

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

BUSINESS MEETING

MARCH 25, 2019

AGENDA

PLACE: Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME: 9:00 a.m.

Members of the public may comment on any item under the Board's jurisdiction by filling out a speaker form and presenting it to the Clerk. Unless otherwise directed by the Chair, comments related to items on the agenda will be heard when the Board considers that item. Comments related to items not on the agenda will generally be heard at the time designated for Public Comment.

ITEM:

- | | Master Page No. |
|--|-----------------|
| I. <u>CALL TO ORDER</u> | |
| II. <u>APPROVAL OF AGENDA</u> | 1 – 4 |
| Presentation of Certificate of Appreciation in Honor of Trustee Chris Johnston. | |
| III. <u>APPROVAL OF MINUTES</u> | |
| A. Disability and Business Minutes for February 25, 2019. | 5 – 14 |
| B. Disability Minutes for March 11, 2019. | 15 – 21 |
| IV. <u>CONSENT AGENDA</u> | |
| A. Approve Regular and Deferred Retirements and Survivors Continuances for the Month of February 2019. | 22 |
| B. Receive and File Report of Checks Disbursed in February 2019. | 23 – 26 |
| C. Receive and File Budget Summary for FY 2018-19 Month Ending February 28, 2019. | 27 – 28 |
| D. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Schedule of Investments, Cash, and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending January 31, 2019. | 29 – 34 |

**BOARD OF RETIREMENT
BUSINESS MEETING****MARCH 25, 2019****AGENDA
PAGE 2****V. INVESTMENT MANAGER PRESENTATIONS**

- | | | |
|----|--|-----------|
| A. | Receive Annual Investment Presentation from Harbourvest, Brett Gordon and Mark Radville. | 35 – 76 |
| B. | Receive Annual Investment Presentation from Pantheon, Matt Garfinkle, Kevin Dunwoodie, Iain Jones. | 77 – 103 |
| C. | Receive Annual Investment Presentation from UBS Real Estate, Mario Maturo and Mia Dennis. | 104 – 137 |

VI. INVESTMENT INFORMATION

NEPC – Alan Martin and Tony Ferrara.
VCERA – Dan Gallagher, Chief Investment Officer.

- | | | |
|----|--|-----------|
| A. | Recommendation for \$7.5M Investment in Drive Capital Fund III & \$7.5M Investment in Drive Capital OverDrive Fund I.
RECOMMENDED ACTION: Approve. | |
| 1. | Staff Letter from Chief Investment Officer, Dan Gallagher. | 138 – 139 |
| 2. | Memorandum from NEPC. | 140 – 142 |
| 3. | Drive Capital Presentation, by Mark Kvamme. | 143 – 173 |
| B. | Recommendation for \$30M Investment in PIMCO Private Income Fund.
RECOMMENDED ACTION: Approve. | |
| 1. | Staff Letter by Chief Investment Officer, Dan Gallagher. | 174 |
| 2. | Memorandum from NEPC. | 175 – 177 |
| 3. | PIMCO Presentation, by Jason Mandinach, Sasha Talcott, and Kevin Gray. | 178 – 223 |
| C. | Private Credit Overview & Pacing Plan.
RECOMMENDED ACTION: Receive and file. | 224 – 253 |
| D. | Capital Market Assumptions for 2019.
RECOMMENDED ACTION: Receive and file. | 254 – 307 |
| E. | Preliminary Performance Report Month Ending February 28, 2019.
RECOMMENDED ACTION: Receive and file. | 308 – 318 |

VII. OLD BUSINESS

- | | | |
|----|--|--|
| A. | Report and Recommendation from Real Estate Committee to Approve Letter of Intent to Lease for VCERA Office Space and Direct Committee to Finalize Lease with M.F. Daily Corporation and Return to Board for Final Approval.
RECOMMENDED ACTION: Approve. | |
|----|--|--|

**BOARD OF RETIREMENT
BUSINESS MEETING**

MARCH 25, 2019

**AGENDA
PAGE 3**

VII. OLD BUSINESS (continued)

1. Committee Letter.
To be Provided.
2. Letter of Intent to Lease.
To be Provided.

VIII. NEW BUSINESS

- A. Request for Up to 140 Additional Hours of Support from Brentwood I.T.
RECOMMENDED ACTION: Approve.

- | | |
|---|-----------|
| 1. Staff Letter. | 319 – 320 |
| 2. Memorandum from Chief Technology Officer, Leah Oliver. | 321 – 322 |

- B. Announcement of Upcoming Vacancy in Seventh Member Board Position and Election to Fill Vacancy with Member from Fire Group.

- | | |
|------------------|-----|
| 1. Staff Letter. | 323 |
|------------------|-----|

- C. Recommendation for Authorization for Retirement Benefits Manager, Shalini Nunna, to Attend the CALAPRS 2019 Management/Leadership Academy, Pasadena, CA, April 15 – 16, June 10 – 12, and July 22 – 24, 2019.
RECOMMENDED ACTION: Approve.

- | | |
|---|-----------|
| 1. Staff Letter. | 324 |
| 2. 2019 Management/Leadership Academy Announcement. | 325 – 327 |

IX. CLOSED SESSION

- | | |
|--|-----------|
| A. CONFERENCE WITH LEGAL COUNSEL-EXISTING LITIGATION
(Government Code section 54956.9(a) Name of Case: In Re Motors Liquidation Company, et al, Bankr. Case No. 09-50026 (REG) Motors Liquidation Company Avoidance Action Trust v. JPMorgan Chase Bank, N.A. et al, Adv. Pro. 09-00504 (REG) | 328 – 362 |
|--|-----------|

X. CLOSED SESSION

- A. PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Title: Retirement Administrator
(Government Code section 54957(b)(1))
- B. PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Title: General Counsel
(Government Code section 54957(b)(1))
- C. PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Title: Chief Investment Officer
(Government Code section 54957(b)(1))

**BOARD OF RETIREMENT
BUSINESS MEETING**

MARCH 25, 2019

**AGENDA
PAGE 4**

XI. INFORMATIONAL

A. 24th Annual NEPC Investment Conference Agenda.

363 – 366

XII. PUBLIC COMMENT

XIII. STAFF COMMENT

XIV. BOARD MEMBER COMMENT

XV. ADJOURNMENT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

DISABILITY & BUSINESS MEETING

FEBRUARY 25, 2019

MINUTES

**TRUSTEES
PRESENT:**

William W. Wilson, Chair, Public Member
Steven Hintz, Treasurer-Tax Collector
Robert Bianchi, Vice Chair, Public Member
Steve Bennett, Public Member
Mike Sedell, Public Member
Dan Shapiro, General Member
Arthur E. Goulet, Retiree Member
Will Hoag, Alternate Retiree Member
Chris Johnston, Safety Member
Ed McCombs, Alternate Public Member

**TRUSTEES
ABSENT:**

Craig Winter, General Member

**STAFF
PRESENT:**

Linda Webb, Retirement Administrator
Henry Solis, Chief Financial Officer
Dan Gallagher, Chief Investment Officer
Leah Oliver, Chief Technology Officer
Lori Nemiroff, General Counsel
Karen Scanlan, Accounting Manager I
Josiah Vencel, Communications Officer
Stephanie Berkley, Retirement Benefits Specialist
Shalaine Nolan, Office Assistant III-C

PLACE:

Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME:

9:00 a.m.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 2**

ITEM:

I. CALL TO ORDER

Chair Wilson called the Disability & Business Meeting of February 25, 2019, to order at 9:00 a.m.

II. APPROVAL OF AGENDA

Ms. Webb suggested the "Closed Session" agenda item follow the "Old Business" item.

After discussion by the Board, the following motion was made:

MOTION: Approve as Amended.

Moved by Bianchi, seconded by Goulet.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

III. APPROVAL OF MINUTES

A. Business Minutes of January 28, 2019.

MOTION: Approve.

Moved by Bianchi, seconded by McCombs.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Hintz, Shapiro, Wilson

No: -

Absent: Winter

Abstain: Goulet, Johnston

IV. CONSENT AGENDA

A. Approve Regular and Deferred Retirements and Survivors Continuances for the Month of January 2019.

B. Receive and File Report of Checks Disbursed in January 2019.

C. Receive and File Budget Summary for FY 2018-19 Month Ending January 31, 2019.

D. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Schedule of Investments, Cash and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending December 31, 2018.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 3**

- E. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Schedule of Investments, Cash and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending January 31, 2019.

MOTION: Receive and File.

Moved by McCombs, seconded by Bianchi.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

V. RECEIVE AND FILE PENDING DISABILITY APPLICATION STATUS REPORT

Trustee Sedell expressed concern by the number of delayed disability cases, suggesting the Board look into why cases were delayed so often, and explore a way to streamline the process to shorten the time.

Trustee Goulet added that along with the continuances, there were also delinquent cases, often for weeks at a time. He referenced a disability case that was referred back to the Hearing Officer with instructions from the Board, but no action had been taken since October 2018.

Ms. Nemiroff said in that case, both parties had agreed that letters would be sent to the physicians who used the word, "repetitive" in describing work restrictions; however, the physicians had not responded, and Mr. Roberson would be sending two more letters, once approved by the applicant. If they still did not respond, they would be subpoenaed to appear at a hearing.

Trustee Goulet said he was concerned about another disability case that referenced waiting for information from the Workers' Compensation case, with follow up in ninety (90) days, though the Board has said many times that there should be no link between the Worker's Compensation case and the disability retirement case, and perhaps the Board should contact the Ventura Regional Sanitation District (VRSD).

Chair Wilson asked if the VRSD used Risk Management to review their disability cases.

Ms. Nemiroff said VRSD used an outside counsel to review their cases, and most references to waiting on the Worker's Compensation cases, were because the applicant had not yet been found to be permanently incapacitated.

Trustee Goulet also noted that a judgment had been entered with the County of Ventura, Superior Court, and asked if the applicant had appealed, as there were 60 days to do so.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 4**

Ms. Nemiroff said the applicant had not appealed; and that the applicant's attorney indicated that if the Board of Retirement was willing to waive the cost, they would not appeal. She said there were two judgments issued in the case, and that she would be submitting to the Board a decision in its favor as well as the entries of judgment.

After discussion by the Board, the following motion was made:

MOTION: Receive and File.

Moved by Goulet, seconded by Bianchi.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Hintz, Johnston, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

VI. INVESTMENT MANAGER PRESENTATIONS

A. Receive Annual Investment Presentation from Adams Street, Scott Hazen, and Dave Brett.

Scott Hazen, and Dave Brett were present on behalf of Adams Street Partners to provide an organizational and investment performance update.

VII. INVESTMENT INFORMATION

NEPC – Anthony Ferrara.

VCERA – Dan Gallagher, Chief Investment Officer.

A. Quarterly Investment Performance Report for Period Ending December 31, 2018.
RECOMMENDED ACTION: Receive and file.

After discussion by the Board, staff, and consultant, the following motion was made:

MOTION: Receive and File.

Moved by Hintz, seconded by Bennett.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

B. Preliminary Performance Report Month Ending January 31, 2019.
RECOMMENDED ACTION: Receive and file.

After discussion by the Board, staff, and consultant, the following motion was made:

MOTION: Receive and File.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 5**

Moved by Bianchi, seconded by Goulet.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

After voting on this item, the Board took a break at 10:12 a.m.

The Board returned from its break at 10:24 a.m.

VIII. OLD BUSINESS

A. Update on Bylaws.

Ms. Webb reminded the Board that at the Business Meeting of October 22, 2018, staff provided a red-lined document of proposed changes to the VCERA's bylaws, which were subsequently provided to the County of Ventura around the 1st of November for feedback, and staff had received feedback on Thursday, February 21st, and had provided it to the Board, staff and General Counsel. She said a copy of the written response would be provided to the Board once it was completed.

The Board Adjourned to Closed Session at 10:26 a.m.

Upon returning to Open Session, the General Counsel announced that the Board had taken no reportable action.

IX. NEW BUSINESS

A. Recommendation to Approve Application for Reinstatement to Active Membership Pursuant to GC 31680 & 31680.5 – Kirkby, Steven A.

RECOMMENDED ACTION: Approve.

1. Staff Letter.
2. Request from Mr. Kirkby.
3. Offer of Employment.
4. Medical Clearance.

MOTION: Approve Recommendation for Reinstatement to Active Membership for Kirkby, Steven A.

Moved by Goulet, seconded by Bianchi.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

- B. Request to Engage Segal for Internal Revenue Code (IRC) 415 Limit Calculations in an Amount Not-To-Exceed \$110,000.

RECOMMENDED ACTION: Approve.

1. Staff Letter.

Trustee Goulet reiterated he believed estimated cost was too expensive, as the 415 limit calculations seemed to be formula driven. He noted that the proposed cost was higher than the cost for Segal to produce the Actuarial Valuation and the GASB reports.

Ms. Webb replied that the cost was based on time and materials at Segal Consulting's hourly rate and the high number of members for this year only, and that Segal believed it would actually be much less and closer to \$75,000. She noted she would be glad to follow up with Segal for more details on the estimate and testing complexity.

Trustee Sedell asked if there would be any potential cost if VCERA delays testing.

Ms. Webb replied that there is an inherent risk in delaying resolution of a problem once it had been identified. Ms. Nemiroff added that 415 testing is a required, tax-compliance issue.

Trustee Bennett said that the Board should notify Segal of its concerns, but the motion should be to approve staff's recommendation, and that the Retirement Administrator contact Segal to obtain justification for the expense; the Retirement Administrator could proceed if satisfied, but could place the matter on a future agenda if not.

After discussion by the Board, the following motion was made:

MOTION: Approve Authorization of Staff to Engage Segal Consulting to Perform 415 Testing in an Amount Not to Exceed \$110,000 and Direct the Retirement Administrator to ask that Segal Consulting Justify the Estimate for 415 Limit Testing, with Discretion to Reagendaize if the Administrator was Dissatisfied with Segal Consulting Response

Moved by Bennett, seconded by Sedell.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

- C. Mid-Year Budget Update for FY 2018-19.

RECOMMENDED ACTION: Receive and file.

1. Staff Letter by C.F.O., Henry Solis.
2. Budget Summary.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 7**

Ms. Webb said that staff had included the requested \$110,000 in the Budget for the 415 testing, but if the Board had voted not to approve the testing, staff could provide an updated budget.

Mr. Solis said the mid-year budget update highlighted the current budget through the end of the fiscal year. He said that based current projections, VCERA would be under budget by a little over \$51,000, which did not include the contingency fund.

Trustee Goulet asked if staff had included funds for the filing fee and legal costs associated with the VCERA's IRS filing, to which Mr. Solis replied yes.

Trustee Sedell asked how far was VCERA under our legislative cap.

Mr. Solis replied that VCERA had utilized about 50 - 60 percent of the legislative cap in the budget currently.

Trustee Sedell noted that \$1,076 had been spent thus far on 415 limit calculations, and asked how many members had been tested for that amount.

Mr. Solis replied that he was unsure if the amount spent was for calculating 415 limits, but there were some discussions with Segal, at an hourly rate, and since it pertained to the 415 limit subject, it was charged to that account within the budget.

Ms. Webb said she believed the amount was for the testing for one to two members.

Trustee Bianchi asked why the FICA and Medicare accounts were slightly over, but the regular salary account was under.

Ms. Solis replied that the budget did not fully take into account the additional Medicare expenses for some employees whose salaries reached a certain amount.

MOTION: Receive & File the Mid-Year Projection, and Authorize Staff to Process the Net Budgetary Adjustments, Outlined in the Staff Letter, Between Operating Budgets

Moved by Bianchi, seconded by Sedell.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

D. VCERA Cost-of-Living Adjustments (COLA) as of April 1, 2019.

RECOMMENDED ACTION: Approve.

1. Actuary's Annual COLA Analysis.

Ms. Webb said that Segal had performed its annual calculation of inflation rate changes and recommended that the Board adopt a 3% COLA.

MOTION: Approve.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

FEBRUARY 25, 2019

**MINUTES
PAGE 8**

Moved by Bianchi, seconded by Hintz.

Vote: Motion carried

Yes: Bennett, Bianchi, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: Goulet

- E. Recommendation for Authorization for Trustee Shapiro to Attend the International Foundation of Employee Benefit Plan (IFEBP), New Trustees Institute – Level I, San Francisco, CA, June 24 - 26, 2019.

RECOMMENDED ACTION: Approve.

1. Staff Letter.
2. IFEBP New Trustees Institute Brochure.

Ms. Webb said that the course was a good training course for a new trustee to attend, and believed the agenda to be robust.

MOTION: Approve.

Moved by Hintz, seconded by Sedell.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Johnston, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Winter

Abstain: -

Trustee Johnston left after the vote on this item, at 11:06 a.m.

- F. Recommendation for Authorization for Chief Technology Officer, Leah Oliver to Attend the Public Retirement Information Systems Management (PRISM) 2019 Conference, Indianapolis, IN, May 12 – 15, 2019.

RECOMMENDED ACTION: Approve.

1. Staff Letter.
2. 2019 PRISM Preliminary Conference Agenda.

MOTION: Approve.

Moved by Bianchi, seconded by Shapiro.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Johnston, Winter

Abstain: -

- G. Request for Authorization for Up to 2 Trustees and C.I.O. to Attend Due Diligence Visits to NEPC and Pantheon.

RECOMMENDED ACTION: Approve.

1. Staff Letter by C.I.O., Dan Gallagher.

MOTION: Approve.

Moved by Sedell, seconded by Bianchi.

Vote: Motion carried

Yes: Bennett, Bianchi, Goulet, Hintz, Sedell, Shapiro, Wilson

No: -

Absent: Johnston, Winter

Abstain: -

X. CLOSED SESSION

- A. CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - Significant exposure to litigation pursuant to Government Code section 54954.9(d)(2): One case.

XI. INFORMATIONAL

- A. SACRS 2019 Spring Conference Notice and Preliminary Agenda.
B. Reminder from SACRS Regarding Elections for 2019 – 2020.
C. CALAPRS Advanced Principles of Pension Management for Trustees.

XII. PUBLIC COMMENT

None.

XIII. STAFF COMMENT

Ms. Webb said that staff would be posting the Trustee Education Report to the VCERA website, and asked the trustee to notify staff if any of their training hours were not reflected in the current report.

Mr. Gallagher reported that an employee from Abbott Capital Management had recently opened a phishing scam email and that Abbott had contracted with a security firm to determine if any information was compromised.

XIV. BOARD MEMBER COMMENT

None.

**BOARD OF RETIREMENT
DISABILITY & BUSINESS MEETING**

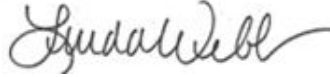
FEBRUARY 25, 2019

**MINUTES
PAGE 10**

XV. ADJOURNMENT

The meeting was adjourned at 11:13 a.m.

Respectfully submitted,



LINDA WEBB, Retirement Administrator

Approved,

Bill Wilson, Vice-Chairman

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

DISABILITY MEETING

MARCH 11, 2019

MINUTES

TRUSTEES

PRESENT:

William W. Wilson, Chair, Public Member
Steven Hintz, Treasurer-Tax Collector
Robert Bianchi, Vice-Chair, Public Member
Mike Sedell, Public Member
Dan Shapiro, General Member
Chris Johnston, Safety Member
Arthur E. Goulet, Retiree Member
Will Hoag, Alternate Retiree Member
Ed McCombs, Alternate Public Member

TRUSTEES

ABSENT:

Steve Bennett, Public Member
Craig Winter, General Member

STAFF

PRESENT:

Linda Webb, Retirement Administrator
Lori Nemiroff, General Counsel
Henry Solis, Chief Financial Officer
Julie Stallings, Chief Operations Officer
Leah Oliver, Chief Technology Officer
Josiah Vencel, Communications Officer
Donna Edwards, Retirement Benefits Specialist
Nancy Jensen, Retirement Benefits Specialist
Chris Ayala, Program Assistant
Sierra Walsh, Office Assistant III-C

PLACE:

Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME:

9:00 a.m.

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 2**

ITEM:

I. CALL TO ORDER

Chair Wilson called the Disability Meeting of March 11, 2019, to order at 9:00 a.m.

II. APPROVAL OF AGENDA

MOTION: Approve.

Moved by Johnston, seconded by Bianchi.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson

No: -

Absent: Bennett, Shapiro, Winter

Abstain: -

III. RECEIVE AND FILE PENDING DISABILITY APPLICATION STATUS REPORT

After discussion by the Board, the following motion was made:

MOTION: Receive and File.

Moved by Goulet, seconded by Bianchi.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson

No: -

Absent: Bennett, Shapiro, Winter

Abstain: -

IV. APPLICATIONS FOR DISABILITY RETIREMENT

A. Application for Service-Connected Disability Retirement - Manley, Holly A.; Case No. 16-026.

1. Application for Service-Connected Disability Retirement, filed August 12, 2016.
2. Medical Analysis and Recommendation, including Supporting Medical Documentation, submitted by County of Ventura, Risk Management, in support of the Application for Service-connected Disability Retirement, dated February 25, 2019.
3. Hearing Notice, dated February 26, 2019.

Catherine Laveau was present on behalf of County of Ventura, Risk Management. Laurence D. Grossman, Attorney at Law, was present on behalf of the applicant, Holly A. Manley, who was also present.

Both parties declined to make statements.

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 3**

After discussion by the Board, the following motion was made:

MOTION: Approve Application for Service-Connected Disability Retirement.

Moved by Sedell, seconded by Bianchi.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson

No: -

Absent: Bennett, Shapiro, Winter

Abstain: -

Both parties agreed to waive preparation of findings of fact and conclusions of law.

B. Application for Service-Connected Disability Retirement - Barajas, Humberto Jr.; Case No. 16-031.

1. Application for Service-Connected Disability Retirement, filed October 3, 2016.
2. Medical Analysis and Recommendation, including Supporting Medical Documentation, submitted by County of Ventura, Risk Management, in support of the Application for Service-Connected Disability Retirement, dated February 25, 2019.
3. Hearing Notice, dated February 26, 2019.

Catherine Laveau was present on behalf of County of Ventura, Risk Management. Thomas J. Wicke, Attorney at Law, was present on behalf of the applicant, Humberto Barajas Jr., who was not present.

Both parties declined to make statements.

After discussion by the Board, the following motion was made:

MOTION: Approve Application for Service-Connected Disability Retirement.

Moved by Johnston, seconded by Bianchi.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Wilson

No: -

Absent: Bennett, Shapiro, Winter

Abstain: -

Both parties agreed to waive preparation of findings of fact and conclusions of law.

Trustee Shapiro arrived at 9:06 a.m.

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 4**

- C. Application for Service-Connected Disability Retirement - Kissane, Kevin R.; Case No. 17-005.
1. Application for Service-Connected Disability Retirement, filed February 16, 2017.
 2. Medical Analysis and Recommendation, including Supporting Medical Documentation, submitted by County of Ventura, Risk Management, in support of the Application for Service-Connected Disability Retirement, dated February 25, 2019.
 3. Hearing Notice, dated February 26, 2019.

Catherine Laveau was present on behalf of County of Ventura, Risk Management. Thomas J. Wicke, Attorney at Law, was present on behalf of the applicant, Kevin R. Kissane, who was not present.

Both parties declined to make statements.

After discussion by the Board, the following motion was made:

MOTION: Approve Application for Service-Connected Disability Retirement.

Moved by Bianchi, seconded by Johnston.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Shapiro, Wilson

No: -

Absent: Bennett, Winter

Abstain: -

Both parties agreed to waive preparation of findings of fact and conclusions of law.

- D. Application for Service-Connected Disability Retirement - Hernandez, Jerry C.; Case No. 14-025.
1. Proposed Findings of Fact and Recommended Decision to Deny the Application for Service-Connected Disability, submitted by Hearing Officer Nancy T. Beardsley, dated February 9, 2019.
 2. Hearing Notice, dated February 26, 2019.

Carol Kempner and Catherine Laveau were present on behalf of County of Ventura, Risk Management. Laurence D. Grossman, Attorney at Law, was present on behalf of the applicant, Jerry C. Hernandez, who was also present.

Both parties made brief statements.

Trustee Goulet commented that the applicant's attorney appeared to disregard citations from the hearing officer related to the Mansperger and Schrier decisions, which conflicted with the

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 5**

Sheriff's Department policy requiring the applicant to perform all the duties of a Deputy Sheriff in addition to his duties as a Captain; these were two separate views.

Trustee Johnston cited a previous case in which a Commander in the Sheriff's Department subdued a violent suspect, even though it was not his usual job duty. He said the Board may have to look past the Mansperger decision to the duties that Safety members are actually called on to perform.

Trustee Hintz said that Captains and Commanders must still qualify on the shooting range just as a Sheriff Deputy.

Ms. Kempner encouraged the Board to consider the entire medical record as well as personnel records that preceded Mr. Hernandez's disability application.

Mr. Hernandez said that he had been required to stay on-site for his assignment and that, if he had been offered a better position, he would have been willing to accept it.

Chair Wilson said that while reading the case, he thought it would be fairly straight forward due to the nature of the event that caused the applicant's injury. However, as he continued to review the case, it was much more complicated; he came to the conclusion that the findings of the hearing officer were reasonable.

After discussion by the Board, the following motions was made:

MOTION: Approve and Adopt the Hearing Officer's Recommendation to Deny the Application for Service-Connected Disability Retirement.

Moved by Goulet, seconded by Sedell.

Vote: Motion carried

Yes: Bianchi, Goulet, McCombs, Sedell, Shapiro, Wilson

No: Hintz, Johnston

Absent: Bennett, Winter

Abstain: -

V. OLD BUSINESS

None.

VI. NEW BUSINESS

A. Review of 2018 Board Member Education Compliance.

RECOMMENDED ACTION: Approve.

1. Staff Letter.

2. Board Education Compliance Report for 2018.

After discussion by the Board, the following motion was made:

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 6**

MOTION: Receive and File, and Authorize Staff to Post Report on Website.

Moved by Bianchi, seconded by Goulet.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, Johnston, McCombs, Sedell, Shapiro, Wilson

No: -

Absent: Bennett, Winter

Abstain: -

Trustee Johnston left the Board dais, recused himself during the presentation and consideration of item VI.B., and sat at the table reserved for disability applicants.

B. Consideration of Request by Trustee Johnston for Independent Review of his Service-Connected Disability Application.

1. Staff Letter.

Ms. Webb informed the Board that Trustee Johnston had filed an Application for Service-Connected Disability Retirement and had requested that his application be reviewed by an independent party rather than by Ventura County Risk Management. Staff had contacted Risk Management to inquire if they had any objection to this request, and they did not. Therefore, if the Board granted the request, staff would provide all of the case documentation to LACERA to review.

After discussion by the Board, the following motion was made:

MOTION: Approve.

Moved by Bianchi, seconded by Shapiro.

Vote: Motion carried

Yes: Bianchi, Goulet, Hintz, McCombs, Sedell, Shapiro, Wilson

No: -

Absent: Bennett, Johnston, Winter

Abstain: -

C. SACRS 2019 Spring Voting Proxy.

1. Staff Letter.

After discussion, the Board designated Trustee Hoag as the voting proxy and Trustee McCombs as the alternate.

VII. INFORMATIONAL

A. Memorandum from General Counsel - Litigation Status Report of K. Dean v. Board of Retirement.

Ms. Nemiroff said VCERA won the Dean case, which was now closed.

**BOARD OF RETIREMENT
DISABILITY MEETING**

MARCH 11, 2019

**MINUTES
PAGE 7**

VIII. PUBLIC COMMENT

None.

IX. STAFF COMMENT

Ms. Webb reminded Board members to submit their Form 700s to staff, if they had not already done so.

X. BOARD MEMBER COMMENT

None.

XI. ADJOURNMENT

The meeting was adjourned at 9:40 a.m.

Respectfully submitted,



LINDA WEBB, Retirement Administrator

Approved,

WILLIAM W. WILSON, Chairman

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
REPORT OF REGULAR AND DEFERRED RETIREMENTS AND SURVIVORS CONTINUANCES**

February 2019

FIRST NAME	LAST NAME	G/S	DATE OF MEMBERSHIP	BENEFIT SERVICE*	DEPARTMENT	EFFECTIVE DATE
REGULAR RETIREMENTS:						
Susan	Bates				Fire Protection District (alt-payee)	1/1/2019
Wendell	Beale	G	1/25/2009	9.24	Health Care Agency (deferred)	2/9/2019
Shelley	Bolton	G	5/5/1985	33.51	Superior Court	1/26/2019
Nancy	Breese	G	10/27/2003	15.06	Harbor Department	1/26/2019
Darlene	Brown	G	7/27/2008	8.70	Sheriff's Department	1/25/2019
Janet	Carlsen	G	1/16/1983	7.67	Human Services Agency (deferred)	1/22/2019
Collin	Carlson	S	11/1/1998	23.91	Sheriff's Department	2/8/2019
Brenda	Davison	G	04/20/2008	7.14	Human Services Agency (deferred)	2/6/2019
Kathleen	De La O	G	4/15/1990	28.58	Superior Court	2/9/2019
Ann Marie	Donnelly	G	2/15/2004	0.59	Health Care Agency (deferred)	2/1/2019
Roy	Ervin	G	1/22/2001	11.15	Health Care Agency (deferred)	2/18/2019
Laura	Flowers	G	4/1/2001	23.54	Sheriff's Department	1/19/2019
Suria	Gottesman	G	11/17/1997	21.46	Human Services Agency	1/26/2019
Arnold	Greenberg	G	7/23/2001	16.69	Assessor (deferred)	1/14/2019
Adlai	Lara	G	8/31/1980	25.77	Health Care Agency (deferred)	1/28/2019
Graciela	Lessing	G	11/30/1997	23.01	Superior Court	1/3/2019
Teresa	Ochoa	G	5/31/1987	31.63	Human Services Agency	2/9/2019
Larry	Powers	G	1/5/2014	5.07	Health Care Agency	1/26/2019
Kimberly	Prendergast	G	6/1/2008	10.14	Health Care Agency (deferred)	1/26/2019
Brian	Rafelson	G	3/19/1989	29.75	District Attorney	1/31/2019
Katharine	Raley	G	10/10/1993	25.18	Area Agency on Aging	1/15/2019
Richard	Sauer	S	11/15/1987	32.16	Fire Protection District	2/4/2019
Paula	Serrato	G	10/16/1988	30.24	General Services Agency	1/26/2019
Graham	Smith	G	9/16/2002	1.51	Agricultural Commissioner (deferred)	12/31/2018
Christopher G.	Stephens	G	8/17/2001	17.45	Resource Management Agency	1/26/2019
William	Stratton	G	12/7/1980	38.16	Resource Management Agency	1/30/2019
Derrick	Stumpf	G	9/6/2005	13.43	Information Technology Services	2/2/2019
Thomas	Underwood	G	2/27/1983	35.90	Health Care Agency	1/3/2019
Glenda	Waldrop	G	7/7/1991	26.52	Sheriff's Department	1/25/2019
Dennis	Walsh	G	1/13/2008	7.14	General Services Agency (deferred)	2/9/2019
Kenneth	Williams	G	3/19/2000	18.58	Health Care Agency	1/15/2019
Susan	Winholt	G	6/27/1999	19.69	Auditor-Controller	1/25/2019
Lori	Zullo	G	5/16/1994	4.76	Animal Services (deferred)	1/11/2019

DEFERRED RETIREMENTS:

Travis W.	Daily	G	09/10/2006	12.40	Public Defender	02/01/2019
Marisol	Gonzalez	G	05/21/2001	17.75	Superior Court	02/09/2019
Richard	Janda	G	01/15/2012	6.32	Health Care Agency	01/24/2019

SURVIVORS' CONTINUANCES:

Tai-Shen	Alexander
Julita	Elumba
Mary	Garcia
Lorraine	Koster

* = Excludes reciprocal service or service from any previous retirements

** = Member establishing reciprocity

Business Meeting Agenda - IV. CONSENT AGENDA

Date: Thursday, February 28, 2019
 Time: 02:32PM
 User: 104164

Ventura County Retirement Assn

Check Register - Standard

Period: 08-19 As of: 2/28/2019

Page: 1 of 4
 Report: 03630.rpt
 Company: VCERA

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
Company: VCERA										
Acct / Sub:	10200		000000							
027930	CK	2/6/2019	BRENTWOODI BRENTWOOD IT	08-19	000793	VO IT		2/6/2019	0.00	12,670.00
027931	CK	2/6/2019	DIGITALDEP DIGITAL DEPLOYMENT	08-19	000794	VO IT		2/6/2019	0.00	650.00
027932	CK	2/6/2019	GALLAGHERD DAN GALLAGHER	08-19	000795	VO TRAVELREIMB		2/6/2019	0.00	919.28
027933	CK	2/6/2019	HANSONBRID HANSON BRIDGETT LLP	08-19	000796	VO LEGAL FEES		2/6/2019	0.00	349.65
027934	CK	2/6/2019	HARRISWATE HARRIS WATER CONDITIONING	08-19	000797	VO ADMIN EXP		2/6/2019	0.00	149.50
027935	CK	2/6/2019	NOSSAMAN NOSSAMAN LLP	08-19	000798	VO LEGAL FEES		2/6/2019	0.00	8,584.65
027936	CK	2/6/2019	SPRUCEGROV SPRUCEGROVE INVESTMENT M	08-19	000799	VO INVESTMENT FEES		2/6/2019	0.00	61,380.40
027937	CK	2/6/2019	WALTERSCOT BNY MELLON INV MGMT CAYMA	08-19	000800	VO INVESTMENT FEES		2/6/2019	0.00	209,996.98
027938	CK	2/6/2019	WESTERNASS WESTERN ASSET MANAGEMEN	08-19	000801	VO INVESTMENT FEES		2/6/2019	0.00	221,718.53
027939	CK	2/13/2019	ABBOTTCAP ABBOTT CAPITAL MANAGEMEN	08-19	000802	VO INVESTMENT FEES		2/13/2019	0.00	74,294.00
027940	CK	2/13/2019	ABUCOURTRE VERITEXT	08-19	000803	VO ADMIN EXP		2/13/2019	0.00	315.00
027941	CK	2/13/2019	ACCESSINFO ACCESS INFORMATION PROTEC	08-19	000804	VO ADMIN EXP		2/13/2019	0.00	380.17
027942	CK	2/13/2019	BANKOFAMER BUSINESS CARD	08-19	000805	VO ADMIN/IT		2/13/2019	0.00	2,652.91

Business Meeting Agenda - IV. CONSENT AGENDA

Date: Thursday, February 28, 2019
 Time: 02:32PM
 User: 104164

Ventura County Retirement Assn

Check Register - Standard

Period: 08-19 As of: 2/28/2019

Page: 2 of 4
 Report: 03630.rpt
 Company: VCERA

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid	
027943	CK	2/13/2019	CDWGOVERN CDW GOVERNMENT	08-19	000806	VO	IT	2/13/2019	0.00	210.00	
027944	CK	2/13/2019	NPEA NPEA	08-19	000807	VO	ADMIN EXP	2/13/2019	0.00	600.00	
027945	CK	2/13/2019	PENSIONBEN PENSION BENEFIT INFORMATIO	08-19	000808	VO	ADMIN EXP	2/13/2019	0.00	1,125.00	
027946	CK	2/13/2019	TIMEWARNER TIME WARNER CABLE	08-19	000809	VO	IT	2/13/2019	0.00	294.99	
027947	CK	2/21/2019	ABUCOURTRE VERITEXT	08-19	08-19	000810	VO	ADMIN EXP	2/21/2019	0.00	315.00
027947	VC	2/27/2019	ABUCOURTRE VERITEXT	08-19	08-19	000810	VO	ADMIN EXP	2/21/2019	0.00	-315.00
									Check Total	0.00	
027948	CK	2/21/2019	ATTMOBILIT AT&T MOBILITY	08-19	000811	VO	IT	2/21/2019	0.00	401.18	
027949	CK	2/21/2019	BEARDSLEYN NANCY T. BEARDSLEY, ESQ	08-19	000813	VO	ADMIN EXP	2/21/2019	0.00	9,747.50	
027950	CK	2/21/2019	BROWARMST BROWN ARMSTRONG	08-19	000812	VO	ADMIN EXP	2/21/2019	0.00	4,930.00	
027951	CK	2/21/2019	FEDEX FEDEX	08-19	000814	VO	ADMIN EXP	2/21/2019	0.00	80.80	
027952	CK	2/21/2019	LINEASOLUT LINEA SOLUTIONS	08-19	000815	VO	ADMIN EXP	2/21/2019	0.00	11,136.88	
027953	CK	2/21/2019	MFDAILYCOR M.F. DAILY CORPORATION	08-19	000816	VO	ADMIN EXP	2/21/2019	0.00	18,115.89	
027954	CK	2/21/2019	PRUDENTIAL PRUDENTIAL INSURANCE	08-19	000817	VO	INVESTMENT FEES	2/21/2019	0.00	151,953.99	
027955	CK	2/21/2019	STROUDES STROUD DESIGN, INC	08-19	000818	VO	ADMIN EXP	2/21/2019	0.00	1,487.74	

Business Meeting Agenda - IV. CONSENT AGENDA

Date: Thursday, February 28, 2019
 Time: 02:32PM
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Period: 08-19 As of: 2/28/2019

Page: 3 of 4
 Report: 03630.rpt
 Company: VCERA

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
027956	CK	2/21/2019	THOMSONREU THOMSON REUTERS- WEST	08-19	000819	VO	IT	2/21/2019	0.00	461.00
027957	CK	2/27/2019	ABUCOURTRE VERITEXT	08-19	000810	VO	ADMIN EXP	2/21/2019	0.00	315.00
027957	CK	2/27/2019	ABUCOURTRE VERITEXT	08-19	000820	AD	ADMIN EXP	2/27/2019	0.00	-315.00
027957	CK	2/27/2019	ABUCOURTRE VERITEXT	08-19	000821	VO	ADMIN EXP	2/27/2019	0.00	1,873.10
Check Total										1,873.10
027958	CK	2/27/2019	BIANCHIROB ROBERT BIANCHI	08-19	000822	VO	MILEAGE REIMB	2/27/2019	0.00	62.64
027959	CK	2/27/2019	BLACKROCKI BLACKROCK INSTITUTIONAL TR	08-19	000823	VO	INVESTMENT FEES	2/27/2019	0.00	244,901.08
027960	CK	2/27/2019	CDWGOVERN CDW GOVERNMENT	08-19	000824	VO	IT	2/27/2019	0.00	94.95
027961	CK	2/27/2019	DELLMARKET DELL MARKETING L.P.	08-19	000826	VO	IT	2/27/2019	0.00	2,693.43
027962	CK	2/27/2019	INSIGHTPUB INSIGHT PUBLIC SECTOR	08-19	000825	VO	IT	2/27/2019	0.00	1,305.00
027963	CK	2/27/2019	MEGAPATH FUSION	08-19	000827	VO	IT	2/27/2019	0.00	417.27
027964	CK	2/27/2019	NEMIROFFLO LORI NEMIROFF	08-19	000829	VO	TRAVEL REIMB	2/27/2019	0.00	1,180.43
027965	CK	2/27/2019	SHAPIRODAN DAN SHAPIRO	08-19	000828	VO	TRAVEL REIMB	2/27/2019	0.00	866.19
027966	CK	2/27/2019	SHREDITUSA SHRED-IT USA	08-19	000830	VO	ADMIN EXP	2/27/2019	0.00	118.80
027967	CK	2/27/2019	WEBBLINDA LINDA WEBB	08-19	000831	VO	TRAVEL REIMB	2/27/2019	0.00	1,718.81

Business Meeting Agenda - IV. CONSENT AGENDA

Date: Thursday, February 28, 2019
 Time: 02:32PM
 User: 104164

Ventura County Retirement Assn

Check Register - Standard

Period: 08-19 As of: 2/28/2019

Page: 4 of 4
 Report: 03630.rpt
 Company: VCERA

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
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Check Count: 39

Acct Sub Total: 1,049,837.74

Check Type	Count	Amount Paid
Regular	38	1,050,152.74
Hand	0	0.00
Electronic Payment	0	0.00
Void	1	-315.00
Stub	0	0.00
Zero	0	0.00
Mask	0	0.00
Total:	39	1,049,837.74

Company Disc Total 0.00 Company Total 1,049,837.74

**Ventura County Employees' Retirement Association
Budget Summary Fiscal Year 2018-2019**

For the Eight Months Ended February 28, 2019 and Year-To-Date - 66.67% of Fiscal Year Expended

	<i>Adopted 2019 Budget</i>	<i>Adjusted 2019 Budget</i>	<i>February 2019</i>	<i>Expended Fiscal Year to Date</i>	<i>Available Balance</i>	<i>Percent Expended</i>
Salaries and Benefits						
Regular Salary	\$3,215,800.00	\$3,158,800.00	\$249,262.68	\$2,018,678.29	\$1,140,121.71	63.91%
Extra-Help/Temporary Services	158,500.00	158,500.00	11,136.88	77,932.40	80,567.60	49.17%
Supplemental Payments	63,500.00	63,500.00	4,602.88	35,277.61	28,222.39	55.56%
Vacation Redemption	146,800.00	146,800.00	0.00	136,294.72	10,505.28	92.84%
Retirement Contributions	546,000.00	535,100.00	44,063.76	340,369.28	194,730.72	63.61%
OASDI Contribution	196,700.00	189,900.00	15,681.73	101,765.56	88,134.44	53.59%
FICA-Medicare	55,500.00	55,700.00	3,667.47	31,530.34	24,169.66	56.61%
Medical Insurance	327,600.00	325,400.00	26,552.00	197,321.00	128,079.00	60.64%
Life Insurance	1,100.00	1,100.00	93.00	768.80	331.20	69.89%
Unemployment Insurance	2,300.00	2,300.00	176.71	1,415.25	884.75	61.53%
Mgmt Disability Insurance	23,500.00	23,500.00	1,616.40	13,040.93	10,459.07	55.49%
Workers Compensation Insurance	23,600.00	23,600.00	1,765.21	15,362.07	8,237.93	65.09%
401K Plan Contribution	81,700.00	81,700.00	5,925.44	48,898.21	32,801.79	59.85%
Total Salaries & Benefits	\$4,842,600.00	\$4,765,900.00	\$364,544.16	\$3,018,654.46	\$1,747,245.54	62.14%
Services & Supplies						
Board Member Stipend	\$13,200.00	\$13,200.00	\$0.00	\$5,900.00	\$7,300.00	44.70%
Other Professional Services	173,800.00	186,300.00	16,556.90	125,996.02	60,303.98	67.63%
Auditing	51,400.00	51,400.00	4,930.00	49,203.90	2,196.10	95.73%
Hearing Officers	50,000.00	29,600.00	9,747.50	12,372.50	17,227.50	41.80%
Legal	275,000.00	322,000.00	8,934.30	157,784.95	164,215.05	49.00%
Election Services	12,000.00	5,000.00	0.00	0.00	5,000.00	0.00%
Actuary-Valuation	61,000.00	61,000.00	0.00	61,000.00	0.00	100.00%
Actuary-GASB 67	13,000.00	13,000.00	0.00	13,000.00	0.00	100.00%
Actuary-415 Calculation	0.00	105,000.00	0.00	1,076.00	103,924.00	1.02%
Actuary-Misc Hrlly Consult	16,000.00	16,000.00	0.00	364.00	15,636.00	2.28%
Printing	33,000.00	33,000.00	2,293.35	16,984.91	16,015.09	51.47%
Postage	70,000.00	70,000.00	10,203.03	41,577.62	28,422.38	59.40%
Copy Machine	3,000.00	3,000.00	0.00	981.69	2,018.31	32.72%
General Liability	15,100.00	15,100.00	0.00	7,542.50	7,557.50	49.95%
Fiduciary Liability	86,000.00	83,700.00	0.00	83,609.01	90.99	99.89%
Cost Allocation Charges	30,200.00	30,200.00	0.00	15,099.00	15,101.00	50.00%
Education Allowance	4,000.00	4,000.00	0.00	4,000.00	0.00	100.00%
Training/Travel-Staff	76,100.00	51,600.00	5,519.33	25,430.56	26,169.44	49.28%
Training/Travel-Trustee	53,500.00	29,000.00	822.11	8,242.34	20,757.66	28.42%
Travel-Due Diligence-Staff	7,800.00	7,800.00	0.00	3,052.26	4,747.74	39.13%
Travel-Due Diligence-Trustee	13,400.00	13,400.00	0.00	4,539.39	8,860.61	33.88%
Mileage-Staff	4,800.00	4,800.00	214.19	1,547.01	3,252.99	32.23%
Mileage -Trustee	5,000.00	3,500.00	106.72	1,253.48	2,246.52	35.81%
Mileage-Due Diligence-Staff	1,000.00	1,000.00	0.00	143.01	856.99	14.30%
Mileage-Due Diligence-Trustee	1,000.00	1,000.00	0.00	49.05	950.95	4.91%
Auto Allowance	6,900.00	6,900.00	575.00	5,175.00	1,725.00	75.00%
Facilities-Security	2,700.00	2,700.00	230.56	2,071.52	628.48	76.72%
Facilities-Maint & Repairs	2,300.00	1,300.00	0.00	150.00	1,150.00	11.54%
Equipment-Maint & Repairs	2,000.00	1,000.00	0.00	0.00	1,000.00	0.00%
General Office Expense	10,400.00	6,400.00	149.50	2,528.40	3,871.60	39.51%
Books & Publications	2,500.00	2,500.00	0.00	716.78	1,783.22	28.67%
Office Supplies	18,000.00	14,000.00	48.08	6,770.24	7,229.76	48.36%
Memberships & Dues	13,500.00	13,500.00	600.00	13,588.00	(88.00)	100.65%
Bank Service Charges	1,500.00	1,500.00	(84.83)	735.06	764.94	49.00%
Offsite Storage	4,800.00	4,800.00	380.17	4,753.32	46.68	99.03%
Rents/Leases-Structures	217,600.00	217,600.00	18,115.89	143,513.90	74,086.10	65.95%
Non-Capital Equipment	23,900.00	0.00	0.00	0.00	0.00	0.00%
Non-Capital Furniture	15,000.00	5,100.00	0.00	125.00	4,975.00	2.45%
Depreciation /Amortization	1,460,600.00	1,460,600.00	121,716.16	973,729.28	486,870.72	66.67%
Total Services & Supplies	\$2,851,000.00	\$2,891,500.00	\$201,057.96	\$1,794,605.70	\$1,096,894.30	62.06%
Total Sal, Ben, Serv & Supp	\$7,693,600.00	\$7,657,400.00	\$565,602.12	\$4,813,260.16	\$2,844,139.84	62.86%

**Ventura County Employees' Retirement Association
Budget Summary Fiscal Year 2018-2019**

For the Eight Months Ended February 28, 2019 and Year-To-Date - 66.67% of Fiscal Year Expended

	<i>Adopted 2019 Budget</i>	<i>Adjusted 2019 Budget</i>	<i>February 2019</i>	<i>Expended Fiscal Year to Date</i>	<i>Available Balance</i>	<i>Percent Expended</i>
Technology						
Technology Hardware	\$67,100.00	\$67,100.00	\$2,883.94	\$39,504.74	\$27,595.26	58.87%
Technology Hardware Support	0.00	0.00	0.00	3,968.32	(3,968.32)	0.00%
Technology Software	214,600.00	214,600.00	2,698.55	44,309.03	170,290.97	20.65%
Technology Software Support	15,500.00	15,500.00	1,043.68	9,736.33	5,763.67	62.82%
Technology Systems Support	266,800.00	266,800.00	650.00	132,661.01	134,138.99	49.72%
Technology Infrastruct Support	500.00	500.00	0.00	339.98	160.02	68.00%
Technology Application Support	310,400.00	343,400.00	4,034.70	110,712.25	232,687.75	32.24%
Technology Data Communication	55,700.00	58,900.00	4,186.75	34,112.38	24,787.62	57.92%
Total Technology	\$930,600.00	\$966,800.00	\$15,497.62	\$375,344.04	\$591,455.96	38.82%
Congtingency	\$688,100.00	\$688,100.00	\$0.00	\$0.00	\$688,100.00	0.00%
Total Current Year	\$9,312,300.00	\$9,312,300.00	\$581,099.74	\$5,188,604.20	\$4,123,695.80	55.72%

***Ventura County Employees' Retirement Association
Statement of Fiduciary Net Position
As of February 28, 2019 (Unaudited)***

Assets

Cash & Cash Equivalents **\$119,238,927**

Receivables

Interest and Dividends	3,747,447	
Securities Sold	18,321,600	
Miscellaneous	13,973	
Total Receivables	22,083,020	22,083,020

Investments at Fair Value

Domestic Equity	1,633,009,968	
Non U.S. Equity	901,683,998	
Global Equity	604,518,621	
Fixed Income	1,028,260,430	
Private Equity	390,184,993	
Real Assets	864,536,263	
Cash Overlay	27,562	
Total Investments	5,422,221,834	5,422,221,834

Capital Assets,

Net of Accumulated Depreciation & Amortization **12,130,551**

Total Assets **5,575,674,332**

Liabilities

Securities Purchased	26,912,190	
Accounts Payable	382,117	
Tax Withholding Payable	3,111,473	
Deferred Revenue (PrePaid Contributions)	47,596,782	
Total Liabilities	78,002,562	78,002,562

Net Position Restricted for Pensions **\$5,497,671,770**

***Ventura County Employees' Retirement Association
Statement of Changes in Fiduciary Net Position
For The Eight Months Ending February 28, 2019 (Unaudited)***

ADDITIONS**Contributions**

Employer	\$129,709,150	
Employee	48,692,976	
Total Contributions	<u>48,692,976</u>	178,402,127

Investment Income

Net Appreciation (Depreciation) in Fair Value of Investments	102,670,433	
Interest Income	14,225,209	
Dividend Income	6,739,334	
Other Investment Income	(1,220,445)	
Real Estate Operating Income, Net	9,241,534	
Security Lending Income	828,756	
Total Investment Income	<u>132,484,820</u>	

Less Investment Expenses

Management & Custodial Fees	8,678,281	
Other Investment Expenses	346,705	
Securities Lending Borrower Rebates	690,837	
Securities Lending Management Fees	44,860	
Total Investment Expenses	<u>9,760,683</u>	

Net Investment Income/(Loss)		<u>122,724,137</u>
-------------------------------------	--	---------------------------

Total Additions		301,126,264
------------------------	--	--------------------

DEDUCTIONS

Benefit Payments	192,436,764	
Member Refunds and Death Benefit Payments	2,638,355	
Administrative Expenses	3,451,498	
Other Expenses	1,390,401	
Total Deductions	<u>1,390,401</u>	<u>199,917,018</u>

Net Increase/(Decrease)		101,209,246
--------------------------------	--	--------------------

Net Position Restricted For Pensions

Beginning of Year		<u>5,396,462,523</u>
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Ending Balance		<u><u>\$5,497,671,769</u></u>
-----------------------	--	--------------------------------------

Ventura County Employees' Retirement Association
Investments, Cash, and Cash Equivalents
As of February 28, 2019 (Unaudited)

	Investments	Cash & Cash Equivalents
Equity		
Domestic Equity		
Blackrock - Russell 1000	\$1,386,876,778	\$0
Blackrock - Russell 2500	64,503,018	0
Western Asset Enhanced Equity Index Plus	181,630,172	23,737,425
Total Domestic Equity	1,633,009,968	23,737,425
Non U.S. Equity		
Blackrock - ACWI ex - US	459,175,409	0
Hexavest	90,743,831	0
Sprucegrove	225,807,284	0
Walter Scott	125,957,474	0
Total Non U.S. Equity	901,683,998	0
Global Equity		
Blackrock - ACWI Index	604,518,621	0
Total Global Equity	604,518,621	0
Fixed Income		
Blackrock - Bloomberg Barclays Aggregate Index	276,960,374	0
Loomis Sayles Multi Sector	82,530,403	2,254,911
Loomis Sayles Strategic Alpha	47,417,030	0
Reams	315,089,076	9
Reams - US Treasury	0	0
Western Asset Management	306,263,548	9,102,964
Total Fixed Income	1,028,260,430	11,357,885
Private Equity		
Abbott Capital	(34,391)	0
Abbott Secondaries	12,219,907	0
Adams Street	172,275,800	0
Battery Ventures	5,203,894	0
Blue Bay	0	0
Buenaventure One	17,820,572	0
Buenaventure Two	181,338	0
Carval Investors	12,270,631	0
Clearlake Investors	5,353,070	0
GGV Capital	613,000	0
Drive Capital	6,918,344	0
ECI 11 GP LP	1,198,045	0
GTCR Fund XII	4,866,478	0
Harbourvest	86,660,867	0
Insight Ventures	12,545,624	0
Monroe Capital	10,042,621	0
Pantheon	39,845,689	0
Resolute Fund IV LP	2,203,503	0
Total Private Equity	390,184,993	0
Real Assets		
Prudential Real Estate	156,400,478	0
LaSalle	0	0
UBS Realty	276,737,035	0
Bridgewater All Weather	316,052,327	0
Tortoise (MLPs)	115,346,422	1,881,369
Total Real Assets	864,536,263	1,881,369

*Ventura County Employees' Retirement Association
Investments, Cash, and Cash Equivalents
As of February 28, 2019 (Unaudited)*

	<u>Investments</u>	<u>Cash & Cash Equivalents</u>
Parametric (Cash Equitization)	27,562	48,035,283
State Street Bank and Trust		26,109,501
County Treasury and Bank of America		8,117,464
Total Investments, Cash, and Cash Equivalents	<u><u>\$5,422,221,834</u></u>	<u><u>\$119,238,927</u></u>

*Ventura County Employees' Retirement Association
Schedule of Investment Management Fees
For the Eight Months Ending February 28, 2019 (Unaudited)*

Equity Managers	
Domestic Equity	
Blackrock - Russell 1000	\$5,498
Blackrock - Russell 2500	53,176
Western Asset Enhanced Equity Index Plus	186,580
Total Domestic Equity	245,254
Non U.S. Equity	
Blackrock - ACWI ex - US	216,726
Hexavest	202,866
Sprucegrove	387,410
Walter Scott	431,879
Total Non U.S. Equity	1,238,881
Global Equity	
Blackrock - ACWI Index	118,080
Total Global Equity	118,080
Fixed Income Managers	
Blackrock Bloomberg Barclays Aggregate Index	60,268
Loomis Sayles Multi Sector	126,818
Loomis Sayles Strategic Alpha	126,877
Reams Asset Management	269,702
Reams US Treasury	
Western Asset Management	263,410
Total Fixed Income	847,074
Private Equity	
Abbott Capital	114,170
Abbott Secondary Opportunities	149,313
Adams Street	919,736
Battery Ventures	102,550
Blue Bay	
Buenaventure One	
Carval, CVI A Fund	24,167
Clearlake	54,460
Drive Capital	150,000
ECI 11 GP LP	43,562
GGV Capital	
GTCR XII/A & B	464,030
Harbourvest	761,204
Insight Venture Partners	305,583
Monroe Capital	
Pantheon	265,151
Resolute Fund	
Total Private Equity	3,353,926
Real Assets	
Prudential Real Estate Advisors	803,390
LaSalle	
UBS Realty	970,400
Bridgewater All Weather	295,811
Tortoise (MLPs)	355,591
Total Real Assets	2,425,191
Cash Overlay (Parametric)	132,462

*Ventura County Employees' Retirement Association
Schedule of Investment Management Fees
For the Eight Months Ending February 28, 2019 (Unaudited)*

Securities Lending	
Borrower's Rebate	690,837
Management Fees	44,860
Total Securities Lending	<u>735,697</u>
Other	
Investment Consultant (NEPC)	155,000
Investment Custodian (State Street)	162,412
Total Other Fees	<u>317,412</u>
Total Investment Management Fees	<u><u>\$9,413,978</u></u>



Ventura County Employees' Retirement Association

March 1 2019

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HarbourVest representatives



BRETT GORDON | Managing Director, HarbourVest Partners, LLC (Boston)

Brett Gordon is a member of HarbourVest's secondary investment team. Brett focuses on both traditional and complex transactions involving the purchase of US and non-US investments. He joined HarbourVest in 1998 after receiving his MBA. Brett currently serves on a number of advisory boards and valuation committees. He also serves on the Babson College Board of Trustees. Brett's previous experience includes serving as a vice president for The Princeton Review of Boston, Inc., where he managed all operational functions of the organization and was responsible for long range strategic planning. He received a BS (magna cum laude) in Management from Boston University in 1990 and an MBA (summa cum laude) from Babson College in 1998.



MARK RADVILLE | Principal, Investor Relations, HarbourVest Partners, LLC (Boston)

Mark Radville joined HarbourVest's investor relations team in 2016. He focuses on coordinating, monitoring, and enhancing relationships with new and existing investors and consultants. Mark joined the Firm after nine years with multi-strategy asset manager Guggenheim Investments in Los Angeles where he was a managing director in the Institutional Sales and Client Service group. He was responsible for driving marketing and institutional asset management sales as well as providing client service efforts. Prior to Guggenheim, he was a managing director of sales and marketing at Financial Management Advisors, where he developed the firm's initial sales and marketing plan. His previous experience also includes positions at Merrill Lynch Investment Managers, Conseco Capital Management, and ICG Advisors. Mark received a BBA in Finance from Loyola University of Chicago.

Table of contents

- I. HarbourVest Overview
 - II. Client Update
 - III. Dover Program Update
 - IV. Co-invest Program Update
- Appendix

This document has been prepared for Ventura County Employees' Retirement Association (March 2019). It has been prepared on the basis that you are an investment professional, is for the sole use of your organization, and should not be shared with any other parties.

These materials do not constitute an offer to sell or the solicitation of an offer to buy interests in any fund or any other investment product sponsored by HarbourVest Partners L.P. or its affiliates ("HarbourVest"), hereafter referred to as the "Fund". Any offering of interests in the Fund will be made by means of delivery of a confidential Private Placement Memorandum or similar materials that contain a description of the material terms of such investment and subscriptions will be accepted solely pursuant to definitive documentation. These materials do not purport to contain all the information relevant to evaluating an investment in the Fund. No sale will be made in any jurisdiction in which the offer, solicitation, or sale is not authorized or to any person to whom it is unlawful to make the offer, solicitation, or sale. Offers and sales of interests in the Fund will not be registered under the laws of any jurisdiction and will be made solely to "qualified purchasers" as defined in the U.S. Investment Company Act of 1940, as amended. These materials are highly confidential and may not be reproduced or redistributed in any format without the express written approval of HarbourVest. An investment in the Fund involves a high degree of risk and therefore should be undertaken only by prospective investors capable of evaluating the risks of the Fund and bearing the risks such an investment represents. There can be no assurance that the Fund will be able to achieve its investment objectives or that the investors will receive a return on their capital. For additional legal and regulatory disclosures, please refer to <http://www.harbourvest.com/important-legal-disclosures>. See also 'Additional Important Information' at the end of these materials.



