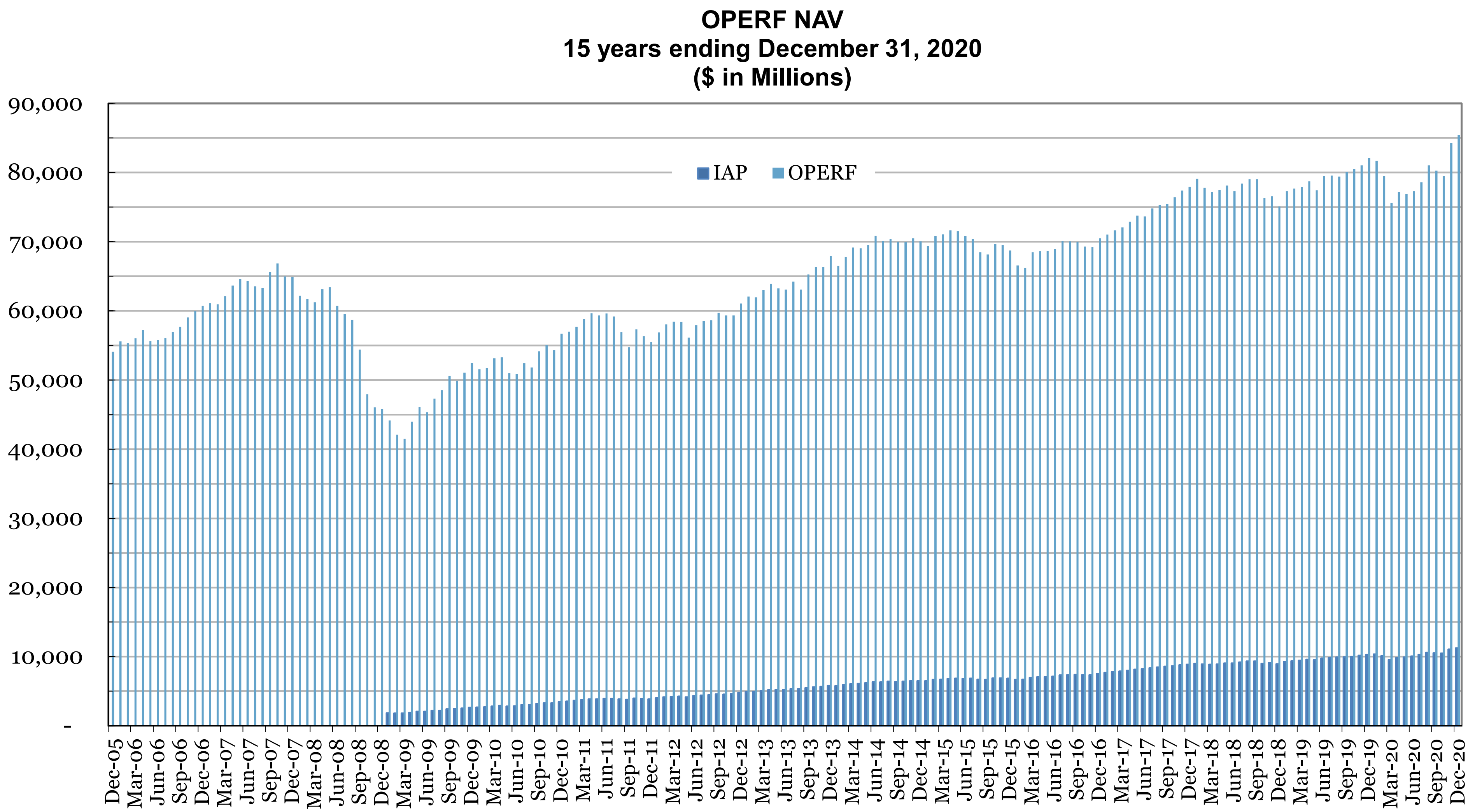
1.2%
Global Equities
Private Equity
Fixed Income
Real Estate
Alternative Investments
Cash
Target
Actual