HARBOURVEST OVERVIEW

HarbourVest Partners overview

Established Firm	<ul style="list-style-type: none"> > Team formed in 1982 > More than \$60 billion committed to investments over three decades > Registered investment adviser with the US Securities and Exchange Commission* > AIFMD-compliant investment products for European investors* > Independent, employee-owned
Experienced & Stable Team	<ul style="list-style-type: none"> > Deep team of 500+ employees with more than 100 investment professionals > 51 managing directors with an average firm tenure of 13 years > Local teams in Beijing, Bogotá, Boston, Hong Kong, London, Seoul, Tel Aviv, Tokyo and Toronto
Focus on Private Markets	<ul style="list-style-type: none"> > Global expertise across primary partnerships, secondary investments and direct co-investments provide clients with market perspectives and actionable insights > Comprehensive and specialized programs
Proven Track Record	<ul style="list-style-type: none"> > One of the longest track records in the industry > Demonstrated performance across all strategies > Consistent approach to portfolio construction
Superior Client Service	<ul style="list-style-type: none"> > Distinguished global investor base > Responsive to client needs > Broad infrastructure – accounting, treasury, tax, compliance/regulatory, trading, investor relations
Strong Risk Controls	<ul style="list-style-type: none"> > SOC 1 reports on controls available to clients and their auditors

* This does not indicate approval or endorsement of HarbourVest by the US SEC or UK FCA



CLIENT UPDATE



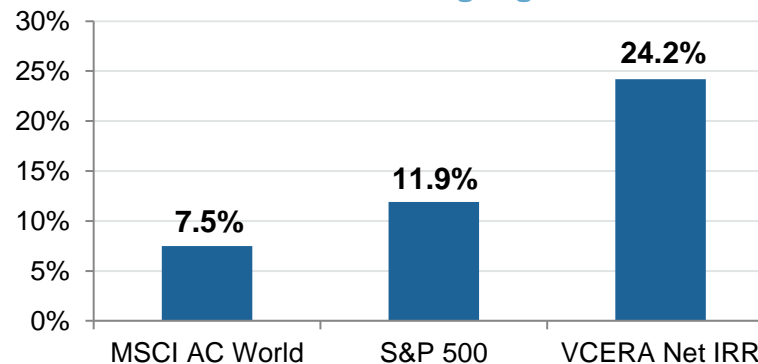
Investor summary

Ventura County Employees' Retirement Association

Assets Managed by HarbourVest as of September 30, 2018

Funds	NAV Date	Year	Committed Capital	Contributed Capital	Cumulative Distributions	NAV	Total Value	TV/C	Net LP IRR Since Incept			
									1 YR	3 YR	5 YR	
Global												
Co-Investment IV	09/30/18	2015	\$ 30,000,000	20,959,360	0	24,964,255	24,964,255	1.2x	18.1%	12.0%		
Dover VIII	09/30/18	2011	\$ 67,500,000	60,750,000	64,366,660	30,589,122	94,955,782	1.6x	22.5%	18.4%	13.6%	18.2%
Dover IX	09/30/18	2015	\$ 60,000,000	25,200,000	6,528,406	27,547,111	34,075,517	1.4x	54.5%	36.8%		
Total:			\$ 157,500,000	106,909,360	70,895,066	83,100,488	153,995,554	1.4x				
Co-Investment V	09/30/18	2017	\$ 35,000,000	0	0	0	0	0.0x				
Grand Total:			\$ 192,500,000	106,909,360	70,895,066	83,100,488	153,995,554	1.4x	24.2%	20.6%	17.7%	20.4%

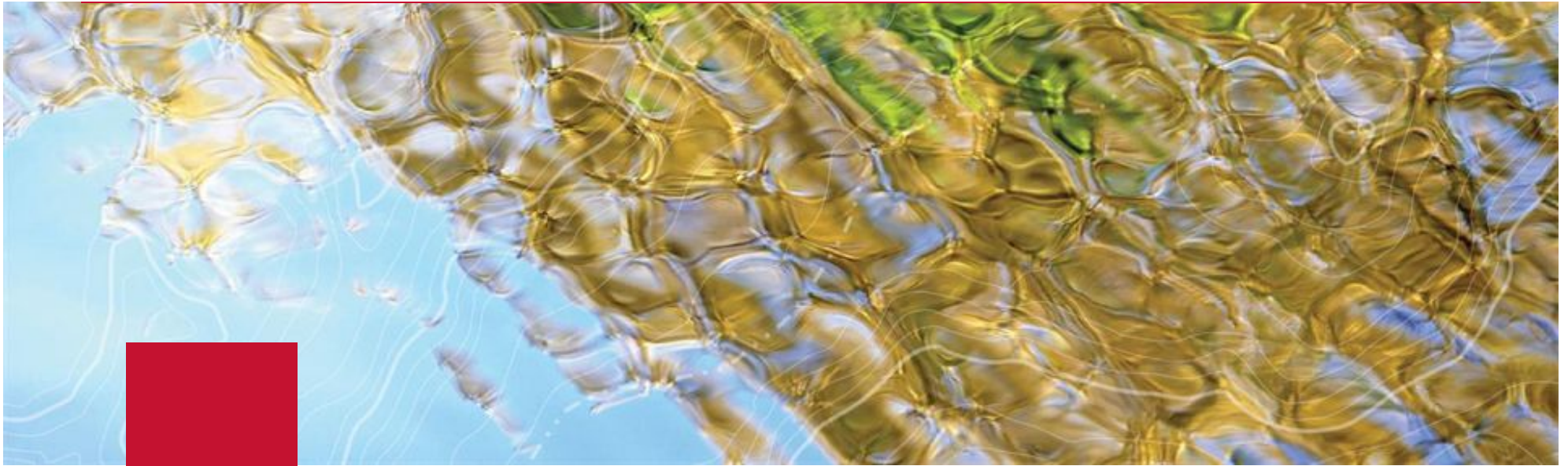
Performance Highlights*



As of September 30, 2018.

Grand Totals are based on historic exchange rates on date of actual cash flow. All funds include related AIVs. NAV and Total Value reflect values as of NAV Date, updated for capital calls and distributions through the As of Date. Investor IRRs are as of NAV Date. Grand Total IRR: Since Inception includes each fund as of its NAV Date. 1 year, 3 year and 5 year IRRs are based on the earliest NAV Date.

* Public market comparison represents performance if the respective index had been purchased and sold at the time of the limited partners' capital calls and distributions, with the remainder held at the date noted. Dividends are not reinvested. Using this methodology, the capital calls for the purchase of the public market index are the same as the capital calls for the HarbourVest fund. The distributions for the sales of the public market index are scaled to represent the same proportion of the fund's NAV at the time of the distribution. (For example, if the fund distributes 5% of NAV, then 5% of the index NAV is distributed.) The securities comprising the public market benchmarks have substantially different characteristics than the investments held by the HarbourVest funds, and accordingly a direct comparison may not be meaningful. Net L.P. IRR are the returns to Ventura County Employees' Retirement Association ("Ventura County") after all fees, operating expenses, and carried interest, and is calculated using daily cash flows to and from Ventura County. In this calculation, the final cash flow is the fair market value of Ventura County's capital account at the applicable date as determined by the general partner of the respective HarbourVest fund in accordance with the valuation policy. Past performance is not a reliable indicator of future results.



DOVER PROGRAM UPDATE

HarbourVest secondary investment capabilities

Building high-quality, diversified portfolios that seek outperformance and j-curve mitigation

Differentiated Approach

Focus on **less efficient** segments of the market

Act as a **solutions provider** to general partners and sellers

Highly selective strategy with emphasis on market-leading **complex deals**

Experienced, Stable Team

Decades of collaboration and industry experience

33
years of
secondary
investing

450+
transactions
executed

17
average
years of
MD tenure

HarbourVest Platform

Deep relationships and information advantage

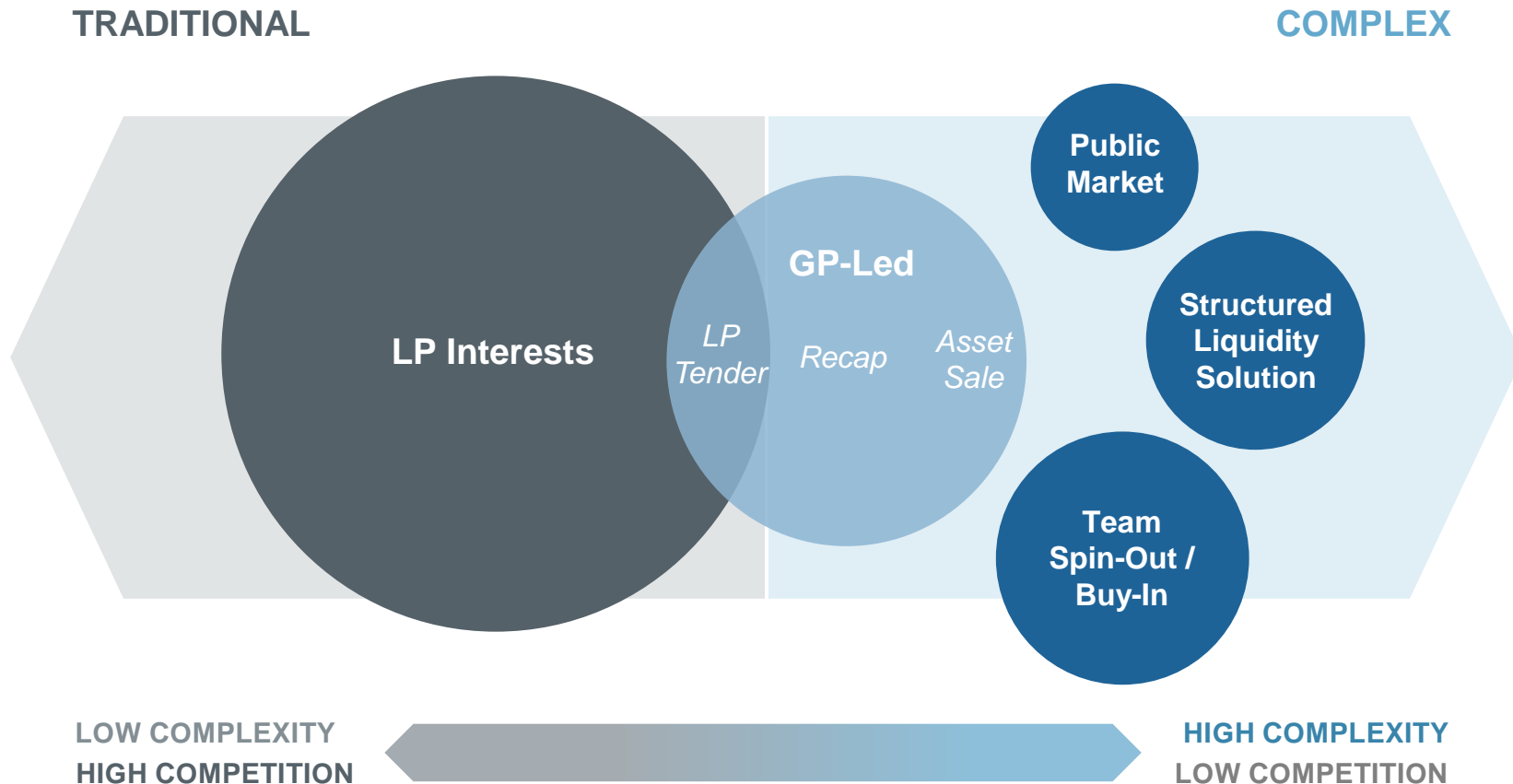
17,000+
partnerships
tracked

700+
advisory
board seats

120+
investment
professionals

Expanding universe of secondary market opportunities

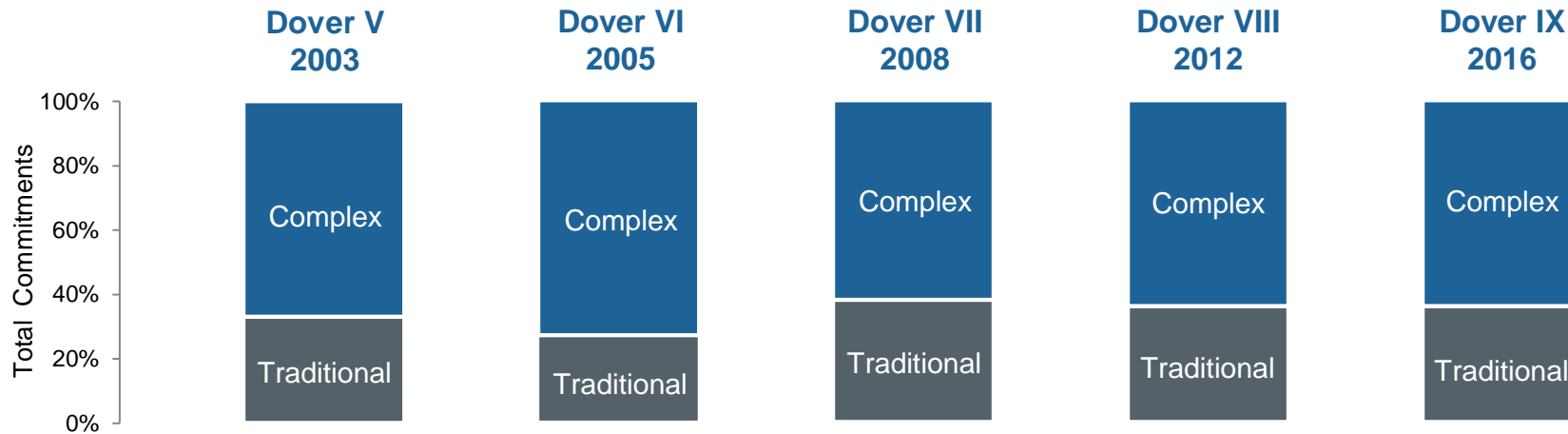
HarbourVest focuses on the more inefficient parts of a growing complex market



Shown for illustrative purposes only

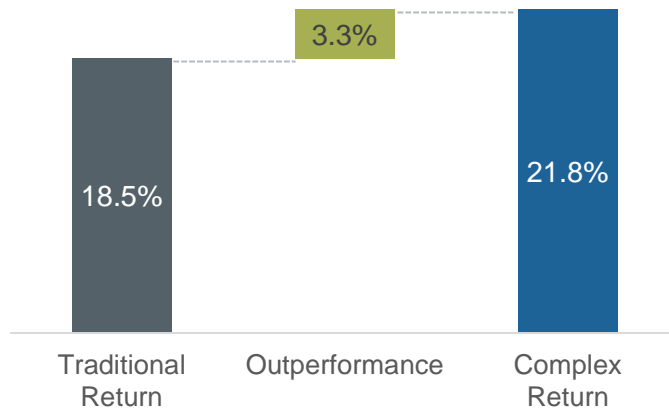
access OPPORTUNITY

Consistent approach to portfolio construction



Complex investments have outperformed

Gross Model Portfolio IRR



Complex focus has not meant more risk

- > Complex and traditional transactions have had similar risk profiles
- > Complex transactions offer differentiated access to high-quality assets
- > To successfully source, diligence, structure, and execute complex transactions, deep experience, expertise, and resources are required

As of September 30, 2018. Dover Street IX is 80% committed to investments and final portfolio construction may differ from this illustration in the future once the fund is fully committed.

Gross model portfolio IRR is presented on a gross basis and reflects the performance of all private equity secondary investments (excluding secondary real assets) including those made by the Dover Street Program and other HarbourVest funds/accounts, broken out between traditional and complex transactions. Past performance is not a reliable indicator of future results. No investor received the gross model IRR. See 'Additional Important Information' at the end of the presentation, including important disclosures related to Gross Performance Returns, Model Performance, and Fees and Expenses.

Dover Street VIII

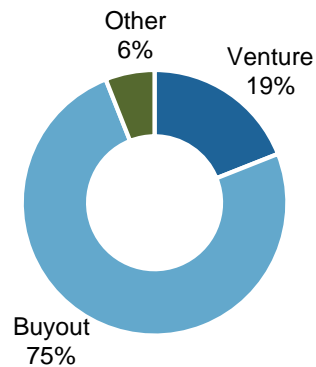
Update

- > Committed from 2012-2016
- > 100% committed to 37 deals since inception
- > Well diversified portfolio consistent with stated strategy
- > Portfolio performing ahead of plan
 - \$306 million gain through first three quarters of 2018 (12.7% of current portfolio value at year-end 2017)
 - \$2.3 billion gain since inception
 - Distributed-to-funded multiple of 1.1x
 - Total value-to-funded multiple of 1.8x
- > \$1.1 billion distributed to LP's in 2018

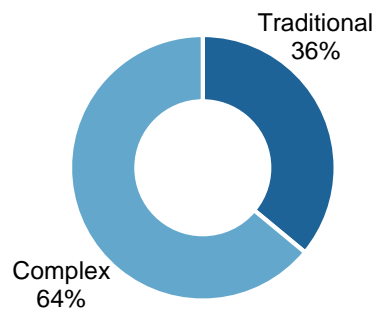
\$ Millions

As of	Sep-30 '18	Feb-28 '19
Fund Size	\$3,591.5	\$3,591.5
Committed to Investments	101%	101%
Paid-In Capital	\$3,183.8	\$3,183.8
% Called	90%	90%
Distributions	\$3,373.4	\$3,491.6
DPI	1.1x	1.1x
Total Value	\$4,976.5	
TVPI	1.6x	
Net IRR	22.2%	

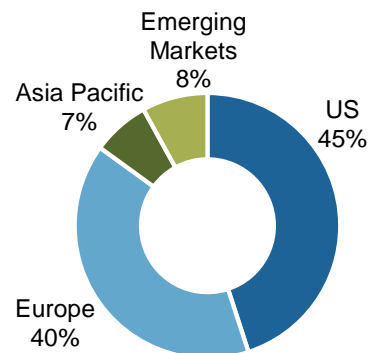
Stage



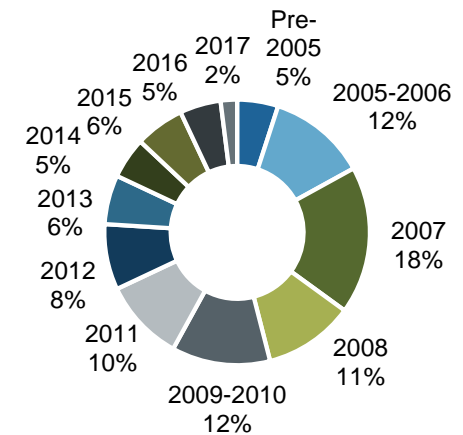
Transaction Type



Geography



Investment Year



Pie charts are based on cumulative cost of company investments as of September 30, 2018.

See final pages for additional notes. This page summarizes the activity and performance of a HarbourVest fund or account. There is no guarantee the investments and relationships referenced will be in a future portfolio. Past performance is not a reliable indicator of future results.

Dover Street IX

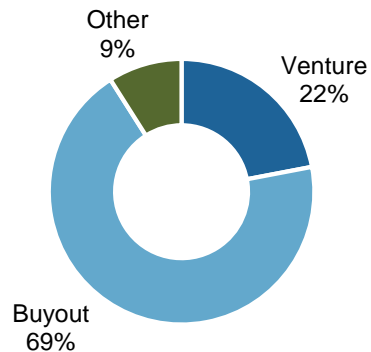
Update

- > Final closing in October 2016
- > Commitment period from 2016 – 2019
- > Initial capital call and distribution issued December 2016
- > Approximately 93% committed to deals through December 31, 2018
- > Portfolio generated a \$445 million gain in the first three quarters of 2018 and has a total value of 1.4x funded capital at September 30, 2018
- > \$305 million distributed to LP's in 2018

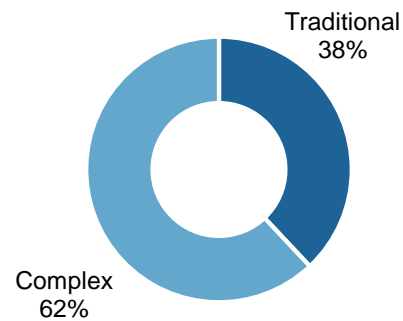
\$ Millions

As of	Sep-30 '18	Feb-28 '19
Fund Size	\$4,777.0	\$4,777.0
Committed to Investments	80%	93%
Paid-In Capital	\$1,976.2	\$2,729.1
% Called	42%	58%
Distributions	\$512.0	\$787.7
DPI	0.3x	0.3x
Total Value	\$2,678.0	
TVPI	1.4x	
Net IRR	54.9%	

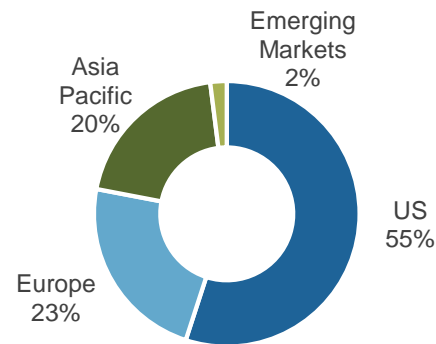
Stage



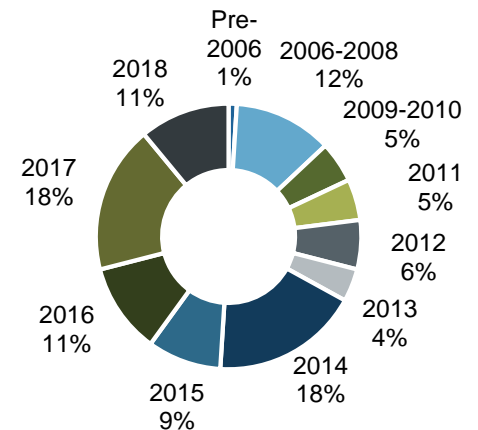
Transaction Type



Geography



Investment Year



Pie charts are based on cumulative cost of company investments as of September 30, 2018. Transaction type is as of December 31, 2018.

See final pages for additional notes. This page summarizes the activity and performance of a HarbourVest fund or account. There is no guarantee the investments and relationships referenced will be in a future portfolio. Past performance is not a reliable indicator of future results.

Dover Street X – Summary of terms

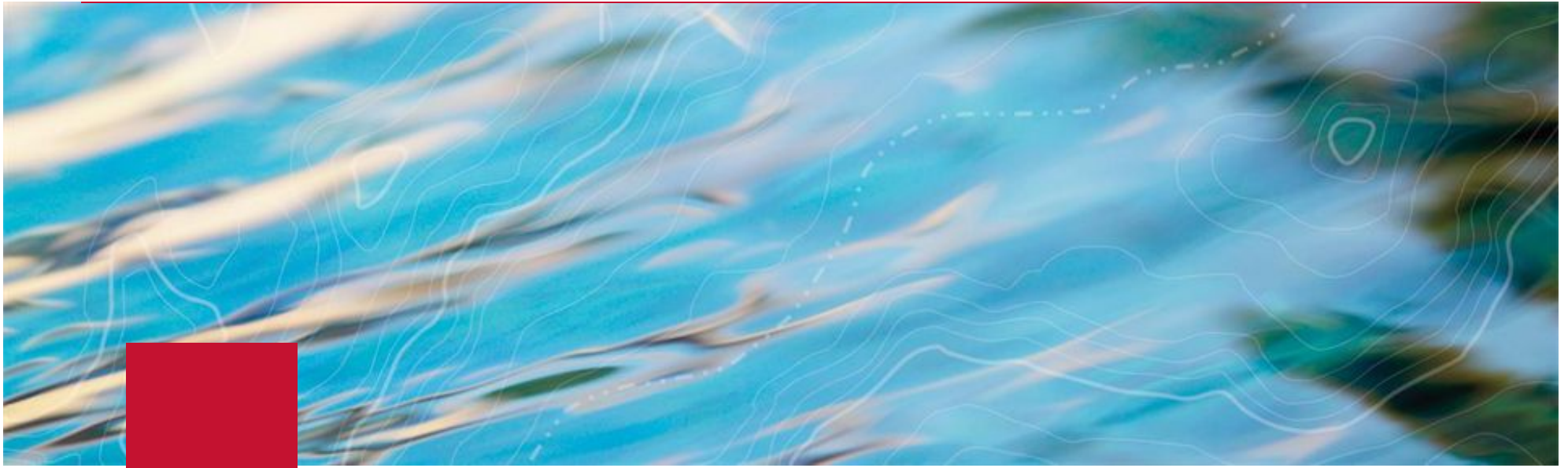
Target Size	\$5.75 billion
Investment Period	3-5 years
Term	10 years, with four one-year extensions at the option of the general partner
Management Fee	0.75% average annual management fee, based on committed capital*
Early Closing Fee Reduction[±]	5 bps
Carried Interest	<ul style="list-style-type: none"> • 12.5% on net investment profits • 8% limited partner preferred return with general partner catch up

* Average annual management fee of 0.75% is calculated over 14 years and assumes that the Fund's term is extended for four, one-year extensions, which can be exercised at the discretion of the general partner. The average annual management fee over the Fund's term without extensions (10 years) would be 1.01%. The actual average management fee will vary based on the Fund's actual term. The average fee rate provided applies to a limited partner's entire commitment.

Subject to regulatory approval, versions of the Fund that take AIFMD considerations into account are expected to be available in Q4 2018.

See 'Additional Important Information' at the end of the presentation, including important disclosures related to Fees and Expenses.

± Any limited partner that irrevocably commits to the Fund on or before May 31, 2019 will receive a 0.05% reduction in the annual management fee rates with respect to such early closing commitments amount. Any fee reduction(s) offered shall not reduce the management fee below zero in any year, nor shall they be applied as credits against any management fees payable in any period prior to or following a period in which such percentage is reduced to zero. As a result, the average annual management fee over the life of the Fund (including the four one-year extensions) may be reduced by less than five basis points.



HARBOURVEST'S CO-INVESTMENT PROGRAM

A trusted co-investment partner

HarbourVest is an established leader in building global co-investment portfolios

Strong, demonstrated track record*

19.1%
gross model IRR for
realized co-investments

\$8.6 billion
proceeds
generated

Proven deal-sourcing platform

720+
deals sourced
in LTM

46%
small/mid-market
deals sourced in LTM**



Systematic, repeatable process

\$9.5 billion
co-investment capital
deployed since 1989

1/15
deals selected
for investment††

Experienced, dedicated team

40
investment
professionals
globally†

19
average years of
MD experience

As of September 30, 2018, unless otherwise noted.

* Source: HarbourVest as of September 30, 2018. Past performance is not a reliable indicator of future results. Gross model IRR is presented on a gross basis and reflects the performance of all realized direct co-investments made by the HarbourVest team since 1989 across all HarbourVest-managed funds and accounts, excluding custom accounts and early-stage investments. No investor received the gross model IRR. Proceeds generated reflect gross realized proceeds from all partially and realized direct co-investments in this same universe. See 'Additional Important Information' at the end of the presentation, including important disclosures related to Gross Performance Returns, Model Performance, and Fees and Expenses.

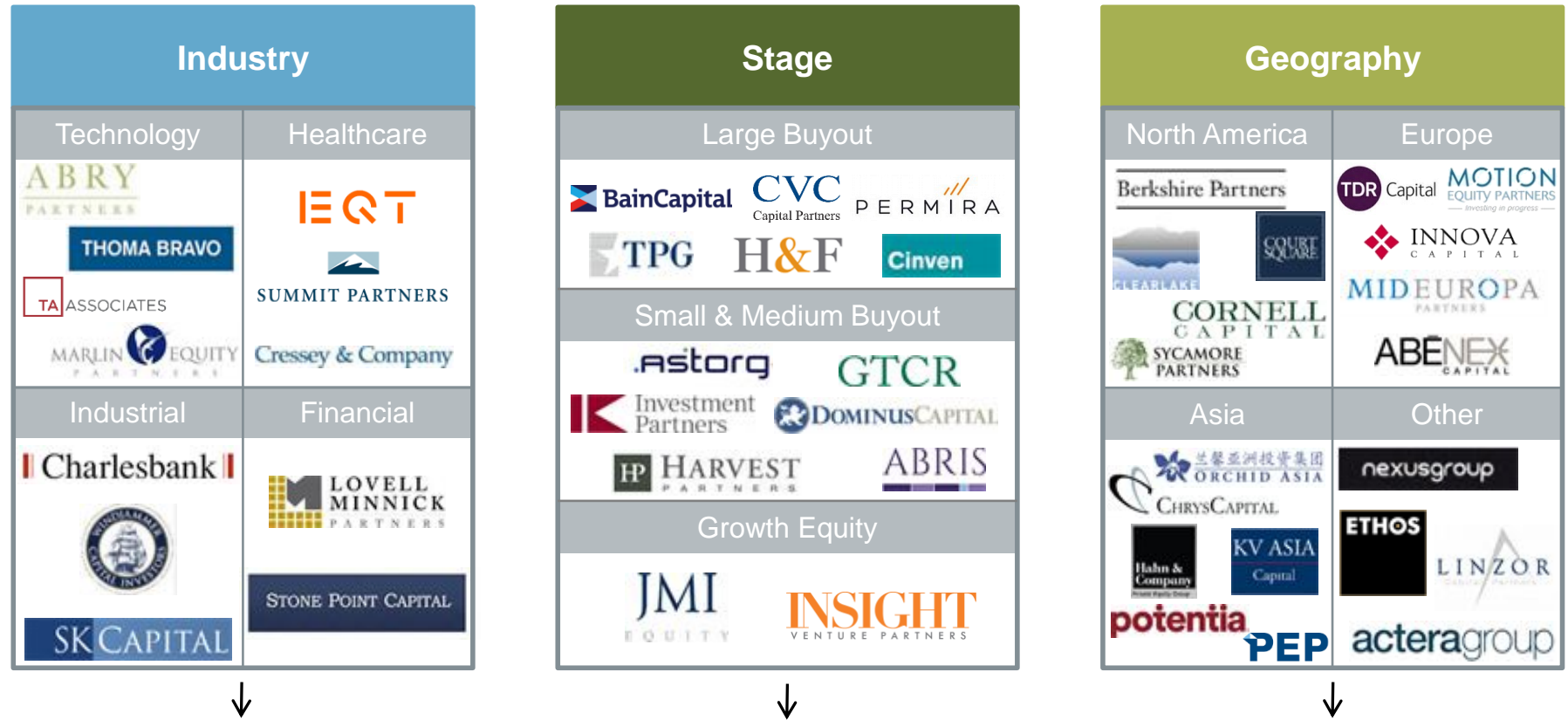
** Small/mid-market deals are defined as such by the co-investment team at the time that the opportunity was sourced.

† Source: HarbourVest as of March 1, 2019.

†† Based on all co-investment deals evaluated for a HarbourVest fund/account between January 1, 2013 and December 31, 2018.

Exposure to top-tier managers

Proactive, systematic sourcing contributes to diversification of lead managers



67% of co-investments are solutions-oriented opportunities*

* Based on investments made on behalf of 2013 Direct Fund and Co-investment Fund IV as of September 30, 2018. Past performance is not a reliable indicator of future results. The general partners shown above are all those with whom 2013 Direct Fund and Co-investment Fund IV have invested as of September 30, 2018, and are intended for illustrative purposes only. While this may be an actual investment or relationship in a HarbourVest portfolio, there is no guarantee it will be in a future portfolio.



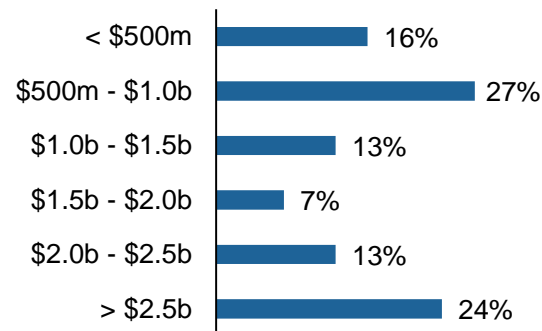
HarbourVest Partners Co-Investment Fund IV

Overview	<ul style="list-style-type: none"> > Formed in 2016, Fund held final closing in June 2017 > Commitment period from 2016 - 2018 > Co-investments principally in leveraged buyouts, recapitalizations, growth equity and special situations
Portfolio Update	<ul style="list-style-type: none"> > \$1.5 billion (including unfunded commitments) committed to global co-investments across industries > The Fund made multiple new investments in the first three quarters of 2018, including Jana Small Finance Bank, Lytx, Nets Holding, Perimeter Solutions, The Dwyer Group, and others > Net gain during the first three quarters of 2018 driven by valuation increases including Staples, Press Ganey, and others; offset by valuation decrease for GetBack

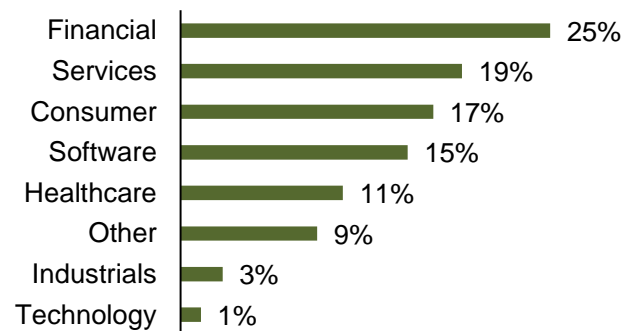
\$ Millions

As of	Sep-30 '18	Feb-28 '19
Fund Size	\$1,767.7	\$1,767.7
Committed to Investments	96%	99%
Paid-In Capital	\$1,272.3	\$1,362.6
% Called	73%	78%
Distributions	\$0.0	\$109.4
DPI	0.0x	0.1x
Total Value	\$1,507.4	
TVPI	1.2x	
Net IRR	16.9%	

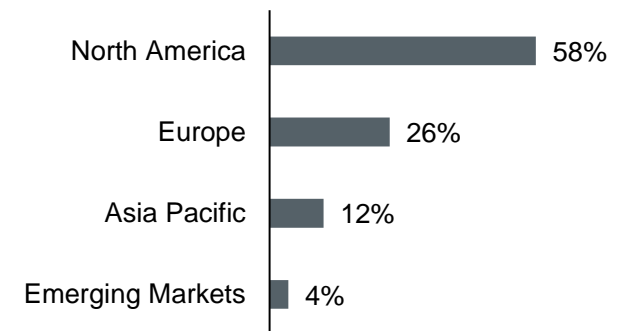
Enterprise Value



Industry



Geography



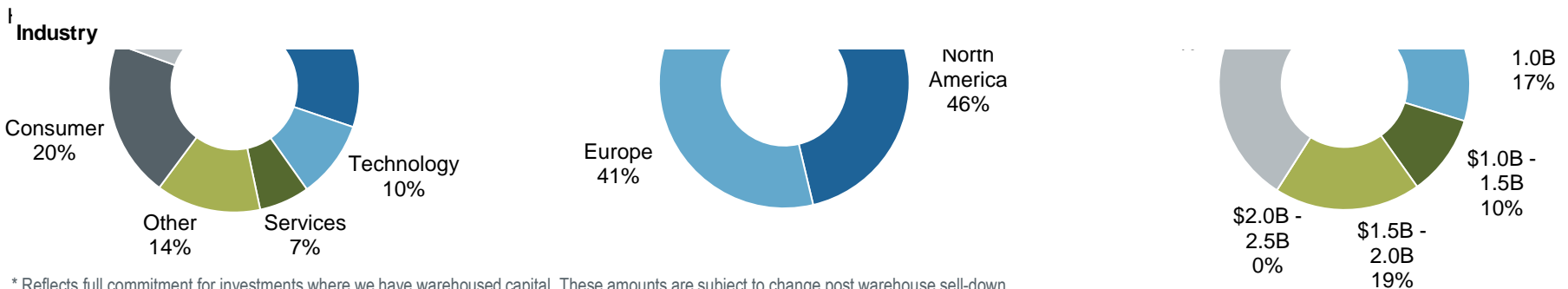
Source: HarbourVest. Charts are based on cumulative cost and commitments of company investments as of September 30, 2018. HCF IV performance also includes the performance of any AIF-related funds. A complete list of the fund's portfolio holdings and performance may be found elsewhere in this presentation. This performance is intended for distribution with the annual performance information in 'Additional Track Record Detail'. See 'Additional Important Information' at the end of the presentation, including important disclosures on Gross / Net Performance Returns and Fees and Expenses. This page summarizes the activity and performance of a HarbourVest fund or account. There is no guarantee the investments and relationships referenced will be in a future portfolio. Past performance is not indicative of future results.



Co-Investment Fund V portfolio

As of February 28, 2019

COMPANY	LOCATION	DESCRIPTION	INVESTMENT YEAR	CO-INVESTORS	OUTSTANDING COMMITMENT (\$M)	AMOUNT INVESTED
Closed / Committed after September 30, 2018						
Link Mobility	Europe	Mobile messaging services	2018	ABRY Partners	\$30.0	Per Equity
eSure Group	Europe	Non-life insurance company	2018	Bain Capital	99.2	Per Equity
SK Shipping	Asia Pacific	Korea's largest wet bulk shipping company	2018	Hahn & Company	47.3	Per Equity
Information Resources	North America	Provider of market information solutions and analytics	2018	Vestar Capital Partners	80.0	Per Equity
McLarens	North America	Claims management and loss adjusting services	2018	Lee Equity Partners	40.6	Per Equity
Knowlton Development Corp.*	North America	Specialty contract manufacturer of consumer goods	2018	Cornell Capital	83.6	Pre-warehouse
Olink*	Europe	Biotechnology company	2019	Summa Equity	60.9	Pre-warehouse
Project Count**	Asia Pacific	Accounting software	2019	KKR	52.0	
Colisée**	Europe	Retirement homes and elderly care services	2019	IK Investment Partners	42.3	Assumed
Project Pulver**	Europe	Digital marketplaces	2019	Hellman & Friedman	98.9	Assumed
Assured Partners**	North America	Middle-market insurance brokerage firm	2019	GTCR	102.2	Post-warehouse
Custom Ink**	North America	Custom web-to-print apparel brand	2019	Great Hill Partners	64.5	
TOTAL Closed / Committed after September 30, 2018					\$801.6	



* Reflects full commitment for investments where we have warehoused capital. These amounts are subject to change post warehouse sell-down.

** Reflects investments that are approved and committed but have not yet funded. Amounts committed for these investments are subject to change.

Source: HarbourVest. Includes investments and commitments as of February 28, 2019. Charts are based on total committed capital for all closed and committed investments as of February 28, 2019; these percentages are therefore subject to change as the Fund makes new commitments. Also includes the performance of any AIF-related funds. This performance information is presented on a "gross" basis. It does not reflect management fees, carried interests and other expenses to be borne by investors in the Fund, which will reduce returns. Past performance is not indicative of future results.



APPENDIX

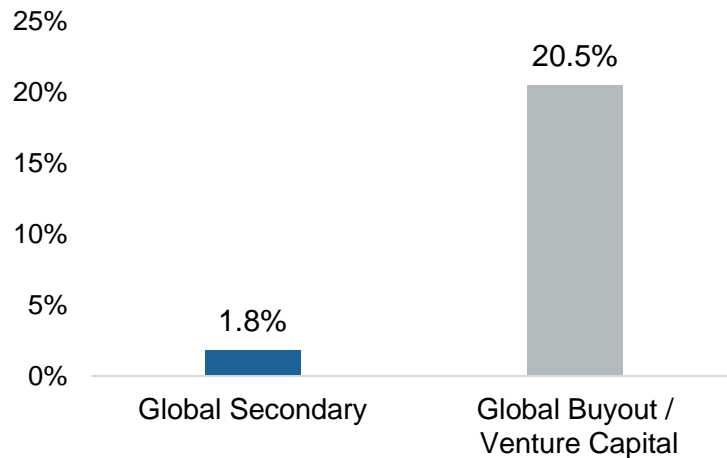


SECONDARY MARKET OVERVIEW

Secondary investments – Attractive risk-reward profile

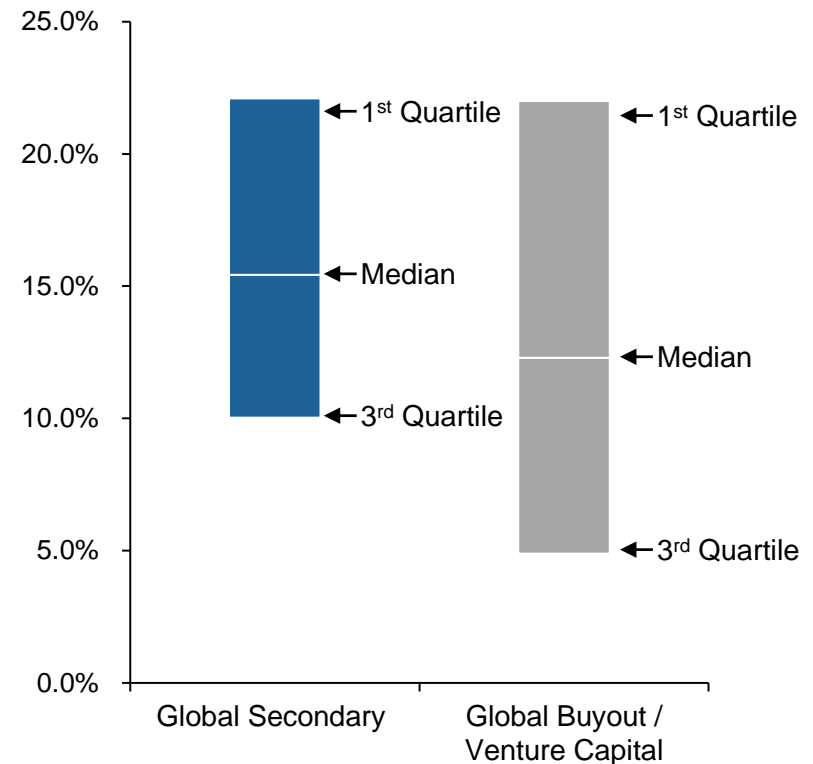
Historically low loss rates and strong returns versus traditional private equity investments

Percentage of Funds Returning < 1.0x



- > Fewer secondary funds have lost capital for investors than any other private equity strategy
- > Increased visibility and the ability to purchase at a discount to market value provide strong downside protection
- > Despite lower risk, secondaries offer compelling absolute and relative returns

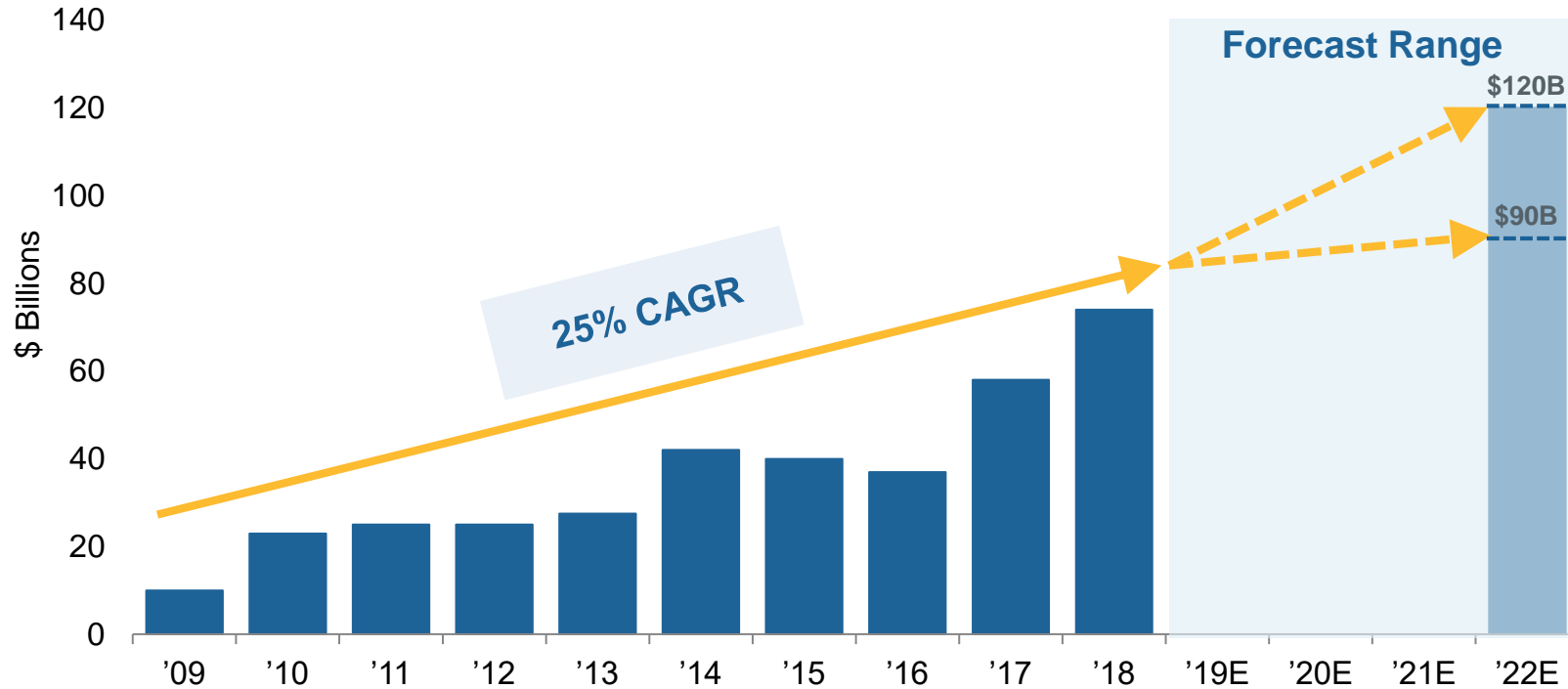
**IRR Dispersion
2002-2013 Vintage Year Funds**



Source: Preqin, as of September 30, 2017. Data in left chart is based on Preqin's database of 8,000+ private equity funds, including 204 secondary funds. Data in right chart is based on 2002-2013 vintage funds. This industry data reflects the fees, carried interest, and other expenses of the funds included in the data set. The fees, carried interest, and other expenses borne by investors in a HarbourVest fund / account may be higher or lower than the fees and expenses of the funds reflected in the data set. Past performance is not a reliable indicator of future results.

Secondary market growth

Secondary Market Deal Volume



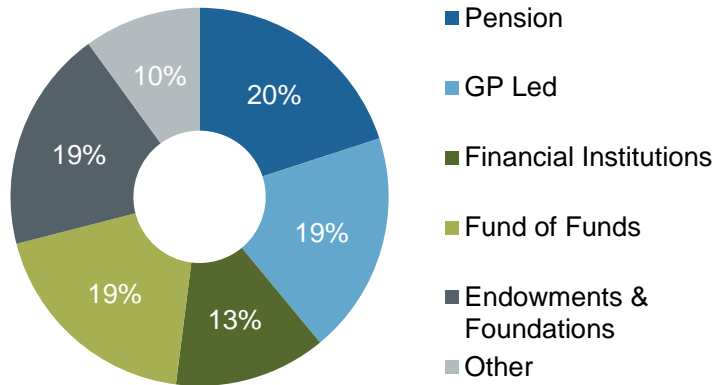
Incremental Growth Drivers

Increasing number and volume of GP-Led transactions	Investors embracing proactive portfolio management	\$2.3 trillion raised in primary capital over the past 5 years
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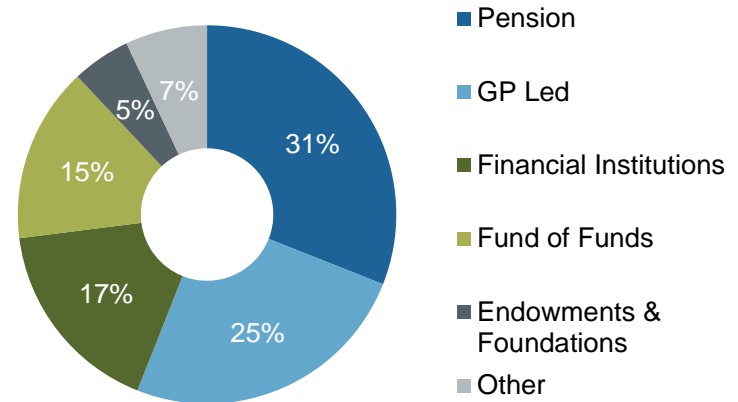
As of December 31, 2018. Source: Greenhill Cogent, *Secondary Market Trends & Outlook, January 2018* (market volume), HarbourVest estimates (forecast range), Preqin (primary capital raised)

Broad universe of sellers

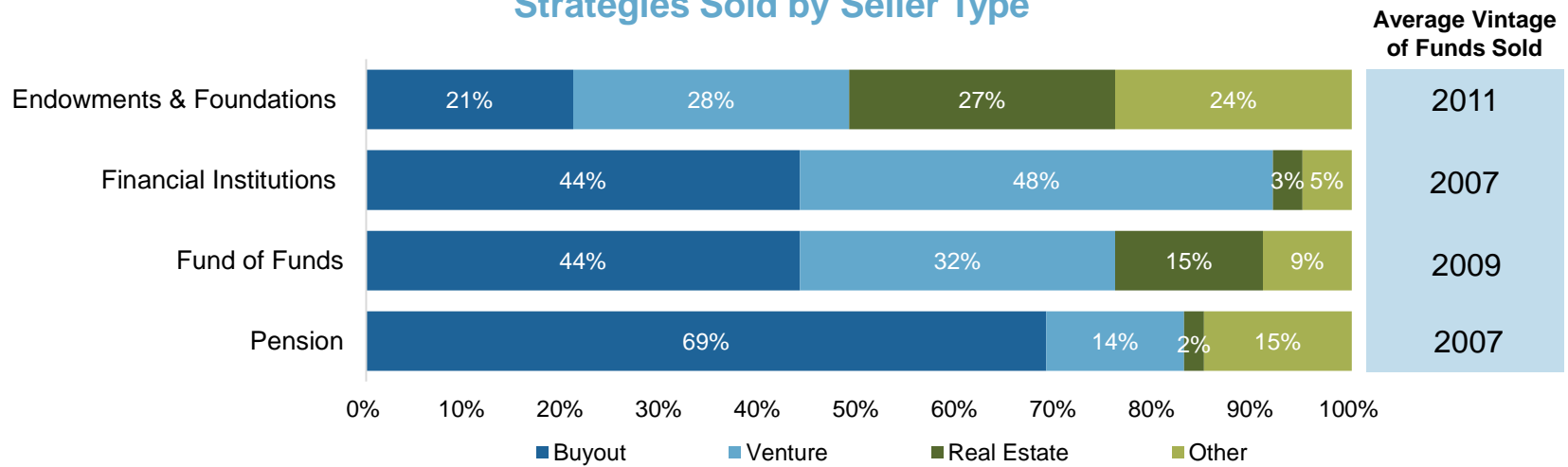
Number of Sellers



Transaction Value



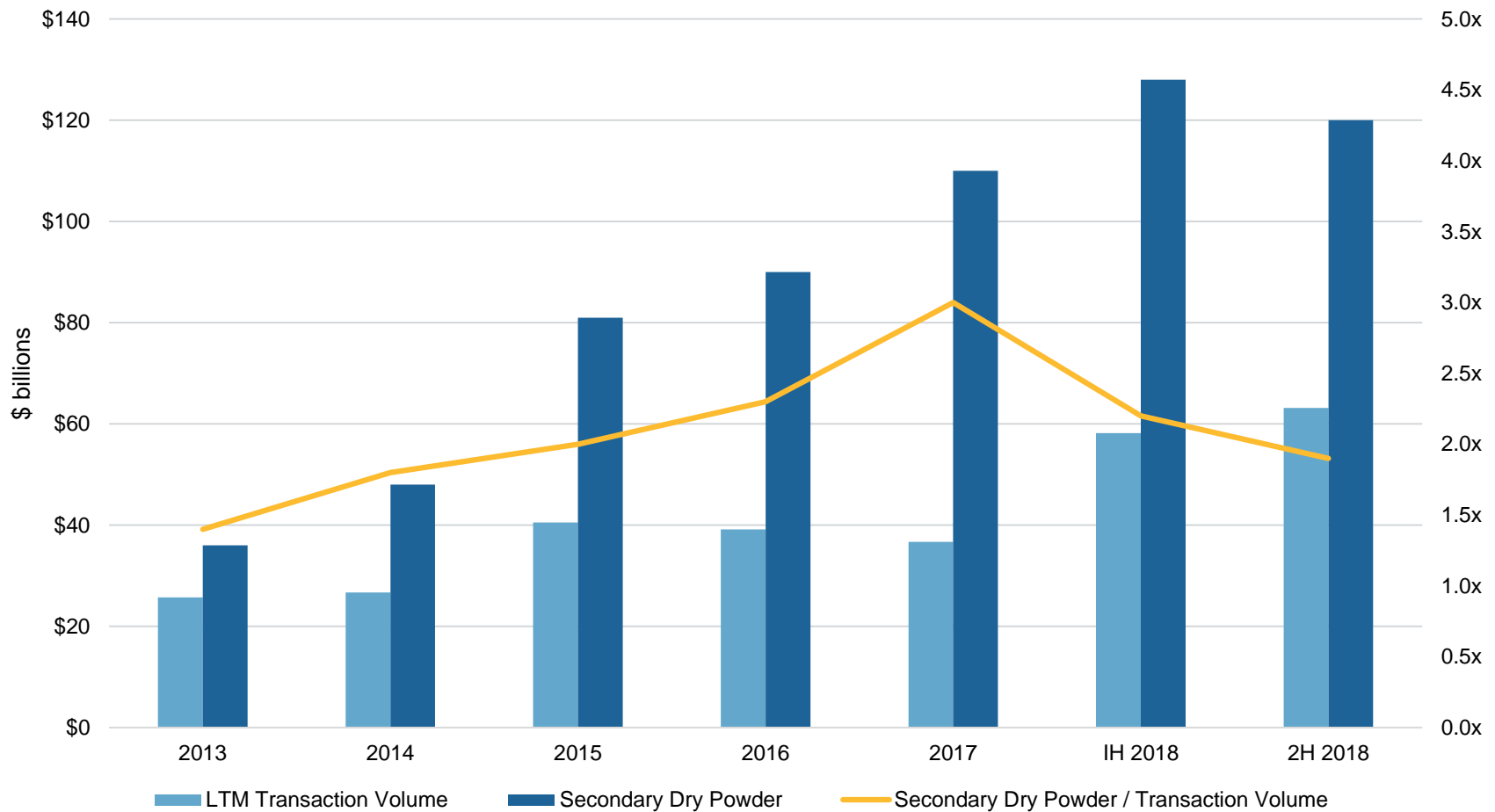
Strategies Sold by Seller Type



Source: Greenhill Cogent September, 2018

Secondary market transaction capacity

Historical Secondary Dry Powder vs. Transaction Volume

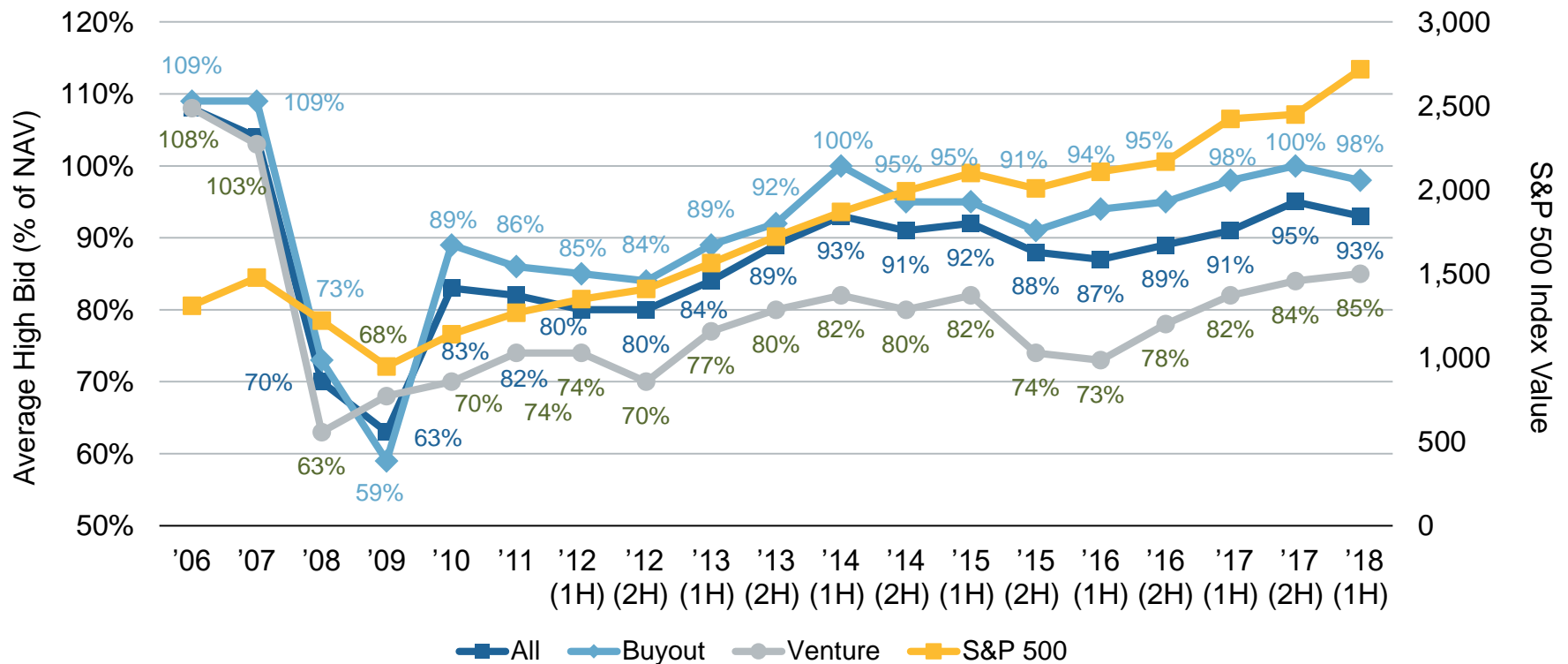


Source: Greenhill Cogent

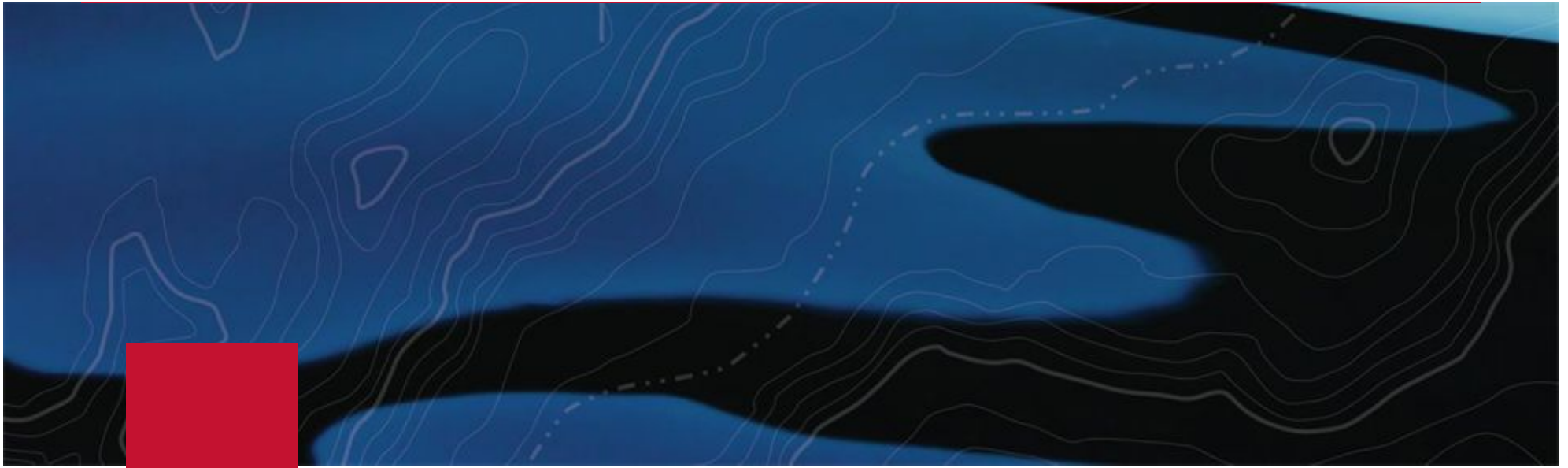
Secondary market pricing

- > Highest quality buyout assets trading at or near par
- > Widening spread between mature / tail-end assets and more recent vintages
- > Assets with deepest discounts focused on emerging markets
- > Venture pricing highly dependent on quality and maturity

Private Equity Secondary Pricing vs. S&P 500 Index Value



Source: Greenhill Cogent



CO-INVESTMENT MARKET

Advantages of co-investing



Compelling Risk/Return Profile

Broadly diversified portfolio of thoroughly diligenced opportunities



Reduced Fees and Expenses

Investments in companies at lower costs than traditional private equity funds



Differentiated Access to Top-Tier Managers

Unique way to partner with and gain exposure to GPs



Diversification Benefits

Strategic complement to a core private market allocation

A systematic sourcing approach and proven selection process executed by a dedicated team are required to develop a successful co-investment program.

Co-investment market

Typical
co-investment
opportunity

\$5-20m

\$10-40m

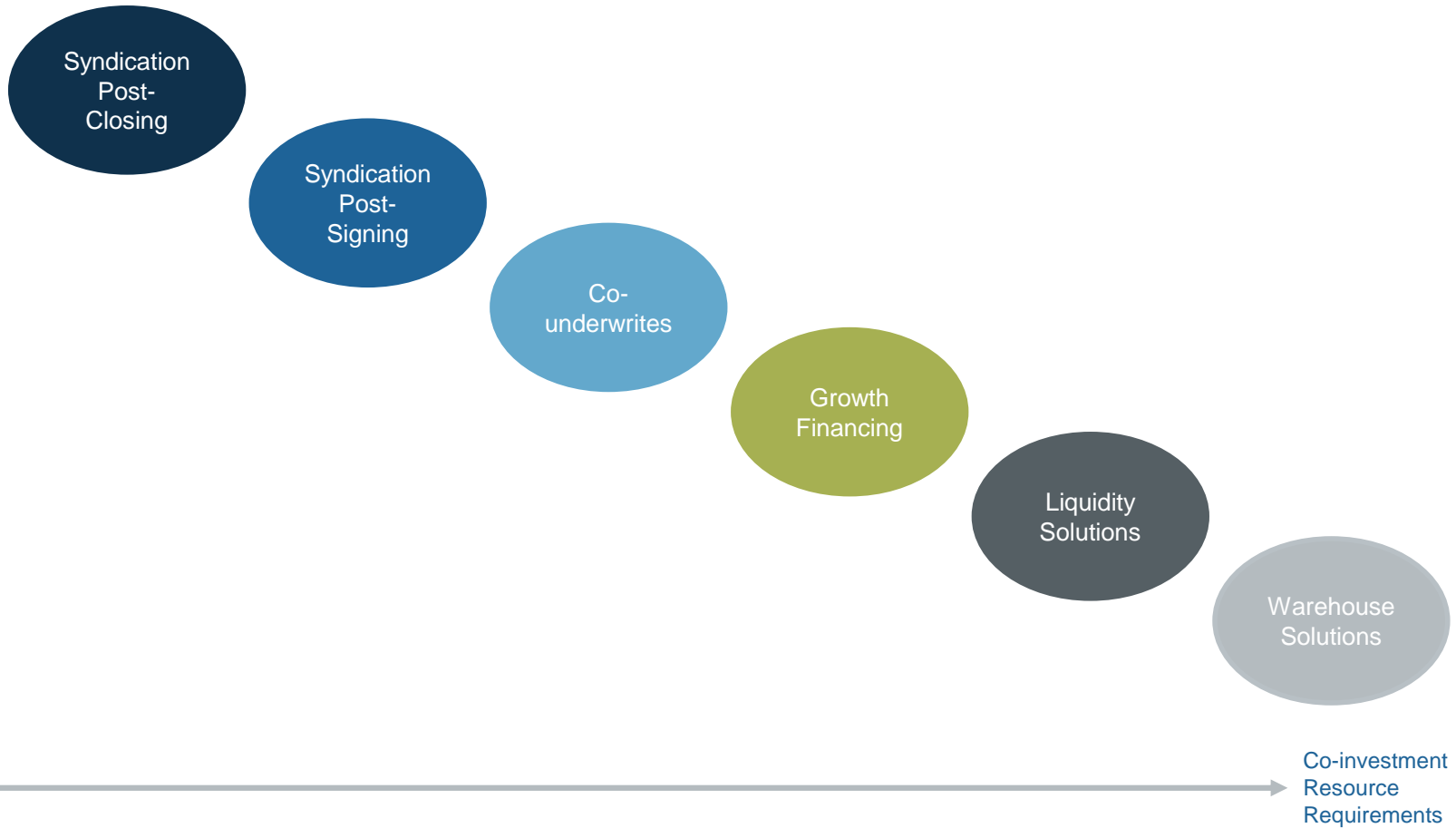
\$40-350m

\$20-100m

\$20-500m

\$40-250m

Number of
Participants /
Level of
Competition



What are the characteristics of a successful co-investment program?

There are four pillars:

Access

Sufficient access to co-investment opportunities alongside top-tier private equity managers to enable the construction of a high-quality, diversified portfolio

Selection

Ability to actively select co-investments from sourced opportunities that perform at least as well as the lead general partner's fund

Resources

Resources (internal or outsourced) to provide deal sourcing, deal evaluation, and portfolio management capabilities

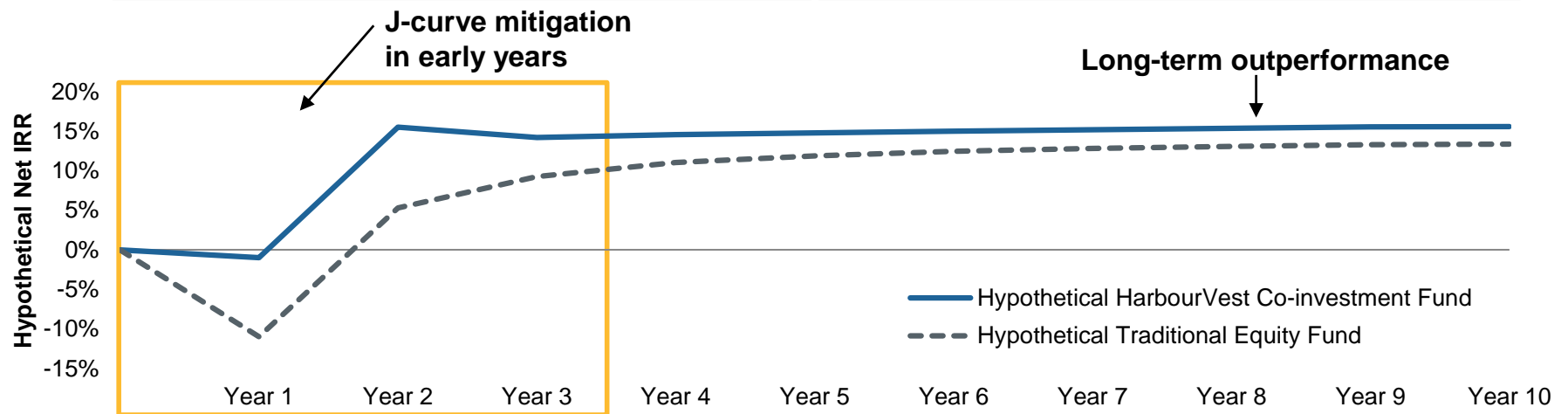
Cost Structure

Cost structure (internal or outsourced) that provides a material reduction in expenses compared to a standard private equity fund, thereby decreasing the gross to net spread

Cost structure: Lower cost access to private equity

Example: \$2.5 billion fund, invests ~\$830 million per year evenly over 3 years, generates a gross portfolio return of 2.25x

	Hypothetical HarbourVest Co-investment Fund	Hypothetical Traditional Equity Fund
Fee:	1% of invested capital* in years 1 through 5, declining by 20% each year thereafter	2% of committed capital in years 1 through 5, declining by 20% each year thereafter
Carry:	12.5%	20%



Result: Based on our model, a hypothetical \$2.5 billion HarbourVest Co-investment Fund would return \$464 million more cash to LPs over a ten-year term, representing 46% less fees and carried interest than a hypothetical Traditional Equity Fund.

*Invested Capital is defined as cumulative capital committed to investments which includes any investments funded through a financing facility. In the event that cumulative capital committed to investments, including reinvested capital, ever exceeds total committed capital, then the management fee will be based on the lower committed capital number.

Shown to illustrate effect of fees only. Not intended to project performance in any manner whatsoever. **No investor received the indicated model performance.** The terms of the actual funds that the Fund invests alongside may be different. Hypothetical HarbourVest Co-investment Fund fees and carried interest are based on HCF V's terms. Assumes 100% of committed capital invested and 2.25x gross portfolio return in both scenarios. Management fees are paid with portfolio proceeds beginning in Year 6. Both scenarios have an identical schedule of gross distributions assuming investments are held for 5 years. Hypothetical Net IRRs are calculated based on annual cash flows, assuming capital called in mid-year and NAV as of year-end. Hypothetical Net IRRs reflect assumption of 17.6% NAV increase in Years 2 through 10. Does not reflect organizational costs and other fund-level operating expenses that would be incurred in the management of an actual fund. No cash balance is modeled, i.e., all fund excess cash is distributed to LPs. The carried interest accrues to the general partners's account as it is generated and is paid to the general partner in Years 9 and 10. No assurance is made that the Fund will achieve comparable results.



OPERATIONS OVERVIEW



Experienced operations team

- > Over 200 professionals
- > Senior teams across disciplines average 20+ years of experience

Chief Financial Officer Karin Lagerlund			Chief Administrative Officer Mary Traer	General Counsel Paula Drake	Chief Data Officer Julie Eiermann			Chief Technology Officer Tricia Mackechnie
Accounting	Treasury	Trading	Structuring, Tax and Operational Coordination	Legal & Regulatory Compliance	Portfolio Analytics	Enterprise Data Office	Business Intelligence	Information Technology
74 Professionals	17 Professionals	1 Professional	22 Professionals	20 Professionals	37 Professionals	2 Professionals	10 Professionals	41 Professionals
<ul style="list-style-type: none"> > Review and summarize quarterly investment reports > Investment valuation > Monitor compliance with US GAAP > Annual audits > Annual SOC 1 > Determine fund distributions > Reconcile cash flows and performance > Custom reporting 	<ul style="list-style-type: none"> > Manage bank and custody relationships > Daily cash management > Foreign currency management > Manage credit lines > Call capital from investors > All incoming and outgoing wire transfer activity 	<ul style="list-style-type: none"> > Receive and manage stock distributions > Public stock monitoring and liquidation > Oversee brokerage relationships > Execute liquidation strategies for direct public holdings 	<ul style="list-style-type: none"> > Global tax compliance and planning for the firm, funds, accounts, and portfolio investments > Annual tax reporting to investors > Structuring for products, customized client solutions and investments 	<ul style="list-style-type: none"> > Global regulatory compliance > Internal legal advice > Corporate governance > Fund formation > Structuring separate accounts and custom solutions > AML/KYC 	<ul style="list-style-type: none"> > Primary operations point of contact for GPs > Track all investments, cash flows, performance, and underlying company detail > Portfolio performance > Benchmarking and analytics > Operational due diligence > Custom reporting 	<ul style="list-style-type: none"> > Data strategy > Data management policies and standards > Data governance > Data acquisition 	<ul style="list-style-type: none"> > Data warehousing > Data model management > Reporting > Business Analytics & Visualization 	<ul style="list-style-type: none"> > Infrastructure > Application development > Quality assurance > Data backup and recovery > Information protection > Identify business solutions > Application roadmaps > Requirement gathering > Functional requirements > Training

As of March 1, 2019

Reporting and investor communications schedule

Communication	Frequency	Contents
Capital call notices	As needed	> Amount of call and wiring instructions
Distribution notices	As needed	> Amount of distribution and largest sources of distribution
Capital account statements	Quarterly (90 days after quarter end Q1-Q3 and 120 days after quarter end Q4)	> Value of individual investor's capital account > Detail on changes in account value from prior period (calls, distributions, gains / losses, expenses) > IRRs
December 31 Estimated Statements	Annually (January) or upon request	> Estimated December 31 capital account statements based on best information available and relative changes in S&P weighted indices
Update letters (actively investing funds)	Bi-annually January / February, July / August	> Update on the account's activity in prior period > Calls, distributions, new investments, and major portfolio developments
Annual reports	Annually March – May (within 150 days after year end)	> Portfolio summaries > Detailed update on the account's activity in prior period > Calls, distributions, new investments, liquidations > Major sources of investment gains and losses > Fair value of each investment, diversification, major holdings > Audited financial statements > Capital account values for each investor
Quarterly reports	As of March, June, and September	> Quarterly updates on account and portfolio activity throughout the year > Within 90-120 days of quarter end
SOC 1 report	Annually	> Type II report to be issued annually
Annual tax information	Annually May – August	> Schedules K-1, withholding tax statements, and other information necessary to complete each limited partner's tax return
Annual meeting	Annually Late May	> Presentations are made available to limited partners who cannot attend > Location rotated between Boston and Europe
Advisory Board meetings	Semi-annually (May and December)	> Agenda items include any topics / updates requested by members

Strong global team

PRIMARY PARTNERSHIPS	SECONDARY INVESTMENTS	DIRECT INVESTMENTS	OPERATIONS
MANAGING DIRECTOR	MANAGING DIRECTOR	MANAGING DIRECTOR	Paula Drake, Managing Director
Kathleen Bacon	David Atterbury	Jamie Athanasoulas	Julie Eiermann, Managing Director, CDO
Till Burges	Mike Pugatch	Alex Rogers	Karin Lagerlund, Managing Director / CFO
Carolina Espinal	Tim Flower	Corentin du Roy	Tricia Mackechnie, Managing Director, CTO
Ryan Gunther	Rajesh Senapati	Ian Lane	Mark Reale, Managing Director
Tatsuya Kubo	Brett Gordon	Peter Lipson	Mary Traer, Managing Director / CAO
Hemal Mirani	Valérie Handal	Joel Hwang	Monique Austin, SVP, US Counsel
John Morris	Jeff Keay	Ryan Jones	Richard Campbell, SVP, Program Office
PRINCIPAL	PRINCIPAL	PRINCIPAL	Tony Cobuzzi, SVP, Fund Controller
Alex Barker	Greg Ciesielski	Craig MacDonald	Cory Cook, SVP, Fund Controller
Minjun Chung	Matt Souza	VICE PRESIDENT	Matthew Dowgert, SVP, Counsel
Shumin Gong	John Fiato	Cartus Chan	Sofia Gertsberg, SVP, Investment Risk
Mac Grayson	Dustin Willard	Matthew Cheng	Danielle Green, SVP, CCO
VICE PRESIDENT	Edward Holdsworth	Todd DeAngelo	Bruce Pixler, SVP, Director of Tax
Eric Simas	VICE PRESIDENT	Megan Beecher	Dave Stepanis, SVP, Portfolio Analytics
SENIOR ASSOCIATE	Abuzar Anaswala	Brendan Butler	Jack Wagner, SVP, Treasurer
Amanda Chen	Dominic Goh	Sean Gillespie	SENIOR MANAGING DIRECTOR EMERITUS
Chang Liu	Blake Holman	Michael Guinness	Brooks Zug
Matthew Marotta	Martin Yung	ASSOCIATE	SENIOR ADVISORS
ASSOCIATE	SENIOR ASSOCIATE	Alexander Brown	George Anson
Michael Ferrante	Emily Ren	Manusha Chereddy	Ed Kane
Cesar Gimeno Le Paih	Chad Bounds	Jan de Wolff	John Begg
Zachary Knowlton	Ryan Kim	Courtney Kelly	Kevin Delbridge
Alex Little	Julie Catton	Noel Lam	Bill Johnston
William Mucci	Tony Law	Tikeren Quinn	
EMERGING AND DIVERSE INVESTMENTS	Mimi Dang	Daniel Schieferdecker	
MANAGING DIRECTOR	Matthew Dezenzo	INVESTOR RELATIONS	
Craig Fowler	Jason Dlugolecki	MANAGING DIRECTOR	
Sanjiv Shah	Jack Donovan	Nate Bishop	
HVPE	Lorenzo Fusco	Simon Jennings	
Richard Hickman, Principal, Portfolio Mgmt.	REAL ASSETS	Jamie Kase	
Bill Macaulay, Director of Finance	MANAGING DIRECTOR	PRINCIPAL & SENIOR VICE PRESIDENT	
	Michael Dean	Mohit Bhatia	
	Kevin Warn-Schindel	Jay Brasseur	
	PRINCIPAL	Daniel Conti	
	Dan Buffery	Simon Lund	
	Justin Lane	Nhora Otalora	
	VICE PRESIDENT		
	Holland Davis		
	Benjamin Wu		
	SENIOR ASSOCIATE		
	Eric Zhang		
	ASSOCIATE		
	Ian Jeffrey		
	Guntas Singh		

As of November 1, 2018. Includes employees of HarbourVest Partners, LLC, HarbourVest Partners (U.K.) Limited, HarbourVest Partners (Asia) Limited, HarbourVest Partners (Japan) Limited, HarbourVest Partners, LLC Oficina de Representación, HarbourVest Investment Consulting (Beijing) Company Limited, HarbourVest Partners Korea Ltd and HarbourVest Partners (Israel) Ltd

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ADDITIONAL IMPORTANT INFORMATION

Additional important information

Any data presented about investments prior to 1998 is related to transactions that occurred when the HarbourVest team was affiliated with Hancock Venture Partners, Inc.

In considering the prior performance information contained herein, prospective investors should bear in mind that past performance is not a reliable indicator of future results, and there can be no assurance that an investment sponsored (or an account managed) by HarbourVest will achieve comparable results or be able to implement its investment strategy or meet its performance objectives.

The foregoing performance information includes realized and unrealized investments. Unrealized investments are valued by HarbourVest in accordance with the valuation guidelines contained in the applicable limited partnership agreement. Actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, and the timing and manner of sale, all of which may differ from the assumptions on which the valuations used in prior performance data contained herein are based. Accordingly, the actual realized returns on these unrealized investments may differ materially from returns indicated herein.

In certain cases, a Fund, or the partnerships in which it invests, may utilize a credit facility or other third-party financing. This is generally to bridge capital calls from limited partners or to pay for a portion of an investment. This may make the resulting IRR and multiples higher or lower than the IRR or multiples that would have been presented had drawdowns from partners or available cash been initially used to acquire or pay for the investment.

IRRs are calculated from the date of a fund's first cash flow from a limited partner, which may include capital contributions in connection with fund formation, as may occur with certain AIF-Related Funds (as defined below), and therefore can be earlier than the date of the first capital call from a limited partner for the purpose of investment. The start date for IRR calculations can also be later than the date of initial investment when a credit facility or other third-party financing is used to fund such investment.

Performance is expressed in US dollars, unless otherwise noted. Returns do not include the effect of any withholding taxes. Cash flows are converted to US dollars at historic daily exchange rates, unless otherwise indicated. The return to investors whose local currency is not the US dollar may increase or decrease as a result of currency fluctuations.

1. **Net Performance Returns** - DPI (Distributions / Paid-In Capital), TVPI (Total Value / Paid-In Capital), and Net IRR (Internal Rate of Return) through the applicable date are the returns to limited partners of a Fund after all fees, operating expenses, and carried interest. These returns reflect the combined return for all limited partners in a Fund and may not reflect an individual limited partner's actual return. The Net IRR is calculated using daily cash flows to and from limited partners. In this calculation, the final cash flow to limited partners is the fair market value of all limited partners' capital accounts at the applicable date as determined by the general partner of the respective Fund in accordance with the valuation policy. The net multiples (DPI and TVPI) are calculated based on the same cash flows. See note 8 below for additional disclosures related to fees and expenses of a Fund.
2. **Gross Performance Returns** - This information (Distributed / Funded, Total Value / Funded, TV/TC (Total Value / Total Cost), Gross Portfolio IRR, and Gross IRR), if shown, is presented on a gross basis and reflects the performance of the investment portfolio, including primary fund investments, secondary investments, and/or direct co-investments. Gross Portfolio IRR represents the annual return calculated using monthly cash flows from the Fund(s) to and from the various partnerships or companies in which the Fund(s) invested during the period specified. These returns reflect the fees, expenses, and carried interest of the primary investments, secondary investments, and co-investments, as applicable, but do not reflect the management fees, carried interest, and other expenses borne by investors in the Fund(s), which will reduce returns. See note 8 below for additional disclosures related to fees and expenses of a Fund.
3. **Portfolio Company Performance** – This information, if shown, is based on the cost and value of underlying company investments within the primary and secondary investment portfolios of the Fund(s). These returns do not reflect the fees, expenses, and carried interest of the partnership investments of the Fund(s), which will reduce returns. Performance may be aggregated when a company is held through multiple primary and secondary investments. These returns do not represent the performance of any specific Fund or the return to limited partners of any specific Fund. As a result, portfolio company performance returns are considered model performance. See notes 6 and 8 below for additional disclosures related to model performance and fees and expenses of a Fund, respectively.

Notes continued on next page.

Additional important information

4. **Public Market Comparison** – This information, if shown, represents adjusted model performance of each index as if the respective index had been purchased and sold at the time of the limited partners' capital calls and distributions, with the remainder held at the date noted. Dividends are not reinvested. Under this methodology, the capital calls for the purchase of the public market index are the same as the capital calls for the Fund(s). The distributions for the sales of the public market index are scaled to represent the same proportion of the Fund's NAV at the time of the distribution. For example, if the Fund distributes 5% of NAV, then 5% of the index NAV is distributed. Thus, the index returns presented are not actual index returns, but adjusted model returns. See note 6 for additional disclosures related to model performance.

In certain instances, where indicated as such herein, the comparison is based on the PME+ (public market equivalent) method as described in an article titled, "Beating the Public Market," by Christophe Rouvinez, as published in the Private Equity International in December 2003 / January 2004. When using this methodology, both the Fund and the adjusted index are assumed to have the same ending NAV. The ending NAV for the adjusted index is derived by scaling the distributions by a constant scaling factor, while preserving the overall cash flow pattern.

The MSCI AC World® Index (ACWI) is designed to measure the performance of publicly-traded equity securities in global developed and emerging markets. The MSCI ACWI Index is maintained by Morgan Stanley Capital International ("MSCI") and has historically captured approximately 85% coverage of the free float-adjusted market capitalization of its publicly-traded global equity opportunity set.

The MSCI AC World® (ACWI) Ex-US Index is designed to measure the performance of publicly-traded equity securities in global developed and emerging markets excluding the US. The MSCI ACWI Ex-US Index is maintained by MSCI and has historically captured approximately 85% coverage of the free float-adjusted market capitalization of its publicly-traded global equity opportunity set outside the US.

The MSCI EAFE® Index is designed to measure the performance of publicly-traded large and mid-capitalization equity securities across developed markets, including countries in Europe, Australasia, and the Far East, and excluding the US and Canada. The MSCI EAFE Index is maintained by MSCI and has historically captured approximately 85% coverage of the free float-adjusted market capitalization of publicly-traded equities in each included country.

The S&P 500® Index is designed to measure the performance of publicly-traded equity securities of the large capitalization sector of the US market and includes 500 large companies having common stock listed on the New York Stock Exchange or Nasdaq Stock Market. The S&P 500 Index is maintained by Standard & Poors ("S&P") and has historically captured approximately 80% coverage of available market capitalization of publicly-traded equities in the US market.

The Russell 2000® Index is designed to measure the performance of publicly-traded equity securities of the small capitalization sector of the US market and includes the 2,000 smallest companies in the Russell 3000® Index. These indexes are maintained by FTSE Russell, a subsidiary of the London Stock Exchange Group. The Russell 3000 Index consists of the 3,000 largest publicly-listed US companies, and has historically captured approximately 98% coverage of the total capitalization of the entire US stock market.

The JP Morgan Domestic High Yield Index is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market. The index is maintained by JP Morgan and has historically captured the performance of US and Canadian issues over \$75 million that have a credit rating of BB or lower.

The adjusted public market indices shown are not intended to, and do not, parallel the risk, investment strategy, or investment characteristics of a Fund. The securities comprising the public market indices have substantially different characteristics than the investments held by a Fund, and accordingly, a direct comparison may not be meaningful. The public market comparison is shown for illustrative purposes only. The adjusted indices are shown to demonstrate the approximate returns an investor may have received had the investor invested in certain publicly-traded equity securities in lieu of a Fund or the investments made by HarbourVest. An investor is not able to directly invest in a benchmark index.

Notes continued on next page.

Additional important information

Bloomberg is the source of the index data contained or reflected in this material. MSCI, S&P, and FTSE Russell are the owners of the index data contained or reflected in this material and all trademarks and copyrights related thereto. This is HarbourVest's presentation of the data. Bloomberg, MSCI, S&P, and FTSE Russell are not responsible for the calculations conducted by HarbourVest, the formatting or configuration of this material, or for any inaccuracy in presentation thereof.

5. **Vintage Years** - HarbourVest vintage classification is based on the year in which capital was first funded to each underlying fund (for primary fund investments) or the year of HarbourVest's purchase (for secondary investments).
6. **Monte Carlo Simulations** - These model (hypothetical) portfolios, if shown, are intended for illustrative purposes only. Performance information for each hypothetical portfolio utilized a Monte Carlo Simulation and are based on the actual cash flows of a proprietary data set that includes partnership investments made by Funds, along with partnership data from external sources. The capital calls and distribution data is based on historic partnership investment cash flows, but does not represent the actual experience of any investor or Fund. The results of the simulation are impacted by an uneven representation of funds with different vintage years, sizes, managers, and strategies, and a limited pool of investment cash flow data. The actual pace and timing of cash flows is likely to be different and will be highly dependent on the underlying partnerships' commitment pace, the types of investments made by the Fund(s), market conditions, and terms of any relevant management agreements. The results presented are based entirely on the output from numerous mathematical simulations. The simulations are unconstrained by the fund size, market opportunity, and minimum commitment amount, and do not take into account the practical aspects of raising and managing a fund. The simulated hypothetical portfolio results should be used solely as a guide and should not be relied upon to manage your investments or make investment decisions.
7. **Model Performance** - Model performance results, if shown, are inherently limited and should not be considered a reliable indicator of future results. **No investor received the indicated performance of the model portfolio(s).** Different model scenarios will provide different results. Individual fund and strategy performance can be better or worse than the model performance. While the model portfolio may consist of investments made by HarbourVest during the relevant period(s), they do not reflect an actual portfolio managed by HarbourVest during the relevant period(s). Thus, they do not represent the impact that material economic and market factors might have had on HarbourVest's decision making if HarbourVest had been managing a Fund that incorporated the investment strategy shown during the specified period(s). In addition, the Funds had investment results materially different from the results portrayed in the model portfolio during the relevant period(s). No representation is made that any Fund will or is likely to achieve returns similar to those presented. Current model performance may differ from that shown in this presentation.

The following is the criteria used when showing model portfolio performance that includes the following investment types:

Primary Investments – Based on the cash flows of all primary investments (or a subset as noted) made by Funds during the period(s) specified, with the exception of custom accounts that made investments primarily in emerging venture capital managers, emerging managers, diverse managers, or state-focused managers, as these strategies are outside of HarbourVest's core focus.

Secondary Investments – Based on the cash flows of all secondary investments (or a subset as noted) made by Funds during the period(s) specified.

Direct Co-investments – Based on the cash flows of all direct co-investments (or a subset as noted) made by Funds during the period(s) specified. This performance excludes custom accounts that may make investments outside of HarbourVest's core co-investment strategy (e.g., industry, sourcing, return profile). Co-investments are defined as: (i) buyout, recapitalization, and special situation investments; (ii) expansion capital, growth equity, or other venture capital investment in companies with greater than \$7.5 million in trailing 12-month revenues at the time of investment; or (iii) mezzanine investments. Early stage investments, defined as those companies with revenues less than \$7.5 million at the time of initial investment, which are outside of the focus of the Fund, are also not included in the model portfolio returns shown. If early stage investments were included in the model portfolio, returns would be lower.

Notes continued on next page.

Additional important information

8. **Fees and Expenses** - Actual management fees and carried interest will vary and are established in negotiations with the limited partners of a Fund or separate account client. Management fees may range from 0.5% to 2.0% of committed, called, or invested capital of a Fund, pursuant to the limited partnership agreement or investment management agreement. Fees for Funds in extension years may be reduced, including to nil. Fund investors will typically bear all the costs and expenses relating to the operations of a Fund and its general partners (or similar managing fiduciary). A Fund shall bear its pro rata share of any such expenses incurred in connection with any portfolio investment to the extent the same portfolio investment is being made by other Funds. Organization expenses of a Fund will also typically be borne by Fund investors. When a Fund is generally expected to invest alongside a Fund primarily intended for European-based investors, which takes into account the regulatory requirements of the Alternative Investment Fund Managers Directive (an "AIF Related Fund"), organization expenses may be aggregated and allocated pro-rata between a Fund and its AIF Related Fund based on the relative commitments of the partners of the Fund and the partners of its AIF Related Fund (unless HarbourVest, as general partner, determines in good faith that a different share is appropriate). The specific payment terms and other conditions of the management fees, carried interest, and other expenses of a Fund are set forth in the governing documents of the Fund. Fees and expenses are also described in HarbourVest's Form ADV, Part 2A brochure.

Gross performance returns, if shown, are presented before management fees, carried interest, and other expenses borne by investors in the Fund(s). An actual portfolio would bear such fees and expenses. If such fees and expenses were deducted from performance, returns would be lower. For example, if a fund appreciated by 10% a year for five years, the total annualized return for five years prior to deducting fees and expenses at the end of the five year period would be 10%. If total fund fees and expenses were 1% for each of the five years, the total annualized return of the fund for five years at the end of the five-year period would be 8.90%.

9. **Private Equity Index Data** - Unless otherwise indicated, all private equity fund benchmark data reflects the fees, carried interest, and other expenses of the funds included in the benchmark. Please note that Fund returns would be reduced by the fees, carried interest, and other expenses borne by investors in the Fund. Such fees, carried interest, and other expenses may be higher or lower than those of the funds included in the benchmark. Burgiss (unless otherwise noted) is the source and owner of any private equity index data contained or reflected in this material and all trademarks and copyrights related thereto. The material may contain confidential information and unauthorized use, disclosure, copying, dissemination, or redistribution is strictly prohibited. This is HarbourVest's presentation of the data. Burgiss is not responsible for the calculations conducted by HarbourVest, the formatting or configuration of this material, or for any inaccuracy in presentation thereof.

Notes continued on next page.

Additional important information

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An investment in the Fund will involve significant risks, including loss of the entire investment. Before deciding to invest in the Fund, prospective investors should pay particular attention to the risk factors contained in the Memorandum. Prospective investors should make their own investigations and evaluations of the information contained herein. Prior to the closing of a private offering of interests in the Fund, HarbourVest will give investors the opportunity to ask questions and receive additional information concerning the terms and conditions of such offering and other relevant matters. Each prospective investor should consult its own attorney, business advisor, and tax advisor as to legal, business, tax, and related matters concerning the information contained herein and such offering.

Certain information contained herein (including financial information and information relating to investments) has been obtained from published and non-published sources. Such information has not been independently verified by HarbourVest. Except where otherwise indicated herein, the information provided herein is based on matters as they exist as of the date of preparation and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available, or circumstances existing or changes occurring after the date hereof. Any forecast provided herein is based on HarbourVest's opinion of the market as of the date of preparation and is subject to change, dependent on future changes in the market.

In considering any performance data contained herein, you should bear in mind that past performance is not a reliable indicator of future results. Certain information contained herein constitutes forward-looking statements, which can be identified by the use of terms such as "may", "will", "should", "expect", "anticipate", "project", "estimate", "intend", "continue", or "believe" (or the negatives thereof) or other variations thereof. Due to various risks and uncertainties, including those discussed above, actual events or results or actual performance of the Fund may differ materially from those reflected or contemplated in such forward-looking statements. As a result, investors should not rely on such forward-looking statements in making their investment decisions.

None of the information contained herein has been filed with the Securities and Exchange Commission, any securities administrator under any state securities laws, or any other governmental or self-regulatory authority. No governmental authority has passed on the merits of the offering of interests in the Fund or the adequacy of the information contained herein. Any representation to the contrary is unlawful.



PRIVATE & CONFIDENTIAL



Ventura County Employees' Retirement Association

March 2019

CONFIDENTIAL – FOR THE EXCLUSIVE USE OF RECIPIENT



VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



Presenting to you...



Matt Garfinkle, Partner (joined 1999, 23 years of private equity experience)

Matt leads Pantheon's San Francisco secondary team and is a member of the Global Secondary Investment Committee as well as the Global Infrastructure & Real Assets Committee. Matt assists in the sourcing, evaluation, structuring, execution and monitoring of North American secondary investment opportunities. He also participates in fund monitoring, firm marketing and client reporting. Matt joined Pantheon in July 1999, having worked the previous three years with Cambridge Associates in their Boston and Menlo Park offices. Matt received a BA in history and economics from Brown University, and is a CFA charterholder. Matt is based in San Francisco.

matt.garfinkle@pantheon.com



Kevin Dunwoodie, Partner (joined 2008, 13 years of private equity experience)

Kevin is a Partner in Pantheon's Global Secondaries Team and focuses on sourcing, analysis, evaluation, and completion of secondary transactions. Previously, Kevin worked at Morgan Stanley in New York where he spent over a year as an Associate in the firm's strategy and execution group. Before joining Morgan Stanley, Kevin spent two years at Pacific Corporate Group in La Jolla as a Private Equity Analyst and, prior to that, two years at Deutsche Bank Alex Brown as an Investment Banking Analyst in the firm's consumer group. Kevin graduated Magna Cum Laude with a finance degree from the University of Notre Dame, earned his MBA from Harvard Business School and is a CFA charterholder. Kevin is based in San Francisco.

kevin.dunwoodie@pantheon.com



Iain Jones, Vice President (joined 2012, 9 years of private markets experience)

Iain is a member of Pantheon's U.S. Investor Relations team focused on existing relationships and business development in North America. Previously, Iain provided client service and fundraising support across the UK market, as well as Asia and Australia, from Pantheon's London office. Prior to joining Pantheon, he worked for Preqin in the Infrastructure research team in London. He has a BSc in economics from the University of Bristol. Iain is based in San Francisco.

iain.jones@pantheon.com

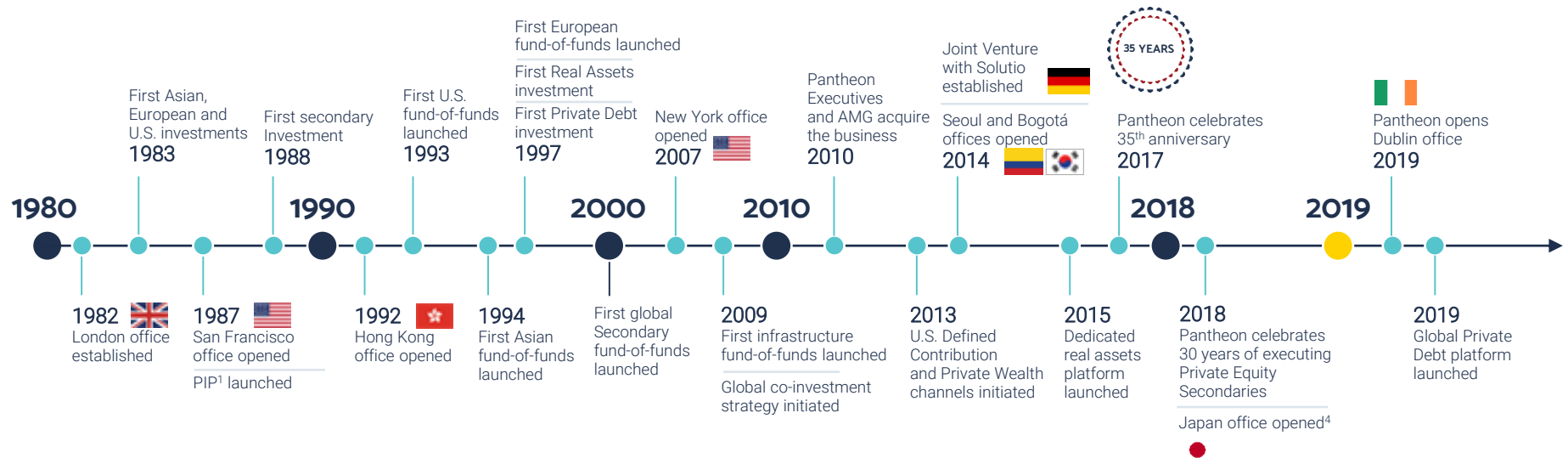
Agenda

- ▶ Pantheon overview
- ▶ Ventura County Employees' Retirement Association ("VCERA") portfolio
- ▶ Pantheon strategy



Pantheon overview

Investing in private assets for over 35 years



81 Investment professionals²

Pantheon holds **348** advisory board seats

\$42.4bn Funds under management³

Over **550** individual institutional clients globally

9,500 GPs in Pantheon's database

Investments in **2,000** funds

¹ Pantheon International Plc

² As of February 1, 2019

³ As of September 30, 2018. This figure includes assets subject to discretionary or non-discretionary management, advice or those limited to a reporting function.

⁴ Please note Pantheon's Tokyo office does not conduct regulated activities.

A pioneer in global secondaries



All figures are as of September 30, 2018.

¹ As of January 1, 2019

² Net cash-on-cash multiple aggregated across Pantheon's secondaries performance since inception. Past performance is not indicative of future results. Future performance is not guaranteed and a loss of principal may occur. For PGSF track record since inception with full disclosures and gross performance please refer to slide 24.

27 Member global secondary investment team

Global Secondary Investment Committee
Private equity years
Pantheon years

Private Equity
 Average 24 years experience

Co-Heads of Global Secondary Team

Pantheon Tenure						
Average 18 years with Pantheon						
	 18 18	 25 12	 21 20	 34 25	 22 18	 25 12
	Matt Jones Partner London	Rudy Scarpa Partner New York	Matt Garfunkle Partner San Francisco	Andrew Lebus Partner London	Elly Livingstone Partner London	Dennis McCrary Partner San Francisco


Kevin Dunwoodie
 Partner
 San Francisco


Francesco di Valmarana¹
 Partner
 London


Alex Wilmerding¹
 Partner
 Hong Kong


Petra Bukovec
 Principal
 London


Alec Brown
 Principal
 New York


Tanu Chita¹
 Principal
 London


Charlotte Morris
 Principal
 London


Ben Wilson
 Principal
 New York


Bing Wong
 Vice President
 San Francisco


Joseph Feng
 Senior Associate
 New York


Simon Greenway
 Senior Associate
 London


Alex Laird
 Senior Associate
 New York


Morten Lundin
 Senior Associate
 London


Solaiman Zein
 Senior Associate
 London


Calvert Bauer
 Associate
 San Francisco


Mikael Meyer
 Associate
 London


Andrew Pulsipher
 Associate
 San Francisco


Alexander Valtchev
 Associate
 London


Kyle Jung
 Analyst
 New York


Michelangelo Malmisura
 Analyst
 London


Dillon Schriver
 Analyst
 New York

Supported by additional investment team members

U.S.

5
Partners

5 **1**
Principals VP

Europe

7
Partners

3 **2**
Principals VPs

Asia & RoW

3
Partners

1 **2**
Principal VPs

18

Senior Associates, Associates and Analysts

4

Investment Structuring Team

3

Portfolio Construction Team

¹ Denotes investment professionals not dedicated to secondaries. As of February 1, 2019.



VCERA portfolio

VCERA existing Pantheon program

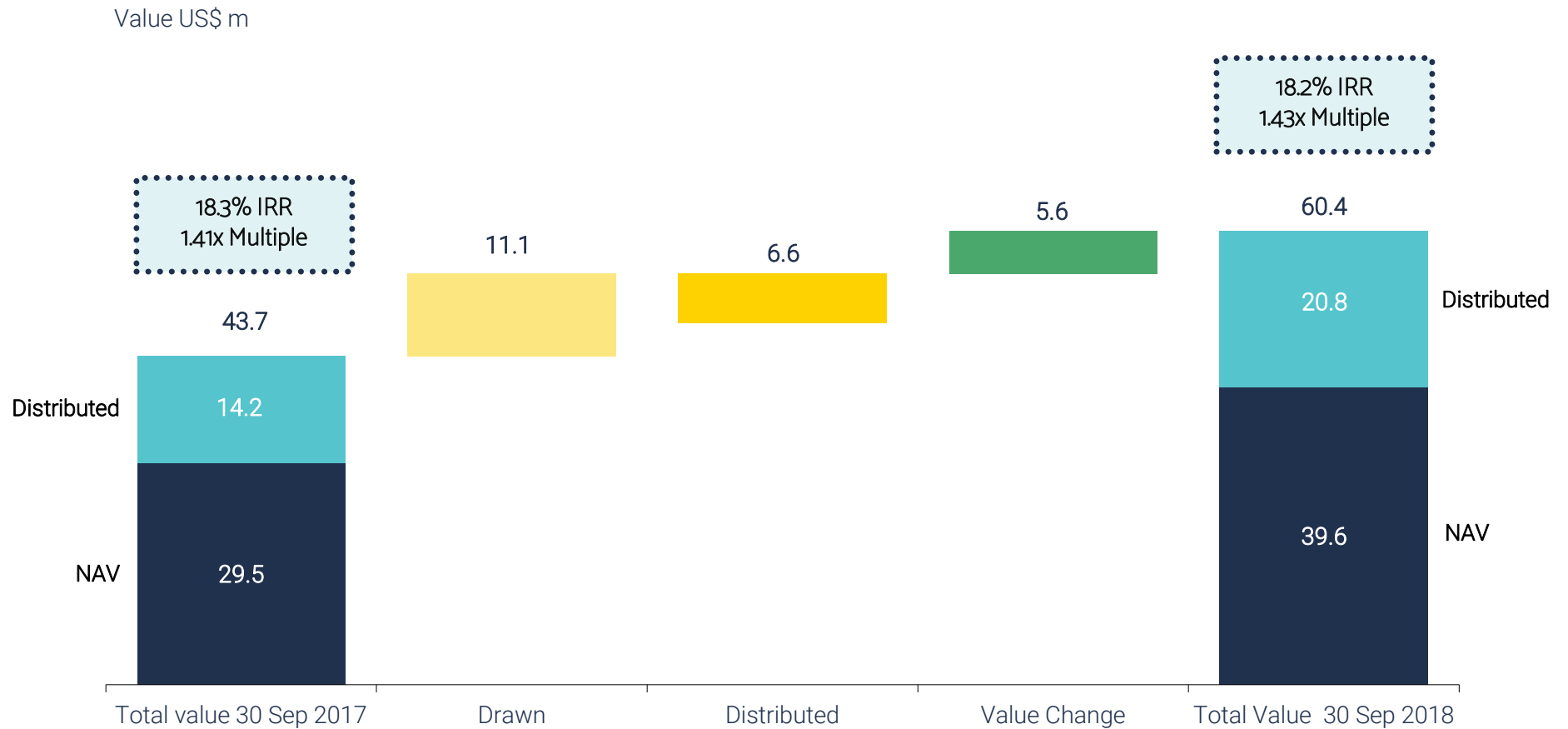
As at September 30, 2018

Ventura County Employees' Retirement Association

Program	Vintage	Commitments (USD m)	Contributions since inception (USD m)	Distributions since inception (USD m)	NAV (USD m)	Net IRR	Net multiple	Benchmark ¹	Total Outperformance ¹
PGSF IV L.P.	2010	15.0	10.0	12.5	3.3	14.3%	1.59x	9.3%	5.0%
PGSF V L.P.	2014	50.0	32.1	8.4	36.3	22.9%	1.39x	10.0%	12.9%
Total investments		65.0	42.1	20.8	39.6	18.2%	1.43x	9.7%	8.5%

Note: The figures in this table are subject to rounding. ¹Benchmark refers to MSCI AC World Net TR and reflect the index's returns weighted by the investor's cashflows. The above IRRs are derived by Pantheon from cash flows and calculated asset values and may not correspond to the returns published by the underlying funds. Interim IRRs may not be an accurate indication of the final performance of a fund, particularly during the early years of the fund's life. Past performance is not necessarily indicative of future results, future returns are not guaranteed and loss of principal may occur.

Performance drivers in the last year



The table is subjected to rounding differences.
 Past performance is not necessarily indicative of future results, future results are not guaranteed and loss of principal may occur.
 As at September 30, 2018

PGSF V Summary

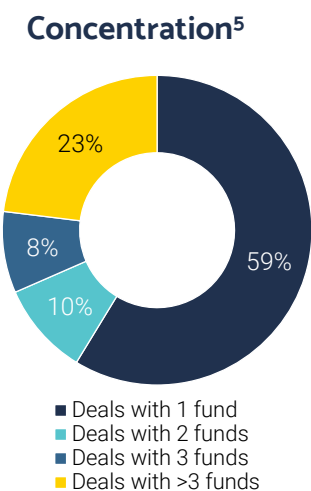
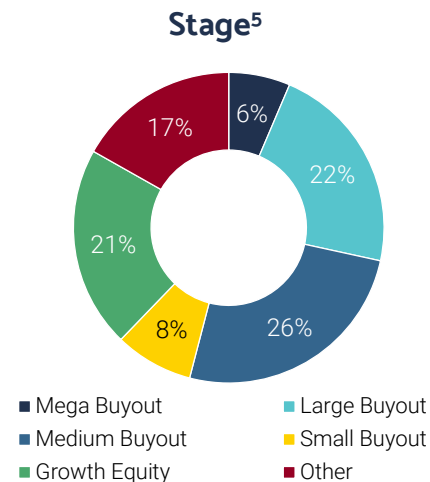
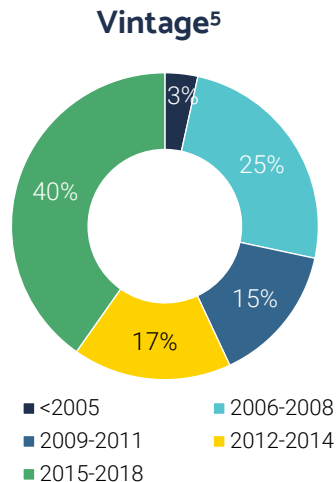
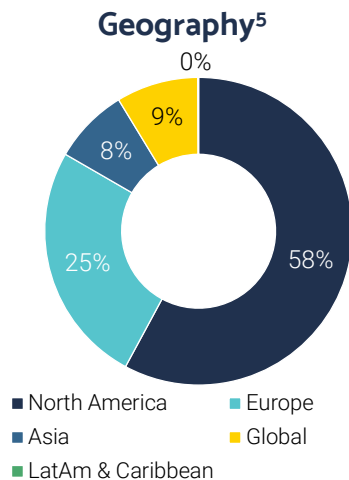
As at September 30, 2018

Fund Overview

- ▶ Final closing: May 2016
- ▶ Fund size: US\$ 2.1 billion
- ▶ Average age at purchase: 5 years¹
- ▶ Over 103% committed to 54 secondary transactions
- ▶ Average effective discount: 11%^{1,2}

Core characteristics

1. **Manager quality:** 97% of deal value exposed to GPs rated “A” or “B”³
2. **Concentration:**
 - *Funds:* 40% of NAV in top 15 funds
 - *Companies:* 32% of NAV in top 15 companies⁴
3. **Mature:** Average % funded at close 78%¹



¹ As of September 30, 2018; please note this does not include co-investments and strategic primary investments. ² Based on the first available capital accounts 3 months after closing including interim cash flows. This figure reflects the discount/(premium) to value at the time of deal closing. ³ Based on commitments as of September 30, 2018. Pantheon Internal Rating: ‘A’ managers are those targeted for Pantheon’s primary programs, which are chosen based on track record and a qualitative assessment of manager quality; ‘B’ managers are defined as alternates to ‘A’ managers for Pantheon’s primary programs. The investment period for PGSF V remains open and so the portfolio composition is subject to further change. There can be no guarantee that investments with identical or similar characteristics to those referenced here will be available for investment in PGSF VI. ⁴ As of September 30, 2018; please note this is based on gross company level data. ⁵ Pie charts represent fund level exposures weighted by Total Commitments. Past performance is not indicative of future results. Future performance is not guaranteed and a loss of principal may occur. **For PGSF track record since inception with full disclosures and gross performance please refer to slide 24.**

PGSF IV Summary

As at September 30, 2018

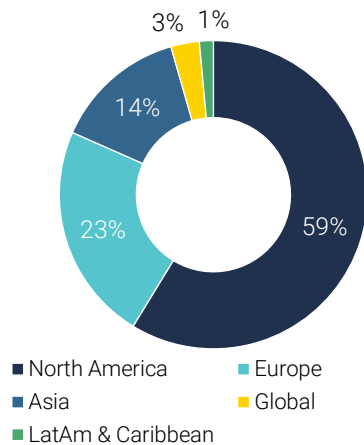
Fund Overview

- ▶ Final closing: July 2010
- ▶ Fund size: US\$ 2.2 billion
- ▶ Average age at purchase: 5 years¹
- ▶ 110% committed to 37 secondary transactions
- ▶ Traditional vs. structured/GP led: (87% / 13%)
- ▶ Average effective discount: 19%^{1,2}

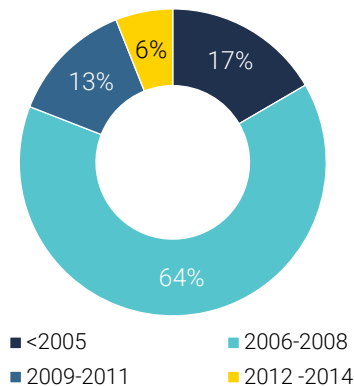
Core characteristics

- 1. Manager quality:** 80% of deal value exposed to GPs rated "A" or "B"³
- 2. Concentration:**
 - *Funds:* 51% of NAV in top 15 funds
 - *Companies:* 31% of NAV in top 15 companies⁴
- 3. Mature:** Average % funded at close 79%¹

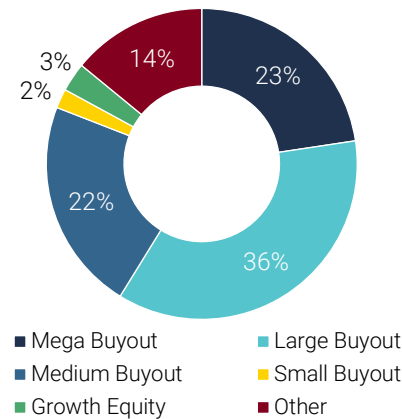
Geography⁵



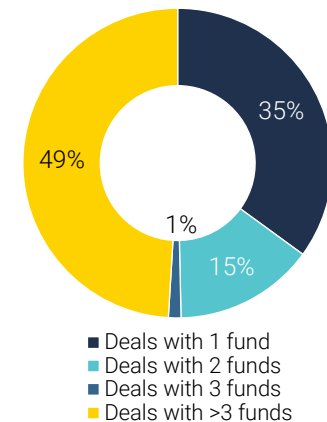
Vintage⁵



Stage⁵



Concentration⁵



¹ As of September 30, 2018; please note this does not include co-investments and strategic primary investments. ² Based on the first available capital accounts 3 months after closing including interim cash flows. This figure reflects the discount/(premium) to value at the time of deal closing. ³ Based on commitments as of September 30, 2018. Pantheon Internal Rating: 'A' managers are those targeted for Pantheon's primary programs, which are chosen based on track record and a qualitative assessment of manager quality; 'B' managers are defined as alternates to 'A' managers for Pantheon's primary programs. There can be no guarantee that investments with identical or similar characteristics to those referenced here will be available for investment in PGFSF VI. ⁴ As of September 30, 2018; please note this is based on gross company level data. ⁵ Pie charts represent fund level exposures weighted by Total Commitments. Note: Past performance is not indicative of future results. Future performance is not guaranteed and loss of principal may occur. **For PGFSF track record since inception with full disclosures and gross performance please refer to slide 24.**



Pantheon strategy

What differentiates Pantheon?

Program Size

- ▶ Disciplined fund size of **\$2.0 billion** relative to **\$42.4 billion¹** global private equity platform
- ▶ Sized “to fill the void” left by competitors raising larger funds

Investment Approach

- ▶ Target concentrated positions in high quality and mature funds where Pantheon has an information and access advantage
 - ▶ Acquire investments with embedded value regardless of complexity
 - ▶ Small and medium buyout and growth equity tilt
 - ▶ Navigate a competitive market by focusing on proprietary / narrowly marketed opportunities and restrictive GPs and processes

Pantheon Platform¹

- ▶ 35 year track record investing in private equity
- ▶ Eight global offices and **81** investment professionals
- ▶ Pantheon holds **348** advisory board seats
- ▶ **9,500** GPs in Pantheon’s database and invested in **2,000** funds

¹As of September 30, 2018. This figure includes assets subject to discretionary or non-discretionary management, advice or those limited to a reporting function. Pantheon opinion. Past performance is not indicative of future results. Future performance is not guaranteed and a loss of principal may occur.

PGSF VI Update

As at September 30, 2018

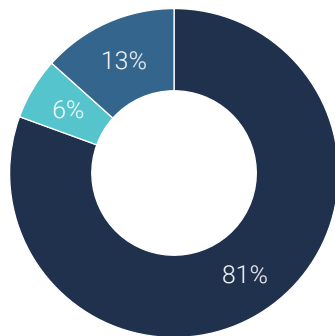
Fund Overview

- ▶ First close: March 2018
- ▶ Target Fund size: US\$ 2.0 billion
- ▶ 22% committed to investments³

~12% Effective Discount^{1,2}

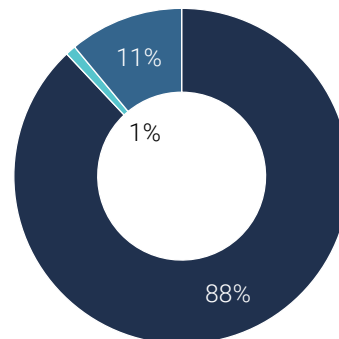
1.1x Value uplift on initial investments⁶

Concentration⁵



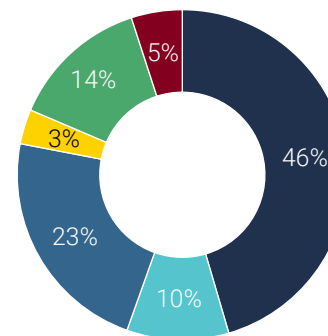
- Deals with 1 fund
- Deals with 2 to 4 funds
- Deals with >4 funds

GP Quality⁴



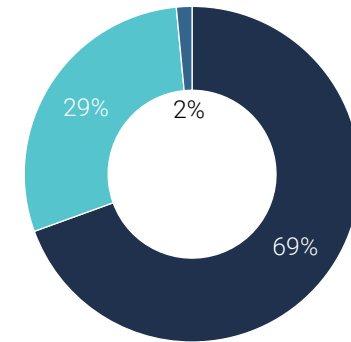
- "A" or "B"
- "C"
- Spin-out

Stage⁵



- Small & Medium Buyout
- Growth Equity
- Large Buyout
- Mega Buyout
- Real Assets
- Other

Geography⁵



- North America
- Europe
- Asia

¹ As of June 30, 2018; please note this does not include co-investments and strategic primary investments. ² Includes three investments and is based on the first available capital accounts 3 months after closing including interim cash flows. This figure reflects the discount/(premium) to value at the time of deal closing. ³ Based on \$2.0 billion target fund size. ⁴ Based on commitments as of June 30, 2018. Pantheon Internal Rating: 'A' managers are those targeted for Pantheon's primary programs, which are chosen based on track record and a qualitative assessment of manager quality; 'B' managers are defined as alternates to 'A' managers for Pantheon's primary programs. There can be no guarantee that investments with identical or similar characteristics to those referenced here will be available for investment in PGSF VI. ⁵ Pie charts represent fund level exposures weighted by Total Commitments. Note: Past performance is not indicative of future results. Future results are not guaranteed and loss of principal may occur. ⁶ As of December 31, 2018 reports. Includes Projects: Anvil, Apple, Gondola, Volt, Hendrix and Aprilia, as well as closed co-investments and strategic primaries. Total commitments were \$182 million. Value uplift is based on estimated NAVs as of December 31, 2018. For PGSF track record since inception with full disclosures and gross performance please refer to slide 24.

PGSF VI update – 22% committed to investments¹

Pantheon Global Secondary Fund VI Investment Listing						
#	Deal	Stage	Geographic Focus	Investment date	Deal size (\$m) PGSF VI	
Top Positions						
1	Gondola	Growth Equity	US	Jun-2018	15.7	
2	Anvil	Energy	US	Jun-2018	30.0	
3	Apple	Medium Buyout	US	Aug-2018	43.8	
4	Aprilia	Small Buyout	US	Oct-2018	15.4	
5	Hendrix	Small Buyout	Europe	Oct-2018	20.2	
6	Queen	Small Buyout	US	Jan-2019	50.0	
7	Regatta	Medium Buyout	Europe	Jan-2019	20.4	
8	Floki	Large Buyout	US	Legal closing	32.0	
9	Broadway	Balanced	Europe	Legal closing	80.0	
10	Federer	Growth & Buyout	US	Legal closing	39.4	
					Sub-Total	\$346.9
Other Positions³						
X	N/A	Balanced	Global	Closed & Legal Closing	88.1	
					Closed & Pending TOTAL	\$435.0²

22%¹

¹Percentages are based off \$2.0 billion target fund size.

²Amount includes closed and pending deals as of February 2019.

³Other positions include, small secondary deals, co-investments and strategic primaries.



Appendices

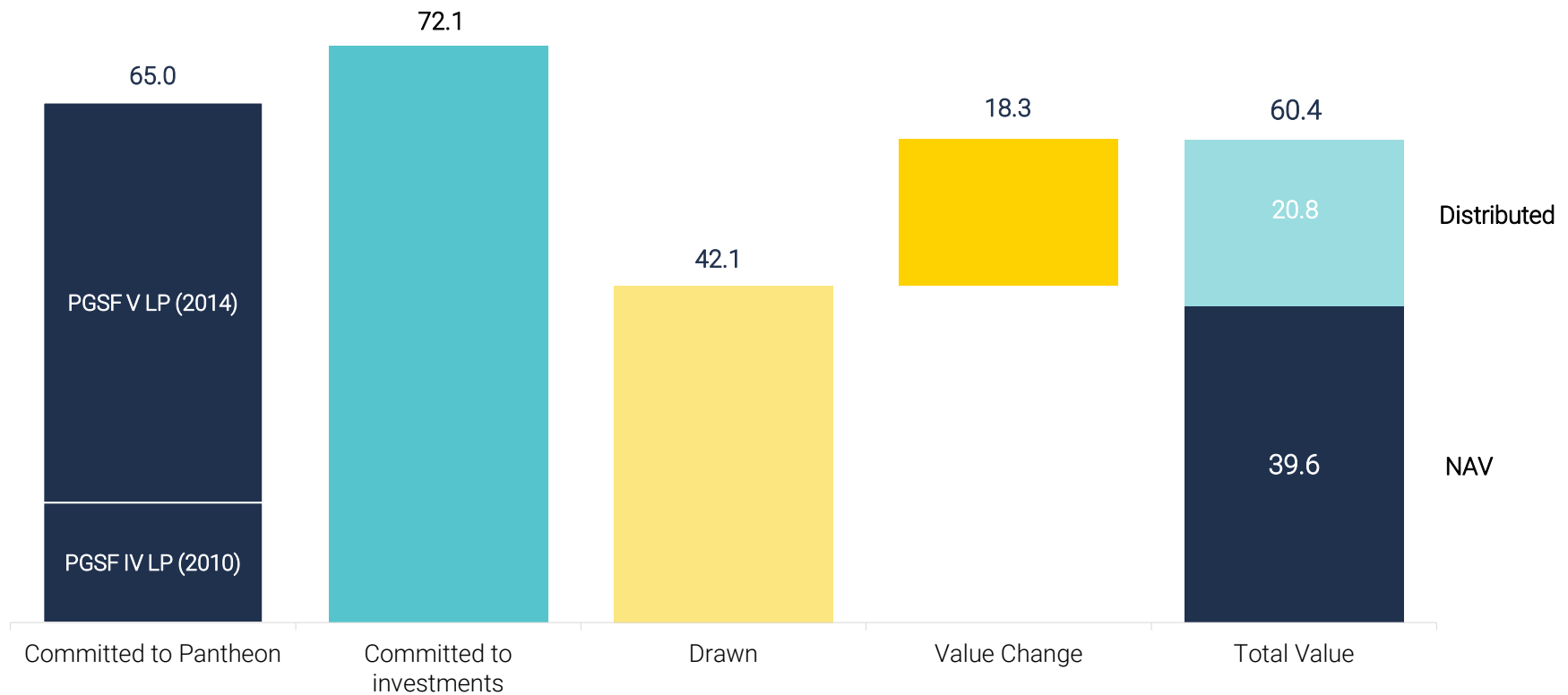


Appendix I: Update on commitments

Portfolio summary since inception

● 1.43x Multiple and 18.2% IRR (Net of all fees) ●

Value US\$ m



The above IRRs are derived by Pantheon from cash flows and calculated asset values. These IRRs may not correspond to the returns published by the underlying funds, Interim IRRs may not be an accurate indication of the final multiple. The chart above is subject to rounding differences. Past performance is not necessarily indicative of future results, future returns are not guaranteed and loss of principal may occur.