OPERF NAV
15 years ending December 31, 2020
($ in Millions)
IAP
OPERF
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
Dec-05
Mar-06
Jun-06
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
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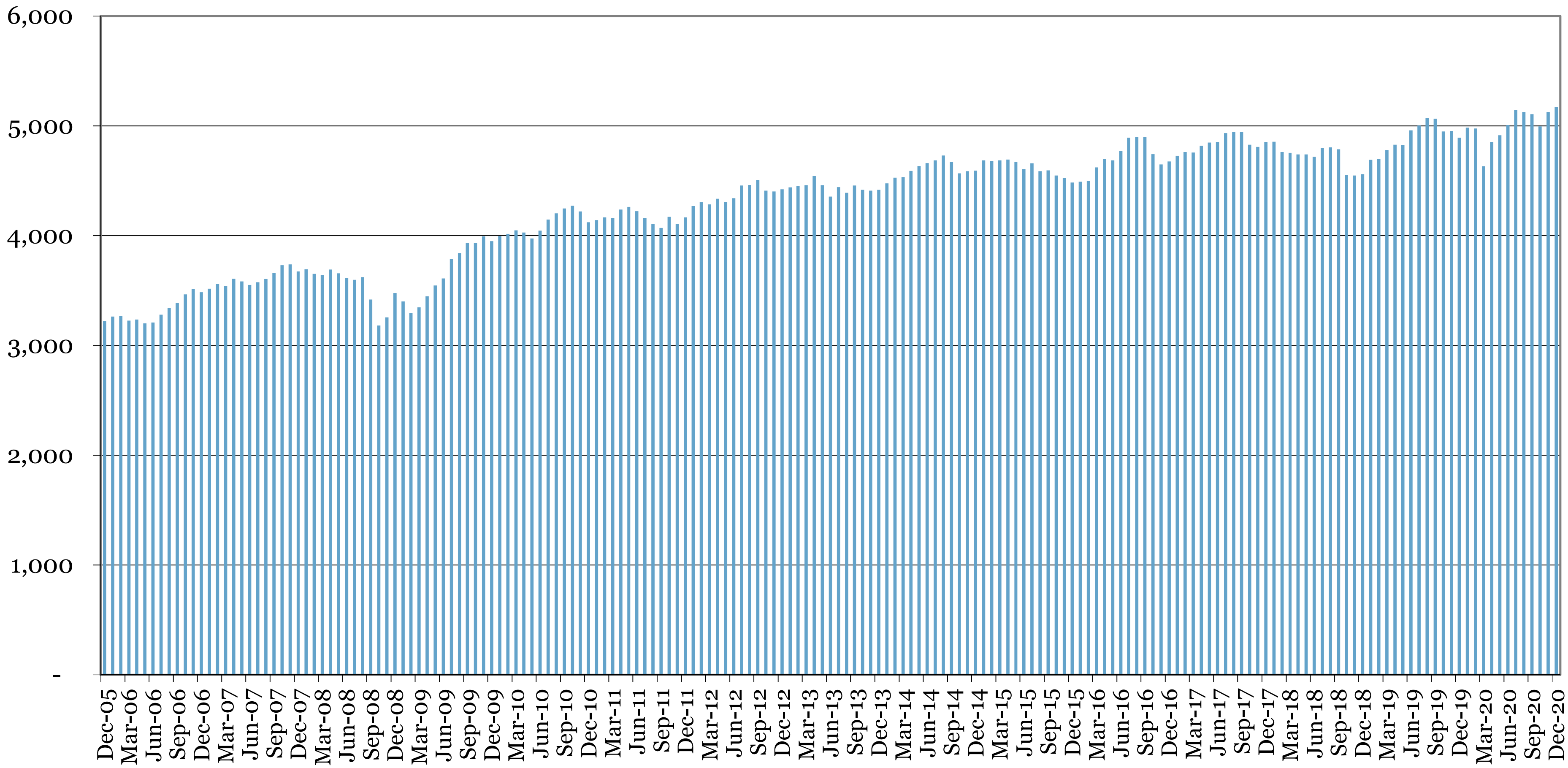
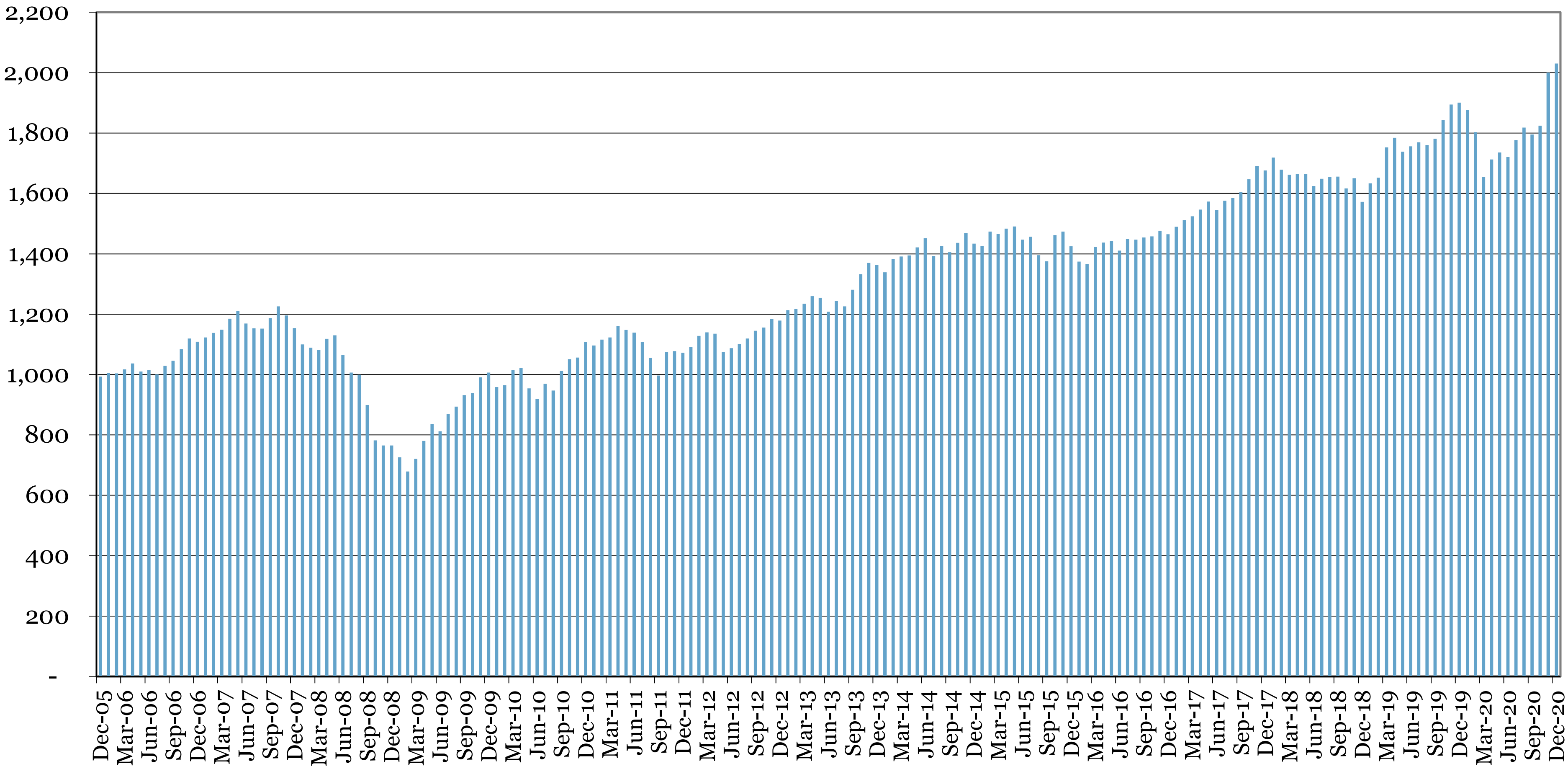
Jun-20
Sep-20
Dec-20

SAIF NAV
15 years ending December 31, 2020
($ in Millions)



CSF NAV
15 years ending December 31, 2020
($ in Millions)



TAB 10 – Calendar — Future Agenda Items

2020/21 OIC Forward Calendar and Planned Agenda Topics

March 10, 2021	Real Estate Portfolio Review Alternatives Program Review Q4 OPERF Performance & Risk Review
April 21, 2021	OPERF Asset Allocation & Capital Market Assumptions Update Risk Review (Currency, Overlay) Operational Annual Review
June 2, 2021	OIC, PERS Joint Session IAP Program Review CEM Benchmarking Q1 OPERF Performance & Risk Review
September 8, 2021	ESG Annual Review Corporate Governance, Proxy Voting Securities Lending Q2 OPERF Performance & Risk Review
October 27, 2021	SAIF Annual Review OSGP Annual Review Common School Fund Annual Review
December 8, 2021	Public Equity Program Review Fixed Income Program Review Q3 OPERF Performance & Risk Review
January 26, 2022	Private Equity Program Review Opportunity Portfolio Program Review Placement Agent Report 2023 OIC Calendar Approval