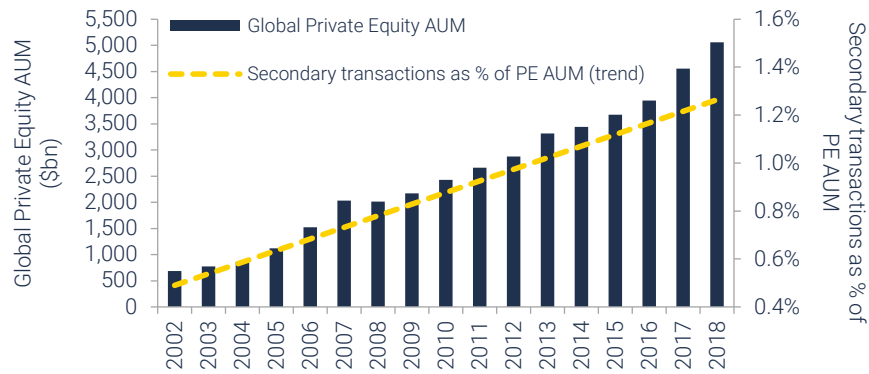
As at September 30, 2018



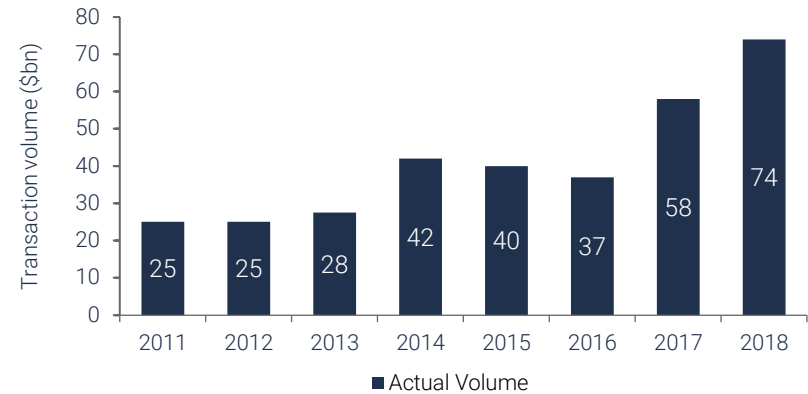
Appendix II: Secondary market update

The secondary market: a growing opportunity

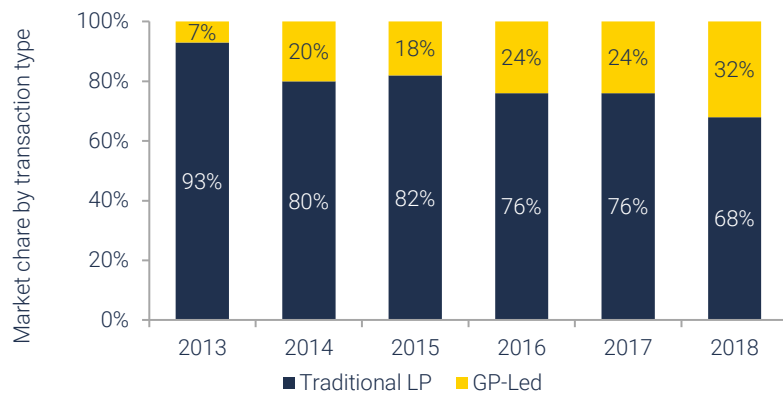
Secondary market turnover is rising¹



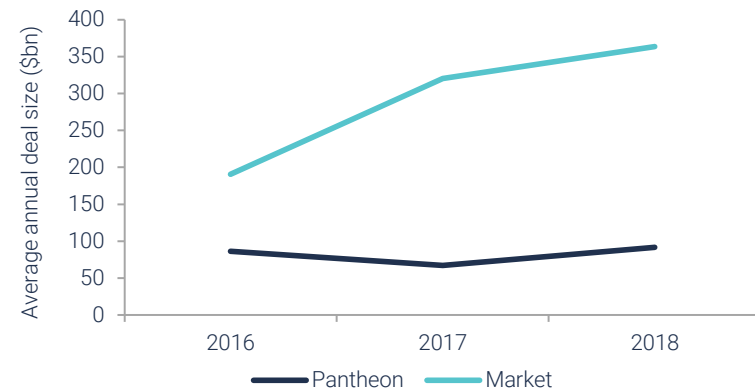
Secondaries transaction volume²



Market share by transaction type²



Average annual deal size^{2,3}



¹Sources: Preqin private capital market data to Q4 2018 as at February 2019. PE AUM defined as unrealised value plus uncalled capital held by private equity funds at the calendar year end; Greenhill Cogent – Secondary Market Trends and Outlook, January 2019. Secondary PE Market volume: - 2002: \$1.9bn, 2003: \$5.0bn, 2004: \$7.0bn, 2005: \$6.7bn, 2006: \$10.0bn, 2007: \$18.0bn, 2008: \$20.0bn, 2009: \$10.0bn, 2010: \$22.5bn, 2011: \$25.0bn, 2012: \$25.0bn, 2013: \$27.5bn, 2014: \$42.0bn, 2015: \$40.0bn, 2016: \$37.0bn, 2017: \$58bn, 2018: \$74bn. ² Source: Greenhill Cogent – Secondary Market Trends and Outlook, January 2019. ³Pantheon internal database. Note: There is no guarantee that these trends will continue.

Current secondary market observations and Pantheon's edge



Secondary Market Present

- ▶ 2018 transaction (>\$70bn) volume surpassed 2017 (\$60bn)
- ▶ Competition is fierce for large transactions (>\$500m) as larger funds are pressured to maintain deployment
- ▶ Public market volatility is softening pricing expectations
- ▶ GP-led transactions continue to increase and evolve
- ▶ Quality GPs increasingly guiding LP interests in their funds to their preferred relationships



Pantheon's Edge

- ▶ **\$2bn** fund size enables Pantheon to remain highly selective
- ▶ **Attentive to less competitive areas** of the market and creating transactions
- ▶ **Focused on concentrated positions** with embedded value, alongside GPs Pantheon knows
- ▶ **Leverage Pantheon's deep GP relationships** to source less competitive deal flow and "early look" advantage
- ▶ Pantheon can be a **preferred buyer** due to its primary platform



Appendix III: Track record

Track record and disclosures since inception

As of September 30, 2018

	PGSF 88-99 ^{1,2}	PGSF I	PGSF II	PGSF III	PGSF IV	PGSF V ⁸
Vintage	1988-1999	2000	2004	2006	2010	2014
Size (US\$ m) ³	320	418	909	2,020	2,157	2,111
Committed (US\$ m) ³	320	414	878	1,980	2,318	2,365
Drawn down (% of committed) ³	100%	98%	96%	97%	92%	84%
Returned (% of drawn capital) ³	188%	182%	136%	110%	126%	42%
Gross multiple ⁴	1.9x	1.8x	1.4x	1.2x	1.5x	1.4x
Net multiple ⁵	1.7x	1.7x	1.2x	1.1x	1.6x	1.4x
Net Cash on Cash multiple ⁶	2.1x	1.9x	1.4x	1.2x	1.8x	1.6x
Net multiple of Capital at Risk ⁷	8.0x	2.5x	2.4x	1.5x	2.3x	2.0x
Gross IRR ⁴	24.0%	18.9%	9.8%	4.5%	15.1%	21.7%
Net IRR ⁵	20.5%	15.1%	5.8%	2.3%	14.2%	23.1%

¹ PGSF 88-99. Prior to 2000, Pantheon made secondary investments via discretionary separately-managed accounts, regional primary funds, and other Pantheon vehicles rather than via dedicated secondary investment funds. For periods prior to 2000, Pantheon has created model portfolios, each representing a three-year time period to replicate the commitment period of a Pantheon secondaries fund, and comprising the secondary investments made by Pantheon on behalf of its discretionary investment management clients, regional primary funds and other Pantheon vehicles during such period, measured by date of purchase, excluding single fund secondaries. As a result, PGSF 88-99 is a composite that represents the combined hypothetical performance of these nominal three year funds for investments made by discretionary separately-managed accounts, regional primary funds, and other Pantheon vehicles during the years 1988-1999, as well as pre-PGSF I deals which took place in 2000. The three year model portfolios provided representing the pre-2000 performance of investments made by Pantheon, as well as the PGSF 88-99 composite, have certain limitations. These models and the PGSF 88-99 composite are hypothetical, do not represent the actual investments made by an actual fund or separately-managed account, and consequently may not reflect material economic and market factors, such as liquidity constraints or investment restrictions, that may have had an impact on Pantheon's actual decision-making. These model portfolios and the PGSF 88-99 composite shown are for illustrative purposes only, and are intended to provide an illustration of Pantheon's investment performance for the period pre-dating 2000. It does not purport to show the investment holdings or performance of an actual account. The figures presented for PGSF 88-99 above further do not represent the actual historical results achieved by any client or investor. The exposures for each of the model portfolios and for the PGSF 88-99 composite shown will differ from the exposures for an actual Pantheon discretionary separately-managed account or investment fund, given specific client guidelines, objectives, or restrictions. ² As the fee structures varied among clients during these periods, net IRR and net multiple is calculated by applying a model fee structure that is intended to reflect the fee structure applicable to PGSF VI, which is detailed in Section IX, "Key Terms". PGSF 88-99 results are illustrative and do not represent actual historical results achieved by any client. Pro-forma net performance has been calculated without taking into account fund organizational and administrative expenses. Please note that an investor's net return may differ significantly due to differences in fees, the timing of investments, and the application of fund-level organizational and administrative expenses. ³ Reflects capital invested, drawn or returned by underlying portfolio funds. With respect to PGSF 88-99, which is a composite of model portfolios representing the different investments made by discretionary separately-managed accounts prior to 2000 and not an actual fund, "size" and "committed" represent the amount of capital invested by Pantheon on behalf of its separately-managed account clients to underlying portfolio funds. ⁴ Gross Multiple and Gross IRR. The calculation of gross cumulative IRR and multiple is based upon the performance of each PGSF fund's (or for PGSF 88-99, composite's) investments and does not take into account the effect of Pantheon fees and other organizational and operational expenses, which will reduce returns. The gross IRR and multiple figures reflect the deduction of fees and expenses of the underlying portfolio funds. ⁵ Net multiple/ net IRR measures presented for each of the funds (other than PGSF 88-99) are net of Pantheon management fees and administrative costs and expenses of the fund. The pro forma results of PGSF 88-99 do not fully account for administration costs or any expenses of the fund, as discussed above. Each of PGSF IV and PGSF V has a credit facility in place pursuant to which amounts may be outstanding from time to time. Each credit facility is secured on the undrawn commitments of investors in the relevant fund. The timing of the re-payment of each loan and the manner in which the loan is re-paid (i.e. by calling capital from investors in the relevant fund or by applying proceeds received from portfolio investments of the relevant fund) may affect the performance of the relevant fund. It is presently expected that some or all of the relevant facility will be repaid by applying proceeds from distributions in lieu of calling capital from investors. PGSF VI is permitted but is not obligated to undertake borrowing which may or may not include a credit facility. Any borrowing by PGSF VI would affect its performance results. ⁶ Cash-on-cash multiple reflects the net cash amounts which actually occur between Pantheon and our investors. For instance, when a call and distribution take place on the same day, only the net amount is included in the calculation (as a call if the net amount is a negative number, or as a distribution if the net amount is a positive number). Investment level cash flows are netted on a monthly basis to generate the actual cash flow profile that an investor would experience. ⁷ Multiple of net capital at risk is calculated as (NAV + distributions) / maximum drawdown, where maximum drawdown is the point at which the cumulative cash flow amount drawn reaches its most negative position. In considering the performance included above and throughout this material, prospective investors should bear in mind that past or expected performance is not indicative of future results and there can be no assurance that PGSF VI will achieve similar returns or that expected returns will actually be achieved. **Past performance is not indicative of future results. Future returns are not guaranteed and a loss of principal may occur.** ⁸ PGSF V is still in its investment period and may make additional investments which will affect its performance results.

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Portfolio, volatility or return targets or objectives, if any, are used solely for illustration, measurement or comparison purposes and as an aid or guideline for prospective investors to evaluate a particular investment product's strategies, volatility and accompanying information. Such targets or objectives reflect subjective determinations of an Investment Manager based on a variety of factors including, among others, the investment product's investment strategy and prior performance (if any), volatility measures, portfolio characteristics and risk, and market conditions. Volatility and performance will fluctuate, including over short periods, and should be evaluated over the time period indicated and not over shorter periods. Performance targets or objectives should not be relied upon as an indication of actual or projected future performance. Actual volatility and returns will depend on a variety of factors including overall market conditions and the ability of an Investment Manager to implement an investment product's investment process, investment objectives and risk management.

Potential Investment program risks

- ▶ Fund of Funds invest in private equity funds. In general, alternative investments such as private equity or infrastructure involve a high degree of risk, including potential loss of principal invested. These investments can be highly illiquid, charge higher fees than other investments, and typically do not grow at an even rate of return and may decline in value. These investments are not subject to the same regulatory requirements as registered investment products.
- ▶ A private fund investment involves a high degree of risk. As such investments are speculative, subject to high return volatility and will be illiquid on a long term basis. Investors may lose their entire investment.
- ▶ Private equity fund managers typically take several years to invest a fund's capital. Investors will not realize the full potential benefits of the investment in the near term, and there will likely be little or no near-term cash flow distributed by the fund during the commitment period. Interests may not be transferred, assigned or otherwise disposed of without the prior written consent of the manager.

U.S. Disclosure continued

- ▶ Private equity funds are subject to significant fees and expenses, typically, management fees and a 20% carried interest in the net profits generated by the fund and paid to the general partner/manager or an affiliate thereof. Private fund investments are affected by complex tax considerations.
- ▶ Private equity funds may make a limited number of investments. These investments involve a high degree of risk. In addition, funds may make minority investments where the fund may not be able to protect its investment or control, or influence effectively the business or affairs of the underlying investment. The performance of a fund may be substantially adversely affected by a single investment. Private fund investments are less transparent than public investments and private fund investors are afforded fewer regulatory protections than investors in registered public securities.
- ▶ Private equity fund investors are subject to periodic capital calls. Failure to make required capital contributions when due will cause severe consequences to the investor, including possible forfeiture of all investments in the fund made to date.
- ▶ Governing investment documents or the related Prospectus or the managed account agreement, as the case may be, are not reviewed or approved by federal or state regulators and privately placed interests are not federally or state registered.
- ▶ Fees and expenses – which may be substantial regardless of any positive return – will offset an investment product's profits. If an investment product's investments are not successful, these payments and expenses may, over a period of time, deplete the net asset value of the investment product.
- ▶ Managers/advisors and their affiliates may be subject to various potential and actual conflicts of interest.
- ▶ An Investment Product may employ investment strategies or techniques aimed to reduce the risk of loss which may not be successful.

Description of commonly used indices

This list may not represent all indices used in this material.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The MSCI World Index consists of the following 23 developed market country indexes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

S&P 500 Index is a widely recognized gauge of the U.S. equities market. This index is an unmanaged capitalization-weighted index consisting of 500 of the largest capitalization U.S. common stocks. The returns of the S&P 500 include the reinvestment of dividends.

MSCI Europe Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in Europe. The MSCI Europe Index consists of the following 15 developed market country indexes: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

MSCI AC Asia Pacific Index captures large and mid-cap representation across 5 Developed Markets countries and 8 Emerging Markets countries in the Asia Pacific region. With 1,023 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. Developed Markets countries in the index include: Australia, Hong Kong, Japan, New Zealand and Singapore. Emerging Markets countries include: China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

FTSE Europe Index is one of a range of indices designed to help investors benchmark their European investments. The index comprises Large and Mid-cap stocks providing coverage of the Developed markets in Europe. The index is derived from the FTSE Global Equity Index Series (GEIS), which covers 98% of the world's investable market capitalization.

MSCI US Index is designed to measure the performance of the large and mid-cap segments of the US market. With 630 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

FTSE Asia-Pacific Index is part of a range of indices designed to help Asia Pacific investors to benchmark their investments. The index comprises Large (40%) and Mid (60%) Cap stocks providing coverage of 14 markets. The index is derived from the FTSE Global Equity Index Series (GEIS), which covers 98% of the world's investable market capitalization.

U.S. Disclosure continued

FTSE All World Index is a market-capitalization weighted index representing the performance of the large and mid-cap stocks from the FTSE Global Equity Index Series and covers 90-95% of the investable market capitalization. The index covers Developed and Emerging markets and is suitable as the basis for investment products, such as funds, derivatives and exchange-traded funds.

The Thomson One Global All Private Equity Index is based on data compiled from 4,475 global private equity funds (buyout, growth equity, private equity energy, subordinated capital funds and venture capital), including fully liquidated partnerships, formed between 1988 and 2017. The Thomson One Global All Private Equity Index has limitations (some of which are typical to other widely used indices) and cannot be used to predict performance of the Fund. These limitations include survivorship bias (the returns of the index may not be representative of all private equity funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all private equity are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown).

Preqin's database provides information on 6,339 active Private Equity funds from 2,099 different GPs with over \$4.5tn combined fund size.

Thomson One (Infrastructure) is comprised of data extracted in fund currency from Private Equity and Venture Capital index based on funds classified as Infrastructure by Cambridge Associates. Cambridge Associates defines Infrastructure as funds that primarily invest in companies and assets that provide an essential service that contributes to the economic or social productivity of an organization, community, or society at large, with real assets in the water, transportation, energy, communication, or social sector. Investments must also have one or more of the following structural features: a monopolistic or oligopolistic market position with high barriers to entry; a low elasticity of demand due to their essential functions; stable, predictable, and long-term revenue contracts; or inflation protection through inflation adjustment mechanisms in underlying contracts. For purposes of this analysis, vintage year specific benchmarks are provided including 2009 (3 funds), 2010 (13 funds), and 2014 (10 funds) benchmarks. These indexes have limitations (some of which are typical to other widely used indices) and cannot be used to predict performance of the fund. These limitations include survivorship bias (the returns of the index may not be representative of all private equity funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all private equity are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown).

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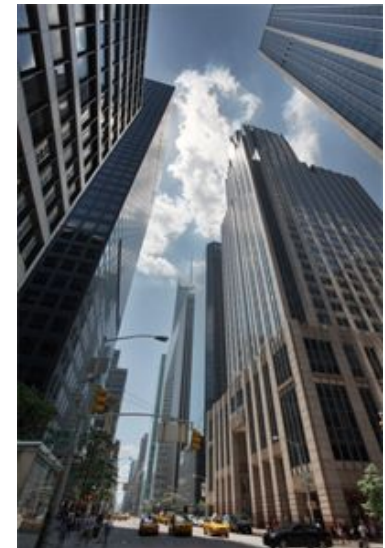
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Trumbull Property Fund (TPF)

Presented to: Ventura County Employees' Retirement Association

Real estate
investment funds

March 25, 2019



1177 Avenue of Americas, New York, NY

General risk disclosure

Certain sections of this presentation that relate to future prospects are forward looking statements and are subject to certain risks and uncertainties that could cause actual results to differ materially. This material is designed to support an in-person presentation, is not intended to be read in isolation, and does not provide a full explanation of all the topics that are presented and discussed.

An investment in real estate will involve significant risks and there are no assurances against loss of principal resulting from real estate investments or that the portfolio's objectives will be attained.

This is not a recommendation. Investors must have the sophistication to independently evaluate investment risks and to exercise independent judgment in deciding to invest in real estate funds. Investors must also have the financial ability and willingness to accept and bear the risks, including, among other things:

- **Risk of illiquidity.** Real estate is an illiquid investment and the account may not be able to generate sufficient cash to meet withdrawal requests from investors. Redemptions may be delayed indefinitely;
- **Risks of investing in real estate.** These risks include adverse changes in economic conditions (local, national, international), occupancy levels and in environmental, zoning, and other governmental laws, regulations, and policies;
- **Use of leverage.** Leverage will increase the exposure of the real estate assets to adverse economic factors, such as rising interest rates, economic downturns, or deteriorations in the condition of the properties or their respective markets and changes in interest rates; and
- **Limitations on the transfer of fund units.** There is no public market for interests in any of our funds and no such market is expected to develop in the future.
- **Legal & Taxation.** Investors should consult their own legal and tax advisers for potential US and/or local country legal or tax implications on any investment

Investors should evaluate all risk and uncertainties before making any investment decision. Risks are detailed in the respective fund's offering memorandum.

Table of contents

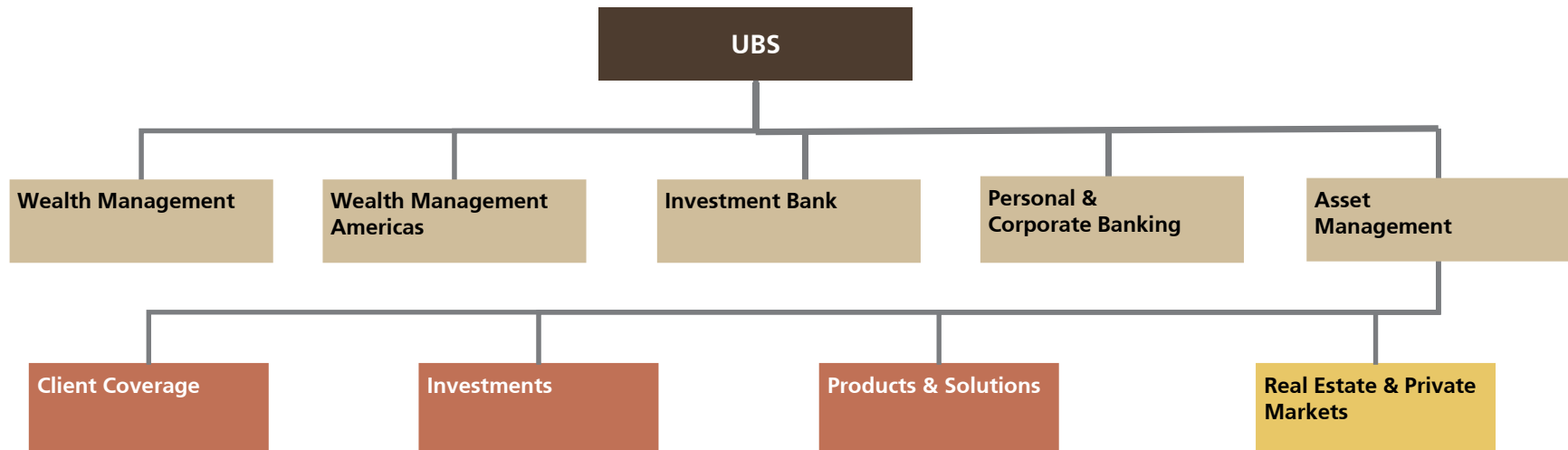
	General risk disclosure	
Section 1	Organization and Capabilities	3
Section 2	Investment Results	7
Section 3	Trumbull Property Fund (TPF)	9
Section 4	Biographies	26

Section 1

Organization and Capabilities

UBS Asset Management - Overview

- Total invested assets: USD 781 billion
- Approximately 2,250 employees located in 23 countries
- Well-diversified businesses across regions, capabilities and client segments
- Value driven investment philosophy
- Real estate is a prominent business area within UBS Asset Management



Data as of December 31, 2018.
Source: UBS Asset Management



Real estate investment experience and mission

UBS Asset Management, Real Estate & Private Markets (REPM)

Real Estate

- Close to 75 years experience in real estate, managing assets in excess of USD 96 billion for over 3,300 professional / institutional clients worldwide
- Present in 14 countries worldwide with over 275 investment professionals with deep understanding of local markets dynamics
- Over 2,150 direct property holdings worldwide, in 20 countries

Real Estate - US

- Over 40 years of real estate investment experience
- USD 32.6 billion of assets for over 750 institutional clients
- 494 real estate investments managed including: multifamily, office, retail, hotels, industrial and farmland
- Real estate organization with 218 employees and offices in California, Connecticut, and Texas
- Quality people, properties and relationships

Our mission is to provide both superior risk-adjusted investment performance for our clients through private real estate investment strategies and outstanding client service.

Data as of December 31, 2018, unless otherwise noted.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). Includes UBS Farmland Investors LLC



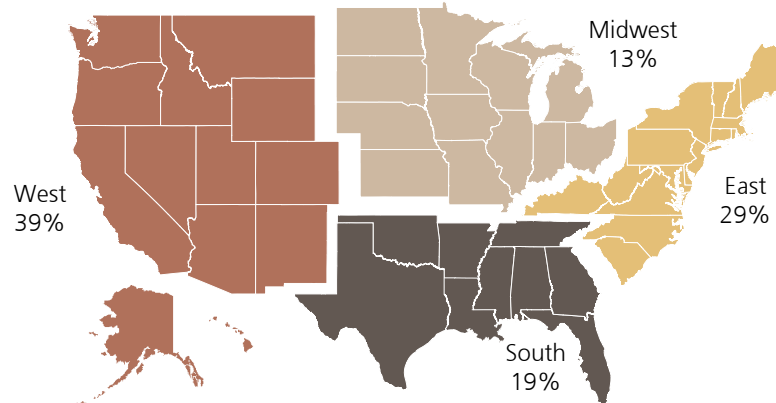
The Post, Seattle, WA



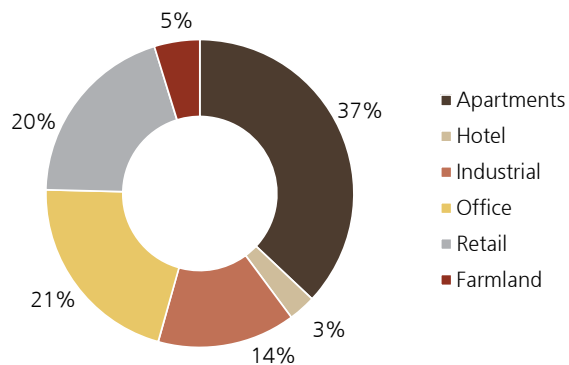
Real Estate funds in the US - Overview

Gross assets – USD 32.6 billion

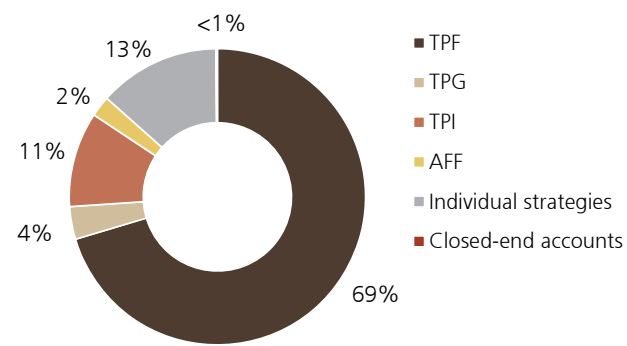
Assets by geographic region



Assets by property type



Assets by strategy



Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Notes: Assets by property type and geographic regions represent real estate assets only and exclude other assets, such as cash, which are included in Gross Assets. Assets include UBS Farmland Investors LLC.



Section 2

Investment Results



TPF investment results for Ventura County Employees'

Periods ending December 2018

Year	Deposit	Redemptions/ Distributions	Market Value 12/31/18	Client Net IRR's*					
				12 months ended 12/31/18	3 years ended 12/31/18	5 years ended 12/31/18	10 years ended 12/31/18	Since Inception 3/31/03 to 12/31/18	
		\$ in thousands							
2003	54,000								
2004	10,000								
2005		10,000							
2009		1,013							
2010	30,000								
2011	30,000								
2013		5,421							
2014		1,355							
	\$124,000	\$17,789	\$276,737	6.2%	5.9%	8.0%	6.8%	7.8%	
				ODCE (net)	7.4%	7.3%	9.4%	6.0%	7.3%

*Client Net IRRs are dollar-weighted and after fees that were deducted from the account. Past performance is not indicative of future results. This is not an official statement of your account. Refer to your client statement and the quarterly TPF report. Time Weighted Returns are available upon request.



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Section 3

Trumbull Property Fund (TPF)



Trumbull Property Fund

Invest thoughtfully, sell strategically, manage aggressively



**Liberty Green / Liberty Luxe,
New York, NY¹**



Element Uptown, Charlotte, NC



US Bancorp Tower, Portland, OR



Pacific Industrial, Vernon, CA



**455 Market Street,
San Francisco, CA**



**Addison & Clark, Chicago, IL
(rendering)**

Photographs of current TPF properties are shown for illustrative purposes. The properties within the Fund are expected to change over time as investments are acquired and sold.

¹Participating mortgage investment. Source: UBS Asset Management, Real Estate & Private Markets (REPM).



Dedicated and experienced team

Portfolio Managers average 24 years of industry experience



**Paul Canning - Managing Director
Senior Portfolio Manager**

39 years of industry experience,
28 with UBS

- Sets strategic direction for the Fund
- Responsible for all transaction & asset decisions
- Senior Investment Committee member



**Pam Thompson - Executive Director
TPF Chief Operating Officer**

28 years of industry experience,
16 with UBS

- Ensures that fund guidelines and operations are in compliance
- Responsible for performance attribution & financing



**Mario Maturo - Executive Director
Portfolio Manager**

20 years of industry experience,
14 with UBS

- Responsible for West region assets & transactions



**Peter Shaplin - Executive Director
Portfolio Manager**

18 years of industry experience,
6 with UBS

- Responsible for Midwest and East region assets & transactions



**Nolan Henry - Executive Director
Portfolio Manager**

16 years of industry experience,
11 with UBS

- Responsible for South region assets & transactions



**Lan Seto - Director
Portfolio Analytics**

17 years of industry experience,
13 with UBS

- Performance attribution and portfolio analysis



**Debby Sce - Associate Director
Portfolio Analytics**

22 years of industry experience,
12 with UBS

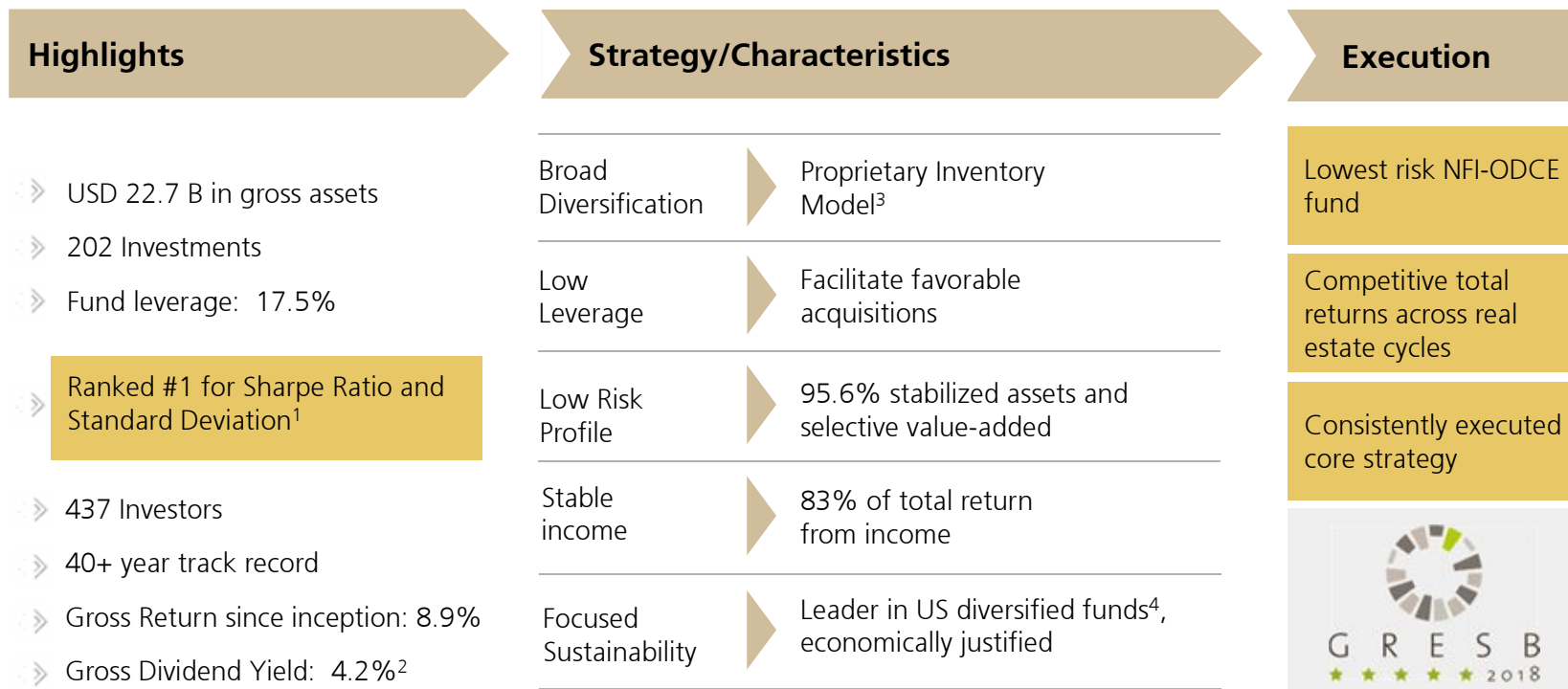
- Portfolio analysis and reporting

As of March 1, 2019
Source: UBS Asset Management, Real Estate & Private Markets (REPM).



Trumbull Property Fund strategy

Proven open-ended core fund that provides superior risk adjusted returns¹



Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM). ¹Ranked #1 (out of 13 funds) for Sharpe Ratio and for Standard Deviation, on a 10-year basis, as calculated by NCREIF as of September 30, 2018. ²Gross dividend yield provided is a one-year gross rolling return. ³The Inventory Model has outperformed the NPI 32 out of the past 40 years and with a lower standard deviation. Return supplements the Firm's Equity Composite previously provided or included herein. ⁴Source: GRESB as of 2018. TPF is ranked #5 out of 42 US diversified funds. TPF since inception date is 1/13/1978. Past performance is not indicative of future results.

Diversification driven by proprietary inventory model

TPF does not seek to replicate NFI-ODCE

Proprietary inventory model

- USD 5.6 trillion, ten times NPI
- Twenty times larger than ODCE
- Outperforms NPI 32 of 40 years, with a lower standard deviation

By Property type vs NFI-ODCE

- More apartments
- Less office

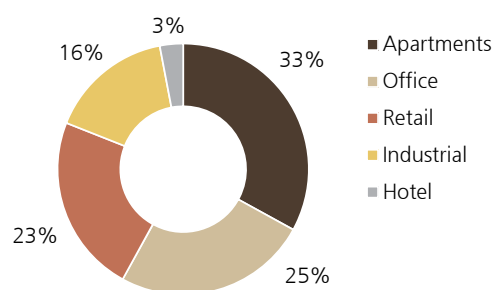
By Geography

- Coastal focus
- Balanced East & West

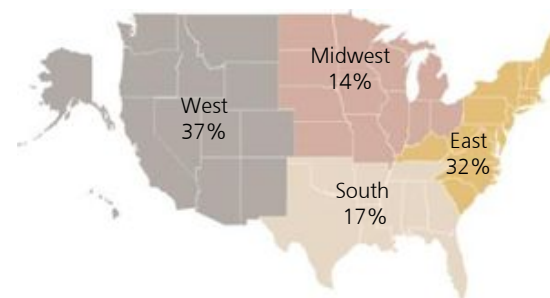
By Economic drivers

- Affirms diversification

Property type allocation (%)



Geographic region allocation (%)



	TPF target ranges	Current TPF allocation	NFI-ODCE
Apartments	27-45	33	25
Office	16-27	25	34
Retail	21-35	23	19
Industrial	11-18	16	18
Hotel/Other	0-10	3	4

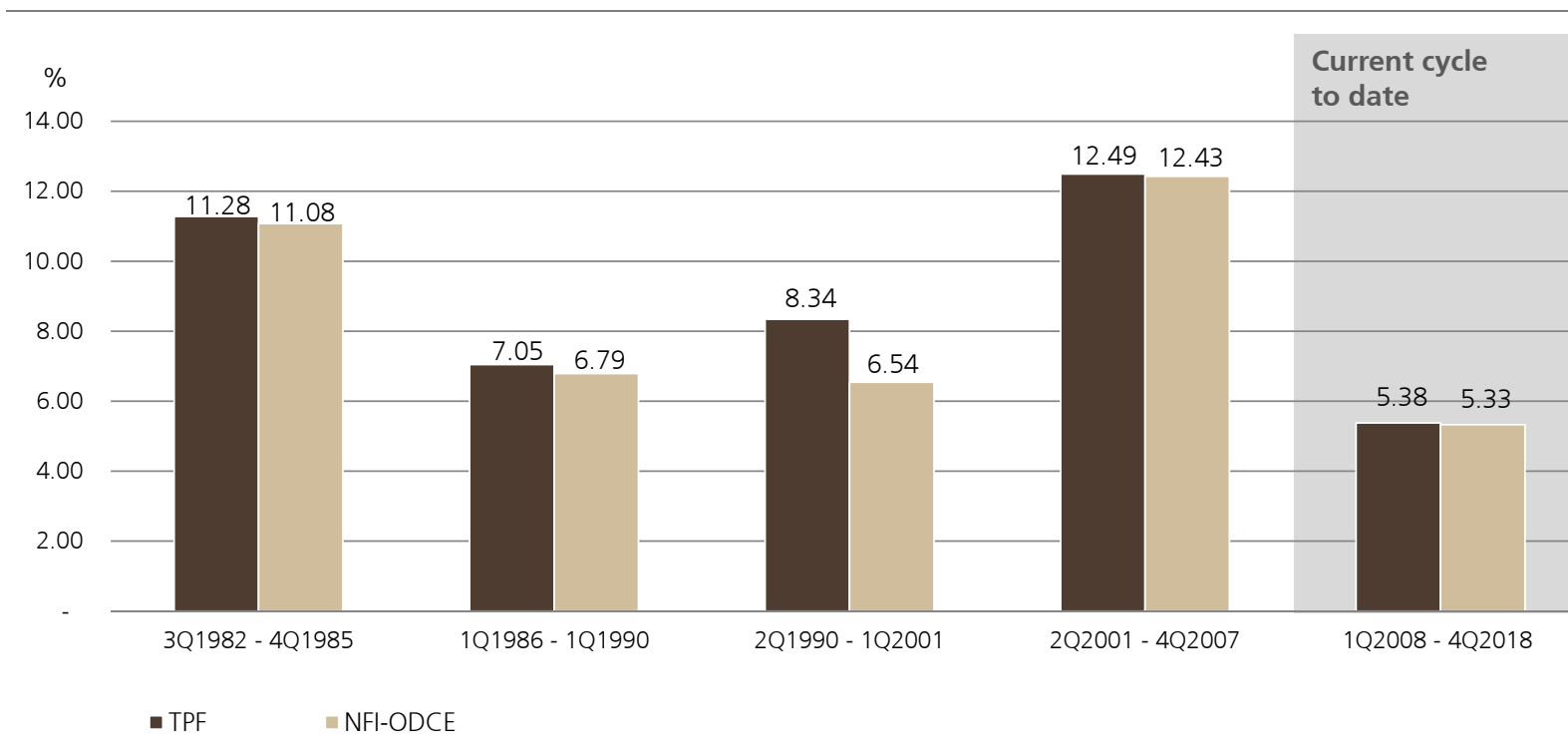
	TPF target ranges	Current TPF allocation	NFI-ODCE
East	21-44	32	31
Midwest	8-17	14	9
South	14-28	17	19
West	23-47	37	41

Data as of December 31, 2018 unless otherwise indicated. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source for NFI-ODCE and NPI. Percentages may not sum due to rounding. Percentages are based on gross market value of real estate investments. The Investable Universe inventory model has provided superior investment returns (relative to NPI) for 32 of the past 40 years, and with a lower standard of deviation. Data for Investable Universe updated as of December 31, 2017 (updated annually). The Investable Universe as tracked by our Research team is an estimate of the market value of Institutional-quality commercial real estate in 64 of the largest US metro areas for the four primary property sectors: apartments, industrial, office and retail. It provides a larger sample size (approximately USD 5.57 trillion) of assets as compared to the USD 559.8 billion tracked by NPI (as of December 31, 2017).



Full market cycle total returns – peak to peak

TPF outperformed NFI-ODCE in all full market cycles



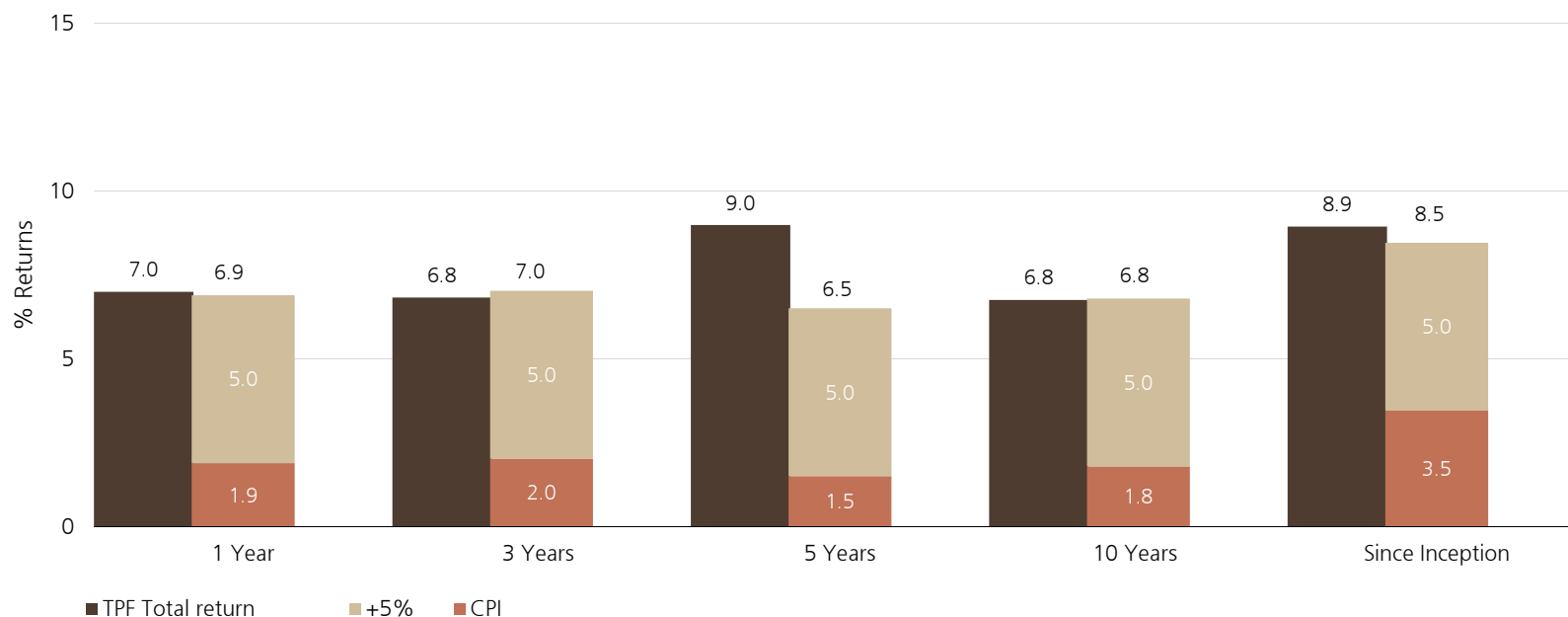
Data as of December 31, 2018. Data shown is back to 1982. All returns are annualized and are gross of fees. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source of NFI-ODCE. Notes: For purposes of measuring these performance objectives, a "full market cycle" is defined as a period of time from a peak valuation through a trough and a return to a new peak. The Advisor bases these measurements on assumptions that it believes are reasonable and consistent with industry standards. See required notes pages at the end of this section or presentation. Past performance is not indicative of future results.



TPF real return performance objective

Seek to provide at least a 5% real rate of return, before management fees, over any given three- to five-year period

TPF's 4Q18 total return was 1.73%

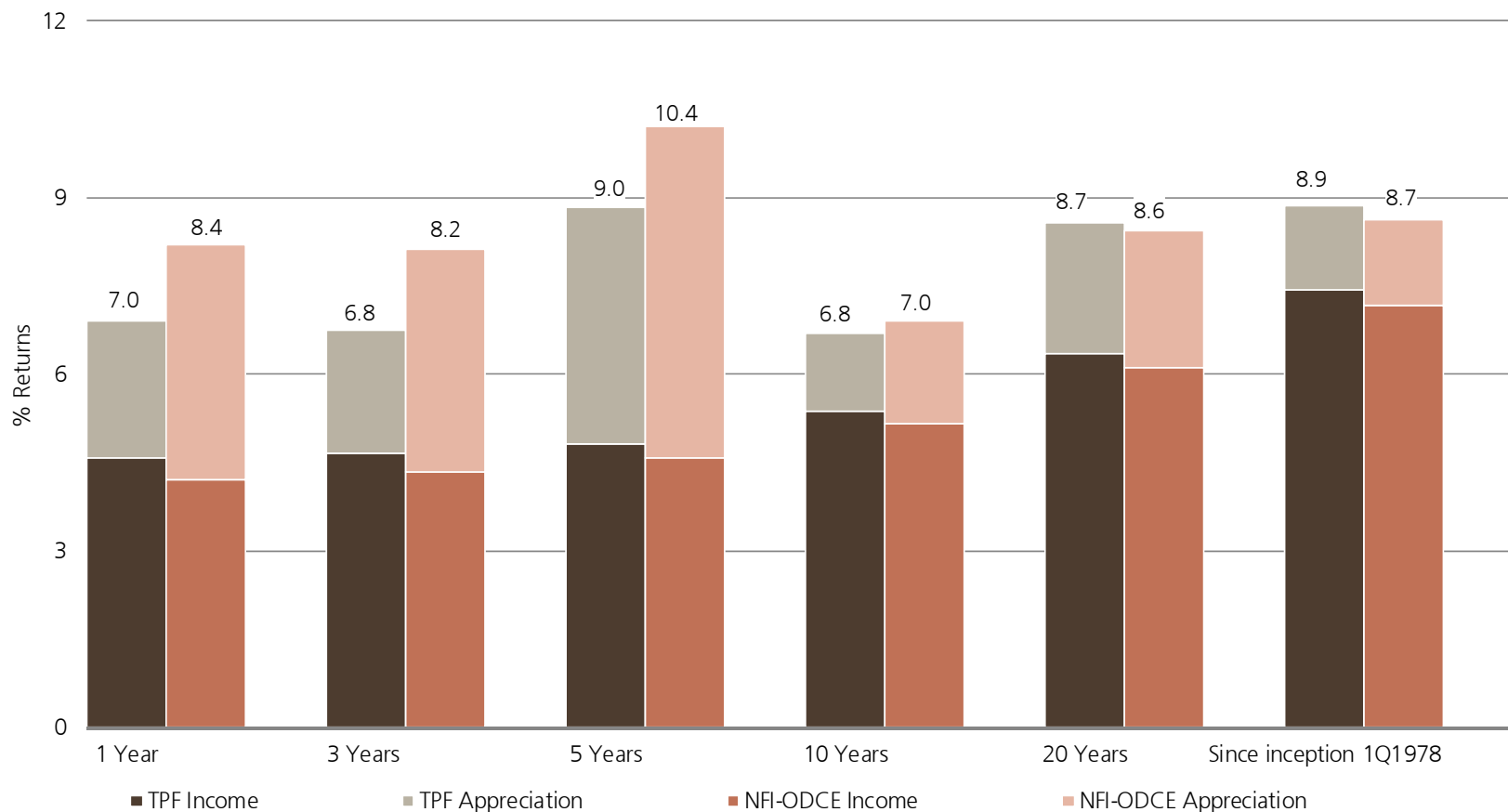


Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM). The source of CPI is Bureau of Labor Statistics. Notes: CPI is the Consumer Price Index, an inflationary indicator of the standard of living in the US. It is also referred to as the "cost of living" index. Returns supplement the Firm's Equity Composite previously provided or included herein. See required notes slide at the end of this section or presentation. Fund Inception date January 13, 1978. Past performance is not indicative of future results.



TPF performance vs. NFI-ODCE

Comparative performance



Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source of NFI-ODCE. Notes: Returns supplement the Firm's Equity Composite previously provided or included herein. See required notes pages at the end of this section or presentation. Past performance is not indicative of future results.



TPF 2018 transactions

A big move to reduce office

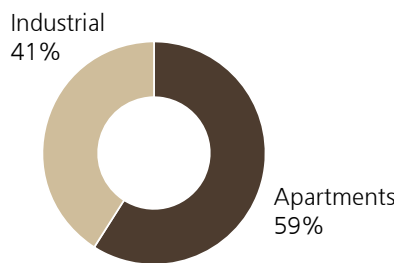
2018 Total Acquisitions:

USD 536.8 million

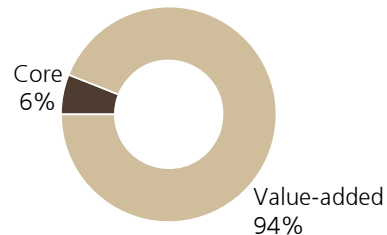
- Closed 3 multifamily and 18 industrial transactions
- Primarily value-added investments – build to core
- Increased the Fund's exposure to San Jose and San Francisco, CA markets (strong employment and rent growth)
- All investments sourced through key relationship partners

2018 Acquisitions

Property Type



Strategy



2018 Dispositions:

USD 2.7 Billion

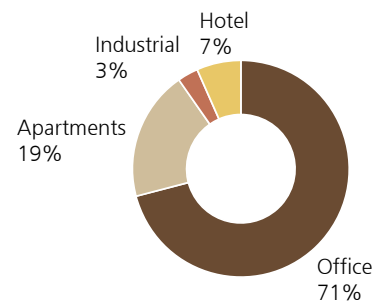
- Materially reduced office allocation (31% → 25%)
- Refreshed asset quality by selling older multifamily assets
- Reduced allocation in overweight markets and hotels

2018 Results

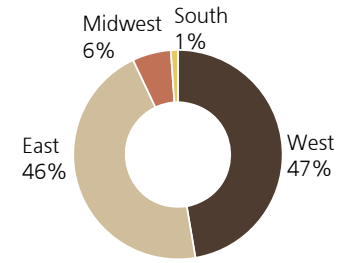
- Sale prices 3% greater than last appraisal
- Sale prices 33% greater than book value

2018 Dispositions

Property Type



Geographic Region



Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM).



TPF 2019 investments

Maintain momentum; balanced approach to investing

2019 Acquisitions Estimate:

USD 750 M

- Market selections driven by Inventory Model allocations and market fundamentals
- Continued appetite for value-added investments
 - "Buy the neighborhood"
- Preference for multifamily and industrial assets
 - Traditional multifamily and senior housing
 - Industrial distribution warehouse product

2019 Dispositions Estimate:

USD 2.0 B

- Improving quality of the Fund
- Sale decisions reflect Inventory Model overlay
- Continuing to sell hotels
- Holistic market approach
- Balanced by property type



Acme Apartments, Seattle, WA (acquisition)



Becknell Industrial, Mount Comfort, IN (acquisition)



Oak Brook Marriott, Chicago, IL (sale)

Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM).

Proven manager and a proven product

Successful track record managing core real estate for forty years

Highly experienced team, disciplined investment process and comprehensive research support

Clearly defined and consistently executed core real estate strategy

Well diversified exposure across assets, sectors and geography

Large relative fund size provides access to major market investments

✓ **Robust income**

83% of total return since inception has come from income

Income return greater than NFI-ODCE for all time periods tracked

✓ **Low volatility**

Over last 10 years, ranked #1 for Sharpe Ratio and for Standard Deviation¹

✓ **Competitive returns**

Superior risk-adjusted returns, achieving 8.9% since-inception gross return

Delivering superior risk-adjusted investment performance across real estate cycles

Data as of December 31, 2018. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source of NFI-ODCE. Past performance is not indicative of future results.

Notes: ¹Ranked #1 (out of 13 funds) for Sharpe Ratio and for Standard Deviation, on a 10-year basis, as calculated by NCREIF as of December 31, 2018.

Trumbull Property Fund

Representative assets



73 East Lake, Chicago, IL



CambridgeSide, Cambridge, MA



Century Square, Seattle, WA



Pacific Industrial, San Bernardino, CA



**The Shipyard at Port Jefferson,
Port Jefferson, NY**



**1177 Avenue of the Americas,
New York, NY**



Alexan San Diego, CA



Becknell Industrial, Columbia, SC

Photographs of current TPF properties are shown for illustrative purposes. The properties within the Fund are expected to change over time as investments are acquired and sold.
Source: UBS Asset Management, Real Estate & Private Markets (REPM).

UBS Realty Investors Equity Composite

Year	Year-end		Total Firm Net Assets (USD millions)	Gross of fees (%)			Benchmark return (%)	Net of fees (%)	Range of Gross Returns (%)		Asset weighted standard deviation	% of Composite assets valued externally ⁽¹⁾
	Number of accounts	Composite Net Assets (USD millions)		Income return	Appreciation (depreciation)	Total return		Total return	Max	Min		
2008	9	10,445	13,285	4.99	(12.21)	(7.67)	(10.01)	(8.47)	(4.2)	(41.0)	1.91	100
2009	9	7,995	10,232	6.68	(27.91)	(22.69)	(29.76)	(23.32)	(11.8)	(62.2)	4.23	100
2010	8	9,687	12,107	7.10	9.37	16.95	16.36	15.92	42.0	4.7	3.20	100
2011	8	12,404	15,241	5.57	8.20	14.10	15.99	12.96	35.3	8.6	2.88	100
2012	9	14,679	17,325	5.45	5.07	10.73	10.94	9.63	25.8	(2.5)	2.53	100
2013	9	16,114	19,206	5.22	5.40	10.83	13.94	9.71	26.5	(38.7)	2.68	100
2014	9	18,788	22,252	5.21	6.61	12.07	12.50	10.94	35.8	6.7	2.46	100
2015	7	21,383	25,379	5.06	8.11	13.47	15.02	12.33	26.3	8.6	2.05	100
2016	7	22,534	26,744	4.77	2.99	7.86	8.77	6.80	23.2	7.2	2.15	100
2017	7	22,455	26,974	4.61	1.93	6.61	7.62	5.75	14.5	2.7	1.20	100

1. Compliance Statement Real Estate & Private Markets, Real Estate US (the Firm) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. The Firm has been independently verified since January 1, 1993. Verification assesses whether (1) the Firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the Firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The UBS Realty Investors Equity Composite has been independently examined for the periods January 1, 2008 through December 31, 2016. **The Firm's verification and performance examination of the Composite for 2017 has not been completed at this time.** The verification and performance examination report is available upon request.

2. The Firm The Firm is defined as UBS Realty Investors LLC and UBS Farmland Investors LLC (prior to 2016, the UBS Farmland Investors LLC was known as UBS AgriVest LLC), together Real Estate & Private Markets, Real Estate US. Both entities are registered with the US Securities and Exchange Commission as investment advisors. Prior to January 1, 2017, the Firm was known as Global Real Estate - US. The Total Firm Gross Assets at December 31, 2017 were USD 32.4 billion, representing the fair value of total Firm assets held under management. Total Firm Net Assets represent the Total Firm Assets held under management less the fair value of liabilities.

3. The Composite The UBS Realty Investors Equity Composite (the "Composite") was created in 2005. All results are presented in US dollars. A complete list and description of Firm composites is available upon request. The Composite comprises all fee-paying, non-taxable discretionary accounts that invest primarily in equity real estate including, but not limited to, the following property types: apartments, office, retail, industrial, and hospitality. The strategy of the accounts in the Composite is to acquire investments in US commercial and multifamily real estate (core and value-added properties) expected to provide attractive risk-adjusted returns consisting of current income and capital appreciation. Since October 2003, a sub-advisor has managed the cash for some pooled accounts included in the Composite. Initially, accounts must have at least USD 30 million in commitments or assets, including debt, to be included in the Composite. Composite dispersion for any year is represented by both the range and the asset-weighted standard deviation of the gross total returns of the accounts that were in the Composite for the entire calendar year. Discretion is broadly defined as the Firm having discretion over the selection, capitalization, asset management, and disposition of investments within the parameters of a given mandate.

4. Valuation An independent appraisal of the underlying real estate for each investment is performed at least annually and includes a complete property inspection and market analysis. Starting October 1, 2009, independent appraisals are generally completed every quarter for most of the underlying real estate investments. For real estate investments that are held in funds where appraisals are not performed on a quarterly basis and prior to October 1, 2009, the underlying real estate is typically scheduled to be appraised twice a year. In the interim quarters, updated property and market information is reviewed. If this review indicates a potential material change in the value, the valuation is then updated by the independent appraiser. If this review indicates that any change in value is likely not material, the value is determined to remain unchanged. Valuations of real estate and debt use significant unobservable inputs. In general, each annual property appraisal includes at least an income approach using a discounted cash flow model and a sales comparison approach, which are considered in determining a final value conclusion. All appraisals are certified by members of the Appraisal Institute who hold the MAI designation. Third-party debt is stated at fair value. The valuation of debt is taken into consideration when determining the estimated fair value of the equity in the related investment.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). Past performance is not indicative of future results. ⁽¹⁾Generally for those assets held longer than six months.



UBS Realty Investors Equity Composite

5. Calculation of Performance Returns reflect the impact of leverage, which averaged approximately 15.7% of gross asset value (net asset value plus debt) during 2008 through 2017, and approximately 17.0% in 2017. Leverage has consisted primarily of mortgage loans payable that are collateralized by the related real estate investment. The extent to which leverage is used varies by account strategy and may include either portfolio or property level debt. Expenditures, including tenant improvements and leasing commissions, that extend the useful life or represent additional capital investments benefiting future periods, are capitalized as a component of cost. Annual returns are time-weighted rates of return calculated by linking quarterly returns. The sum of income and appreciation (depreciation) may not equal total returns due to the linking of quarterly returns. Gross of fees returns are presented before all management fees, but after third-party expenses. Net returns are presented net of the management fees, performance fees and third-party expenses. All returns are presented before any applicable insurance company contract charges in effect on certain funds through February 29, 2008. The policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

6. Investment Management Fees Management fees differ by account and reflect the complexity and value of services chosen, anticipated size, and the number and type of investments involved. Depending upon the services, the fee may represent any one or a combination of: fixed flat amounts; a percentage of purchase price, earnings, assets under management, or of sales proceeds; or incentive fees based on performance. The fee for investment in one of the Firm's commingled funds can be up to 190 bps per annum on net asset value based upon the fee scale and the investor's share of net asset value in the fund and other UBS Realty sponsored funds as of the beginning of the quarter with an incentive fee charged on various performance hurdles, for example, 15% above a 7% real return over sequential 3-year periods, subject to certain clawback provisions depending on the performance of the fund. Please see the applicable fee schedule(s) appropriate to the product or services being presented.

7. Benchmark Effective May 2009, the Firm changed the benchmark retroactively from the property-level National Council of Real Estate Investment Fiduciaries ("NCREIF") Property Index ("NPI") to a fund-level Index, the NCREIF Fund Index-Open End Diversified Core Equity ("NFI-ODCE" or the "Index"). The Firm believes a fund-level index provides a more meaningful comparison for a fund-level composite. The NFI-ODCE, first published mid-2005, is a capitalization-weighted, time-weighted, fund-level return index beginning as of the first quarter of 1978, inclusive. It is presented gross of fees. As of December 31, 2017, the NFI-ODCE consisted of 24 active funds with total net assets of USD 178.0 billion. The NFI-ODCE leverage ratio at December 31, 2017 was 21.4%.

8. Market Conditions Over the past two decades, commercial real estate experienced historic highs and lows. Fundamental recovery following the 2001 recession, along with a dramatic increase in the availability and reduction in the cost of debt capital propelled commercial and multifamily performance to the highest level in NCREIF history. In 2005, the NCREIF Fund Index – ODCE returned 21.4%, its highest calendar total return since its inception in 1978. A worldwide credit crisis initiated a new recession during 2008. Liquidity evaporated in most asset classes, including commercial real estate. Total returns turned negative in mid-2008, with 2009 producing the lowest performance on record at negative 29.8%. The downturn was swift, and 2010 through 2013 reflected a period of recovery. By late-2013, expansion was underway as total returns on stabilized properties had recouped losses, led by steady income growth and low supply growth across the broad market. After six years of double-digit returns led by above-average appreciation, the NFI-ODCE produced a gross return of 8.8% during 2016, and moderated further in 2017 to 7.6%. Since inception in 1978, the NFI-ODCE produced a gross return of 8.7%.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). Past performance is not indicative of future results.



TPF Required notes

Returns herein, unless otherwise noted, are presented gross of fees.

The Fund's participating mortgages and those construction loans converting to participating mortgages are secured by properties operated by sponsors that the advisor has deemed creditworthy. The Fund does not own these properties.

Returns for periods greater than one year are annualized. For the period ending December 31, 2018 TPF's net total returns for the quarter, one-, three-, five-, ten-, twenty-year periods and since inception were 1.54%, 6.15%, 5.90%, 7.99%, 5.77%, 7.67% and 7.96% respectively, after the deduction of management fees, but before the deduction of contract charges. Contract charges were only applicable through February 29, 2008. TPF returns reflect the reinvestment of income. Returns and dollars are USD denominated.

Information on fees is available in the ADV Part 2 for UBS Realty Investors LLC and is also available upon request. As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, on an account with a 1% annual fee, if the gross performance is 10%, the compounding effect of the fees will result in a net performance of approximately 8.93%.

The Total Expense Ratio (TER) of the Trumbull Property Fund for the rolling four quarters ended December 31, 2018 would be:

TER before performance fees (Fund expenses before performance fees / Average GAV) = 0.66%. TER after performance fees (Fund expenses after performance fees / Average GAV) = 0.68%. (a) Returns are based on a time-weighted rate of return methodology. (b) The TER is prepared for informational purposes only based on our understanding of the calculation. (c) TPF is accounted for in conformity with U.S. generally accepted accounting principles (U.S. GAAP). (d) TER expenses primarily include Fund level advisory fees (both deducted by the Fund and directly billed to investors), audit and tax fees, appraisal and other third-party valuation service fees for the Trumbull Property Fund. Property level expenses (e.g., utilities, maintenance, real estate taxes) are excluded from the TER calculation.

Indices are shown for informational purposes only as they are well-recognized measures rather than because there is a close relationship between the investments contained in, and the performance of REPM-US' Funds and the components of these indices. The investment profile, credit risk and volatility of such indices may be materially different than the portfolios of the Fund shown and generally do not reflect the reinvestment of dividends or deduction of management or other fees. NFI-ODCE (Source NCREIF) is a fund-level, capitalization weighted index of open-ended diversified core equity commercial real estate funds that includes cash balances and leverage and is reported gross of fees. The degree of leverage used varies among the funds included in NFI-ODCE. As of December 31, 2018 the NFI-ODCE consisted of 25 active funds with total net assets of USD 199.2 billion.

There is no assurance that the financial objective will ultimately be realized and the possibility of loss does exist. There is no guarantee that the investment strategy will perform as expected. Property photos shown in this presentation represent some examples of Fund investments. These types of investments may not be available or selected by the Fund in the future.

GRESB is the global environmental, social and governance (ESG) benchmark for real assets. Working in collaboration with the industry, GRESB defines the standard for sustainability performance in real assets, providing standardized and validated ESG data to more than 75 institutional investors, representing over USD 18 trillion in institutional capital. In 2018, a record 903 property companies and funds participated in the GRESB Real Estate Assessment. The Infrastructure Assessment covered 75 funds and 280 assets, and 25 portfolios completed the Debt Assessment.

Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices. To celebrate the 15th Year of ENERGY STAR for Buildings, the EPA recognized UBS Realty Investors LLC as a Premier Member of the 2014 ENERGY STAR Certification Nation for certifying 38 buildings that year. To earn certification, a building must achieve an Energy Star rating of 75 or higher.

Please note that past performance is not a guide to the future. The value of investments and the income received may go down as well as up, and investors may not get back the original amount invested.



Risks

Investors should be aware that return objectives are subject to a number of assumptions and factors, a change in any of which could adversely affect returns. Accordingly, investors should note the limitations of an objective.

Investments in direct real estate and real estate funds involve a high degree of risk. For instance, events in 2008 and 2009 such as the deterioration of credit markets and increased volatility have resulted in a historically unprecedented lack of liquidity and decline in asset values. The value of investments and income from them may increase or decrease. Investors must have the financial ability and willingness to accept and bear the risks (including, among other things, the risk of loss of investment) that are characteristic of real estate investing and investing in commingled fund for an indefinite period of time. Among the risks to be considered are:

Risks of investing in real estate. Risks include adverse changes in market and economic conditions, zoning, and other governmental laws, regulations, and policies, occupancy levels and the ability to lease space, and environmental risks, and risk of uninsured losses.

Debt investment risk. Risk includes risks of borrower defaults, bankruptcies, fraud and special hazard losses that are not covered by standard hazard insurance

Restrictions on redemption and transferability of shares or units; illiquidity. Real estate is an illiquid investment and the account may not be able to generate sufficient cash to meet withdrawal requests from investors.

Reliance on controlling persons and third parties. The exercise of control over an entity can impose additional risks and the fund can experience a significant loss. The risk of third parties includes a conflict between their objectives and those of the account or fund.

Use of leverage. Leverage will increase the exposure of the real estate assets to adverse economic factors, such as rising interest rates, economic downturns, or deteriorations in the condition of the properties or their respective markets and changes in interest rates

Legal & Taxation. Investors should consult their own legal and tax advisers for potential US and/or local country legal or tax implications on any investment

Currency risk. The funds and accounts managed by UBS Realty Investors LLC are denominated in US Dollars. There is a potential for loss due to currency fluctuations for non-US investors.

Lack of diversification. Individually managed accounts and funds in their initial investment periods may have investments that are relatively large compared to the account's or fund's anticipated total value. Any limit to diversification increases risk because the unfavorable performance of even a single investment might have an adverse effect on the aggregate return.

Unspecified investments. There can be no assurance that the advisor will be able to continually locate and acquire assets meeting the fund or account's objective. Competition for assets may generally reduce the number of suitable prospective assets available.

In considering an investment in a commingled real estate fund, prospective investors must rely on their own examination of the partnership agreement, private placement memorandum, and all terms of the offering, including merits and details of these and other risks involved. If there are any discrepancies in fund terms between this presentation and the private placement (offering) memorandum, the memorandum shall prevail.

This is not a recommendation to invest in any product or services. Investors must have the sophistication to independently evaluate investment risks and to exercise independent judgment in deciding whether or not to invest in real estate and real estate funds.

Disclaimer – US

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The presentation has been prepared and is provided solely for general information and does not constitute investment advice. Except for individual account proposals, it has been prepared without taking into account any particular client's objectives, financial situation or needs. This material is designed to support an in-person presentation, is not intended to be read in isolation, and does not provide a full explanation of all the topics that were presented and discussed. The opinions expressed in this presentation and any accompanying documents (together referred to as "the presentation") are those of Global Real Estate, a business unit of UBS Asset Management, one of UBS AG's business divisions. Opinions expressed in the presentation may differ from those of other parts of UBS AG and are subject to change.

Commingled funds will only be offered pursuant to a Confidential Private Offering Memorandum, or other similar document, and then only to qualified investors on a private placement basis in jurisdictions in which such an offer may legally be made. These funds may not be available to investors in all states and countries. When investing in a commingled fund, investors must read the Confidential Private Offering Memorandum or other governing documents before investing. If there are any discrepancies between information contained in this presentation and the Confidential Private Offering Memorandum and other offering materials, those materials will prevail.

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Any forecasts or projections contained in the presentation are opinions only and are based on available information at the time of writing. Accordingly, such statements are inherently speculative as they can be affected by incorrect assumptions or by known or unknown risks and uncertainties. The outcomes ultimately achieved may differ substantially from the forecasts or projections. Past performance is not an indication of future performance. The opinions expressed are a reflection of UBS Asset Management's best judgment at the time this material was compiled, and any obligation to update or alter forward-looking statements as a result of new information, future events, or otherwise is disclaimed.

Ownership interests in the Fund are not endorsed or guaranteed by UBS AG, UBS Realty Investors LLC, UBS Farmland Investors LLC, UBS Fund Services (USA) LLC, any of their affiliates or any other banking entity, and are not insured by the federal deposit insurance corporation or any other governmental agency. Any losses in the Fund will be borne solely by investors in the Fund and not by UBS AG, UBS Realty Investors LLC, UBS Farmland Investors LLC, UBS Fund Services (USA) LLC or any of their affiliates. Therefore, losses of UBS AG, UBS Realty Investors LLC, UBS Farmland Investors LLC, UBS Fund Services (USA) LLC or any of its affiliates' in the Fund will be limited to losses attributable to the ownership interests in the covered Fund held by UBS AG, UBS Realty Investors LLC, UBS Farmland Investors LLC, UBS Fund Services (USA) LLC or any of its affiliates in their capacity as investors in the Fund. Investors should always read the Fund offering documents prior to investing in the Fund which includes a description of the roles of UBS AG, UBS Realty Investors LLC, UBS Farmland Investors LLC, UBS Fund Services (USA) LLC and its affiliates in greater detail.

The Fund discussed involves risks of a high degree and investors are advised to read and consider carefully the information contained in the offering documents including the detailed risk factors. There is no public market for the fund interests and no such market is expected to develop in the future. Risks include restrictions on the transferability and resale of shares, risk of investing in real estate and in developing markets, and the possibility of loss of investment does exist.

In the US, the Global Real Estate commingled funds are distributed by UBS Fund Services (USA) LLC, member FINRA and other UBS Asset Management broker-dealer affiliates. UBS Fund Services (USA) LLC main office is located at 10 State House Square, Hartford, CT 06103. UBS Realty Investors LLC, UBS Fund Services (USA) LLC is a member of the UBS Asset Management business division and subsidiaries of UBS AG.



Section 4

Biographies

Paul M. Canning

Senior Portfolio Manager
Managing Director



Years of investment
industry experience: 39

Education: Trinity College
(US), BA

Paul Canning is the Senior Portfolio Manager for the Trumbull Property Fund (TPF) for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management. TPF is the firm's largest open-end real estate account. Paul is also a member of the firm's Strategy Team and Investment Committee.

Prior to joining the TPF team, Paul was the Senior Portfolio Manager for the Trumbull Property Growth & Income Fund. Paul led the fund since its inception in 2006. The Fund has grown to USD 1 billion in assets and was a top quartile performer among open-end funds¹ during his tenure.

Previously, Paul was the head of the firm's national property disposition program. During his time in this role he directed the sale of 37 properties with gross proceeds of approximately USD 1 billion.

Paul joined the Firm's predecessor organization in 1991 as an asset manager for a portfolio of commercial properties encompassing all major property types.

His prior experience was as a project manager for redevelopment of inner-city residential properties for a non-profit development corporation and then as a Partner in charge of urban renovation projects at a Northeastern US commercial real estate firm.

Paul presently serves on the Housing Committee of the Capital Region Development Authority in Hartford CT.

Note: As at February 2019.
¹Source: MSCI as of December 31, 2017.

Nolan D. Henry

Portfolio Manager
Executive Director



Years of investment
industry experience: 16

Education: Rutgers
University (US), BA; The
Wharton School, University
of Pennsylvania (US), MBA

Nolan Henry is a Portfolio Manager supporting the open-end funds and individual client accounts for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management.

Prior to assuming his current position, Nolan was part of the team responsible for acquisitions and development activities in the Midwest Region of the United States.

Before joining UBS in 2008, Nolan was employed at MetLife in the Portfolio Management group. In that position he was responsible for asset allocation, cash flow modeling and risk management analysis for the company's general account. He previously worked in the Expense Management division at MetLife .

Nolan is a member of the Urban Land Institute (ULI).

Note: As at February 2019



Mario Maturo

Portfolio Manager
Executive Director



Years of investment
industry experience: 20

Education: Trinity College
(Hartford, CT), BA;
University of North Carolina
Kenan-Flagler Business
School, MBA

Mario Maturo is a Portfolio Manager for the Trumbull Property Fund (TPF) and is responsible for asset management and transactions oversight and strategic direction for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management. He is San Francisco based and has a focus on the West Region.

Prior to his current position, Mario was responsible for acquisitions and development activities in Northern California, the Pacific Northwest and Southwest. Since joining the firm Mario has closed over USD 1.65 billion in transactions in multiple products including office, hotel, industrial and multifamily properties.

Prior to joining the firm in October 2005, Mario was a Vice President at MMA Financial, LLC (formerly Lend Lease Real Estate Investments) in San Francisco, where he managed affordable housing apartment acquisitions throughout the Western Region of the United States. Prior to MMA Financial, LLC, Mario was a Manager – Risk Management and Investments Group at Cap Gemini Ernst & Young in San Francisco where he was involved with corporate investment and mergers and acquisitions.

Note: As at February 2019.



Peter Shaplin

Portfolio Manager
Executive Director



Years of investment
industry experience: 18

Education: Lafayette
College, BA

Peter Shaplin is a Portfolio Manager for the Trumbull Property Fund (TPF) for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management.

He joined UBS in 2013 as an asset manager with responsibilities in the Commercial Asset Management Team – East Region. In this role Peter was primarily responsible for the management of the Becknell Industrial Operating Partnership, a joint venture owned by Trumbull Property Fund. His responsibilities included: asset management, acquisition, development and disposition activities within the partnership.

Prior to UBS, Peter worked at Commonfund Realty, an open-ended real estate fund located in Wilton, CT as an Asset Manager and Acquisitions Analyst, and the brokerage company Cushman & Wakefield providing investment sale services.

Peter serves internally as the co-chair of the Industrial Best Practices Group, which is tasked with collaborating with various disciplines within UBS to monitor trends and enhance efficiency in the management of industrial properties.

Note: As at February 2019.



Pamela J. Thompson

Portfolio Manager
Executive Director



Years of investment
industry experience: 28

Education: University of
Connecticut (US), BS, MBA

Pamela Thompson is a Portfolio Manager for the Trumbull Property Fund (TPF) for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management.

Pam has worked at UBS for over 14 years including roles in Acquisitions, Financing, and Multifamily Asset Management.

Prior to joining UBS, Pam was the Northeast Region Office Head for Bozzuto & Associates, a multifamily development firm, responsible for Regional Property Management and Acquisitions.

For four years, she worked at CIGNA Realty Investors, where she was the Assistant Portfolio Manager for a separate account. She also had extensive experience in debt placements on their lending team.

Pam also worked in Problem Loans and Valuations for Aetna Real Estate Investments, and as a Senior Real Estate Analyst for Arthur Andersen & Co.

Note: As at February 2019



Mia Y. Dennis

Portfolio and Client Services Officer

Director



Years of investment industry experience: 22

Education: University of California at Davis (US), BA

Mia Dennis is a member of the Portfolio and Client Services Unit for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management. She is located in the San Francisco office. Mia's primary responsibility is investor relations and new business development in the Western region.

Mia has 20 years of experience working in various capacities in the real estate investment management industry. Her prior experience includes acquisitions, asset management, loan originations, consulting and client service.

Prior to joining UBS, Mia spent six years at Callan Associates as a real estate consultant for pension plans nationwide. She also has worked for AEW and J.P. Morgan as a real estate specialist in client services.

Mia holds her Series 7 and 66 licenses with the Financial Industry Regulatory Authority (FINRA).

Note: As at February 2019



Contact information



Mia Y. Dennis
Portfolio and Client Services
UBS Realty Investors LLC
455 Market Street
San Francisco, CA 94105
mia.dennis@ubs.com

Tel. +1-415-538 4840
Fax: +1-415-538 8141

www.ubs.com/realestate

Together, UBS Realty Investors LLC, UBS Farmland Investors LLC, and UBS Fund Services (USA) LLC, subsidiaries of UBS AG, comprise Real Estate US.





March 25, 2019

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

SUBJECT: DRIVE CAPITAL FUND III AND OVERDRIVE FUND I RECOMMENDATION

Dear Board Members:

Attached is a joint recommendation from NEPC and I for a \$7.5 million investment in Drive Capital Fund III, and \$7.5 million investment in Drive Capital's OverDrive Fund I.

Discussion

Drive Capital was formed in 2013 by two former partners of Sequoia, a top Silicon Valley venture capital firm. At Sequoia, Drive's founding partners invested a combined \$395 million in companies that were valued at the time they left Sequoia at \$3.45 billion, with more than \$2.2 billion in distributions. Their combined investments were valued at 8.7 times invested capital.

Although there have not yet been significant realizations in either Drive I or II, estimated return valuations for Fund I investments are currently 2.6x of invested capital, and a net IRR of 30.2%, which are both top quartile. Fund performance for Fund II is not yet meaningful, as the fund is still early in the J-curve.

Drive's focus is on early and expansion stage companies with global market opportunities based in the Midwest, an attractive, underserved market. They target 20 - 30 companies in information technology, financial services, consumer, and healthcare services. They pursue investment themes, building 'market maps' across sectors to identify companies best at solving the largest problems within each sector.

The partners have put together an impressive, experienced team with significant, high profile venture capital investment experience. Direct access to best-in-class, seasoned venture capital firms like Sequoia is typically not available to new investors. Investing in top quality spin-outs from these firms early in their life cycle offers the best long-term alternative.

We continue to believe that Drive's highly experienced team, extensive contacts in the industry, strong preliminary performance, and a deep and broad attractive market continue to offer a great investment opportunity for VCERA.

THEREFORE, IT IS RECOMMENDED THAT THE BOARD:

- 1. Approve an allocation of \$7.5 million to Drive Capital Fund III, and \$7.5 million to Drive Capital OverDrive Fund I, and direct staff and counsel to negotiate the necessary legal documents; and,**

- 2. Subject to approval of VCERA legal counsel, authorize the Board Chair or the Retirement Administrator, and in their absence the Chief Investment Officer, to approve and execute the required documentation.**

Respectfully submitted,

A handwritten signature in blue ink that reads "Daniel P. Gallagher". The signature is written in a cursive, flowing style.

Dan Gallagher
Chief Investment Officer



To: Ventura County Employees' Retirement Association
From: NEPC Consulting Team
Date: March 25, 2019
Subject: Drive Capital III and Drive Capital Overdrive I Recommendation

Recommendation

NEPC and VCERA's CIO jointly recommend that the Board of the Ventura County Employees' Retirement Association ("VCERA" or the "Plan") approve a commitment of \$7.5 million each to Drive Capital III ("Drive III") and Drive Capital Overdrive I ("Overdrive I"). Drive III has been rated "1" by the NEPC Alternative Assets Committee indicating our high conviction in this product. Overdrive I has been rated "2" by the NEPC Alternative Assets Committee indicating our positive view of the strategy, however noting that the Firm has a shorter track record of investing in late-stage venture capital than in early-stage venture capital. VCERA is currently a \$15.0 million investor in Drive Capital II. Drive II, a 3-year old fund, is still in its J-curve and has not yet generated meaningful investment returns.

Summary

Drive Capital was established in 2013 by Chris Olsen and Mark Kvamme to focus on investments in early-stage and late-stage companies in the Midwestern United States. The Founders were previously at Sequoia Capital where they invested a combined \$395 million, which as of 2015, had increased in value to \$3.45 billion, with \$2.2 billion in distributions. The Founders saw shifts in the US technology landscape that they believed favored regions beyond Silicon Valley as well as structural advantages in the Midwest that could drive innovation and a startup ecosystem for the next several decades. Drive believes that the next 15 years will see a majority of the market capitalization in venture being built outside Silicon Valley. The Founders believe this trend favors, among other geographies, the Midwest which is frequently overlooked as an attractive place to build a technology company. Drive Capital is in Columbus, Ohio and currently has eight Partners in the Firm and 14 total employees.

Fund Descriptions

Drive III:

Drive III's strategy is to leverage the Founders' history and experience at Sequoia and apply Sequoia's well-tested approach to opportunities in the Midwest that are overlooked by traditional venture capitalists. The team invests in what it believes are market leading companies focused on technology, technology enabled services, healthcare and consumer sectors. The Fund will target approximately 25 investments, each up to \$15 million, in early and mid-stage companies. Companies in the portfolio will typically have less than \$10 million in annualized sales and many will be pre-revenue.

255 State Street | Boston, MA 02109 | TEL: 617.374.1300 | www.nepc.com

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO



Fund III is targeting a net IRR that is ten percentage points above the Russell 2000 Small Cap Index (compares to plan's Private Equity Benchmark of Russell 3000 Index plus 3 percent), or approximately 25%, and a net multiple of 3.5x on contributed capital. The Fund expects to invest in early stage businesses that each have the potential to generate \$100 million of value for the Fund and expected to generate at least 5.0x the invested capital over the life of the investment. Drive's expectation is that the bulk of these returns will be generated in the last five years of the Fund.

Drive III has a 10-year life, which is subject to two one-year extensions, and could be further extended with investor approval. The Fund is expected to be \$350 million in size. The Fund's fee structure is a combination of management fees, performance-based carried interest and fund expenses. Management fees are consistent with those charged by other venture capital funds of similar size, as are the tiered GP carry terms based on realized returns.

Overdrive I:

Overdrive I's strategy is to invest in what the Firm believes are market leading companies focused on technology, technology enabled services, healthcare and consumer sectors. The Fund will target approximately 20 investments, each ranging from \$10 million to \$30 million, in mid-to-late-stage venture capital or growth stage companies. The Firm defines these as companies with at least \$10 million in annualized sales. It is expected that a portion of Overdrive I's investments will be in companies in which Drive Capital has made early-stage investments from its other venture capital funds (possibly including Drive III). However, it is also expected that a portion of Overdrive I's investments will be in companies in which Drive has not previously invested, where other venture capital firms were the early-stage investors or where Drive Capital is providing the first institutional capital investment.

Overdrive I is targeting a net IRR of 25%, and a net multiple of a 3.5x on contributed capital. The Fund expects that its investment loss ratio on Overdrive I will be less than that of its early-stage funds, reflecting its investment in companies with more established business plans, technologies and customer bases. However, they would expect that in general, investment returns on its successful early-stage investments will be higher than on their successful growth stage deals. While Overdrive I may have a better chance of generating earlier distributions than Drive III, it is also expected that most of Overdrive I's investment realizations will be made in the last five years of the Fund.

Overdrive I has a 10-year life, which is subject to two one-year extensions, and could be further extended with investor approval. The Fund is expected to be \$400-600 million in size. The Fund's fee structure is a combination of management fees, performance-based carried interest and fund expenses. Management fees are consistent with those charged by other venture capital funds of similar size, as are the tiered GP carry terms based on realized returns.



NEPC Research Ratings Definitions

Rating	Definition
1	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
2	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
3	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
4	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
5	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
NR	Due diligence has not been sufficiently completed on the product or manager.



The Midwest is the Opportunity of our Lifetime



DRIVE CAPITAL

- Building the market leading venture fund focused on the Midwest
- \$550M across Drive Capital Fund I and Fund II to invest in early and expansion stage companies
- Top quartile performance: Fund I 30%

PERFORMANCE

Hypothesis: Drive can capture an unfair share

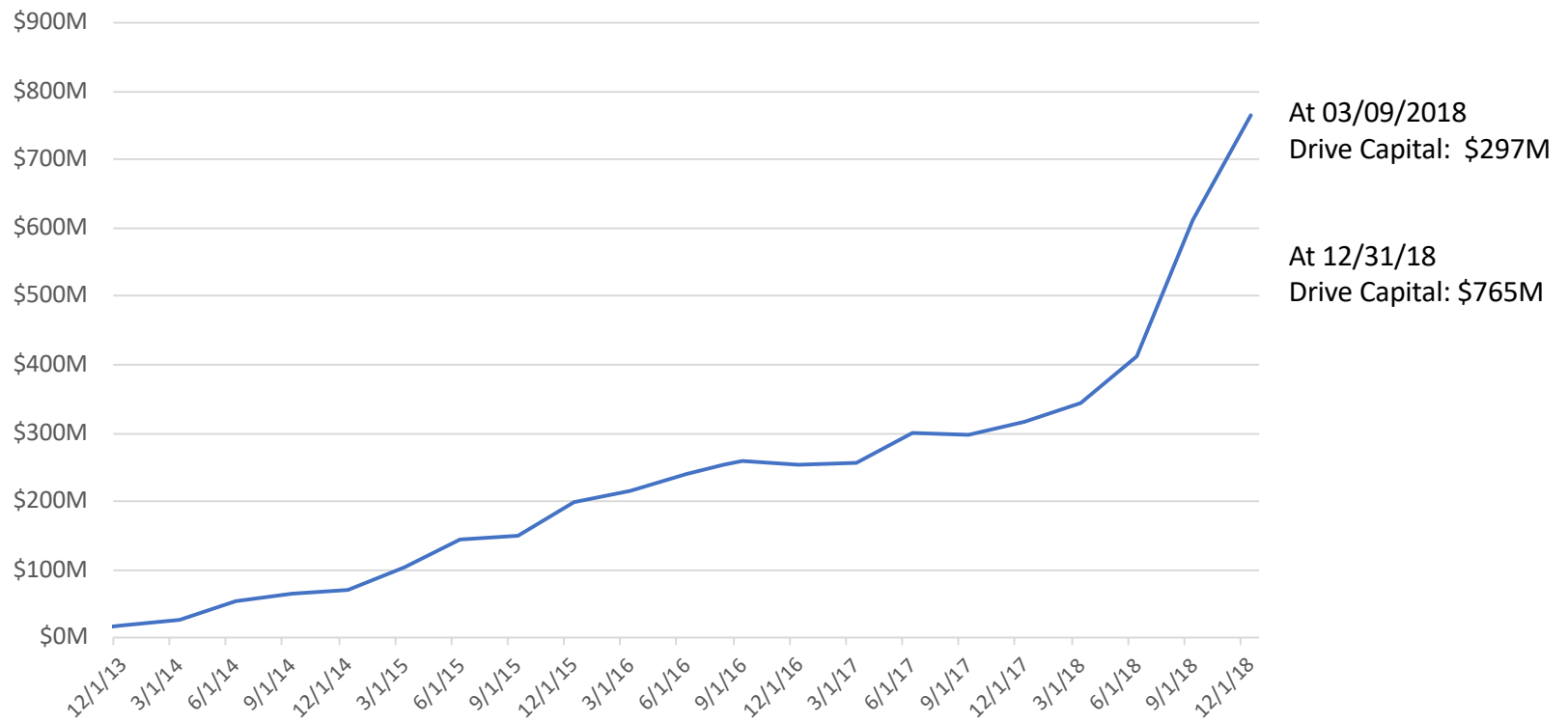
US Venture Capital Company Level Data (in \$MM) from 2001-2010 Vintage Funds							
Region	Cum. Cost	% of Total Cost	Gross Co. IRR	Real. Proc. To Cum. Cost	Rem. Val./ Cum. Cost	Tot. Val/ Cum. Cost	# of Co's
MidAtlantic	5,130	5.8%	9.8%	0.64	0.77	1.41	592
Midwest	4,325	4.9%	16.6%	0.70	1.02	1.72	549
Multi-Region	94	0.1%	N/A	1.25	0.11	1.36	8
Northeast	19,805	22.3%	11.1%	0.54	0.92	1.46	2,567
Northwest	3,776	4.3%	11.0%	0.49	1.00	1.49	541
Southeast	4,814	5.4%	9.3%	0.53	0.85	1.38	535
Southwest/Rockies	7,570	8.5%	12.5%	0.57	0.96	1.54	836
West Coast	43,300	48.7%	14.4%	0.62	0.99	1.61	5,449
Total All Regions	88,822	100.0%	12.9%	0.59	0.95	1.55	11,078

Source: 2014 Department of Commerce, Bureau of Economic Affairs: <http://www.bea.gov/regional/>



DRIVE CAPITAL FMV

Since February 2018 (Prior Annual Meeting) Drive Capital in aggregate has increased its intrinsic value \$422M



THE TEAM



Andy Jenks
General Partner
Khosla, EMC Ventures,
Discovery Mining



Chris Olsen
General Partner
Sequoia Capital, TCV,
UBS



Mark Kvamme
General Partner
Sequoia Capital, CKS,
Apple



Molly McCartin
Partner
Livongo, JP Morgan
MIT



Nick Solaro
Partner
Google, TCV, UBS



Christina Perry
CFO
FSM, Deloitte



Robert Hatta
Talent Partner
Netflix, Apple, Virgin
Mobile

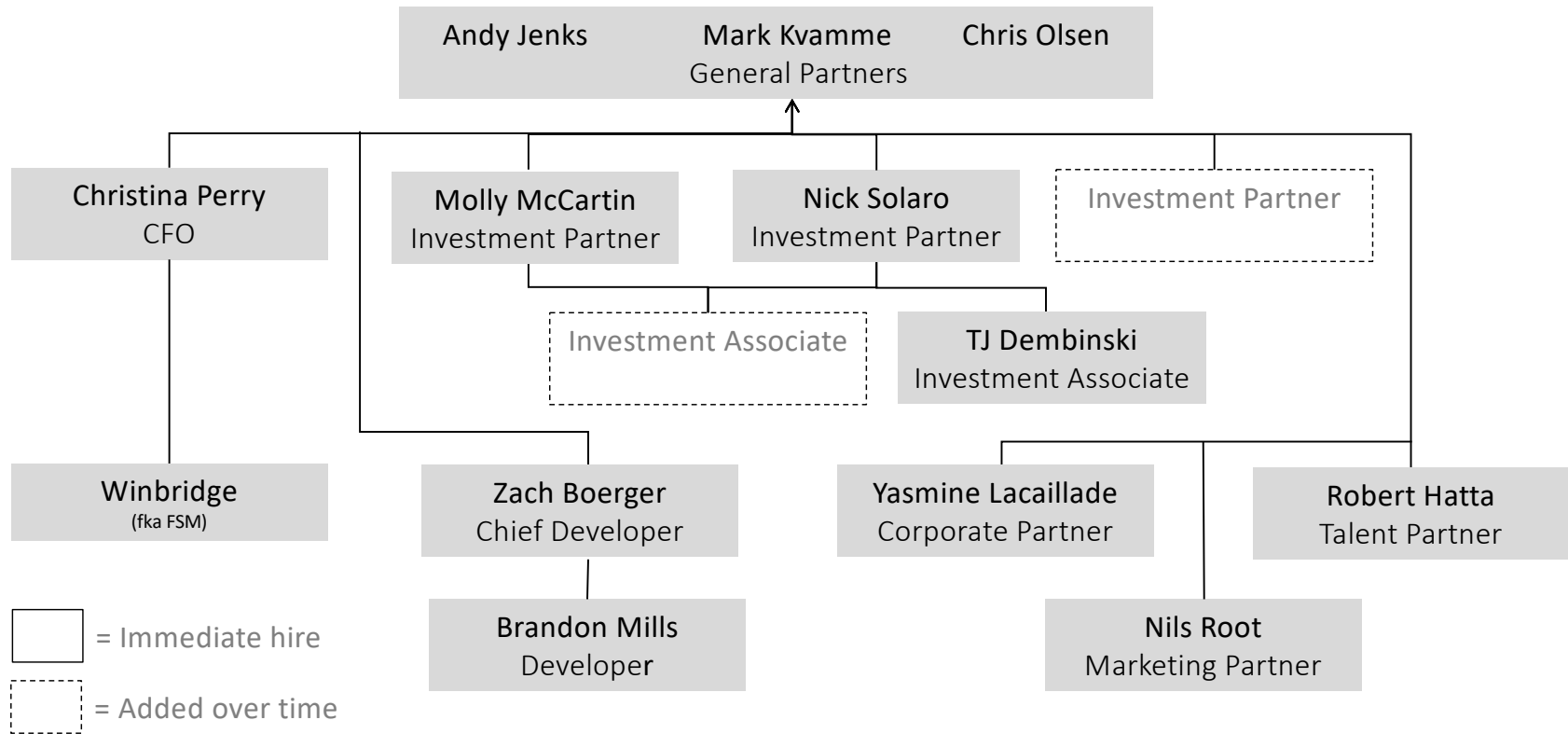


Yasmine Lacaillade
Corporate Partner
TPG, Goldman Sachs



Zach Boerger
Director Engineering
GroupTie, LaunchGram
OSU

OUR ORG CHART



DEAL FLOW



3,679 Opportunities Evaluated

393 Initial Diligence

9 Term Sheets

7 New Investments

The screenshot displays the Drive Capital Market Maps interface. At the top, there is a search bar labeled "Search Herbie" and navigation links for "Atlas", "Overdrive", "Watch Lists", "LP Dashboard", and a user profile icon "MK". The main content area is a grid of 24 industry categories, each represented by a circular icon containing logos of companies in that sector. The categories are: Digital Benefits, Digital Lending, E-Commerce, Education Tech, Electric Drivetrain, Enterprise Mobility, eSports, Food Delivery, Healthcare Delivery Mechanisms, Insurance, IoT, Logistics and Admin, Machine Intelligence, Messaging, Millennial Finance, Next-gen UI in Healthcare, Pharmaceutical Supply Chain, Precision Medicine, Real Estate Tech, Robotics, Software Bots, Space, Supply Chain, and The 100 GbE Data Center. At the bottom center, the text "Drive Capital" is visible, and at the bottom right, the number "8" is shown. A URL "https://drivewatcher.co/market-maps/8" is present in the bottom left corner.

https://drivewatcher.co/market-maps/8

Drive Capital

8

The screenshot displays the Drive Capital Atlas website interface. At the top, there is a search bar labeled "Search Herbie" and navigation links for "Atlas", "Overdrive", "Watch Lists", "LP Dashboard", and a user profile icon "MK". The main content area is titled "Robotics" and features a "Filters" button. The interface is organized into several sections:

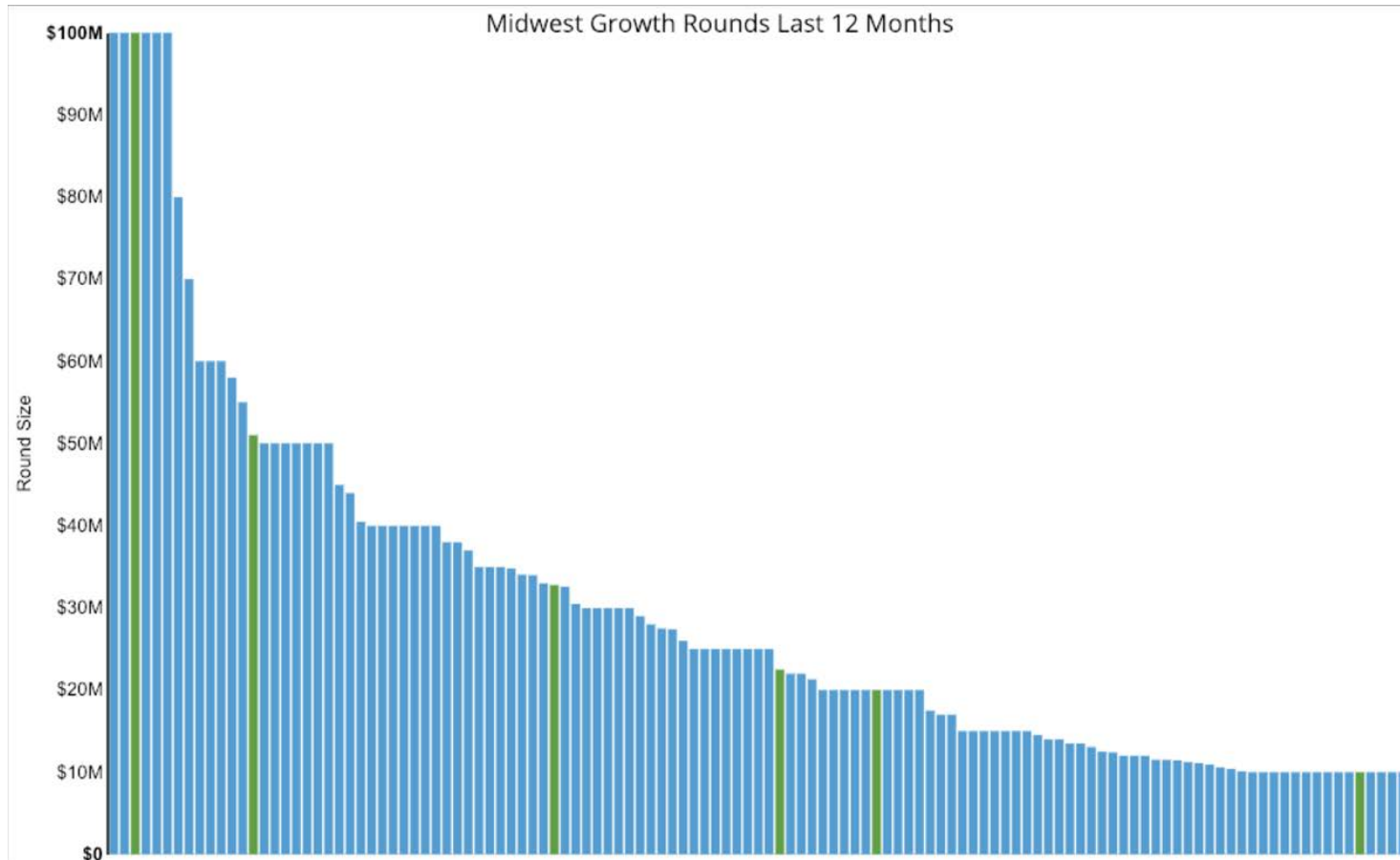
- Applications:** A horizontal row of logos including Formation, ocado technology, SKYWATCH, AMS, X994, ARIS, TEND, AIRMAP, and others.
- Software:** A larger grid of logos including vicarious, Formant, TOMAHAWK, DELPHI, scole, brain, and many others.
- Robots:** A grid of logos categorized into:
 - Aerial:** Includes logos for PULSAN, TABANE, ARIA INSIGHTS, ceres imaging, Airware, AV AeroVironment, and 3DR.
 - Waste Management:** Includes Clean Oil International.
 - Cleaning:** Includes brain, INTELLIBOT, and others.
 - Food Prep:** Includes SPYCE, M, and others.
- Services:** A vertical column of logos on the right side, including DEMATIC, HONEYBEE ROBOTICS, Applied Robotics, Genesis Systems Group, TORC ROBOTICS, MABI ROBOTIC, and Apptronik.

At the bottom left, the URL <https://drivewatcher.co/market-maps/> is visible. At the bottom right, the number "9" is displayed.

COMPETITION



LAST TWELVE MONTHS OF MIDWEST GROWTH ROUNDS (116 Rounds \$3.5B)



LESSONS LEARNED

- Follow on funding in the Midwest is **VERY** hard.
- Companies need our capital to get to a very specific stage to attract coastal investment.
- When fundraising, our CEO's need to "live" in Silicon Valley.
- PE firms are good exit vehicles for our low performing companies.





Fund I Review

CONFIDENTIAL



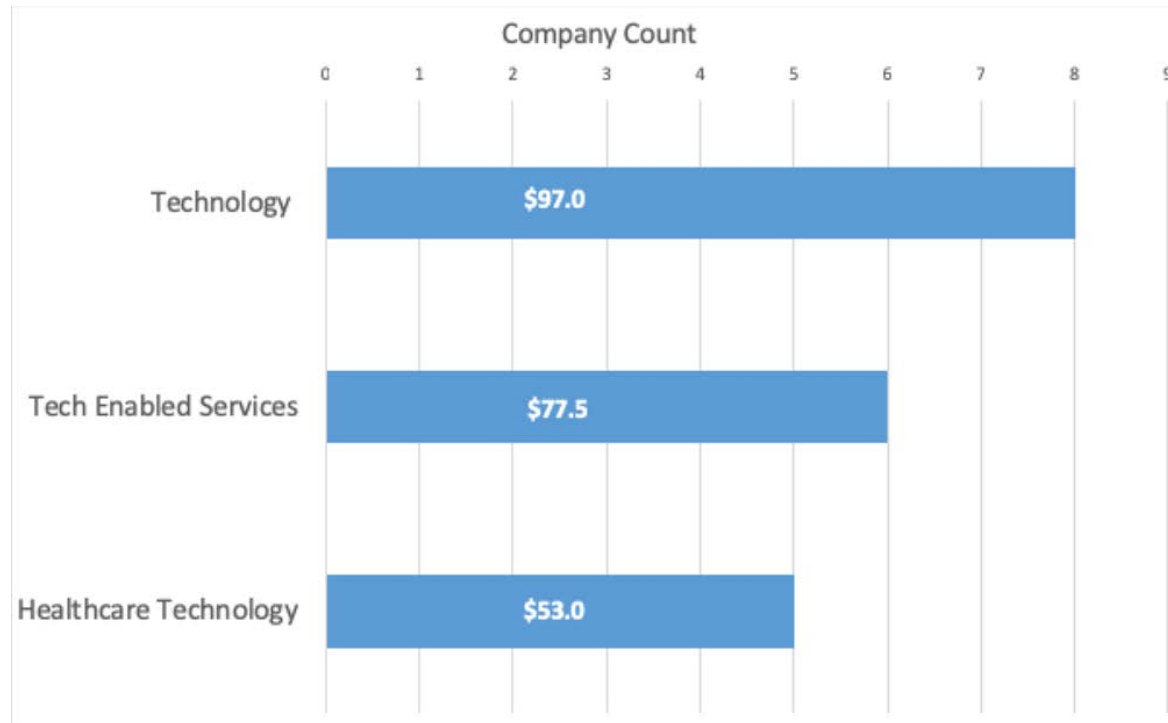
FUND I PORTFOLIO SUMMARY

As of 1/2/2019	Inception to Date (\$M)	Remaining
Total Capital Called	\$238.2	\$9.4
Dollars Invested	\$227.5	
Reserves	<u>\$23.3</u>	
Total to be Invested	\$250	
Fees & Expenses	\$20.4	
Net FMV of Investments	\$649.8	
Net MoM	2.6x	
Net IRR	30.2%	
Russell 2000 PME*	3.96%	

*Calculation assumes an investor purchased shares of the Russell 2000 at the same time and in the same amount as the historical capital calls of Fund I.



INVESTMENTS BY SECTOR



Good drivers deserve the best rates.

We only insure good drivers and that's why our rates are always fair. Take a test drive with Root to discover the rate you deserve.

Where do you live?

What's your email?

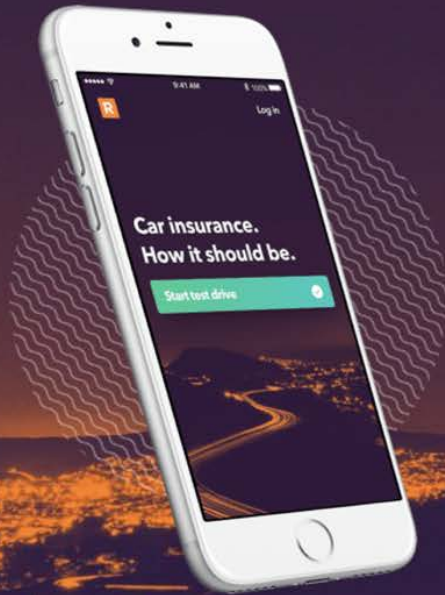
Choose a password

Show

Verify your password

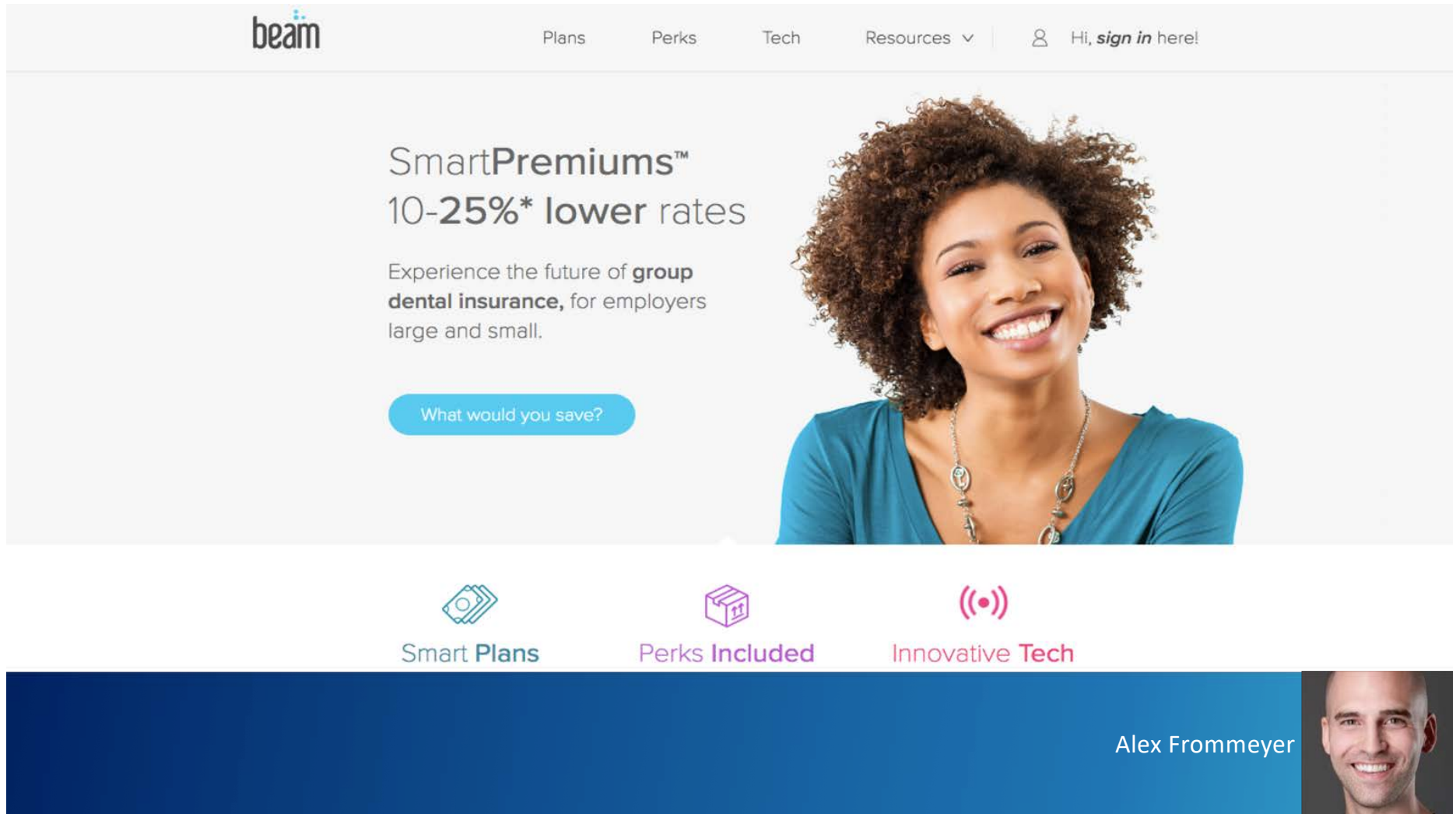
Show

[Create account](#) →



Alex Timm





The banner features the Beam logo in the top left, a navigation menu with 'Plans', 'Perks', 'Tech', and 'Resources' in the top center, and a user greeting 'Hi, *sign in* here!' in the top right. The main content area is split: the left side contains text about 'SmartPremiums™' offering '10-25%* lower rates' and a 'What would you save?' button, while the right side features a large image of a smiling woman with curly hair. Below the main image are three icons with labels: 'Smart Plans' (stack of cards), 'Perks Included' (box with checkmark), and 'Innovative Tech' (signal waves). A dark blue footer bar contains the name 'Alex Frommeyer' and a small portrait photo of him.

beam

Plans Perks Tech Resources ▾ | Hi, *sign in* here!

SmartPremiums™

10-25%* lower rates

Experience the future of **group dental insurance**, for employers large and small.

What would you save?

Smart Plans Perks Included Innovative Tech

Alex Frommeyer

Olive (f/k/a CrossChx) Closes \$32.8 Million Series D Financing – Read Press Release

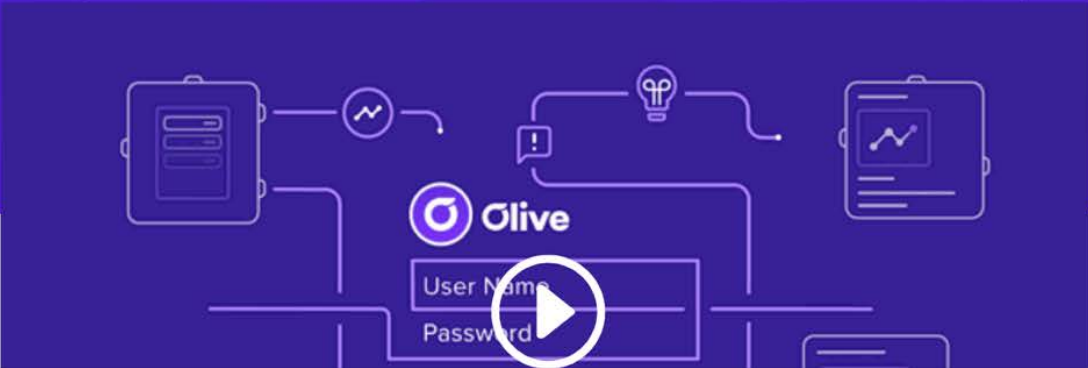
Olive

Solutions ▾ Customers ▾ Resources ▾ About Us [Get Info](#)


Olive

Olive is the first healthcare-specific AI and RPA company that streamlines repetitive tasks and creates interoperability using the systems you already have in place.

[Learn More](#)



The diagram illustrates Olive's role in connecting different systems. It features icons for a server rack, a lightbulb (representing AI), a document with a checkmark, and a tablet with a graph. Lines connect these elements to a central Olive logo. Below the logo is a login form with fields for 'User Name' and 'Password', and a play button icon overlaid on the form.

Sean Lane 



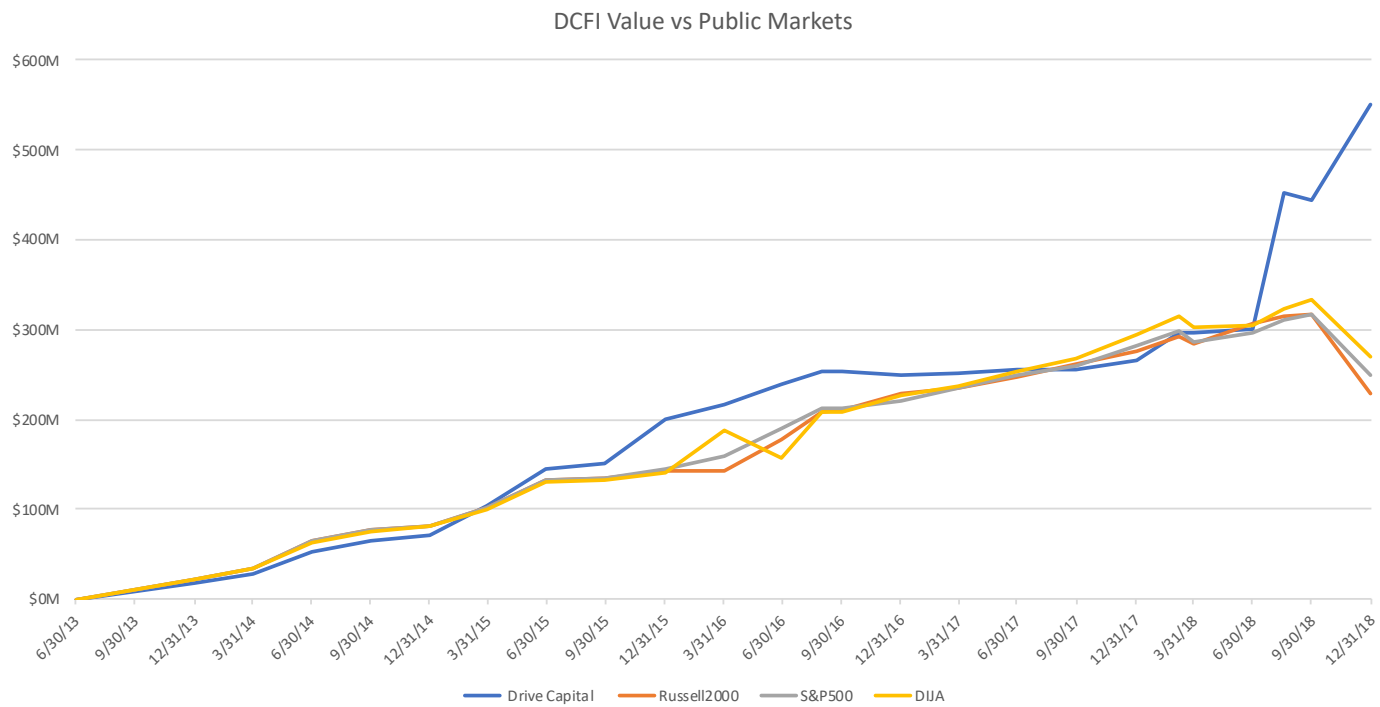
CO-INVESTORS



HERO PARTNERS



OTHER PLACES YOU COULD INVEST



At: 12/31/2018

Intrinsic Value

Drive Capital: \$550M

Russell 2000: \$229M

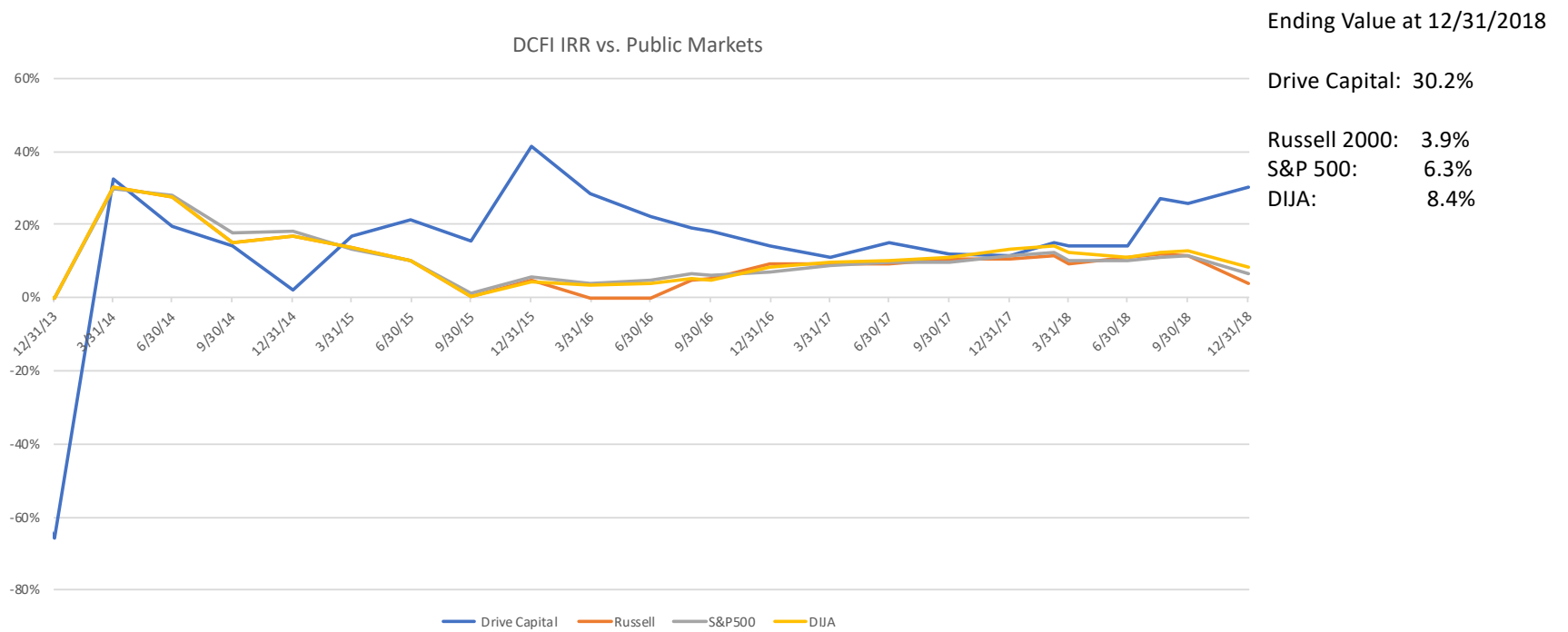
S&P 500: \$250M

DIJA: \$269M

Drive Capital Fund I is outperforming public markets in which you can invest



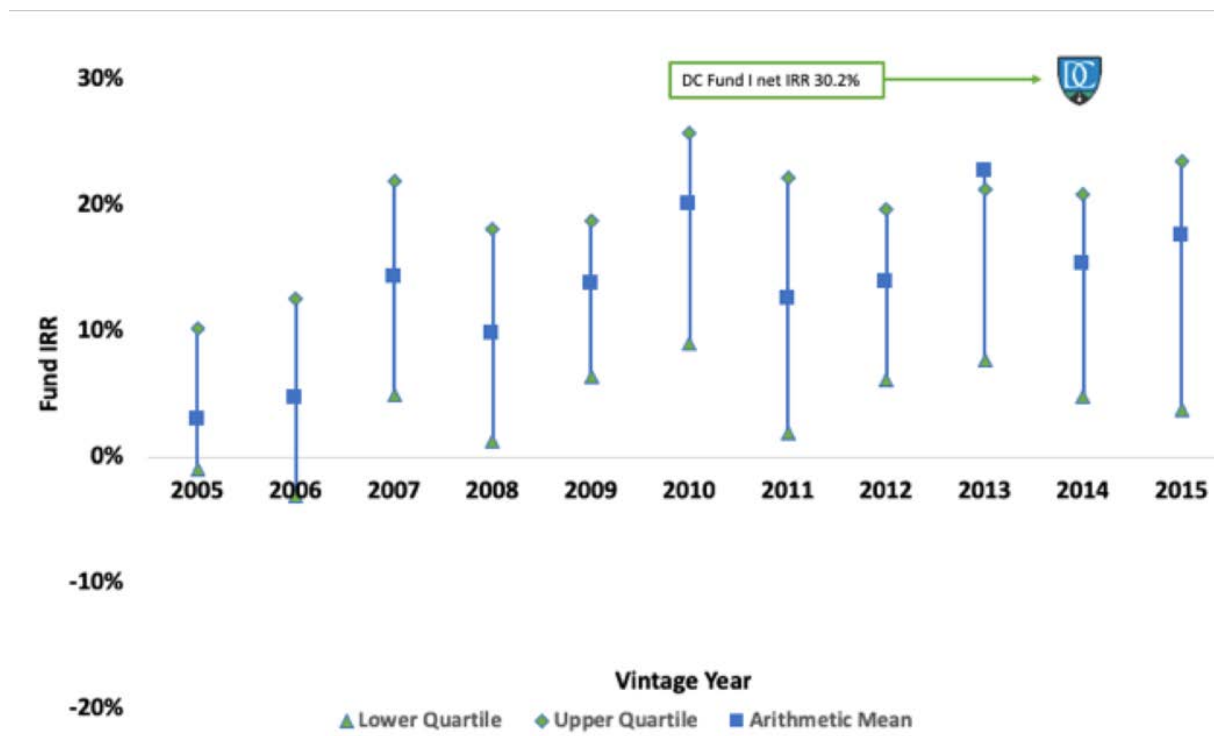
DRIVE CAPITAL IRR





OTHER PLACES YOU COULD INVEST

Cambridge Upper Quartile: 18.2%



Data obtained from the US Venture Capital Index and Selected Benchmark Statistics report dated June 30, 2018 by Cambridge Associates.



Fund II Review

CONFIDENTIAL



FUND II PORTFOLIO SUMMARY

As of 1/2/2019	Inception to Date (\$M)	Remaining
Total Capital Called	\$148.7	\$102.8
Dollars Invested	\$129.0	
Reserves	<u>\$81.3</u>	
Total to be Invested	\$300.0	
Fees & Expenses	\$16.6	
Net FMV of Investments	\$134.1	
Net MoM	0.9x	
Net IRR	not meaningful	



MARKET MAPS

Robotics



PATH ROBOTICS

Education Tech



Data AI



Supply Chain



Next-Gen Infrastructure



Millennial Finance

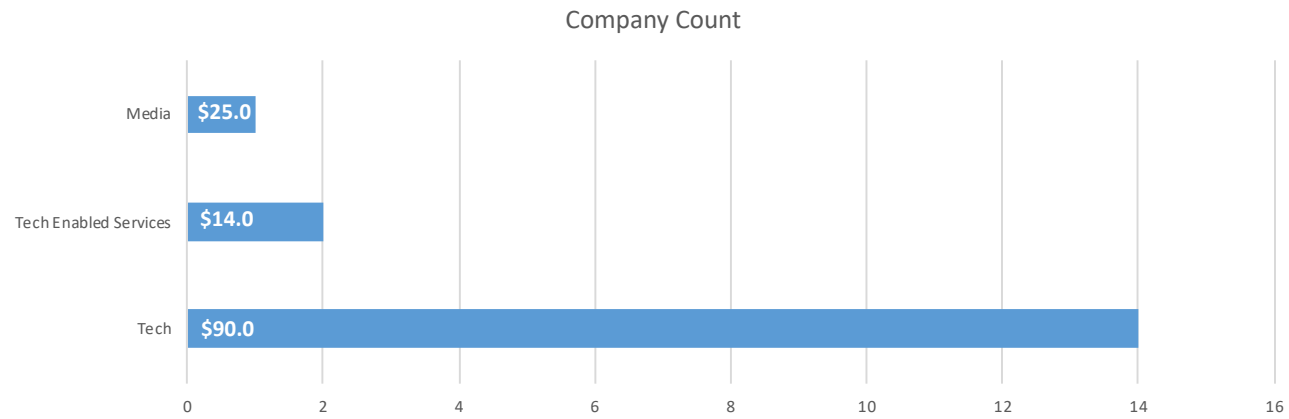


Other





INVESTMENTS BY SECTOR





clinc

THE MOST ADVANCED CONVERSATIONAL AI PLATFORM FOR
ENTERPRISE

Jason Mars





ROBOTS FOR HIRE

APPLICATIONS ▾

CASE STUDIES

ABOUT

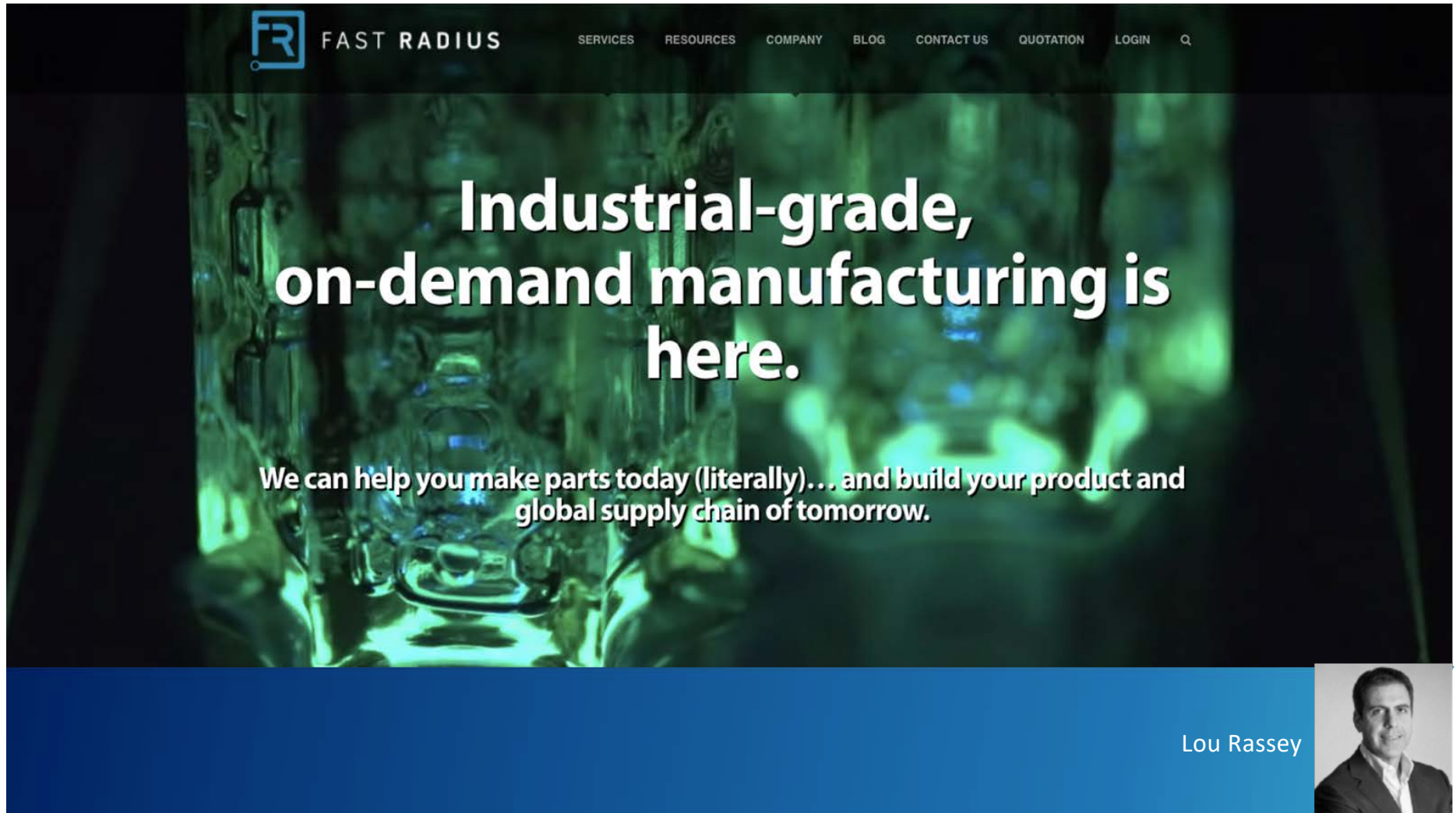
CONTACT

BREAK BOTTLENECKS WITH THE TASKMATE

WATCH OUR VIDEO

Ben Gibbs



The image shows a screenshot of the Fast Radius website. The top navigation bar is dark with the Fast Radius logo (a stylized 'FR' in a square) and the text 'FAST RADIUS' on the left. To the right of the logo are several menu items: 'SERVICES', 'RESOURCES', 'COMPANY', 'BLOG', 'CONTACT US', 'QUOTATION', 'LOGIN', and a search icon. The main content area features a large, dark background with a glowing green industrial scene. Overlaid on this scene is the text 'Industrial-grade, on-demand manufacturing is here.' in a large, white, sans-serif font. Below this, in a smaller white font, is the text 'We can help you make parts today (literally)... and build your product and global supply chain of tomorrow.' At the bottom of the page, there is a dark blue horizontal bar. On the right side of this bar, the name 'Lou Rassey' is written in white, next to a small, square, black and white portrait of a man in a suit.

Lou Rassey



FINITE  STATE

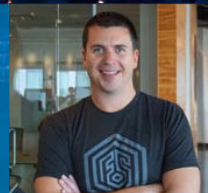
[CUSTOMER LOGIN](#)

[CONTACT](#)

THE TRUE POTENTIAL OF IOT HAPPENS ONLY WHEN IT'S SECURE.

Finite State is the only comprehensive IoT cybersecurity solution for enterprise networks. Our platform gives unparalleled visibility into IoT devices and delivers a proactive solution that manages risk, detects threats, isolates attacks, and defends your network.

Matt Wyckhouse





Q&A





March 25, 2019

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

SUBJECT: \$30 MILLION INVESTMENT IN PIMCO PRIVATE INCOME FUND

Dear Board Members:

Attached is joint recommendation from NEPC and I for a \$30 million investment in PIMCO's Private Income Fund.

Discussion

The Board's adopted asset allocation of May 21, 2018 included a dedicated 3% allocation targeted to private credit. In late 2017, the Board approved a \$30 million allocation to **CarVal Credit Value Fund IV**, a diversified private credit fund which was recommended by NEPC and included as part of the private investments program, but did not begin investing until 2018. In July 2018, the Board approved a \$25 million allocation to **Monroe Capital Private Credit Fund III**, a private credit U.S. direct lending fund. The Board approved a \$25 million commitment to its third private credit fund, **BlueBay Direct Lending Fund III**, focused on European direct lending, in December 2018.

NEPC has included an investment pacing plan within today's Private Credit Review which recommends committing approximately \$75 million in 2019 toward reaching the targeted allocation. Of the \$75 million targeted for vintage year 2019, \$30 million is being recommended for **PIMCO's Private Income Fund (PIF)**, as described in NEPC's accompanying memo. PIF will be invested opportunistically across high quality private credit strategies which are intended to produce high current income and diversify VCERA's 2017-2018 private credit investment commitments. This opportunity is an evergreen fund allowing investors to redeem after an initial 2-year lock-up period, with a 25 basis point annual fee discount for investors entering the fund at its first close expected in June 2019.

THEREFORE, IT IS RECOMMENDED THAT THE BOARD:

- 1. Approve an allocation of \$30 million to PIMCO Private Income Fund, and direct staff and counsel to negotiate the necessary legal documents; and,**
- 2. Subject to successful contract negotiations, authorize the Board Chair or the Retirement Administrator, or if both unavailable, the Chief Investment Officer to approve and execute the required documentation.**

Respectfully submitted,

Dan Gallagher
Chief Investment Officer



To: Ventura County Employees' Retirement Association
From: NEPC
Date: March 2019
Subject: PIMCO Private Income Fund Recommendation

Recommendation

NEPC and staff recommend that the Board of the Ventura County Employees' Retirement Association ("VCERA" or the "Plan") consider a commitment of \$30 million to the PIMCO (the "Firm") Private Income Fund ("PIF" or the "Fund"). The Fund has been rated "2" by the NEPC Alternative Assets Committee, indicating NEPC's conviction in this product. PIF was not rated a "1", NEPC's top rating, due to the lack of a track record specific to PIF.

NEPC and VCERA's CIO believe that the Private Income Fund fits well in the Plan's portfolio for the following reasons:

- PIF will provide supplemental diversified US and European private credit exposure.
- The expected exposures in PIF, including those to residential and commercial credit, specialty finance, and hard asset credit will further diversify the Plan's existing private credit exposures.
- A commitment to the first closing of PIF is expected to be drawn expeditiously, helping the Plan to quickly build the private credit allocation to target
- The Fund will target net returns of 8%-12%, with 6%-7% of the return coming from current income.
- The liquidity profile of PIF is somewhat unique when compared to those of other private credit funds. PIF will allow investors to redeem annually after an initial 2-year lock period.
- A commitment from the Plan before the June closing of the Fund would classify VCERA as a "Series B" investor at a reduced management fee of 1.0% (vs. the standard management fee of 1.25%).

Overview of Ventura Private Credit Program

As of 12/31/18, VCERA has approved \$80 million to Private Credit strategies: \$30 million to CarVal Credit Value Fund IV, \$25 million to Monroe Capital Fund III, and \$25 million to BlueBay Direct Lending Fund III.

PIF Overview

PIMCO is targeting \$1.0 billion-\$1.5 billion in total commitments for the Private Income Fund. The Fund is targeting 8%-12% net returns primarily driven by income (with a 6%-7% annual distribution yield) through an opportunistic private credit strategy focusing on global private residential, commercial, corporate and specialty finance markets, among others. The Fund will leverage PIMCO's broad platform, including the Firm's experience managing income and opportunistic credit strategies, to source, execute, and manage deals for PIF. PIMCO will use similar asset allocation and risk management principles to that of PIMCO's other income-focused strategies

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as well as the origination and underwriting capabilities of its private investment platform. Because of its opportunistic nature, PIF's mandate may overlap with some of the Firm's other funds, in particular, Tactical Opportunities Fund ("Tac Opps"), an opportunistic global credit strategy, Global Credit Opportunity Fund ("GCOF"), a global relative value credit hedge fund and the BRAVO fund series, a multi-asset strategy.

In the near term, PIF is expected to be focused mostly on residential lending (25%-45%) and specialty finance (25%-45%). Residential lending includes new origination loans, seasoned, sub-performing loans, mortgage servicing rights, and other residential-backed loans. Specialty finance includes consumer lending, commercial finance (aircraft and rail cars) and trade finance. PIF is expected to focus to a lesser extent on commercial real estate lending (10%-30%). This area includes senior mortgage lending, mezzanine lending, credit tenant leases, land banking/development lending, and US & European Commercial Mortgage Backed Security ("CMBS") and Real Estate Investment Trust ("REIT") debt, among other instruments. The Firm is cautious on the corporate lending space because of the amount of competition and the mature credit cycle. Although corporate lending (10%-30%) will have a wide range, the Firm doesn't anticipate much activity in the space initially.

The Fund is an evergreen structure with an initial 2-year lock-up. PIMCO anticipates deploying \$1 billion-\$2 billion per year within the Fund. The evergreen structure is attractive for investors looking for a more efficient way of accessing a diversified platform of private credit investments. Combined with the opportunistic approach to private credit, the evergreen fund structure for PIF is designed to enable investors to efficiently allocate to private credit across cycles while seeking to limit the cash drag and operational complexity associated with managing multiple drawdown structured private credit relationships. The Fund may use up to 2x leverage (a debt-to-equity ratio of 2:1), but PIMCO expects to target a 1.5x leverage value.

NEPC has completed its diligence of the PIMCO Private Income Fund, with a "2" rating assigned, noting that the Firm has a strong track record as a private credit investor and a long-standing reputation for effectively navigating credit markets. As such, we are supportive of staff's recommendation to commit \$30 million to the PIMCO Private Income Fund.



Rating	Definition
1	A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis.
2	NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating.
3	A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager's viability.
4	The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths.
5	A strategy that lacks an investment thesis or NEPC has no confidence in the manager's ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products.
NR	Due diligence has not been sufficiently completed on the product or manager.

P I M C O



VCERA

An Introduction to PIMCO's Proposed Private Income Fund

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Disclosures

This material (the "Material") is being furnished at the request of client ("Recipient"). The Material is being provided to give the Recipient an introduction to PIMCO's proposed Private Income Fund (the "proposed Fund" or "PIF"). The Material does not constitute an offer to sell or a solicitation of an offer to buy interests in a fund or any other PIMCO trading strategy or investment product. The Materials do not relate to PIMCO's proposed Private Income Vintage Opportunities Fund. While the strategy and investment opportunity set is similar, the terms and structure of the Private Income Vintage Opportunities Fund differs in material respects from those of the proposed Fund. Materials relating to such fund may be requested from PIMCO.

Offers of fund interests are made solely pursuant to a fund's Private Placement Memorandum (the "PPM") which shall be made available in due course. The information contained herein is qualified in its entirety by reference to the relevant PPM, which contains additional information about the investment objective, terms and conditions of an investment in a fund and certain disclosures that are important to consider when making an investment decision regarding a fund, as well as by reference to the limited partnership (or similar) agreement, subscription agreement, and other definitive fund documents (together with the PPM, the "Documents"). Prior to investing in a fund, investors should read the PPM, paying particular attention to the risk factors contained therein, and the other Documents. In the case of any inconsistency between the terms contained herein and the Documents, the terms set forth in the Documents shall control.

In the event that an offer were to be made in a fund, any such offer would be made only after a prospective purchaser has had the opportunity to conduct its own independent evaluation of the fund and has received all information required to make its own investment decision, including a copy of Documents. No person has been authorized to give any information or to make any representation with respect to a fund other than those contained in this summary and, if given or made, such information or representations must not be relied upon as having been authorized.

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Fees and expenses charged in connection with an investment in a fund may be higher than the fees and expenses of other investment alternatives and may offset investment profits.

It should not be assumed, and no representation is made, that past investment performance is reflective of future results. Nothing herein should be deemed to be a prediction or projection of future performance.

None of the information contained herein has been filed with the U.S. Securities and Exchange Commission (the "SEC"), any securities administrator under any securities laws of any U.S. or non-U.S. jurisdiction or any other U.S. or non-U.S. governmental or self-regulatory authority. No such governmental or self-regulatory authority will pass on the merits of any offering of interests by the fund or the adequacy of the information contained herein. Any representation to the contrary is unlawful. The interests in the fund have not been and will not be registered under the U.S. Securities Act of 1933, as amended, or qualified or registered under any applicable state, local, provincial or other statutes, rules or regulations. The fund has not been and will not be registered as an investment company under the U.S. Investment Company Act of 1940, as amended.

Disclosures

The Material contains statements of opinion and belief. Any views expressed herein are those of PIMCO as of the date indicated, are based on information available to PIMCO as of such date, and are subject to change, without notice, based on market and other conditions. No representation is made or assurance given that such views are correct. PIMCO has no duty or obligation to update the information contained herein.

Certain information contained herein concerning economic trends and/or data is based on or derived from information provided by independent third-party sources. PIMCO believes that the sources from which such information has been obtained are reliable; however, it cannot guarantee the accuracy of such information and has not independently verified the accuracy or completeness of such information or the assumptions on which such information is based.

Certain information contained in this presentation constitutes "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may," "will," "should," "expect," "anticipate," "target," "project," "estimate," "intend," "continue," or "believe," or the negatives thereof or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results or the actual performance of any investment may differ from those reflected or contemplated in such forward-looking statements. Prospective investors should not rely on these forward-looking statements when making an investment decision.

See Appendix for additional disclosures.

Biographies



Sasha Talcott, CFA

Ms. Talcott is a senior vice president and account manager in the Newport Beach office, focusing on institutional client servicing. Prior to joining PIMCO in 2012, she was director of communications and outreach for Harvard Kennedy School's Belfer Center for Science and International Affairs, a research center that focuses on topics ranging from international security to energy policy. Previously, she was a business reporter for the Boston Globe, where she covered the banking and insurance sectors. She holds an MBA from MIT Sloan School of Management and received an undergraduate degree from Northwestern University.



Kevin Gray

Mr. Gray is a senior vice president and account manager in the Newport Beach office and a member of PIMCO's institutional business group focusing on public pension plans. Prior to joining PIMCO in 2005, he was with Union Bank of California. He has 15 years of investment experience and holds an MBA with concentrations in finance and investments from the Marshall School of Business at the University of Southern California. He received his undergraduate degree from the University of San Diego.



Jason Mandinach

Mr. Mandinach is an executive vice president and alternative credit strategist in the Newport Beach office, responsible for registered and private alternative credit strategies. Prior to joining PIMCO in 2010, he worked in business development for the Chicago Climate Futures Exchange, where he developed derivative contracts on environmental commodities. Previously, he was a vice president on the agency CMO desk at Bear Stearns. He has 12 years of investment experience and holds an undergraduate degree from the University of Delaware.

Table of Contents

PIMCO's Private and Alternative Credit Complex

The Private Income Fund and Opportunity Set

Team and Investment Process

Why PIMCO for Private Credit

Appendix

PIMCO's Private and Alternative Credit Complex

PIMCO is a Leading Global Investment Manager

1971

PIMCO Founded

2006

Inception of Alternative Credit & Private Strategies Platform

\$1.66 trillion

Firm wide AUM

\$22 billion

Alternative Credit & Private Strategies AUM¹

2,500+

Employees Around the World

70+

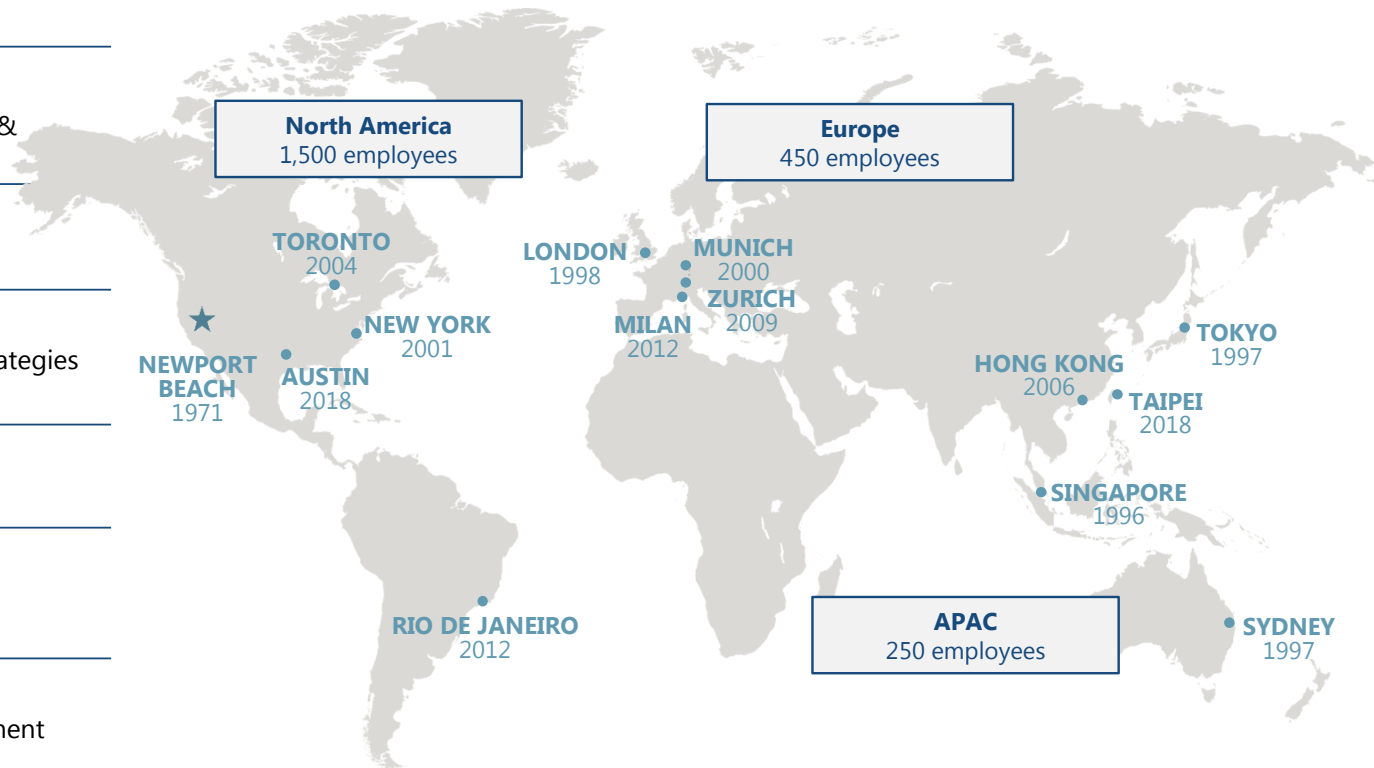
Private Strategies Investment Professionals²

140+

Public Credit Strategies Investment Professionals

70+

Global Credit Analysts



As of 31 December 2018.

¹ AUM is comprised of the following funds: Evergreen (Tac Opps, DiSCO II, LINC, PFLEX and a Custom Mandate), GCOF, and Drawdown (BRAVO I, BRAVO II, BRAVO III, DCF, COF II, CLO Opps, and PCRED). Drawdown funds are as of 30 September 2018 except PCRED and CLO Opps which are as of their first closings which are 31 July 2018 and May 31 2018 respectively.

² Certain PIMCO personnel who will provide investment advice to the private funds are separated by an information barrier that has been established between the private side of the Alternatives platform (the "Special Alternatives Group") and PIMCO's public-side trading floor. As a result, communications between the Special Alternatives Group and PIMCO's public side investment professionals are subject to certain restrictions as set forth in PIMCO's policies and procedures pertaining to MNPI and information barriers.

PIMCO is a Leading Global Investment Manager

Over \$33 billion in alternative investments²

Investment strategies span real and financial asset classes

- **Performance-focused:** Our disciplined approach reflects a commitment to superior results.
- **Dedicated experience, broad platform:** Our seasoned portfolio managers leverage scale and global access.
- **Global perspective to find opportunities:** Our presence across markets helps us determine relative attractiveness.

Diversifying Absolute Return Strategies			Alternative Credit & Private Strategies		
Discretionary		Systematic	Evergreen	Draw Down	
\$6.5bn	\$3.9bn	\$2.1bn	\$3.5bn	\$6.8bn	\$10.7bn¹
<ul style="list-style-type: none"> • Global discretionary macro 	<ul style="list-style-type: none"> • Credit relative value 	<ul style="list-style-type: none"> • Commodity relative value 	<ul style="list-style-type: none"> • Managed futures • Multi-strategy risk premia • Systematic commodity 	<ul style="list-style-type: none"> • Senior credit • Opportunistic credit 	<ul style="list-style-type: none"> • Private credit • Corporate opportunities • Thematic, multi-asset • CLO and structured credit • Private real estate debt and equity

All AUM figures are as of 31 December 2018.

¹ Includes capital commitments of funds currently investing. PCRED is as of its first close on 31 July 2018 and CLO Opps is as of its second close on 18 December 2018.

The above chart shows the AUM of what PIMCO considers to be its current suite of alternative funds and client specific fund-of-ones mandates. PIMCO currently manages, and has in the past managed, alternative funds employing other strategies. An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

² Actual AUM is \$33.58 bn as of the above dates for these funds. Values in the above chart are rounded and therefore may not sum up to this figure.

Refer to Disclosures on pg. 27 for important additional information the composition of the AUM numbers listed above.

Extensive Track Record Across a Range of Opportunistic & Private Credit Strategies

Evergreen Funds	SI net return (annualized) ¹	Launch date	Status	Net assets	Tradeable Markets	Private Markets	Strategy
Tactical Opportunities Fund ("Tac Opps")	9.1%	Feb 2013 ²	Closing	\$2.8 billion ³	✓	✓	Opportunistic Global Credit
Distressed Senior Credit Opportunities Fund II ("DiSCO II")	13.3% ⁴	Oct 2011 ⁵	Closed	\$1.8 billion ⁶	✓		Less Liquid Senior Structured Credit
Global Credit Opportunity Fund ("GCOF")	6.6%	Jun 2006 ⁷	Closed	\$3.9 billion ⁸	✓		Global Relative Value Credit Hedge Fund
Loan Interests and Credit Fund ("LINC")	4.8%	Feb 2012 ⁹	Open	\$1.0 billion ¹⁰	✓		Senior Credit
Flagship Opportunistic Funds ¹¹	SI net IRR (annualized)	Investment period	Status	Committed capital			Strategy
COF II Fund ¹²	8.3%	2016 – 2019	Investing	\$1.5 billion	✓	✓	Stressed and Distressed Corporate Credit
DCF Fund ¹³	12.2%	2010 – 2013	Matured	\$0.2 billion	✓	✓	Stressed and Distressed Corporate Credit
BRAVO III Fund ¹⁴	12.5%	November 2017 -2020	Investing	\$4.6 billion	✓	✓	Multi-Asset
BRAVO II Fund ¹⁵	8.4%	2013 – 2017	Distributing	\$5.5 billion	✓	✓	Multi-Asset
BRAVO Fund ¹⁶	22.2%	2011 – 2013	Matured	\$2.4 billion	✓	✓	Multi-Asset
Specialty Drawdown Funds ¹¹	SI net IRR (annualized)	Investment period	Status	Committed capital			Strategy
TALF Fund ¹⁷	34.3%	2009 – 2009	Matured	\$1.5 billion	✓		Senior Consumer ABS
Distressed Senior Credit Opportunities Fund I ("DiSCO") ¹⁸	11.0%	2008 – 2009	Matured	\$2.7 billion	✓		Residential Mortgage Credit
Distressed Mortgage Fund II ("DMF II") ¹⁹	35.4%	2008 – 2009	Matured	\$610 million	✓		Residential Mortgage Credit
Distressed Mortgage Fund I ("DMF") ²⁰	9.1%	2007 – 2008	Matured	\$2.9 billion	✓		Residential Mortgage Credit

As of 31 December 2018. GCOF is considered both an Evergreen Fund and a Diversifying Absolute Return Strategy.

Footnotes relating to the above table are covered in "Additional Notes on Related Fund Performance" in Appendix hereto.

Past performance is not indicative of future results, and no assurance can be given that the fund will achieve returns comparable to the funds listed.

The above table provides information about the returns of certain other investment funds sponsored by PIMCO whose primary investment strategies include or included private credit assets. In addition, while the fund's investment team is not the same as the teams that are responsible for the performance of the prior funds, there is substantial overlap. Certain of the prior funds have a more focused investment strategy than that of the fund and targeted specific types of private credit assets. PIMCO has managed and continues to manage a number of other private investment vehicles whose performance is not presented because they utilized or utilize different investment strategies, they utilized or utilize different investment structures, and/or they were or are managed by different teams; the performance of those other funds is different from the performance of the prior funds listed above. The performance of the prior funds was achieved during periods of extreme market dislocations that presented unique opportunities that may not repeat and is due in part to a general recovery in the securitized product sector that also may have been unique. Because of these differences and other factors, the performance of the prior funds should not be considered to be predictive of the fund's performance. Refer to Appendix (p. 35) for additional performance and fee, investment strategy and risk information.

The Private Income Fund and Opportunity Set

Proposed Private Income Fund (PIF): Opportunistic, Integrated and Evergreen

OPPORTUNISTIC Approach to Private Credit

- Relative value-oriented approach
- Spans key credit verticals
- Ability to capitalize on new origination and secondary opportunities¹
- Seek to scale risk with opportunity set
- Focused on navigating credit cycles

INTEGRATED Investment Team

- Leverages PIMCO's Income and Opportunistic platforms
- Asset allocation informed by macroeconomic framework
- Robust analytics capabilities may bolster credit underwriting
- PIMCO platform may provide sourcing and financing advantages

EVERGREEN Vehicle Structure

- Evergreen vehicle may provide structural solution to private credit allocations
- Seeks to provide efficient exposure to private credit by limiting cash drag both initially and over time
- Withdrawal capital account structure may reduce asset/liability mismatching

Source: PIMCO. **For illustrative purposes only.**

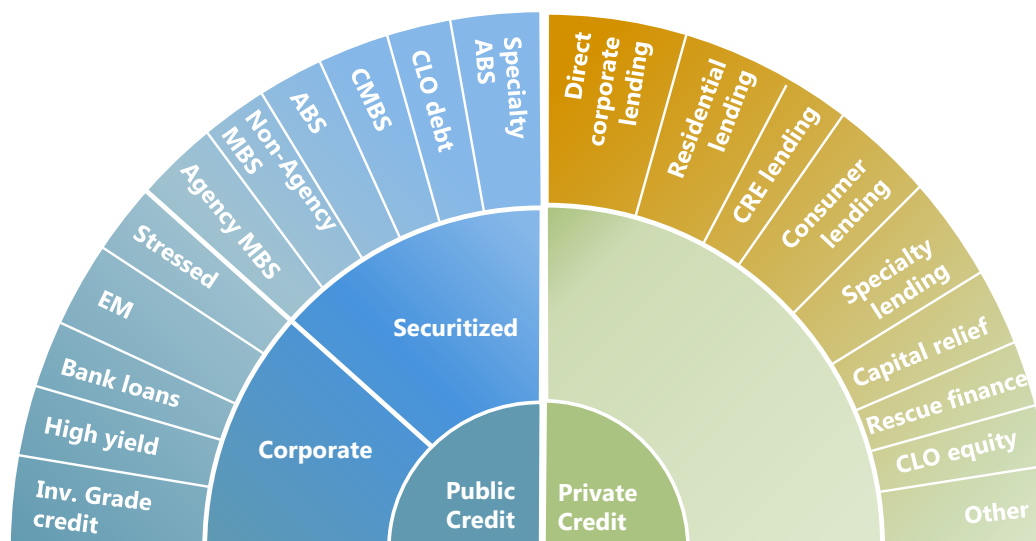
An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

¹ There can be no guarantee that PIMCO will successfully identify or capitalize on these opportunities.

Refer to Appendix for additional investment strategy and risk information.

PIMCO's Key Differentiators

1. Breadth and flexible capital that can look across asset classes and capital structures
2. Deep and differentiated origination and sourcing capabilities stem from PIMCO's broad credit presence
3. Fundamental value-based underwriting bolstered by PIMCO's macroeconomic framework and proprietary analytics



An integrated credit platform that spans the liquidity spectrum across key credit verticals

For illustrative purposes only.

The above is presented for illustrative purposes only, as a general example of the type of credit investments that PIMCO invests in across the liquidity spectrum and sheds light on PIMCO's current capabilities in sourcing, modeling and managing such investments (which may evolve over time). There can be no guarantee that the proposed Fund will have or continue to have access to comparable investments, or that PIMCO will utilize similar strategies or techniques in connection with the proposed Fund's investments.

Refer to Appendix for additional investment strategy and risk information.

PIMCO's Private Credit Platform Highlights

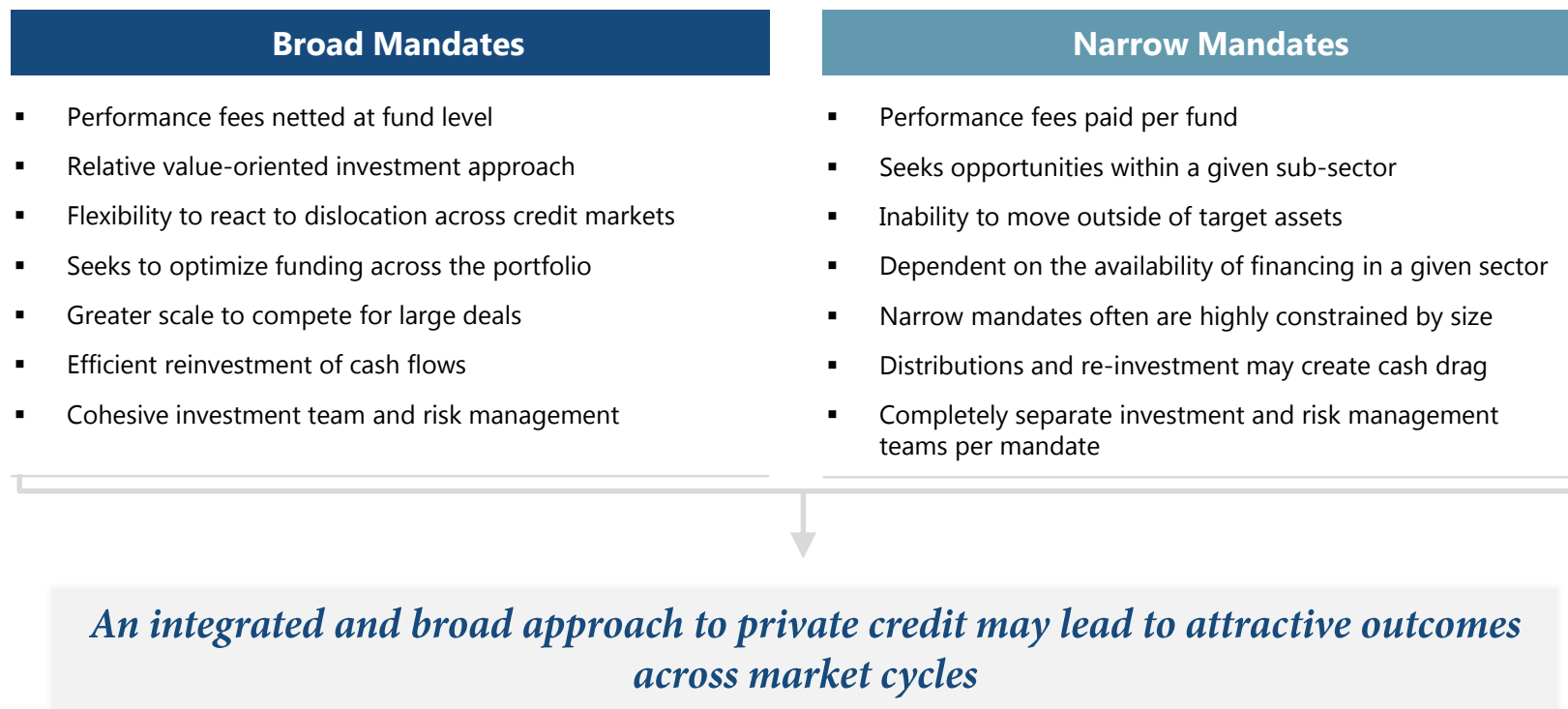
<i>Residential</i>	<ul style="list-style-type: none"> ▪ Over \$62bn in residential loan acquisitions since 2010 ▪ Have conducted on-site due diligence across over 25 non-bank mortgage origination and servicing platforms ▪ 10+ external servicing relationships and proprietary asset management experience
<i>Commercial</i>	<ul style="list-style-type: none"> ▪ Over \$9bn of aggregate investments in CRE private debt and equity across PIMCO strategies since 2011¹ ▪ 8+ servicing relationships with experience in different geographic regions and property types ▪ Platform that spans CMBS, B-pieces, CRE loans and public and private CRE equity
<i>Specialty Finance</i>	<ul style="list-style-type: none"> ▪ Nearly \$5bn in transactions across consumer, auto, trade, litigation and other specialty finance assets since 2010 ▪ 35+ platform / servicing relationships across consumer, auto, student, aircraft, trade finance and other asset classes spanning North America, South America and Europe ▪ Proprietary analytics and database of 10% of US credit population monthly payments since 2004
<i>Corporate Credit</i>	<ul style="list-style-type: none"> ▪ Nearly \$10bn in private corporate credit financings since 2012 ▪ Access to significant company and industry and corporate profitability trends through investments in 2,000+ private and public companies across Americas, Europe, and Asia ▪ Focus areas include underserved / out-of-favor industries, complex deals, "storied" credits, restructurings, equity co-investments, and bespoke terms

As of 31 December 2018.

Relationships are defined as existing agreements in place with servicing platforms as well as firms PIMCO has conducted deep due diligence on as part of sourcing investment opportunities.

¹The past investment experience of PIMCO and its investment professionals is no guarantee of future results of any fund. Includes capital invested across all of our private equity vehicles.

A Broad Approach vs Narrow Approach to Private Credit



As of 31 December 2018

SOURCE: PIMCO

The views expressed herein are opinions of PIMCO as of the date hereof and PIMCO is under no obligation to update for changes in market. There can be no assurance that the proposed Fund will be able to implement its investment strategy. An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

Refer to Appendix for additional forecast, investment strategy and risk information.

PIF opportunity set across key credit verticals

Corporate

- Imbalanced demand / supply in middle market direct lending has compressed pricing and terms
- Robust corporate credit and CLO issuance
- Opportunities to leverage the PIMCO platform for large, direct corporate loans

Residential

- Significant reduction in leverage since housing bottomed in 2012
- Continued disposition of seasoned legacy loans and servicing rights
- Potential opportunities to responsibly extend credit

Commercial real estate

- CRE equity valuations fully valued in major markets CBDs
- CMBS issuance a fraction of pre-crisis norms
- We believe lending opportunities in moderate LTV and transitional assets remain attractive





Specialty finance

- U.S. consumer benefitting from low unemployment and strength in housing market and solid lending standards
- Complexity in global trade receivables creating potential opportunities in trade finance

As of 31 December 2018.

There can be no guarantee that the trends above will continue. The views expressed herein are opinions of PIMCO as of the date hereof and PIMCO is under no obligation to update for changes in market conditions or other factors.

PIF Model Portfolio

<i>Investment categories</i>	<i>Near-term outlook</i>	<i>Near-term % target allocation</i>	<i>Illustrative examples</i>
Residential lending		25-45%	<ul style="list-style-type: none"> • New origination loans • Seasoned, sub-performing loans • Mortgage servicing rights • Transitional loans
Specialty finance		25-45%	<ul style="list-style-type: none"> • Consumer loans • Small business loans • Student / auto loans • Commercial finance (aircraft, rail car) • Trade finance • Insurance finance
Commercial real estate lending		10-30%	<ul style="list-style-type: none"> • Senior loans • Small balance loans • Seasoned loans • Mezzanine loans • Credit tenant leases • Land banking / development lending
Corporate lending		10-30%	<ul style="list-style-type: none"> • Direct corporate loans • Asset-based loans • Stressed / distressed loans • Rescue / DIP financing • Special situations

Source: PIMCO. **For Illustrative Purposes Only and Subject to Change.**

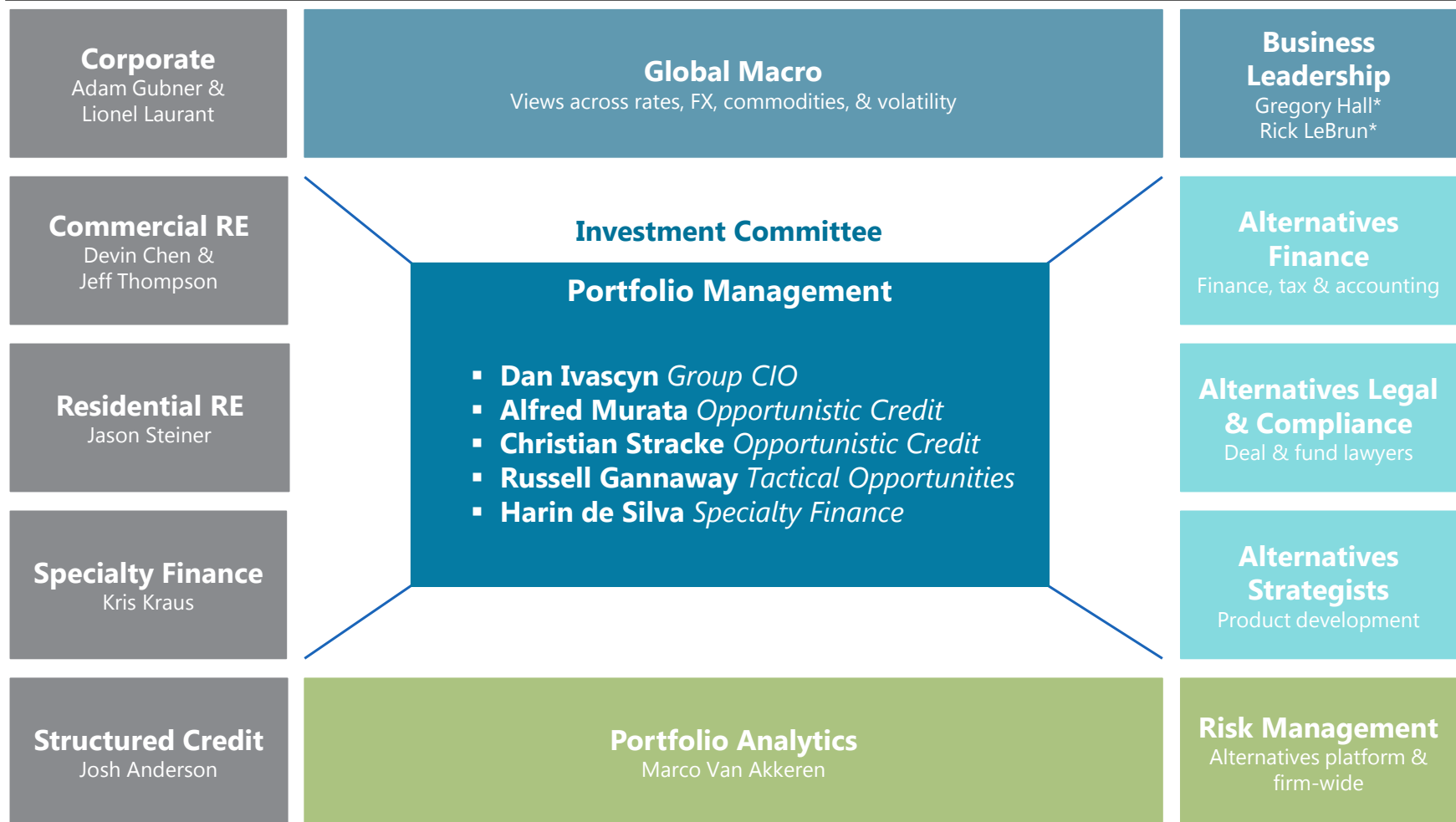
"Investment categories" represents various private credit strategies that comprise the mandate of PIF. "Near-term outlook" represents PIMCO's current views of opportunities in the categories identified over the next 12-18 months, and are subject to change. There can be no guarantee that the estimated allocations will reflect actual allocations. In addition, such outlook may be materially different over different time periods. "Near-term % target allocation" represents PIMCO's views on a current model portfolio.

Refer to Appendix for additional investment strategy, outlook and risk information.

Team and Investment Process

PIF's Integrated Investment Structure

Integrating seasoned private market sector specialists with PIMCO's global resources and platform



As of 31 December 2018

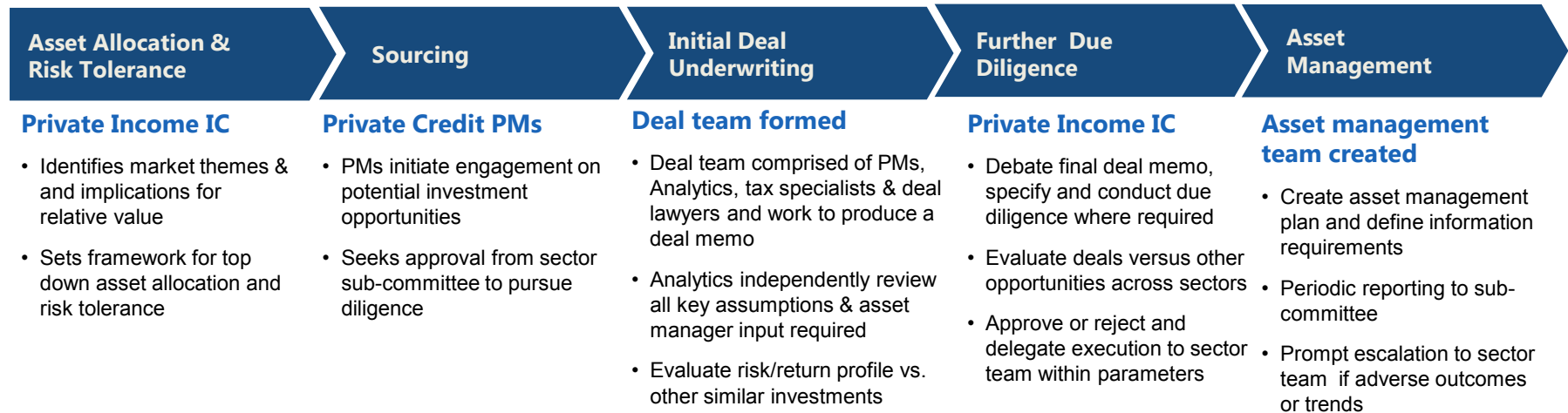
For illustrative purposes only.

The composition, structure and/or operations of the investment committee may change from time to time (or the fund may cease to have an investment committee), each without the consent of or notice to investors. In addition, the individuals listed above may not continue to be employed by PIMCO during the fund's entire term, and the resources described above may change materially during the fund's term.

*Non-PM Investment Committee members advise IC on business strategy, resource development, legal and regulatory matters

Investment Process Combines Fundamental, Macro, Analytical Perspectives

Taps into PIMCO's Broader Firm-Wide Infrastructure



As of 31 December 2018.

For discussion purposes only and subject to change.

There can be no assurance that the proposed Fund will be able to implement its investment strategy. The investment process identified above has been simplified for illustrative purposes and is subject to change to at the discretion of PIMCO at any time and without notice to investors.

Refer to Appendix for additional investment strategy, and risk information.

Why PIMCO for Private Credit

PIMCO's Difference in Private Credit

1. Integrated credit platform that spans key credit verticals
2. Potentially significant sourcing & origination advantages given significant credit market presence
3. Granular credit underwriting and focus on contracts and optionality
4. Proprietary analytics and investment in data
5. Robust macroeconomic process and risk management infrastructure

As of 31 December 2018.

SOURCE: PIMCO

The above is reflective of PIMCO's views and is subject to change.

An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

Refer to appendix for additional investment strategy and risk information

Engagement

Our goal will be to deliver all of PIMCO's capabilities to VCERA

We define partnership as a symbiotic, long-term relationship between an asset owner and a manager with the aim of benefiting both organizations through deep engagement.



As of 31 December 2018.

Source: PIMCO. **For Illustrative Purposes Only.**

An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

Refer to Appendix for additional investment strategy and risk information.

Appendix

Summary of Proposed Private Income Fund Key Terms

<i>Summary terms</i>			
Minimum investment	\$15mm		
Target fund size	\$1bn initially		
Term	Evergreen		
Lock-up	2-year hard lock-up		
Subscriptions & withdrawals	<ul style="list-style-type: none"> \$15mn initial subscription; quarterly subscriptions in the form of binding capital commitments in which PIMCO will have sole discretion to accept, reject, or limit subscriptions in a given quarter \$5mn minimum withdrawal; annual creation of withdrawal capital account on December 31st of each calendar year with 90 days prior notice) 		
Leverage	Target 1.5x direct borrowing (max 2x)		
Management and administrative fees	1.25% / 0.25%		
Preferred return	5%, crystallized annually		
Performance fee	12.5%		
<i>Founder's class discount (management fee applies irrespective of size; performance discount applies to commitments greater than or equal to \$100mm)</i>			
Series A	Capped at \$500mn; 0.75% management, 10% incentive over 5% soft hurdle, crystallized annually		
Series B	Capped at \$500mn; 1.00% management, 10% incentive over 5% soft hurdle, crystallized annually		
<i>Service providers</i>			
<i>Investor Reporting</i>			
Legal counsel	Ropes & Gray	Quarterly	Investor conference call Detailed investor report (portfolio construction and positioning, market commentary) Capital account statement
Auditor	PricewaterhouseCoopers	Annual	Annual audited financials Tax estimates for onshore investors

This information is summary in nature and is no way complete, and these terms have been simplified for illustrative purposes and may change materially at any time without notice. In particular, this information omits certain important details about the stated terms, and does not address certain other key Fund terms or represent a complete list of all proposed Fund terms. If you express an interest in investing in the Proposed Private Income Fund, you will be provided with a private placement memorandum, limited partnership agreement, subscription agreement, and other documents ("Fund Documents"), which shall govern in the event of any conflict with the general terms listed herein. The private placement memorandum is not currently available. **You must rely only on the information contained in the Fund Documents in making any decision to invest. Refer to Appendix for additional performance and fee, investment strategy and risk information.**

PIMCO's Guide to Late Cycle Private Credit Investing

Seek compensation for risk

Strong asset coverage

Structural seniority and lender protections

Complexity & illiquidity premia

Financing as a source of alpha

Caution in areas with robust capital formation

Understand interplay between public and private markets

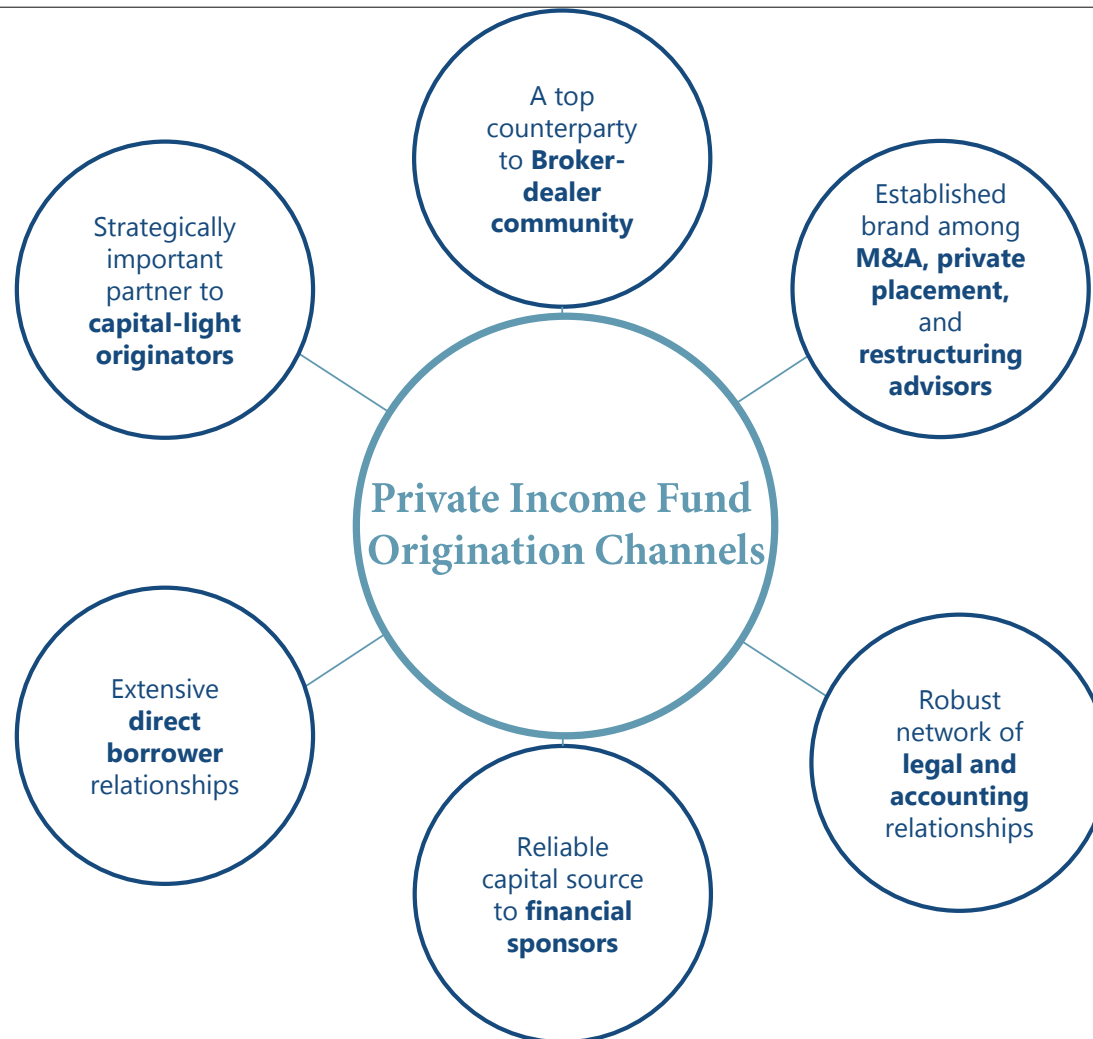
Source: PIMCO. **For Illustrative Purposes Only.**

An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.

The views expressed herein reflect PIMCO's opinions and are subject to change.

Refer to Appendix for additional outlook, strategy information and risk information.

Differentiated Sourcing and Origination Channels

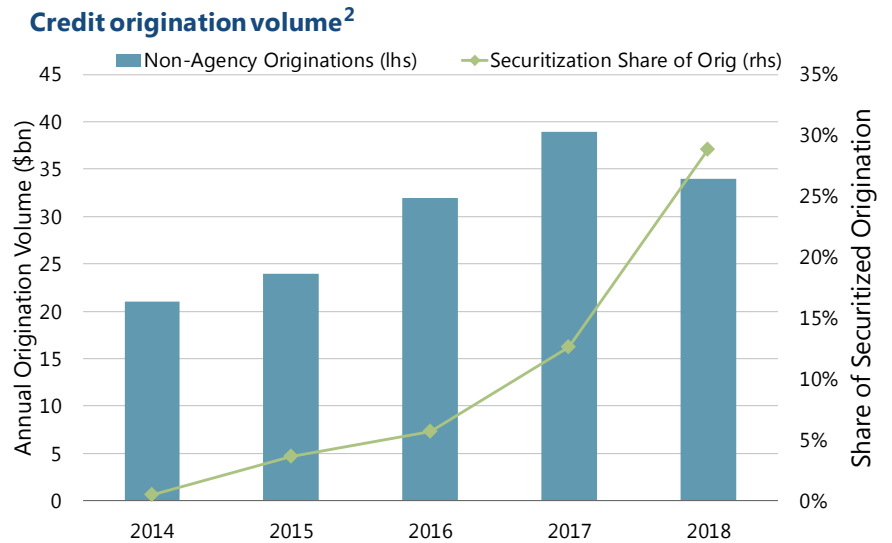
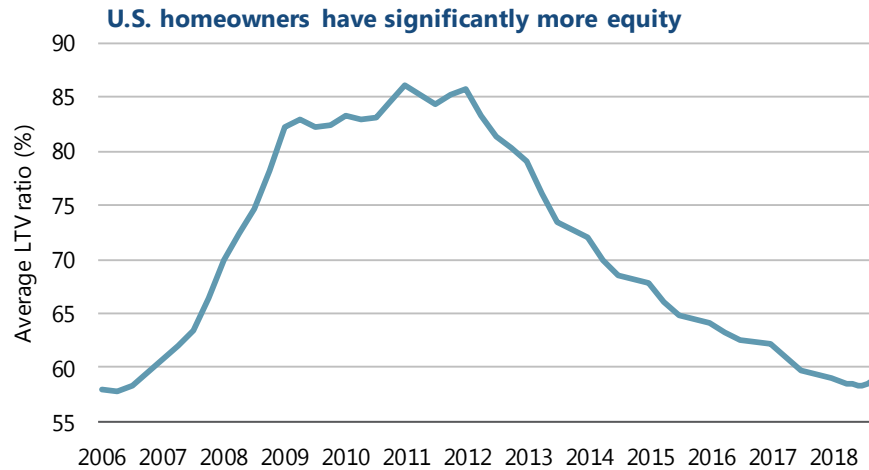


As of 31 December 2018.

For illustrative purposes only to show the breadth and depth of PIMCO's origination channels. The above is intended to reflect the multiple channels that PIMCO sources private and less liquid public investments across various credit verticals. The views expressed herein reflect PIMCO's opinions and are subject to change. There can be no assurance that the origination channels outlined above will produce the desired results or achieve any particular level of returns. **An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment. Refer to the Appendix for additional investment strategy and risk information.**

Residential Markets

Delevered and stable



PIMCO Investment Opportunities¹

Re-performing mortgage loans (RPLs)

- U.S. residential mortgage loans, originated prior to the financial crisis, which have become current either through bankruptcy, modification, or credit curing

Non-Agency lending

- Mortgage loans acquired via partnerships with origination platforms focused on non-Qualified Mortgage loans or other loans not sold to Fannie Mae and Freddie Mac (i.e. investor only)

Mortgage servicing rights (MSRs)

- Significant shift in servicing market share from banks to non-banks due to banking regulations established by Dodd-Frank

Homeowner equity graph as of 30 November 2018. SOURCE: PIMCO. Credit origination graph as of 30 September 2018. SOURCE: Citi. Annual Origination Volume prior to dates shown is not readily available.

¹Represents investments that have been consummated in existing funds and/or are in PIMCO's investment pipeline

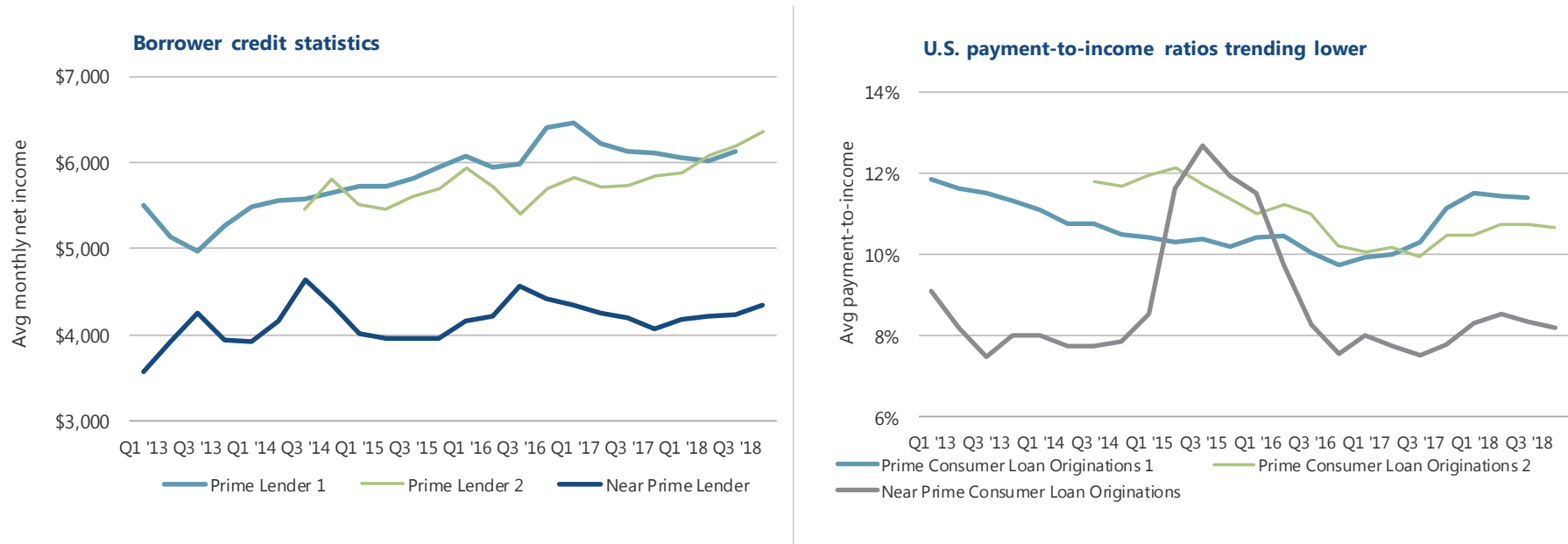
There can be no guarantee that the trends above will continue and that the opportunities identified above will materialize or if they do that the proposed Private Income Fund will invest in them (or in similar opportunities).

²Short term trends in credit origination may not be reflective of longer term trends and are subject to change over time.

Refer to Appendix for additional outlook, and risk information.

Specialty Finance

Consumer lending statistics have improved



PIMCO Investment Opportunities¹

Prime/Near-prime loan pools

- Unsecured consumer loan portfolio sourced across four different origination platforms

Specialty consumer lending

- Targeted opportunities in home improvement, student and auto finance markets; additional opportunities in trade receivables, small business lending and student loan revenue sharing

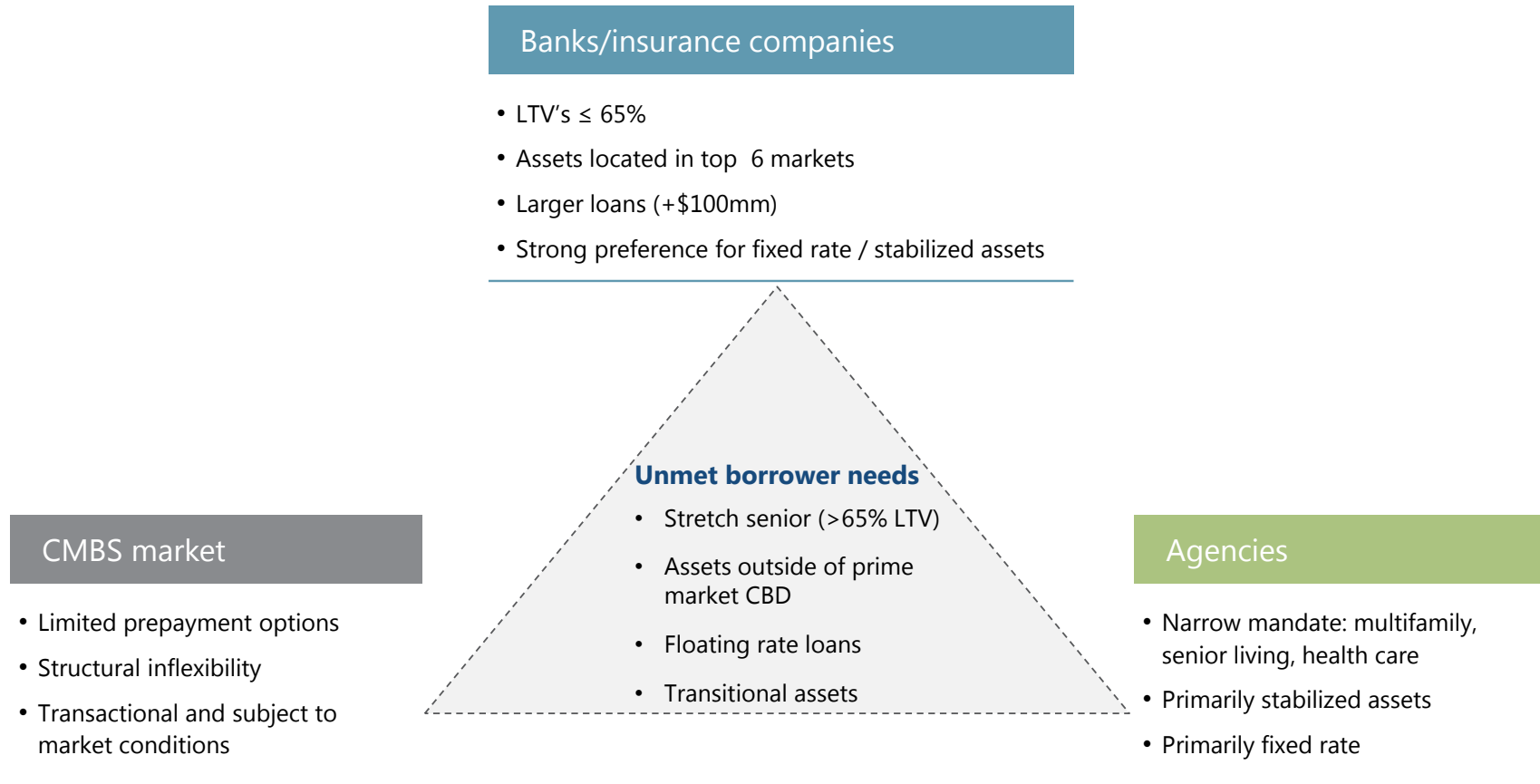
As of 31 December 2018. SOURCE: PIMCO and SIFMA.

¹Represents investments that have been consummated in existing funds and/or are in PIMCO's investment pipeline

There can be no guarantee that the trends above will continue and that the opportunities identified above will materialize or if they do that the proposed Private Income Fund will invest in them (or in similar opportunities). Refer to Appendix for additional outlook, and risk information.

Commercial Markets

Retrenchment by traditional lenders creates potential opportunity in unmet borrower demand



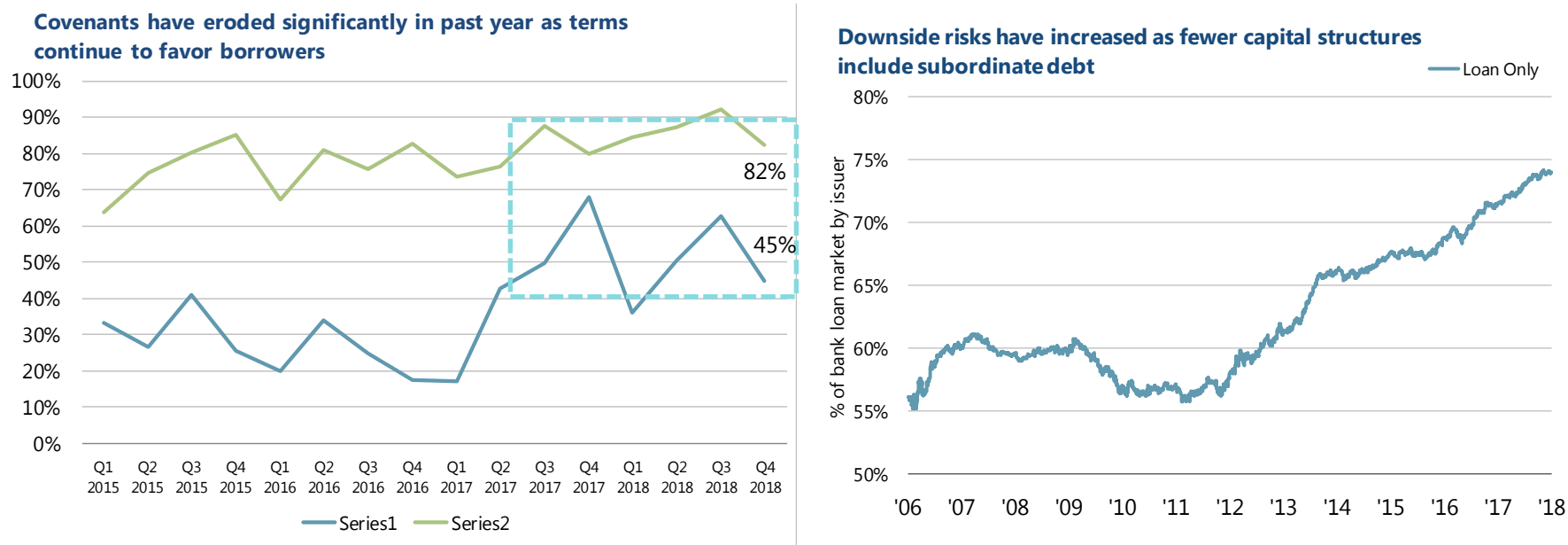
As of 31 December 2018.

SOURCE: PIMCO

There can be no guarantee that the trends above will continue and that the opportunities identified above will materialize or if they do that the proposed Private Income Fund will invest in them (or in similar opportunities).

Corporate Markets

Crowded and fully valued



PIMCO Investment Opportunities¹

Direct lending

- Greater emphasis on larger, private high yield opportunities vs. smaller middle market loans

Asset-based lending

- Helping companies facing regulatory pressures to solve unique financing needs via asset-based lending

Special situations

- Provide capital relief, bridge financing and other bespoke opportunities to entities under regulatory and/or business pressures

As of 31 December 2018. SOURCE: PIMCO and JP Morgan. Covenant data for dates prior to 2015 is not readily available.

¹Represents investments that have been consummated in existing funds and/or are in PIMCO's investment pipeline

There can be no guarantee that the trends above will continue and that the opportunities identified above will materialize or if they do that the proposed Private Income Fund will invest in them (or in similar opportunities).

Refer to Appendix for additional outlook, and risk information.

Specialty Finance

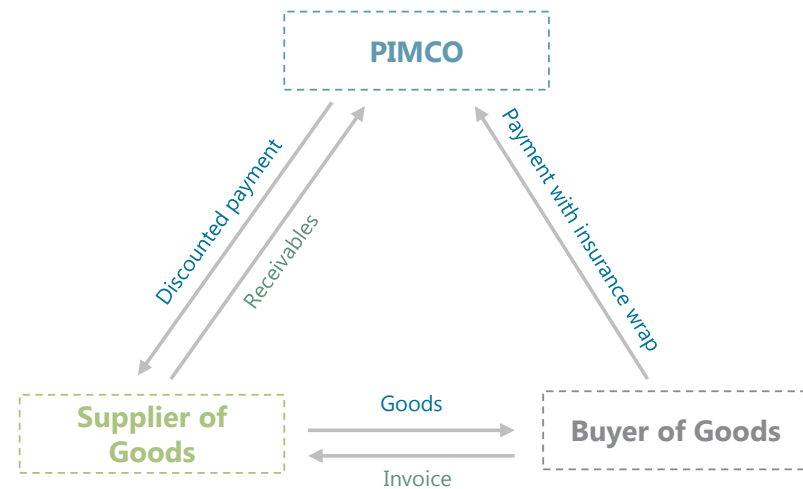
Sourcing potential opportunities in trade receivables

Investment Overview

- Opportunity to provide short-term trade financing to both large corporations and small businesses
- Purchase a pool of receivables and use a highly-rated insurance company to protect against credit risk
- Small businesses have historically been underserved by traditional banking model, while large corporations want financial flexibility without increasing leverage
- Trade finance sector has historically experienced very low level of defaults and delivered stable, uncorrelated returns
- Maturities typically between 30 and 180 days
- Yields with modest leverage between 9-11%¹

PIMCO's Difference

- Reputation among large corporations as a source of financing
- Partnership with an industry leader who has access to the market and experience in sourcing receivables
- Strength of PIMCO's platform and structuring capabilities supports the effort to secure attractive financing and insurance arrangements
- Robust credit research process provides insight into underlying credit risk



As of 31 December 2018 SOURCE: PIMCO

Hypothetical example of a significantly delayed payment is for Illustrative Purposes Only. Past performance is not a guarantee or a reliable indicator of future results. Any investment entails the risk of loss, including loss of the entire investment.

For illustrative purposes only to show a typical structure of a trade receivable deal.

¹ The yield shown above is not related to a specific investment. Different investments have different return profiles.

The investment terms referenced are presented for illustrative purposes only, as a general example of the type of investments that may be acquired by the proposed Private Income Fund as well as PIMCO's current capabilities in sourcing, modeling and managing such investments (which may evolve over time). The proposed Fund has not commenced operations and does not own any of these investments, and may invest significantly in asset types not referred to in these examples. There can be no guarantee that the proposed Fund will have or continue to have access to comparable investments, or that PIMCO will utilize similar strategies or techniques in connection with private investments. In addition, specific investments in the asset classes described herein may have materially different performance and other characteristics than those described in these examples. Refer to Appendix for additional hypothetical example, investment strategy and risk information.

Residential Mortgage Lending

Re-performing residential mortgage loans

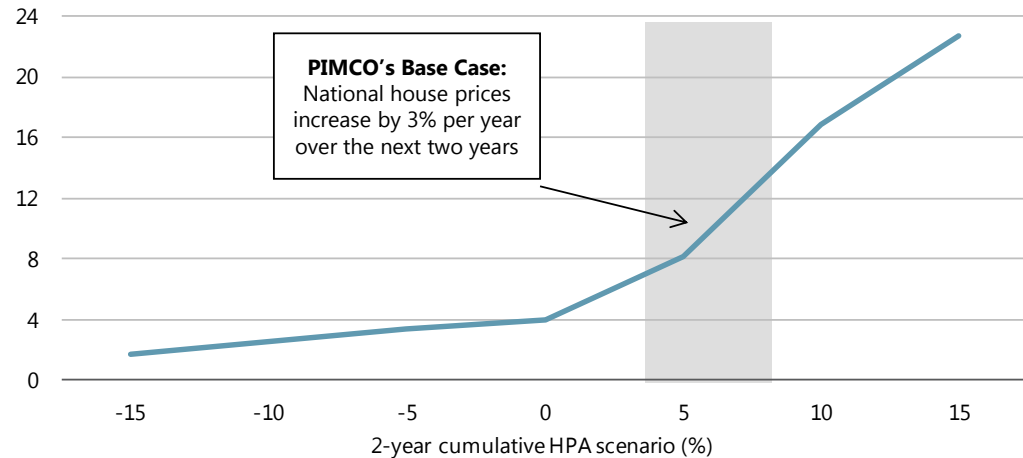
Summary statistics

Weighted average coupon	4.6
Average loan size (\$)	177,883
LTV (%)	105.0
Weighted average FICO	593

Credit statistics

Positive borrower equity (%)	52.8
Owner occupied (%)	93.5
Modified (%)	94.3
Time since modification (months)	11
12 months perfect pay (%)	3.7
12 months performing (%)	7.7
Judicial state exposure (%)	56.4

Estimated loss adjusted yield (%)



Overview

- \$250 million pool of re-performing residential mortgage loans purchased from a private equity firm
- Loans issued prior to the financial crisis that have become current through bankruptcy, modification, or credit curing
- PIMCO securitizes the pool of loans, issues a senior bond with a 2-year call option, and retains the bottom 30% tranche

Investment thesis

- Pool averages 4 months of perfect pay, while the market values 24 months, creating a compelling relative value opportunity
- Expect ~10% of the loans to become delinquent, but see significant upside as an increasing portion of the pool becomes performing
- Potential to sell after two years into the performing RPL market at a tighter spread
- In less favorable market scenarios, PIMCO can call the issued bond after 2 years and hold the loan pool unlevered

PIMCO's Difference

- Strong sourcing capabilities with relationships across banks, non-bank lenders, private equity firms, and GSEs
- Experience in mortgage and housing with granular loan-level and property-level analytics and over 60 portfolio management resources
- Established partnerships with reputable servicers helps to manage downside risk and maximize return potential

As of 31 January 2018. Source: PIMCO

Hypothetical example for illustrative purposes only

Past performance is not a guarantee or a reliable indicator of future results. Any investment entails the risk of loss, including loss of the entire investment.

Judicial state exposure refers to the percent of loans located in states with judicial foreclosure proceedings.

Underwritten yields are hypothetical in that they are not based on the amount and timing of actual cash flows, do not reflect actual performance and are always positive values since PIMCO invests with a view toward making a profit. Of course, not all investments are profitable, and investors may lose some or all investment capital.

The investment terms referenced are presented for illustrative purposes only, as a general example of the type of investments that may be acquired by the proposed Private Income Fund as well as PIMCO's current capabilities in sourcing, modeling and managing such investments (which may evolve over time). The proposed Fund has not commenced operations and does not own any of these investments, and may invest significantly in asset types not referred to in these examples. There can be no guarantee that the proposed Fund will have or continue to have access to comparable investments, or that PIMCO will utilize similar strategies or techniques in connection with private investments. In addition, specific investments in the asset classes described herein may have materially different performance and other characteristics than those described in these examples. Refer to Appendix for additional hypothetical example, investment strategy and risk information

A Multi-Faceted Approach to Risk Management

Private Income Fund's approach to risk management combines PIMCO's robust approach to risk management alongside private credit-specific inputs



As of 31 December 2018

For illustrative purposes only to show PIMCO's approach to risk management. The risk management approach identified above is subject to change at the discretion of PIMCO at any time and without notice to investors. There can be no assurance that the risk management approach outlined above will produce the desired results or achieve any particular level of returns. **An investment in any PIMCO managed fund entails a high degree of risk and investors could lose all or a portion of their investment.**

Refer to Appendix for additional investment strategy and risk information.

Robust Analytics and Data Bolsters Credit Underwriting

Underwriting Philosophy

Independent asset valuation and underwriting

- Valuation and underwriting overseen by PIMCO portfolio managers, utilizing combination of proprietary and third party data and analytics

Internal asset management platform is essential

- In-house asset management is important for borrowers and critical to optimizing performance

Fully value loan structures

- Utilize analytics to fully value optionality in loan terms (prepayments and specialized terms)

Comprehensive Analytics Resources

- **Real estate:** Robust real estate analytics including zip-code level housing model, automated valuation tool and loan- and property-level underwriting across residential and CRE
- **Consumer:** Monthly line-item level consumer credit history since 2005 spanning across 10% of US credit population, alongside proprietary database of non-bank originated consumer loans since 2014
- **Corporate:** In-house industry experience across the capital structure, bolstered by 24-hour global credit research coverage with 65+ analysts* located in seven different countries
- **Macro:** Broad-based data spanning demographics, growth, inflation, interest rate and yield curve trends globally

As of 31 December 2018.

For illustrative purposes only. The resources described above may change materially during the proposed Fund's term.

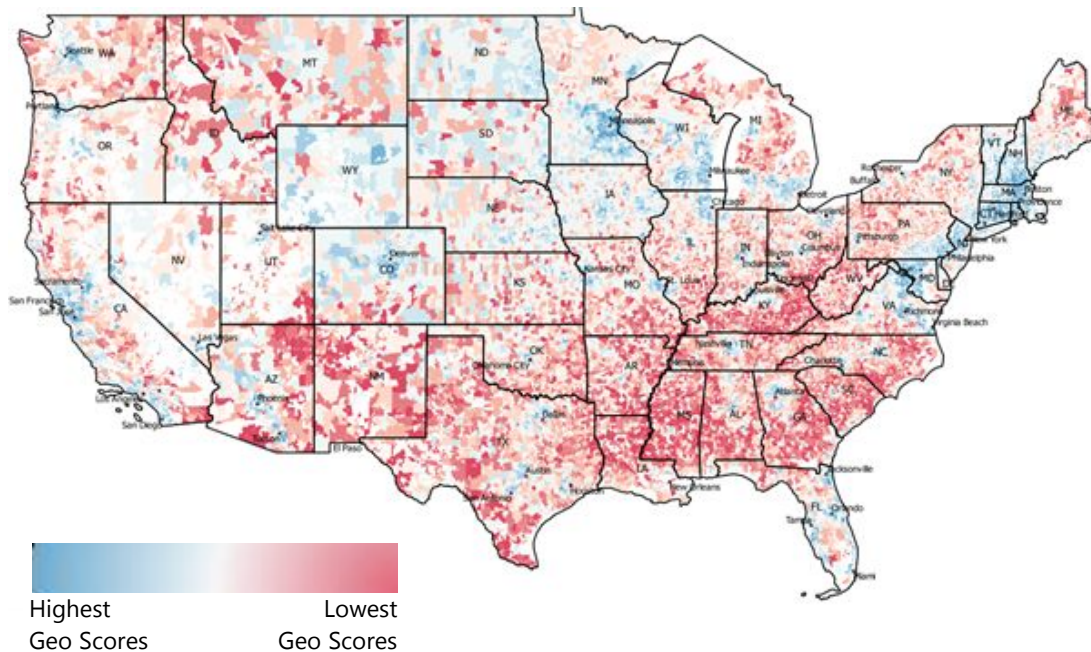
The above underwriting philosophy represents PIMCO's views and is subject to change.

*Certain PIMCO personnel who will provide investment advice to the private funds are separated by an information barrier that has been established between the private side of the Alternatives platform (the "Special Alternatives Group") and PIMCO's public-side trading floor. As a result, communications between the Special Alternatives Group and PIMCO's public side investment professionals are subject to certain restrictions as set forth in PIMCO's policies and procedures pertaining to MNPI and information barriers.

Refer to appendix for additional investment strategy and risk information

Granular Residential Real Estate Analytics

THE PIMCO U.S. "GEO SCORE" MODEL MAP



- Detailed analysis of fundamentals, demographics and trends by zip code and neighborhood
- Areas with low unemployment, strong migration and limited supply tend to have higher Geo Scores
- Areas with high unemployment, declining population and elevated supply tend to have lower Geo Scores
- Created using a combination of internal and external data
 - Broadly available census data is interpolated and extrapolated to determine recent trends as opposed to historical levels
 - Utilize internal analytics generated from property level and transaction and listing data

SOURCE: PIMCO.

Hypothetical example for illustrative purposes only and subject to change.

-Note: the above is an example for illustrative purposes to show PIMCO's capabilities in real estate analytics only, and does not represent a position owned by the proposed Private Income Fund. There can be no assurance that any of the proposed Fund's investments will display the characteristics described above, that PIMCO will take the actions described above with respect to any Fund investments with comparable characteristics, or that PIMCO's forecasts for or views with respect to proposed Fund investments will prove accurate. Refer to Appendix for additional risk information.

Proposed Private Income Investment Committee Biographies

Dan Ivascyn | Group Chief Investment Officer

Mr. Ivascyn is Group Chief Investment Officer and a managing director in the Newport Beach office. He is lead portfolio manager for the firm's income strategies and credit hedge fund and mortgage and real estate related opportunistic strategies. He is a member of PIMCO's Executive Committee and a member of the Investment Committee. Morningstar named him Fixed-Income Fund Manager of the Year (U.S.) for 2013. Prior to joining PIMCO in 1998, he worked at Bear Stearns in the asset-backed securities group, as well as T. Rowe Price and Fidelity Investments. He has 25 years of investment experience and holds an MBA in analytic finance from the University of Chicago Graduate School of Business and a bachelor's degree in economics from Occidental College.

Alfred Murata | Managing Director, Multi-Sector Credit

Mr. Murata is a managing director and portfolio manager in the Newport Beach office, managing income-oriented, multi-sector credit, opportunistic and securitized strategies. Morningstar named him Fixed-Income Fund Manager of the Year (U.S.) for 2013. Prior to joining PIMCO in 2001, he researched and implemented exotic equity and interest rate derivatives at Nikko Financial Technologies. He has 17 years of investment experience and holds a Ph.D. in engineering-economic systems and operations research from Stanford University. He also earned a J.D. from Stanford Law School and is a member of the State Bar of California.

Christian Stracke | Managing Director, Opportunistic Credit & Head of Credit Research

Mr. Stracke is a managing director in the Newport Beach office, global head of the credit research group, and co-head of PIMCO's BRAVO opportunistic private strategies complex. The credit research group covers all levels of the debt capital structure for targeted industries, including investment grade and high yield bonds, bank debt and convertibles. Mr. Stracke is also a senior portfolio manager across PIMCO's suite of private credit strategies, investing across mortgage, real estate, specialty financials, corporate special situations, and performing private corporate credit. In addition to his portfolio management responsibilities, he sits on the firm's Executive Committee. Prior to joining PIMCO in 2008, he was a senior credit strategist at CreditSights and also held positions as head of Latin America fixed income strategy with Commerzbank Securities and head of Latin America local markets strategy with Deutsche Bank. He has 19 years of investment experience and holds an undergraduate degree from the University of Chicago. He is also a returned Peace Corps volunteer, having served as an agroforestry extension agent in Mauritania, West Africa.

As of 31 December 2018.

The composition of the investment committee may change from time to time (or the fund may cease to have an investment committee), each without the consent of or notice to investors. In addition, the individuals listed above may not continue to be employed by PIMCO during the proposed Fund's entire term.

Proposed Private Income Investment Committee Biographies

Russell Gannaway | Managing Director, Portfolio Manager

Mr. Gannaway is a managing director and commercial credit portfolio manager in the Newport Beach office, focusing on commercial real estate and commercial mortgage-backed securities (CMBS). Prior to joining PIMCO in 2009, he served as an associate with JER Partners in New York. He has focused predominantly on acquisitions of various commercial real estate debt products, including mezzanine loans, B notes and CMBS B pieces. He has 12 years of investment experience and holds an undergraduate degree in business administration from the University of Georgia.

Harin de Silva | Executive Vice President, Portfolio Manager

Mr. de Silva is an executive vice president and portfolio manager in the New York office. His responsibilities include sourcing, underwriting and managing opportunistic specialty finance investments in the U.S. Prior to joining PIMCO in 2009, he was a managing director at Merrill Lynch with a focus on structured credit. Mr. de Silva previously worked at Credit Suisse First Boston and Prudential Securities, focusing on structured finance, CDOs and credit derivatives. He began his career in the actuarial department at Royal Sun Alliance. He has 23 years of investment experience and holds an MBA in analytical finance from the University of Chicago and a bachelor's degree in applied mathematics from Davidson College in North Carolina.

Gregory Hall* | Managing Director, Head of Private Strategies

Mr. Hall is a managing director and PIMCO's head of private strategies. Prior to joining PIMCO in 2017, he spent 12 years at The Blackstone Group, most recently as a senior managing director within Blackstone Alternative Asset Management. While at Blackstone, Mr. Hall's responsibilities included sourcing and executing seed investments in startup fund managers as well as acquiring minority interests and developing strategic partnerships with established asset management firms. Mr. Hall began his career as a financial analyst at Goldman Sachs. He has 18 years of investment experience and holds an undergraduate degree in public and international affairs from Princeton University.

Richard LeBrun* | Managing Director, Alternatives General Counsel

Mr. LeBrun is a managing director and deputy general counsel in the Newport Beach office, primarily responsible for the firm's alternative funds and transactions. Prior to joining PIMCO in 2005, he was an associate with Ropes & Gray, focusing on investment management and private equity-related matters. He has 17 years of legal experience and holds a J.D. from the University of Michigan Law School where he was admitted to the Order of the Coif. He received an undergraduate degree from Northwood University. He was admitted to the bar in Massachusetts and New York.

As of 31 December 2018.

The composition of the investment committee may change from time to time (or the fund may cease to have an investment committee), each without the consent of or notice to investors. In addition, the individuals listed above may not continue to be employed by PIMCO during the Proposed Fund's entire term.

*non-voting members.

Appendix

PERFORMANCE AND FEE

Past performance is not a guarantee or a reliable indicator of future results. The fees and expenses of the fund described herein (the "Fund") are discussed within its Documents (defined below).

Any investment decision must be based only on the Fund's private placement memorandum, limited partnership agreement, and other definitive legal documents (the "Documents"), which shall govern in the event of any conflict with the information contained herein. You must rely only on the information in the Documents in making any decision to invest.

The information contained herein is being furnished to you solely for the purpose of giving you a preliminary indication of the strategy and structure of the proposed und and is not to be used for any other purpose or made available to anyone not directly concerned with your evaluation of the possibility of requesting further information regarding an investment in such Fund. The Fund information set forth herein is not and does not purport to be complete, and is qualified by and subject to the relevant Fund's Documents. If you express an interest in investing in a Fund, any offer will be made by, and you will be provided with, the Documents.

This summary is for informational purposes only, and does not constitute an offer to sell, or a solicitation of an offer to buy, interests in a Fund or to participate in any trading strategy. Any such offer would be made only after a prospective purchaser has had the opportunity to conduct its own independent evaluation of such Fund and has received all information required to make its own investment decision, including a copy of Documents, which will contain material information not included herein and to which prospective purchasers are referred. No person has been authorized to give any information or to make any representation other than those contained in this summary and, if given or made, such information or representations must not be relied upon as having been authorized. Each prospective investor should consult its own counsel, accountant, or tax or business adviser as to legal, accounting, regulatory, tax and related matters, as well as economic risks and merits, concerning the possibility of making an investment in any Fund.

ADDITIONAL INFORMATION

The funds listed are reflective of PIMCO's experience in launching and managing private investment funds that PIMCO believes are comparable to the proposed fund's strategy. This list is being presented solely for illustrative purposes and does not represent, and should not be construed as representing, a list of past specific recommendations made by PIMCO. In addition, this list does not represent a complete list of PIMCO private investment funds; PIMCO currently manages, and in the past has managed, a number of other private investment funds that are not presented because they utilize different investment strategies. The characteristics of any other past, current or future PIMCO private investment funds (including, without limitation, their strategies, terms, performance, investment personnel and risks) may differ materially from those relating to the funds listed herein. The performance of certain of these funds was achieved during periods of extreme market dislocations that presented unique opportunities that are not likely to repeat.

Certain of the prior funds have a more focused investment strategy than that of the Fund and targeted specific types of private credit assets. The performance of the prior funds was achieved during periods of extreme market dislocations that presented unique opportunities that may not repeat and is due in part to a general recovery in the securitized product sector that also may have been unique. Because of these differences and other factors, the performance of the prior funds should not be considered to be predictive of the Fund's performance.

RISK

The Fund is not subject to the same regulatory requirements as mutual funds. The Fund is expected to be leveraged and to engage in speculative investment practices that will increase the risk of investment loss. The Fund's performance could be volatile; an investor could lose all or a substantial amount of its investment. A Fund's manager will have broad trading authority over such Fund. The use of a single adviser applying generally similar trading programs could mean lack of diversification and, consequently, higher risk. There is no secondary market for a Fund's interest and none is expected to develop. There will be restrictions on transferring interests in a Fund and limited liquidity provisions. A Fund's fees and expenses may offset its trading profits. The Fund will not be required to provide periodic pricing or valuation information to investors. The Fund will involve complex tax structures and there may be delays in distributing important tax information. A substantial portion of the trades executed for certain Funds are in non-U.S. securities and take place on non-U.S. exchanges.

Investments in **residential/commercial mortgage loans and commercial real estate debt** are subject to risks that include prepayment, delinquency, foreclosure, risks of loss, servicing risks and adverse regulatory developments, which risks may be heightened in the case of non-performing loans. The Fund will also have exposure to such risks through its investments in **mortgage and asset-backed securities**, which are highly complex instruments that may be sensitive to changes in interest rates and subject to early repayment risk. **Structured products** such as collateralized debt obligations are also highly complex instruments, typically involving a high degree of risk; use of these instruments may involve derivative instruments that could lose more than the principal amount invested. Private Credit funds will also be subject to **real estate-related risks**, which include new regulatory or legislative developments, the attractiveness and location of properties, the financial condition of tenants, potential liability under environmental and other laws, as well as natural disasters and other factors beyond the fund's control. **Equity investments** may decline in value due to both real and perceived general market, economic and industry conditions, while debt investments are subject to credit, interest rate and other risks. **Investing in banks** and related entities is a highly complex field subject to extensive regulation, and investments in such entities or other operating companies may give rise to control person liability and other risks. In addition, there can be no assurance that PIMCO's strategies with respect to any investment will be capable of implementation or, if implemented, will be successful.

Appendix

Investing in the **bond market** is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. **Bank loans** are often less liquid than other types of debt instruments and general market and financial conditions may affect the prepayment of bank loans, as such the prepayments cannot be predicted with accuracy. There is no assurance that the liquidation of any collateral from a secured bank loan would satisfy the borrower's obligation, or that such collateral could be liquidated. **Collateralized Loan Obligations (CLOs)** may involve a high degree of risk and are intended for sale to qualified investors only. Investors may lose some or all of the investment and there may be periods where no cash flow distributions are received. CLOs are exposed to risks such as credit, default, liquidity, management, volatility, interest rate, and credit risk. **Commodities** contain heightened risk including market, political, regulatory, and natural conditions, and may not be suitable for all investors. Investing in distressed loans and bankrupt companies are speculative and the repayment of default obligations contains significant uncertainties. **Investing in foreign denominated and/or domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **High-yield, lower-rated, securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Mortgage and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and while generally supported by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. **Sovereign securities** are generally backed by the issuing government, obligations of U.S. Government agencies and authorities are supported by varying degrees but are generally not backed by the full faith of the U.S. Government; portfolios that invest in such securities are not guaranteed and will fluctuate in value. **Derivatives** may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. The current regulatory climate is uncertain and rapidly evolving, and future developments could adversely affect a Fund and/or its investments.

The foregoing is only a description of certain key risks, and is not a complete enumeration of all risks to which a Fund will be subject. Each Fund will be subject to numerous other risks not described herein. Prospective investors must carefully review the Documents (including, without limitation, the risk factors contained in the Fund's private placement memorandum) prior to making any investment decision.

A purchase of interests in any Fund involves a high degree of risk that each prospective investor must carefully consider prior to making such an investment. Investors should thoroughly review the investment considerations and risk factors section of a Fund's private placement memorandum for a more complete description of these risks. Prospective investors are advised that investment in a Fund is suitable only for persons of adequate financial means who have no need for liquidity with respect to their investment and who can bear the economic risk, including the possible complete loss, of their investment.

Appendix

ADDITIONAL NOTES ON RELATED FUND PERFORMANCE

(1) Assumes that BRAVO, BRAVO II, BRAVO III, COF II, DCF, Tac Opps, DiSCO II, GCOF and LINC are each liquidated as of 30 September 2018 (the "Reference Date"). IRRs for DMF, DMF II, DiSCO and TALF are final, as DMF concluded operations on 16 November 2012 (a final de minimis distribution was made in late July 2018), DMF II concluded operations on 29 April 2013 (a final de minimis distribution was made in late July 2018), DiSCO concluded operations on 5 March 2012 (a final de minimis distribution was made in early August 2018) and TALF concluded operations on 7 June 2011. Additionally, the IRR for each fund has been calculated net of all fees (including management fees and administration fees), expenses (including any expenses associated with leverage) and unrealized carried interest and is shown since the date of the initial capital call of each fund (i.e., 14 January 2011 (BRAVO); 31 October 2007 (DMF); 1 December 2008 (DMF II); 7 July 2008 (DiSCO); 2 June 2009 (TALF); 19 March 2013 (BRAVO II); 6 January 2016 (COF II); 16 November 2016 (BRAVO III); 14 July 2010 (DCF). IRR represents the annualized internal rate of return for the period indicated (i.e., from the initial capital call date through the date on which operations concluded or, for the active funds, the Reference Date), based on capital contributions by investors, distributions to investors and (for the active funds) the residual value of unrealized investments. The returns shown are those of the master fund. Returns to specific fund investors were different due to (among other factors) the impact of (i) fee and/or carried interest/performance allocation reductions, (ii) tax considerations applicable to different investors and (iii) certain investors electing or being required to prepay their entire commitments upon admission. In addition, the returns shown take into account management fee and carried interest/performance allocation waivers granted to employee and affiliated investors and generally unavailable to third-party investors, although such waivers did not materially impact fund returns. The returns for each fund reflect the use of leverage, which can magnify returns and/or make returns more volatile. There can be no assurances that such leverage will be available to the fund, including on the terms made available to the prior funds. In addition, the return calculation for each fund assumes (among other things) that capital contributions by investors that pre-funded their commitments to such fund have been made at the same time as capital contributions drawn from investors that did not pre-fund. The investment performance of each fund has been calculated on the basis of both net cash flows generated from the disposition of realized investments and, with respect to unrealized investments of the active funds, estimated net cash flows as though such investments were disposed of at their valuations determined as of the Reference Date. In many cases these unrealized investments were "fair valued" as of the Reference Date. With respect to the performance returns for funds with unrealized investments, actual returns will vary from the estimates and the variations may be significant. Each of the funds listed has one or more feeder funds that invest or invested all or substantially all of its assets in such fund. The performance of such feeder funds may differ from the performance listed in the chart due to different fee and expense arrangements and/or tax consequences.

(2) Investors in Tac Opps pay the full amount of their subscription at the time of such subscription. The initial closing date of Tac Opps was 1 February 2013.

(3) Reflects net assets of Tac Opps as of 30 September 2018.

(4) Reflects returns to an investor that subscribed to DiSCO II on the initial closing date, 7 October 2011.

(5) Investors in DiSCO II pay the full amount of their subscription at the time of such subscription. The initial closing date of DiSCO II was 7 October 2011.

(6) Reflects net assets of DiSCO II as of 30 September 2018.

(7) Investors in GCOF pay the full amount of their subscription at the time of such subscription. The initial closing date of GCOF was 30 June 2006.

(8) Reflects net assets in GCOF as of 30 September 2018.

(9) Investors in LINC pay the full amount of their subscription at the time of such subscription. The initial closing date of LINC was 28 February 2012.

(10) Reflects net assets in LINC as of 30 September 2018.

(11) Other than DiSCO II, Tac Opps and the GCOF, the funds presented are private equity-style investment funds. DiSCO II is a hedge fund that continues the investment strategy of DiSCO.

(12) Investment period has not ended. As of 30 September 2018, COF II had called 43.5% of its committed capital.

(13) As of 15 April 2013, DCF had called 100% of its committed capital.

(14) Investment period has not ended. As of 30 September 2018, BRAVO III had called 32.5% of its committed capital.

(15) Investment period has ended. As of 30 September 2018, BRAVO II had called 87.5% of its committed capital.

(16) As of 6 December 2013, BRAVO had called 100% of its committed capital.

(17) TALF has concluded operations and made a final liquidation distribution to its limited partners on 7 June 2011.

(18) DiSCO has concluded operations and made a final liquidation distribution to its limited partners on 5 March 2012 (a final distribution was made in early August 2018).

(19) DMF II has concluded operations and made a final distribution to limited partners on 29 April 2013 (a final distribution was made in late July 2018).

(20) DMF has concluded operations and made a final distribution to limited partners on 16 November 2012 (a final distribution was made in late July 2018).

Appendix

Other than LINC these Funds are closed to new investors. PIMCO manages a number of private investment vehicles other than these funds whose performance is not presented because they utilize different investment strategies and are managed by different teams; the performance of those other funds is different from the performance of the funds presented herein. The performance of the funds was achieved during periods of extreme market dislocations that presented unique opportunities that may not repeat and is due in part to a general recovery in the securitized product sector that also may have been unique. In addition, certain of the funds benefitted from financing terms (including the availability of financing through the U.S. Federal Reserve's Term Asset-Backed Securities Loan Facility program) that are not expected to be available to the Fund. Because of these and other factors, the performance of the funds should not be considered to be predictive of the performance of any existing or future fund or account, including the Fund. **Past performance is not indicative of future results and no assurance can be made that existing or future funds or accounts will achieve returns comparable to the funds shown.** One or more of the funds have different fee, profit allocation and expense arrangements than each other and any existing or future funds or accounts. Performance in a particular fund may vary because of differing fees and expenses (e.g., distribution or organizational expenses), the effect of investing through "blockers" or parallel vehicles or other reasons. Additional fee, expense and carried interest information for the funds is available upon request.

The return and other information presented herein is as of the Reference Date, may have changed since such date, includes (for active funds) both realized and unrealized returns and is likely to change over such funds' lives. Moreover, because the hedge funds are continuously offered and investors can purchase interests at current net asset values, returns to investors that have subscribed at different times are likely to differ significantly from the information shown. Past performance is not a guarantee or reliable indicator of future results.

HYPOTHETICAL EXAMPLE

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SERVICE PROVIDERS

Service providers referenced in this document are current as of 12/31/2018 but may be subject to change over the Fund's term.

INVESTMENT STRATEGY

There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest long-term, especially during periods of downturn in the market.

MANAGEMENT TEAM

The individuals referred to herein may not continue to be employed by PIMCO during the entire term of the respective Fund. Furthermore, the composition, structure and/or operations of the Fund investment committee may change from time to time (or the Fund may cease to have an investment committee), each without the consent of or notice to limited partners. It is also expected that the investment committee will be able to delegate any decisions (including diligence decisions, decisions relating to smaller transactions, decisions relating to transactions involving material non-public information, decisions relating to transactions involving public issuers and decisions relating to the engagement of service providers) and/or recommendations relating thereto to a subset of the committee and/or other PIMCO investment professionals in its discretion. In addition, a number of members of the professional staff of PIMCO are investors in other funds advised by PIMCO and are actively involved in managing the investment decisions of these funds, as well as investment decisions of other clients of PIMCO. Accordingly, the members of the professional staff of PIMCO will have demands on their time for the investment, monitoring and other functions of other funds and other clients advised by PIMCO. In addition, competition in the financial services, private equity and alternative asset management industries for qualified investment professionals is intense. PIMCO's continued ability to effectively manage the Fund's investments depends on its ability to retain and motivate its existing investment professionals and to attract new investment professionals.

OUTLOOK

Statements concerning financial market trends are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market. Outlook and strategies are subject to change without notice.

PORTFOLIO STRUCTURE

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Appendix

SAMPLE INVESTMENTS

The investment examples referenced are presented for illustrative purposes only, as a general example of the type of investments that may be or have been acquired by PIMCO's private funds, as well as PIMCO's current capabilities in sourcing, modeling and managing such investments (which may evolve over time). There can be no guarantee that PIMCO's private funds will have or continue to have access to comparable investments, or that PIMCO will utilize similar strategies or techniques in connection with the Private Income Fund. In addition, specific investments in the asset classes described herein may have materially different performance and other characteristics than those described in these examples.

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CMR2019-0314-386098

PRIVATE CREDIT REVIEW AND STRATEGIC INVESTMENT PLAN

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

March 25, 2019

Allan Martin, Partner

Chris Hill, Research Consultant

Tony Ferrara, CAIA, Consultant



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NEPC RECOMMENDATIONS

- **Ventura County Employees' Retirement Association should consider \$75 million-\$80 million in commitments to vintage year 2019 private credit funds.**
 - Distressed debt focused strategies, niche lending, and broadly diversified private credit funds would complement existing commitments
 - 2018 private credit commitment approvals included:
 - \$30 million to Carval Credit Value Fund IV (diversified, multi-strategy private credit)
 - \$25 million to Monroe Capital Credit Fund III (US middle market senior direct lending)
 - \$25 million to BlueBay Direct Lending Fund III (European middle market senior and subordinated lending)
- **Investment Thesis**
 - **Short-term Objective**
 - Utilize strategies that have a short time horizon to liquidity and mitigate the impact of the "J-curve."
 - **Long-term Objective**
 - Utilize strategies that have a longer time horizon to liquidity and the potential to generate returns in excess of public credit returns
 - **Opportunistic Objective**
 - Distressed strategies are cyclical and can be utilized on an opportunistic basis
 - Opportunistic and/or multi-strategy mandates can add diversification, capital appreciation, and also current cash flow
- **Ventura County Employees' Retirement Association should maintain an active commitment pace in each vintage year going forward, being mindful of the Plan's liquidity needs**
 - Annual commitments need to be assessed carefully so as to not over-allocate to illiquid investments
 - Strategies that provide a combination of capital appreciation as well as near-term income or distribution can provide a balanced approach for maintaining private credit exposure while also providing some liquidity



PRIVATE CREDIT OVERVIEW AND OUTLOOK

NEPC, LLC

PRIVATE CREDIT OUTLOOK

Sub-beta	2019 Outlook	Rationale for adding to a portfolio
US and European direct lending <i>(senior secured lending)</i> <i>(regulatory capital relief)</i>	Negative US Neutral Europe	<ul style="list-style-type: none"> • Serves as a source of current yield; illiquid fixed income replacement • Diversifies exposure to private corporates • Consider US and European diversified lending as a core exposure versus an opportunistic trade • US: unlevered yields in the 6%-7% range • Europe: unlevered yields in the 9%-10% range
Niche lending/special situations <i>(sector specific or more targeted lending strategies)</i>	Positive	<ul style="list-style-type: none"> • Increased yield including equity upside in some cases • Helps diversify private credit portfolios • Focused sector expertise • Higher on the risk/return spectrum • Some strategies have the ability to exploit opportunities with a shorter window
Mezzanine <i>(subordinated lending)</i>	Negative	<ul style="list-style-type: none"> • Traditional players continue to see deal flow decrease due to outside competition (senior lending and unitranche funds) • Higher economics have priced out several managers • May become more attractive if and when there is a market correction
Distressed Debt/Non-Performing Loans	Positive	<ul style="list-style-type: none"> • Given the cycle and 2-4 year investment periods for most funds, encourage clients to consider an allocation • Emphasis on managers who can perform in benign and turbulent environments • Favor managers with influence or control strategies

2019 CORE RETURN ASSUMPTIONS

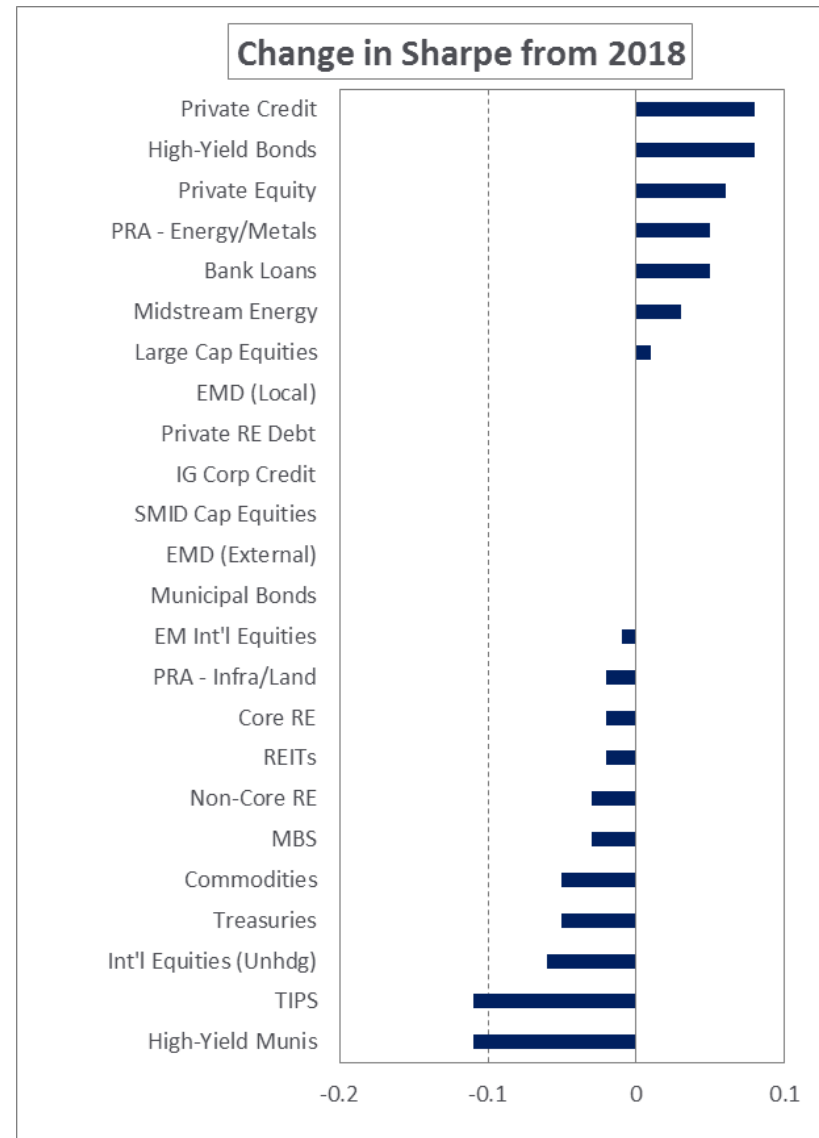
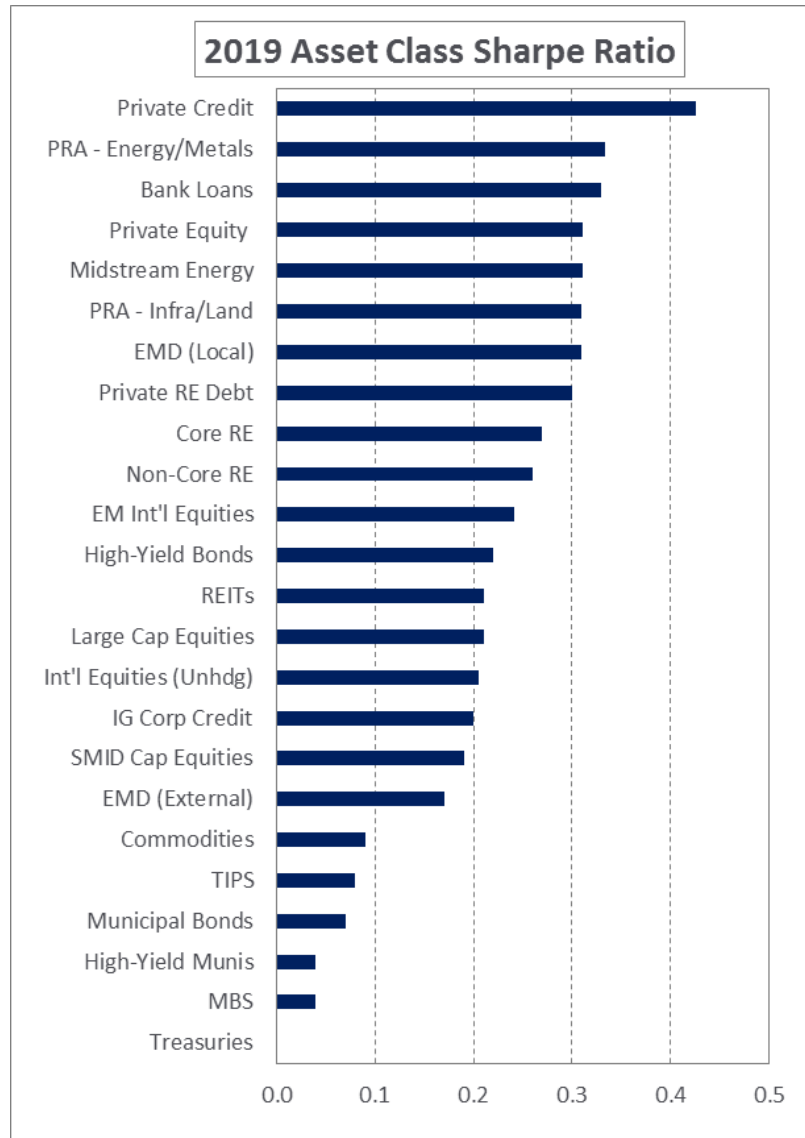
	Asset Class	5-7 Year Return	Change 2019-2018	Volatility
	Cash	2.50%	+.50%	1.00%
	US Inflation	2.25%	-0.25%	-
Equity	Large Cap Equities	6.00%	+0.75%	16.50%
	International Equities (Unhedged)	6.75%	-0.75%	20.50%
	Emerging International Equities	9.25%	+0.25%	28.00%
	<i>Private Equity*</i>	<i>10.01%</i>	+2.01%	<i>24.16%</i>
Rates/Credit	Treasuries	2.50%	+0.25%	5.50%
	<i>Core Bonds*</i>	<i>3.04%</i>	+0.29%	<i>6.10%</i>
	High Yield Bonds	5.25%	+1.50%	12.50%
	<i>Private Credit*</i>	<i>7.60%</i>	+1.10%	<i>11.97%</i>
Real Assets	Commodities	4.25%	-0.50%	19.00%
	Non-Core Real Estate	7.00%	-	17.00%
	Core Real Estate	6.00%	+0.25%	13.00%
Multi-Asset	<i>US 60/40*</i>	<i>5.07%</i>	+0.53%	<i>10.45%</i>
	<i>Global 60/40*</i>	<i>5.17%</i>	+0.26%	<i>11.14%</i>
	<i>Hedge Funds*</i>	<i>5.74%</i>	-0.09%	<i>8.15%</i>

*Calculated as a blend of other asset classes

*Private Credit calculated as 50% senior lending, 25% Mezzanine, 25% Distressed



RELATIVE ASSET CLASS ATTRACTIVENESS



Source: NEPC



PRIVATE CREDIT

General Market Thoughts

- **Senior Direct Lending: US and European markets are becoming saturated**
 - New funds, deregulation around banks and BDCs have made the US overly competitive and commoditized; the middle market remains the most attractive segment based on price premium, leverage characteristics and default and recovery statistics
 - European middle market remains less efficient relative to the US but competition is on the rise; spreads and upfront fees are still higher in Europe; rise in LIBOR benefits investors in USD-denominated vehicles
- **Niche Lending: Sector/industry-focused and specialized strategies can provide opportunities with less correlated risk/return profiles**
- **Distressed Debt/NPLs: Emerging opportunities across various areas**
 - A growing list of metrics point to a riskier future for performing credit broadly
- **Mezzanine: Opportunity remains muted**
- **Regulatory Capital Relief remains an opportunity within the lending space**

Implementation Views

Strategy	Outlook	Commentary
Senior Direct Lending	Negative US Neutral Europe	<ul style="list-style-type: none"> • US: Relative attractiveness in the lower-to middle market (companies less than \$50m EBITDA); seek managers with historical discipline and transparency • Europe: Tier 1 managers that can navigate multiple markets • Focus on fees and more liquid vehicle structures
Niche Lending	Positive	<ul style="list-style-type: none"> • Find sector/industry specialists or areas which require additional expertise and often overlooked and passed over by traditional lenders
Distressed Debt/NPLs	Positive	<ul style="list-style-type: none"> • Seek opportunistic strategies that offer flexibility across strategies and geographies
Mezzanine	Negative	<ul style="list-style-type: none"> • There are interesting opportunities on the non-sponsored side where managers can drive deal structures and terms

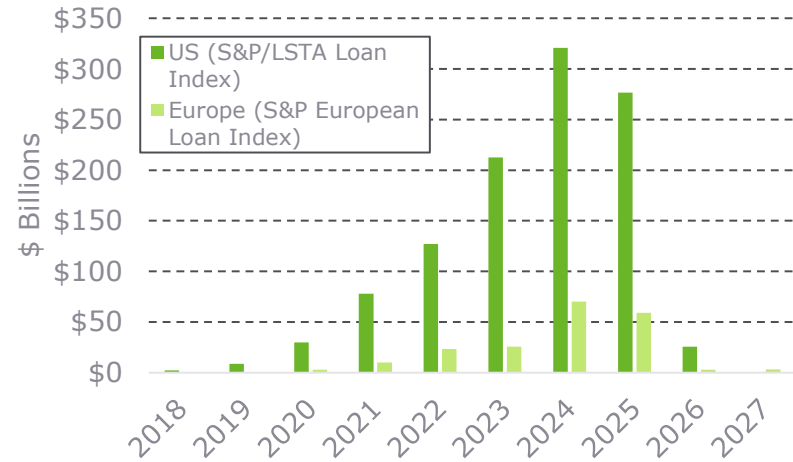


DIRECT LENDING - US VS. EUROPE

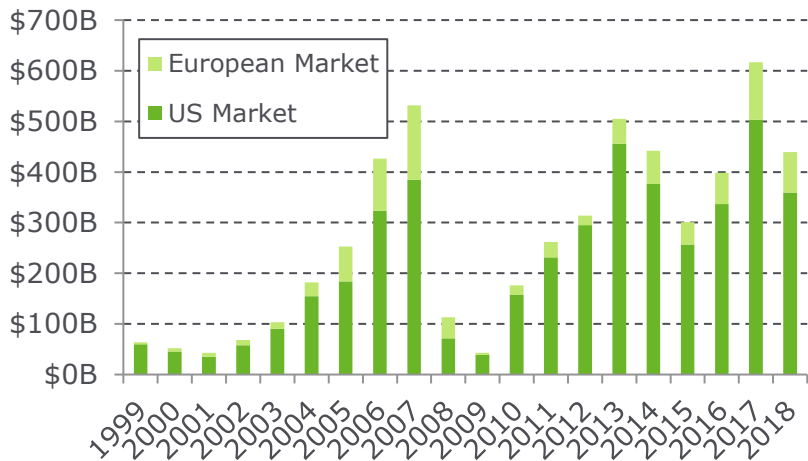
Comments

- **On an absolute and relative basis, the European leveraged loan market is much smaller than the US**
- **In the US broadly syndicated loan market, investment banks are regaining the share they lost to direct lenders on bigger deals following the OCC's looser stance on Leveraged Lending Guidance**
 - Trend is not translating into the middle market

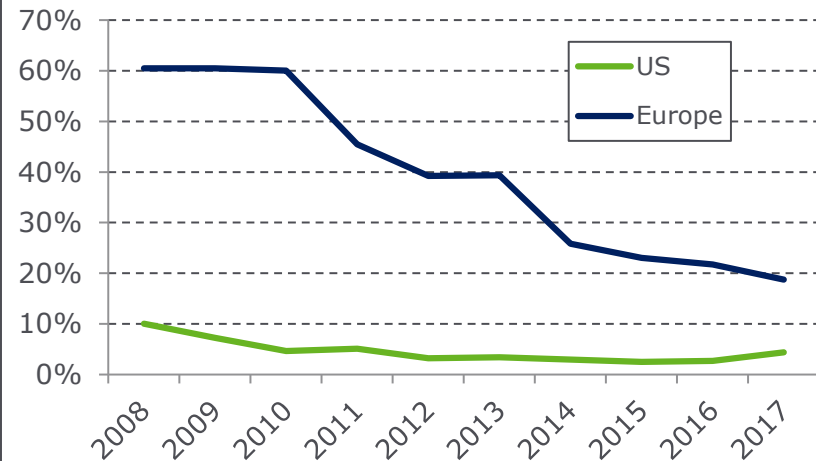
Leveraged Loan Maturity Wall



European Share Global Leveraged Loan Volume



Banks Share of Leveraged Loan Market

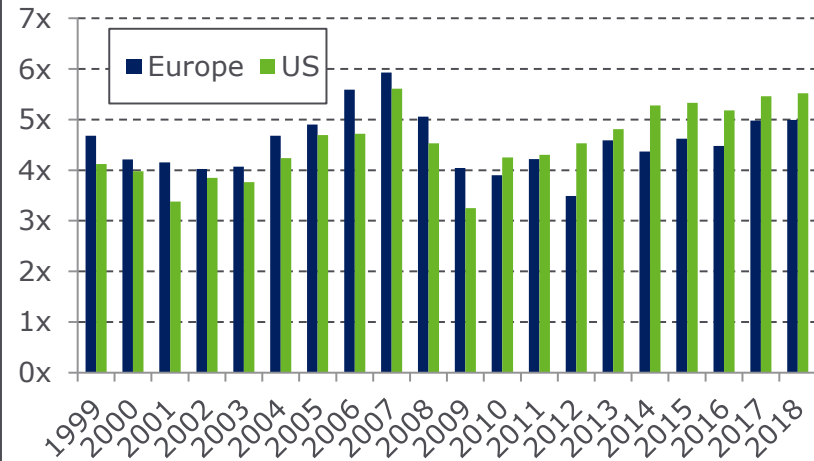


DIRECT LENDING - US VS. EUROPE

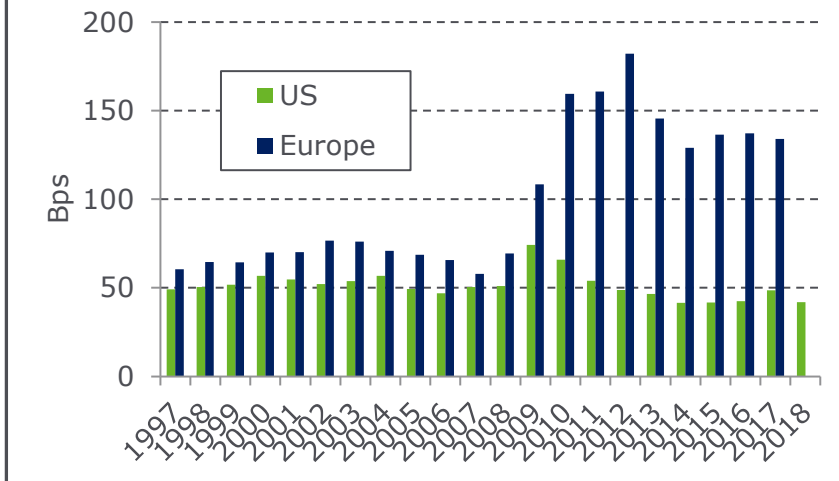
Comments

- **Debt multiples for European LBOs still remain approx. 0.5x less levered than its US counterparts**
- **Upfront and commitment fees average 2-3x higher on European loans**
- **Default rates in Europe have decreased and become lower than the US in the past couple of years**

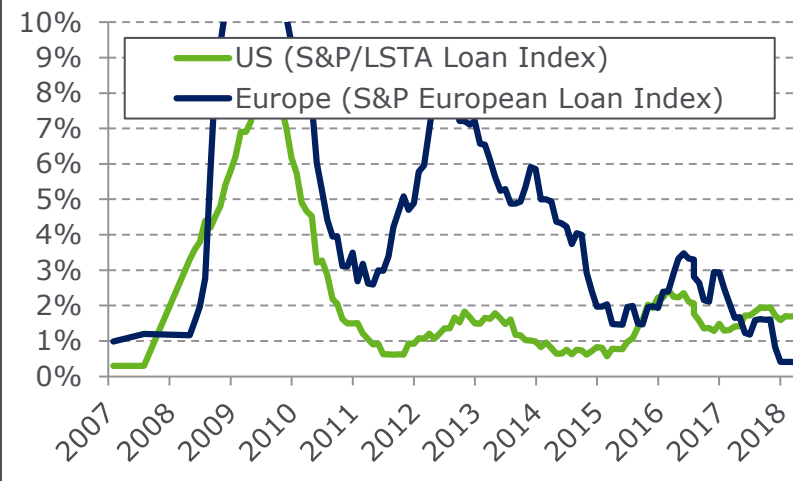
Middle Market LBO Total Debt/EBITDA*



Upfront/Commitment Fees Earned by Lenders



Default Rates



NICHE LENDING

The Growth of Niche and More Focused Strategies

Niche lending strategies can exhibit several characteristics

- Target higher yields/higher IRRs with equity upside
- Sector expertise including restructuring, workout capabilities
- Underbanked or underserved inefficient industries
- Complex and special situations
- Heavier diligence and collateral valuation
- Non-traditional assets
- Diversification benefits within a broader portfolio

Strategy	Description	Target Gross IRR (%)	Current Yield	Typical Investment Period (Years)	Typical Fund Term (Years)
Aircraft Leasing	Acquire aircraft or engines on lease to commercial airlines; potential to part-out end-of-life aircraft.	12-20%	8-12%	3	6
Asset-backed lending	Loans against hard assets; equipment; merchandise	10-12%	8-10%	4	8
Energy and Infrastructure Lending	Debt and structured equity financing for energy and infra projects	14-18%	8-12%	3	7
Healthcare Lending	Flexible financing for commercial-stage healthcare companies	15-20%	10-15%	4	10
Media Financing	Movie and TV portfolio financing	15-20%	8-12%	3	7
PE Portfolio Financing	Loans to PE funds for early or late fund life cash injections	12-15%	6-8%	3	6
Pharma Lending	R&D loans to large pharma for accounting optimization and the release of R&D spend	20-25%	0-10%	5	10
Regulatory Capital Relief Lending	Risk transfer trades focused on European bank balance sheet loans	10-15%	3-6%	2	6
Royalty Investing	Purchases of royalty streams (i.e. pharmaceuticals)	15-25%	5-15%	5	10
Software Lending	Software and tech enabled business lending	15-20%	10-12%	3	6
Specialty Finance	Financing solutions to businesses serving unbanked or under-banked consumer SMEs	15-18%	10-12%	3	5
Venture/Growth Lending	Less dilutive cash infusions to venture companies; offers LPs venture exposure through the loan and often equity warrants	20-25%	10-13%	3	7

PRIVATE CREDIT IMPLEMENTATION

Strategy	Viewpoints
Traditional Senior Direct Lending	<ul style="list-style-type: none"> • Avoid the larger end of the US middle market; focus on the lower end (companies <\$50m EBITDA) • Target US lower middle market managers with proven credit discipline and conservative fund vehicles (ex. fund leverage creep) • Seek European managers with established local presence that can originate and hold loans
Niche Lending/Special Situations	<ul style="list-style-type: none"> • Allocate to managers with proven sector/industry expertise through market cycles • Strategies targeting non-traditional assets and underserved sectors/industries are attractive • Complex/special situations with restructuring and workout capabilities can provide upside • Invest opportunistically in the secondary market
Distressed Debt/Non-Performing Loans	<ul style="list-style-type: none"> • Consider strategies that can allocate capital opportunistically between geographies and asset classes • Favor distressed-for-control/influence strategies that can succeed in benign and highly distressed markets
Mezzanine	<ul style="list-style-type: none"> • Focus on managers targeting smaller, unsponsored companies where they can drive terms and structure



DISTRESSED DEBT AND OPPORTUNISTIC CREDIT/SPECIAL SITUATIONS

General Market Thoughts

- **Clouds are gathering**

- A relatively benign environment for distress has existed for years outside of sector-specific pockets of distress in the US and some international opportunities like NPLs
- A growing list of metrics and global political changes point to a riskier future for performing credit broadly
 - Rising rates in the US; QE ending in Europe; Increased amount of lower rated bonds; Increasing leverage levels on corp. balance sheets; Covenant-lite loan issuance; European sovereign issues; International regulatory reforms; Political volatility

- **Gimme' shelter**

- For 2019, clients should consider new distressed commitments given the maturity of the credit cycle and the 2-4 year investment periods for private market funds in the space

Implementation Views

Strategy	Outlook	Commentary
Distressed Debt	Positive	<ul style="list-style-type: none"> • Consider strategies that can allocate capital opportunistically between geographies and asset classes • Favor distressed-for-control/influence strategies that can succeed in benign and highly distressed markets
Opportunistic Credit	Positive	<ul style="list-style-type: none"> • Find managers who can provide flexible capital solutions that can invest across various market conditions • Opportunistic strategies can enhance returns in a low-rate environment compared to traditional fixed-income strategies



PRIVATE CREDIT PACING RECOMMENDATION

- **NEPC recommends committing \$75 million-\$80 million to private credit strategies in 2019 to achieve the 3% allocation (assuming updated asset allocation review ratifies the 3% target)**
 - Both 2019 and 2020 commitments are currently modeled at approximately \$50 million each
 - NEPC recommends committing to two or three funds in 2019 to continue to build and diversify the private credit allocation

- **Current High Conviction Pipeline Strategies**
 - Multi-Strategy and Opportunistic Credit
 - Distressed Debt
 - Niche or Specialized Lending



APPENDIX

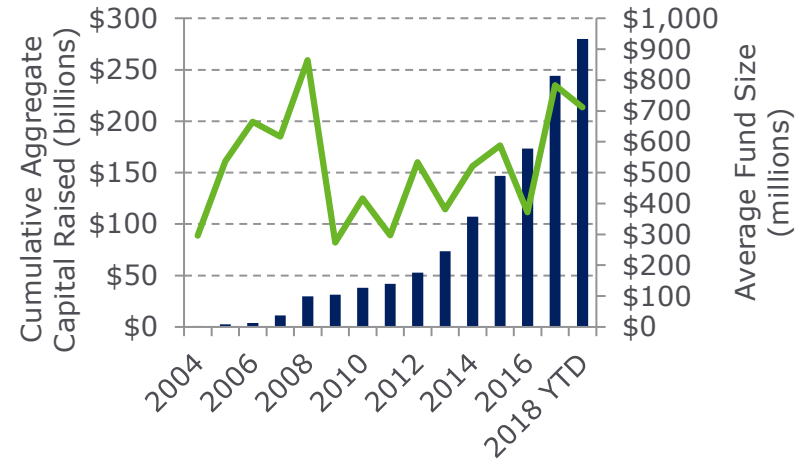
NEPC, LLC

DIRECT LENDING MARKET ACTIVITY

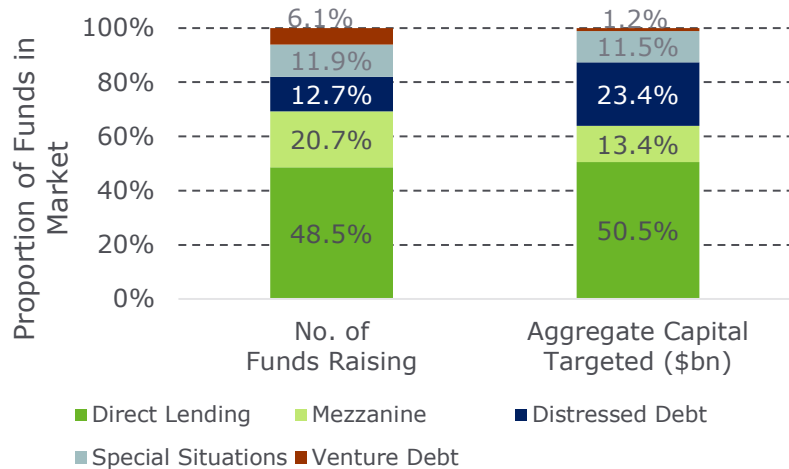
Comments

- **Fundraising for direct lending funds reached an all-time high in 2017 driven primarily by a couple of mega funds in the US and Europe**
- **Direct lending funds continue to be the majority of funds raising in the market**
- **Dry powder in the US and Europe has reached an all-time high for each respective geography**

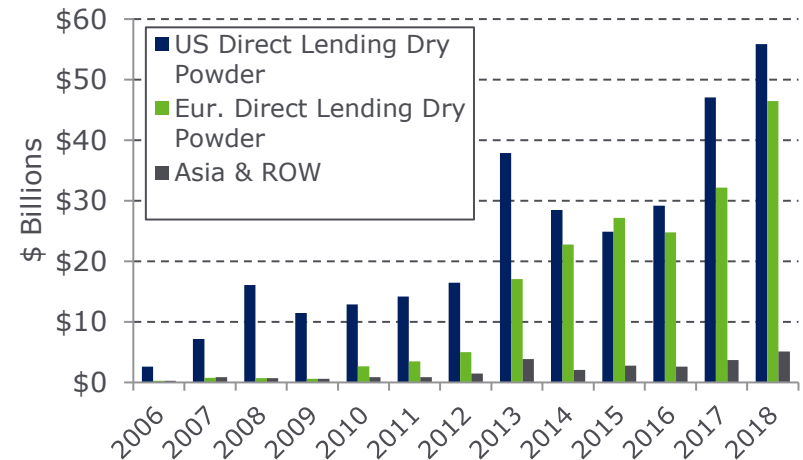
Global Direct Lending Fundraising



Private Debt Fundraising



US and Europe Dry Powder

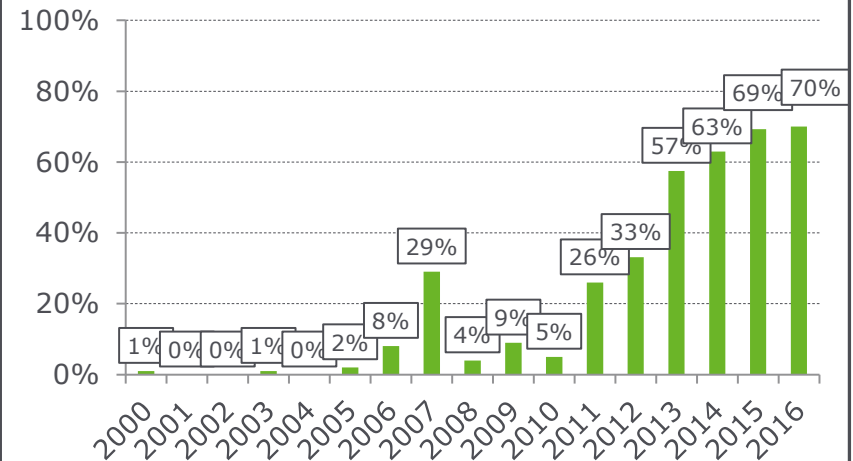


DIRECT LENDING OVERALL CONCERNS

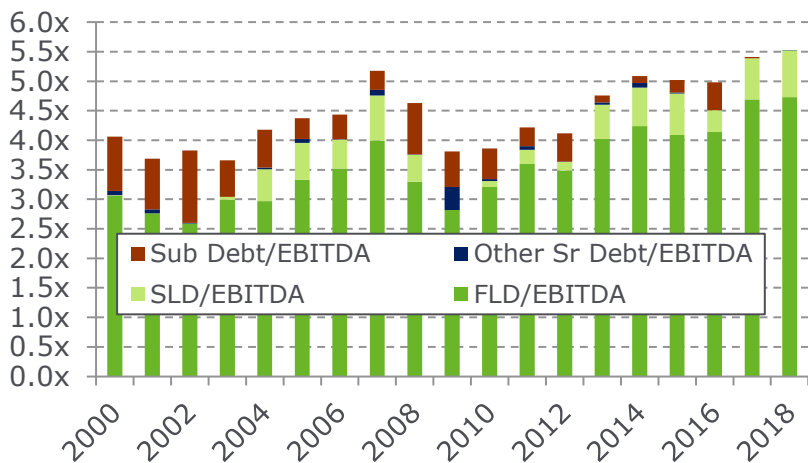
Comments

- **Covenant-lite loans continue to dominate the market**
 - Even deals with covenants tend to have looser definitions and are less tight than in the past
- **US middle market total debt multiples for sponsored transactions continue to increase; reaching or exceeding pre-crisis levels**
- **First lien spreads per unit of leverage is lower in 2018 versus other years**

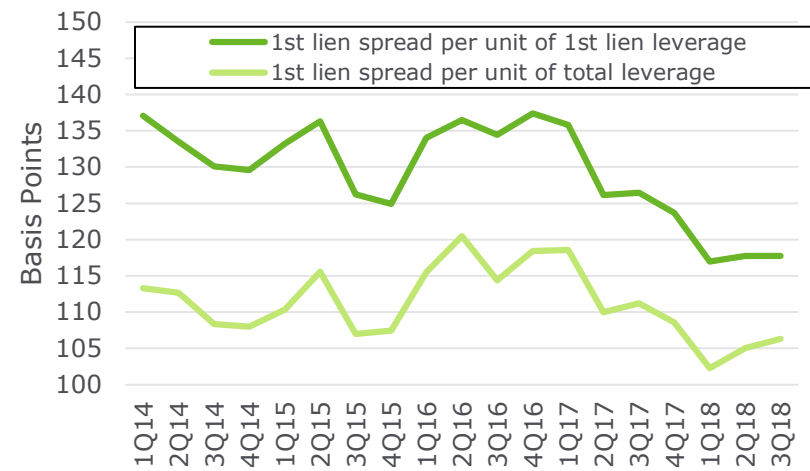
Cov-Lite is King



Middle Market Debt Multiples



Spread Per Unit of Leverage

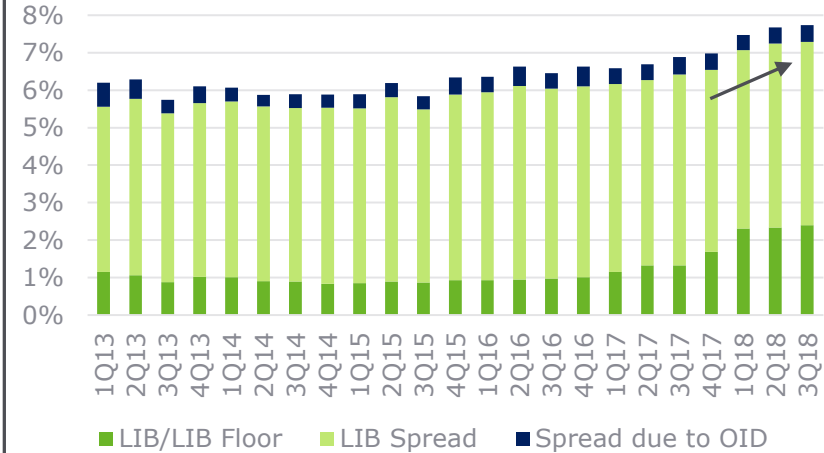


DIRECT LENDING OVERALL CONCERNS

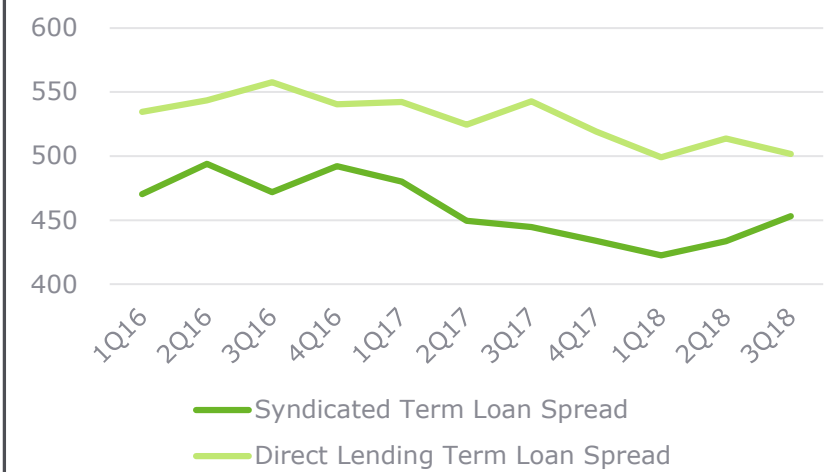
Comments

- **The rise in LIBOR and a benign default environment has masked some of the effects of increased competition**
- **Direct lending still provides a premium over the broadly syndicated market but overall spreads continue to gradually decline**
- **Banks are pushing leverage following less regulatory scrutiny but has not translated into the middle market yet.**

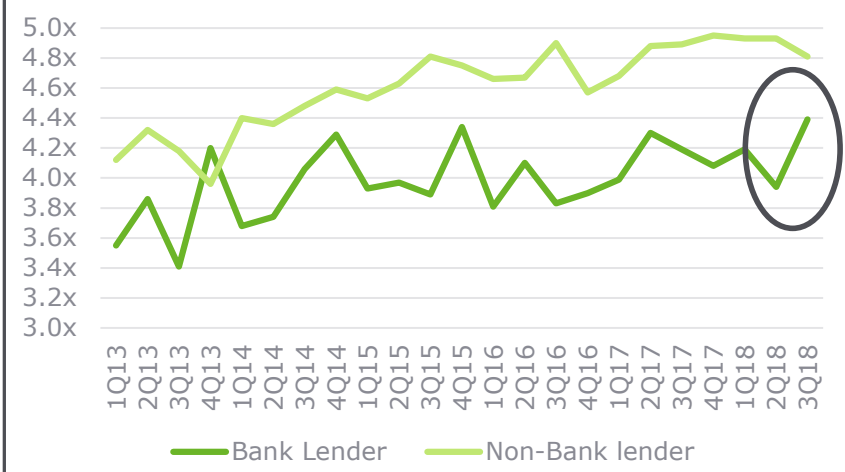
All-in Yields



1st Lien Term Loan Spreads



Bank vs Direct Lending Leverage

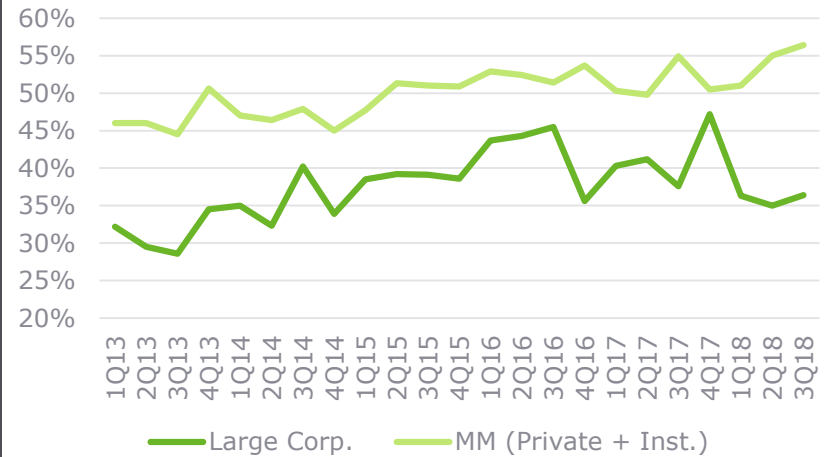


DEFAULT AND RECOVERY RATES

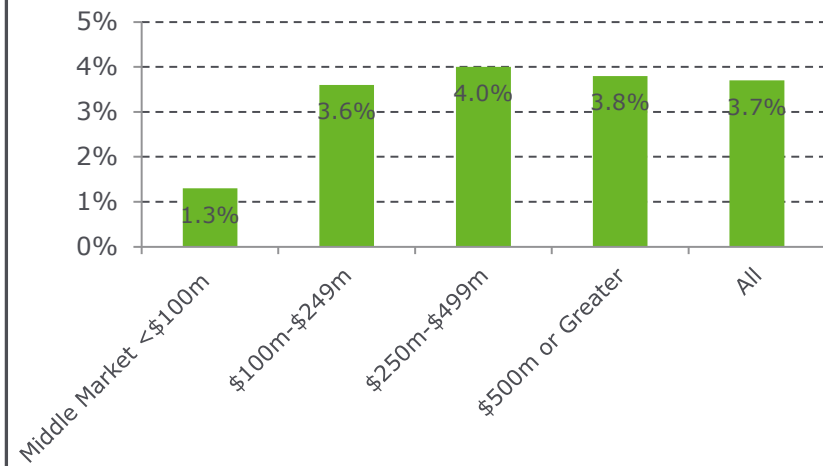
Comments

- **Even as purchase price multiples increase, middle market companies are better equity capitalized relative to larger deals**
- **Historical default rates have significantly been lower in smaller overall loan sizes; smaller loans sizes equate to loans to smaller companies**
- **Similarly, recovery rates have been slightly higher at this end of the market, in smaller loans sizes, versus the broadly syndicated and bond markets**

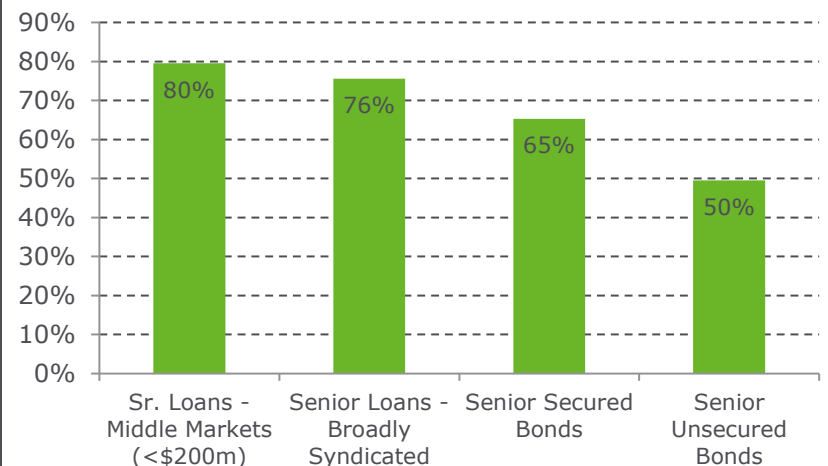
LBO Equity Contribution



Default Rates



Recovery Rates

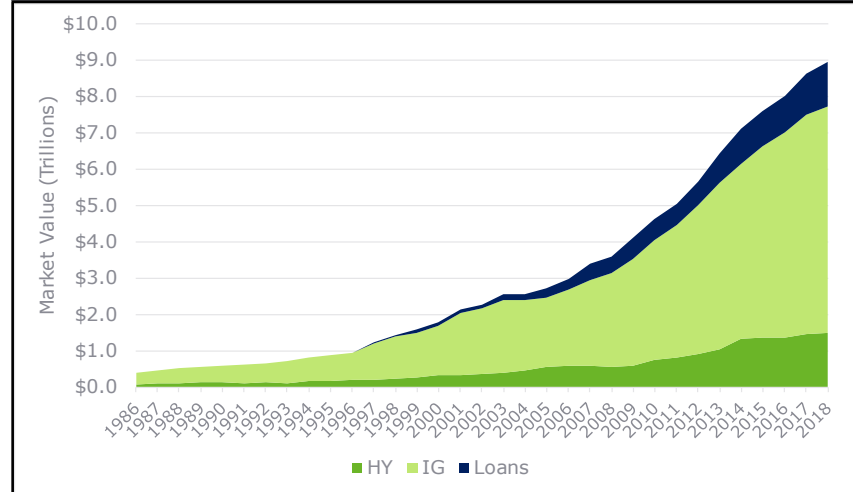


DISTRESSED: WHERE IS THE TIPPING POINT?

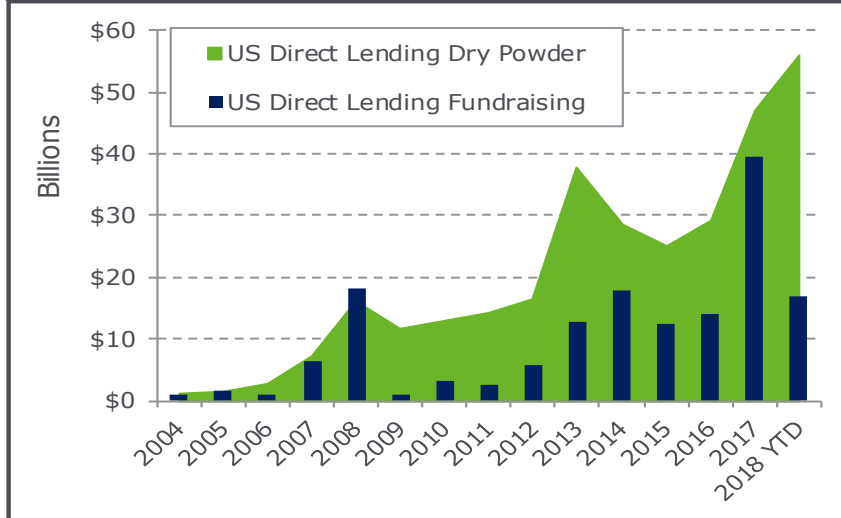
Comments

- **Explosion in growth of corporate credit overall since 2000, in the US and internationally**
- **Private loans may be an additional opportunity going forward**

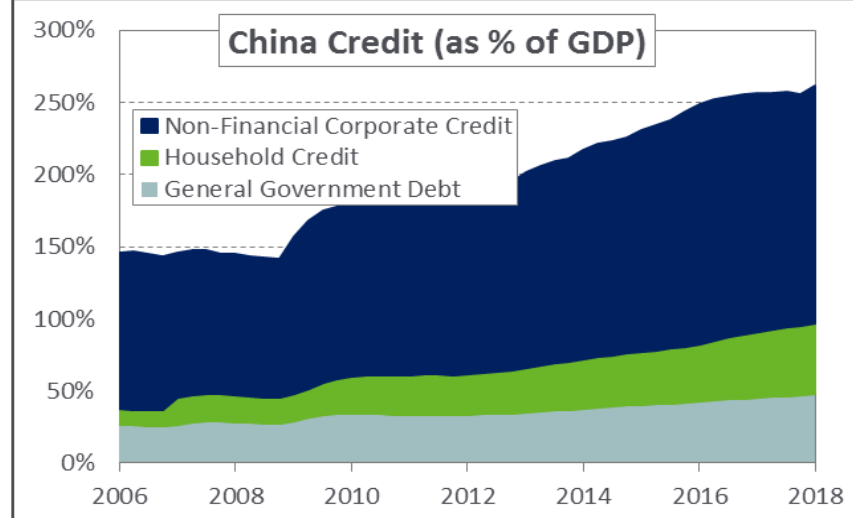
US Corporate Credit Growth



Direct Lending Fundraising and Dry Powder (by year of final close)



China Credit Growth



Sources: Deutsche Bank Credit Book (top right); Prequin (bottom left); BIS, NEPC (bottom right)

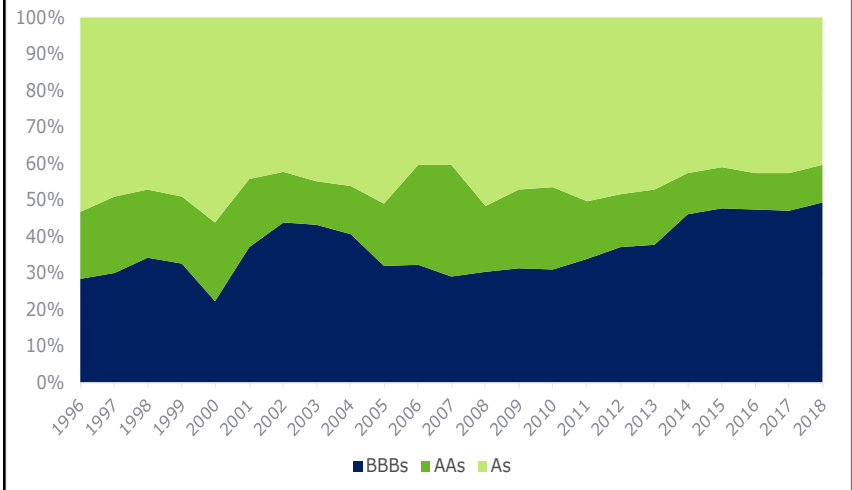


DISTRESSED: INCREASE IN LOWER RATED CREDITS

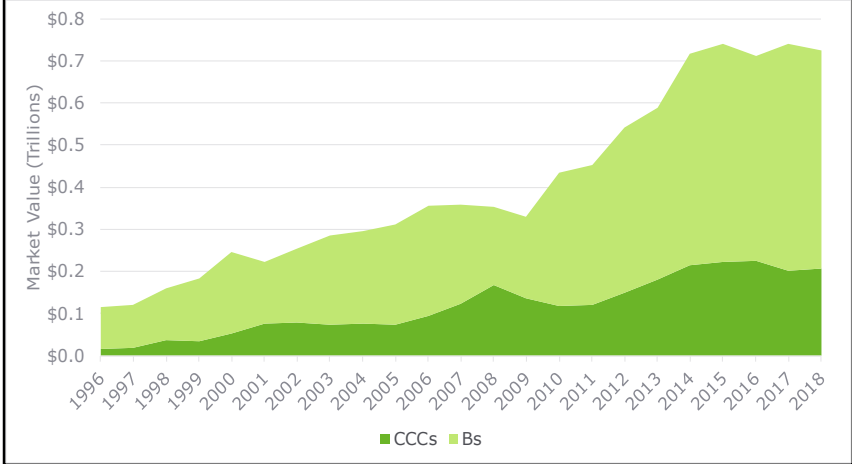
Comments

- **BBB ratings have become a larger proportion of the Investment Grade market**
- **The lower rated High Yield market has exploded in growth**
- **Covenant-lite loan issuance is at its highest level in years**

US IG Market Composition



Lower Rated HY Market Growth



Leveraged Loan Cov-Lite Issuance

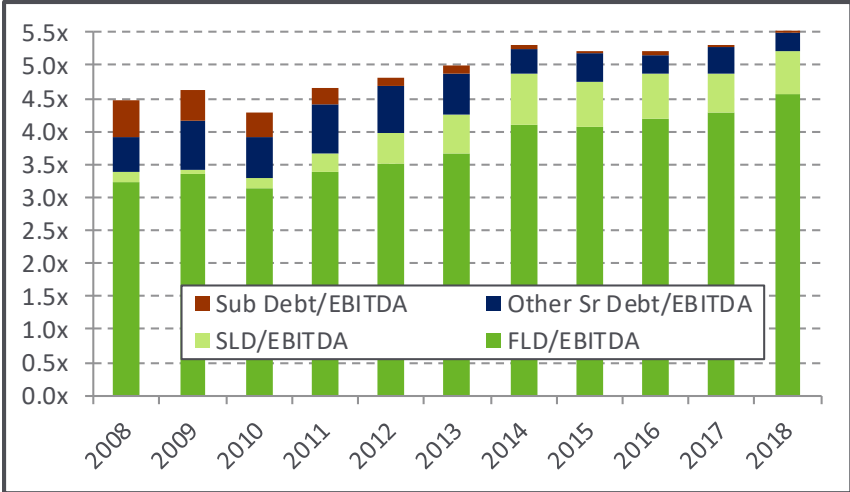


DISTRESSED: INCREASING PRIVATE CORPORATE LEVERAGE

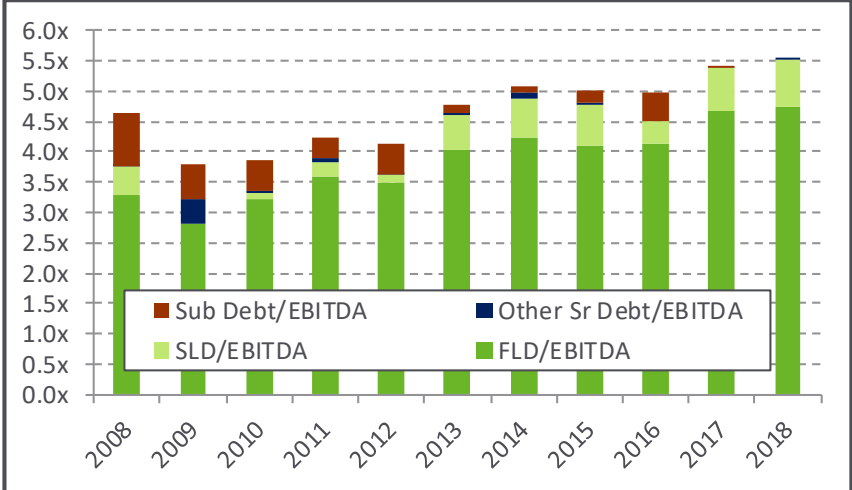
Comments

- Corporate leverage in private markets has increased across large and small markets with senior lenders willing to lend deeper into the capital stack

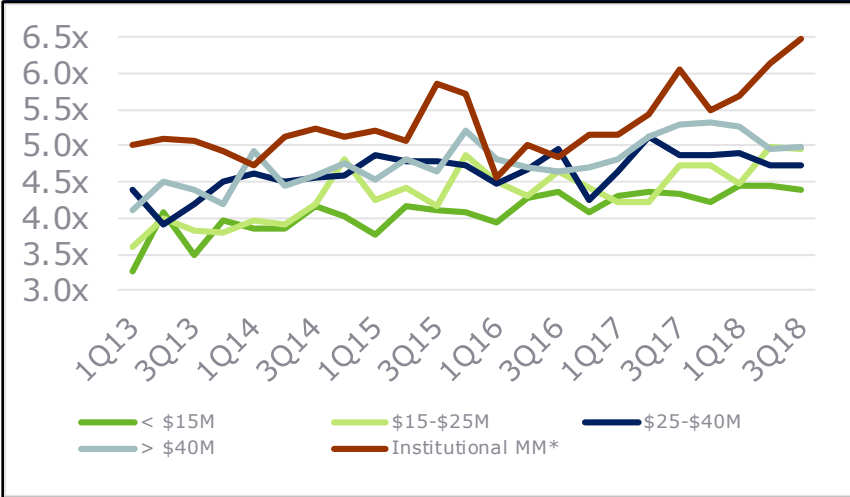
Total Debt/EBITDA Large Corporates (>\$50m of EBITDA, Sponsored)



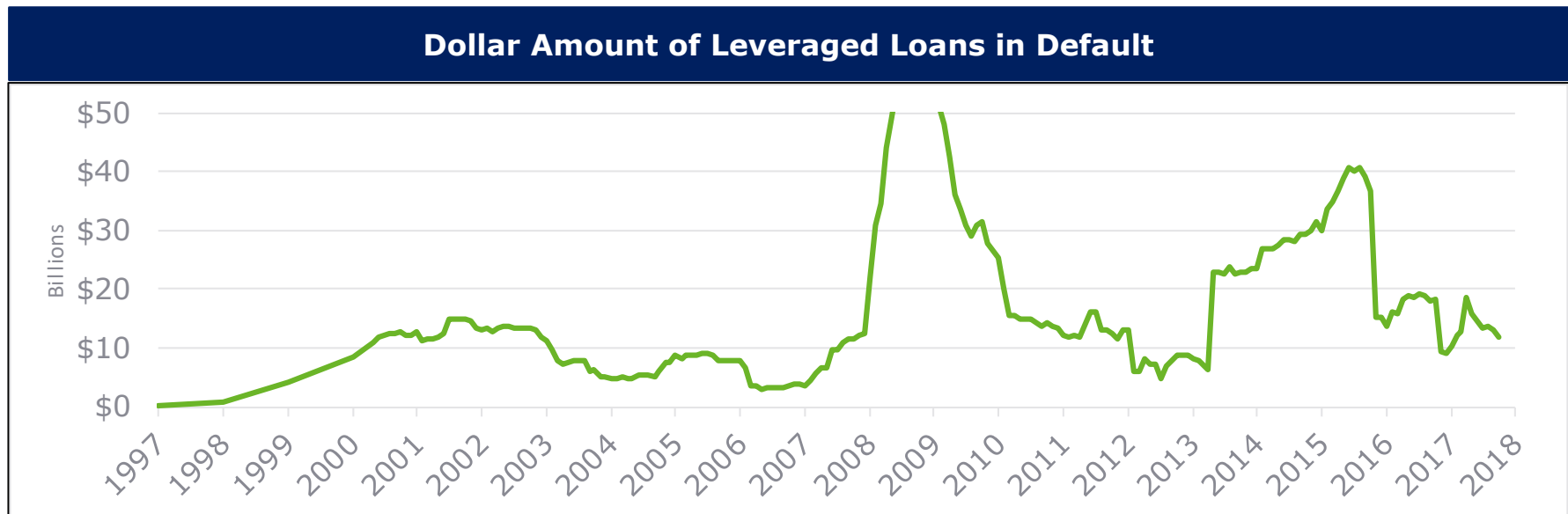
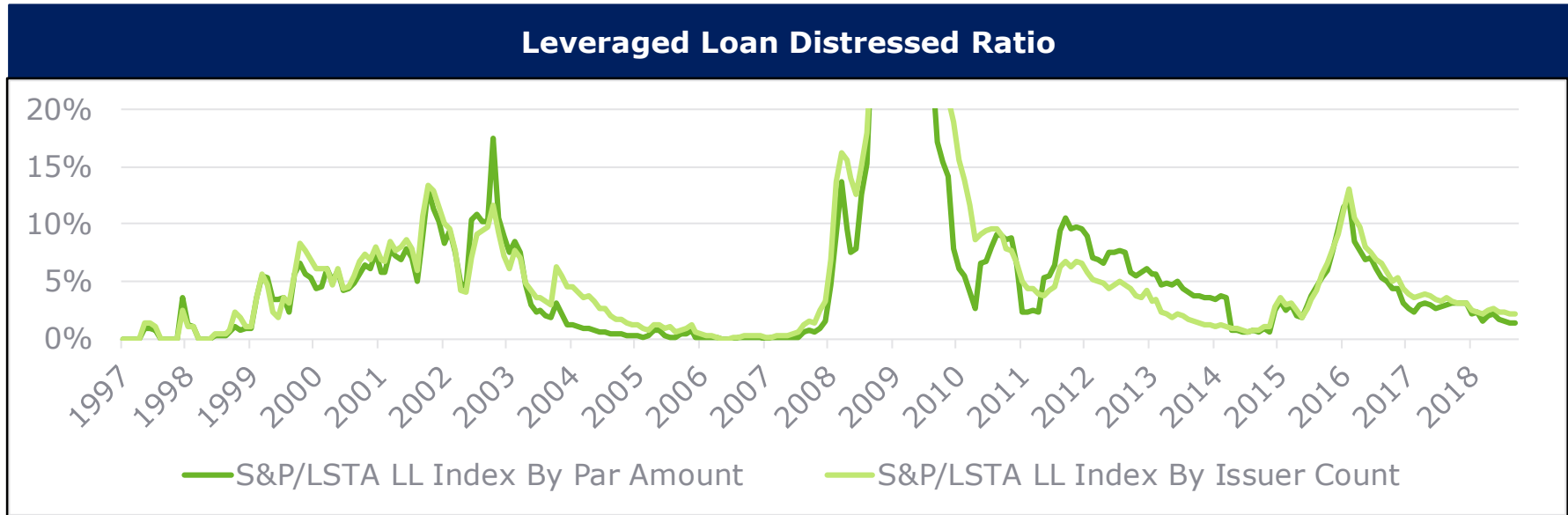
Total Debt/EBITDA Middle Market Sponsored Loans



Middle Market Leverage by EBITDA Size

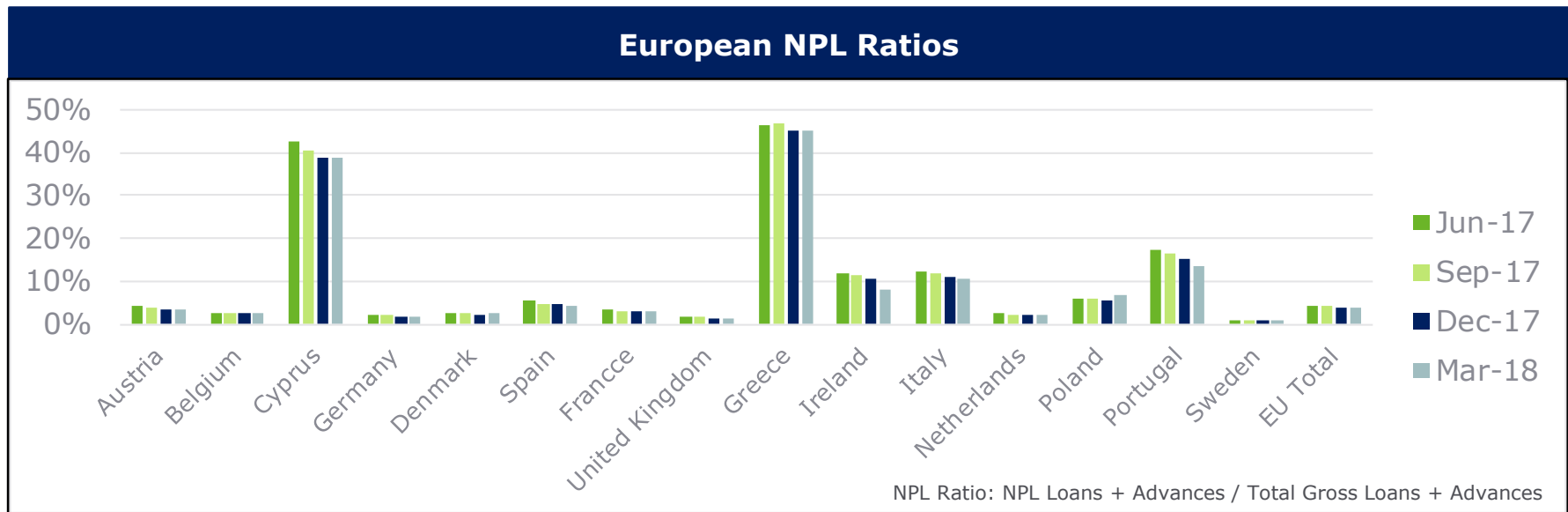
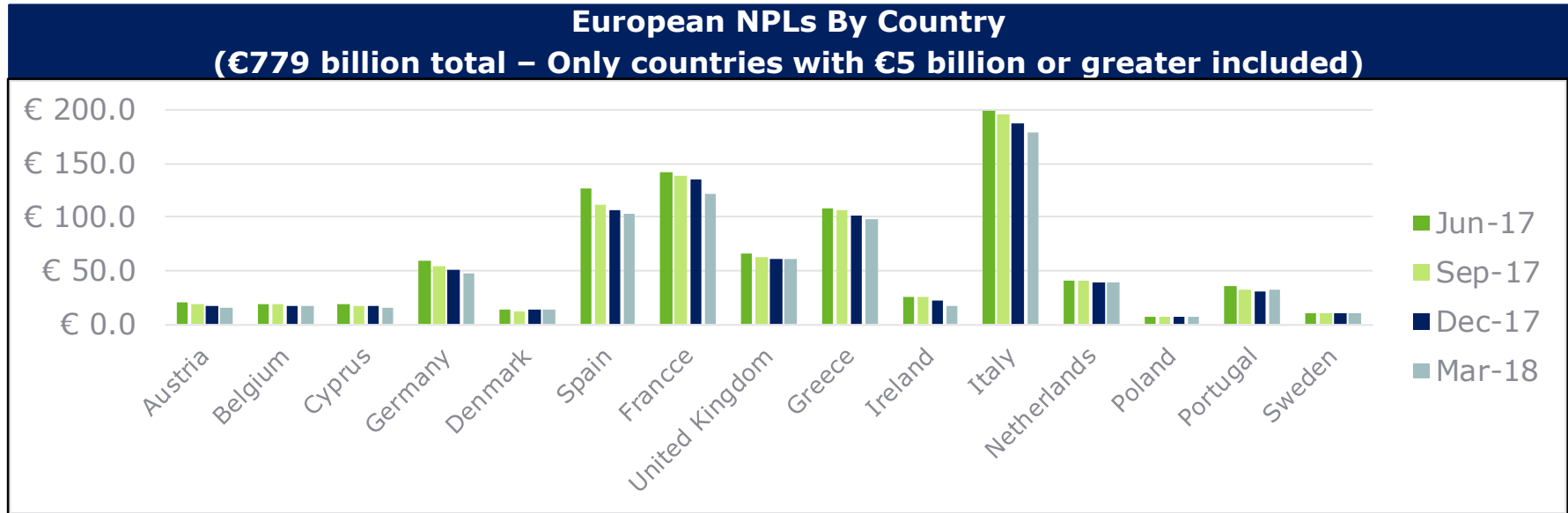


DISTRESSED: LEVERAGED LOANS



²² Source: S&P LCD. Distressed loans defined as those that are priced below 80.

DISTRESSED: EUROPEAN NPL VOLUME

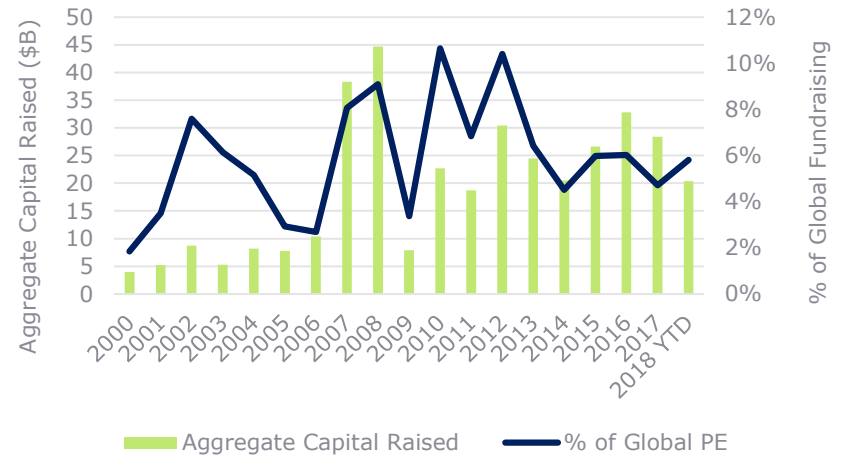


DISTRESSED DEBT FUNDRAISING

Comments

- **Distressed debt fundraising has consistently been 4% - 8% of global private equity fundraising since the Global Financial Crisis**
- **Average fund sizes have increased in recent years as managers and investors appear to be anticipating the next turn in the cycle**

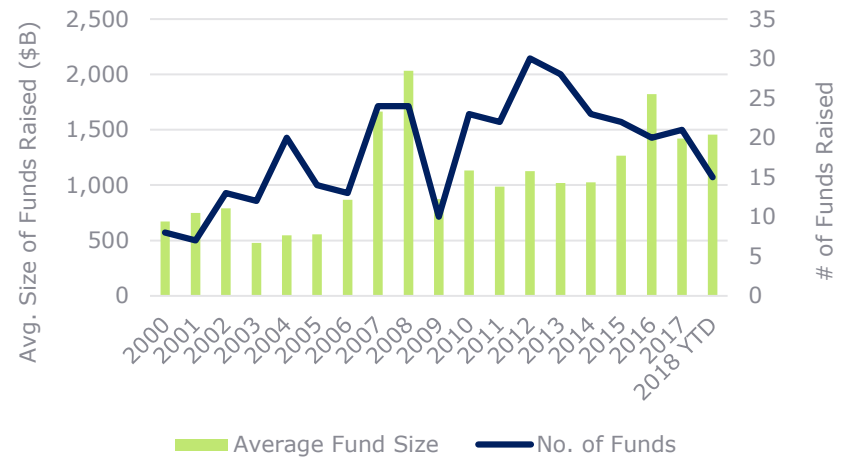
Asset Class vs. Total PE Raised



Asset Class Fundraising & Median Return



Comparison of Fund Sizes



Source: Preqin



VCERA PRIVATE CREDIT PACING PLAN

NEPC, LLC

PLAN OVERVIEW AND ASSUMPTIONS

(\$ in millions)

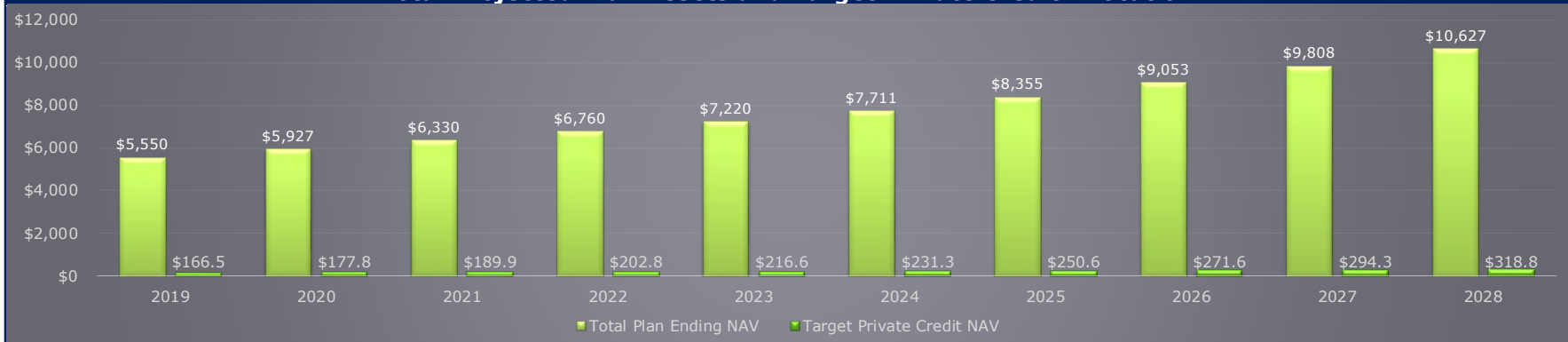
General Plan Assumptions

Total Plan Assets	\$5,198.1	Plan Return Assumptions	2019	2020	2021
Total Private Credit Assets	\$13.8	Net Growth Rate %	6.8%	6.8%	6.8%
Private Credit Capital to be Funded	\$72.5				
Total Private Credit Exposure	\$86.3				
Total Private Credit Assets / Total Plan Assets	0.3%				
Total Private Credit Exposure / Total Plan Assets	1.7%				
Target Private Credit Allocation % (Current Target)	3.0%	Plan Data as of:			12/31/2018
		Private Credit Data as of:			9/30/2018

Total Projected Plan Assets

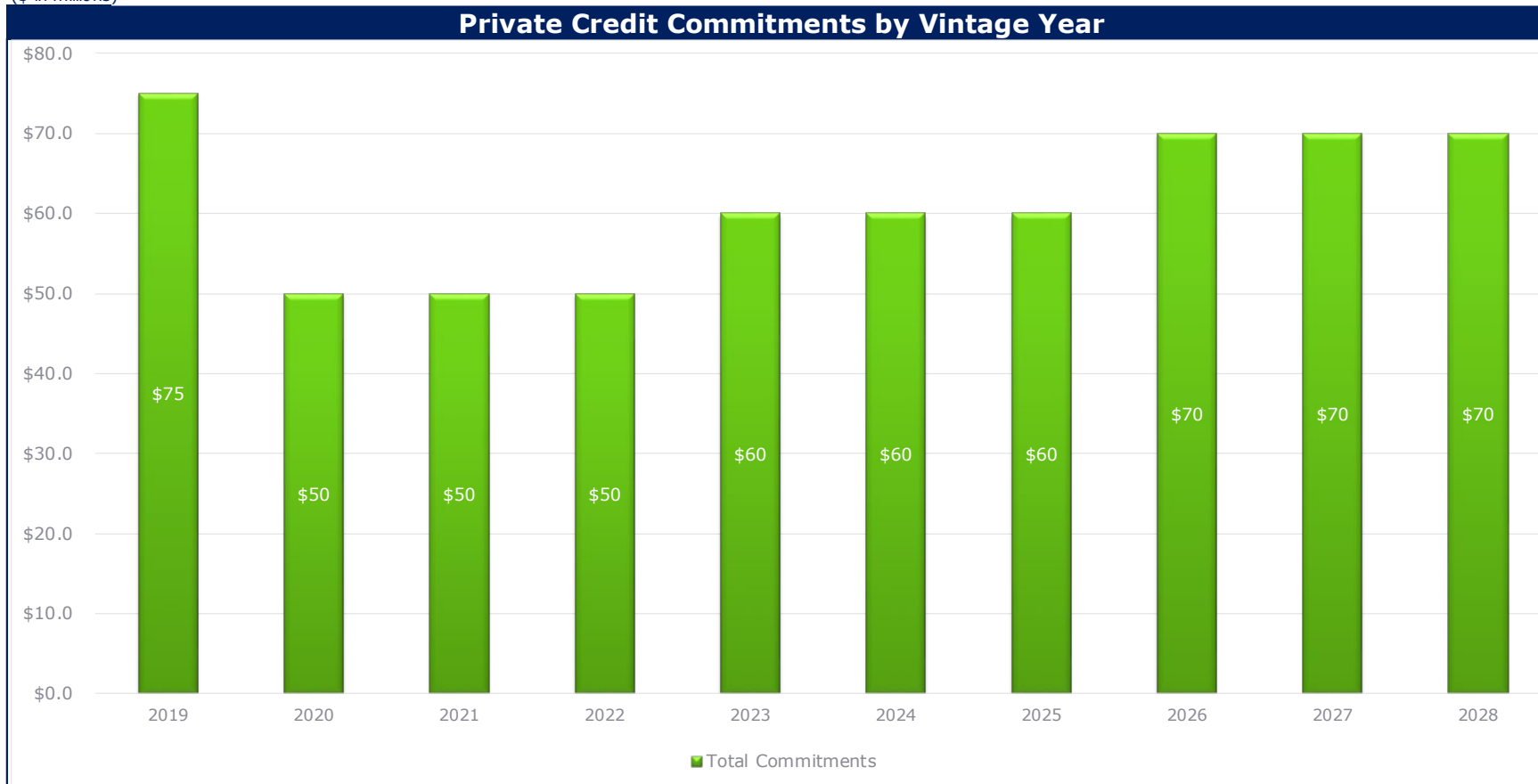
	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Plan Net Growth Rate	6.8%	6.8%	6.8%	6.8%	6.8%	6.8%	8.3%	8.3%	8.3%	8.3%
Total Plan Beginning NAV	\$5,198.1	\$5,549.5	\$5,926.9	\$6,329.9	\$6,760.4	\$7,220.1	\$7,711.0	\$8,354.9	\$9,052.5	\$9,808.4
Yearly Net Growth	\$351.4	\$377.4	\$403.0	\$430.4	\$459.7	\$491.0	\$643.9	\$697.6	\$755.9	\$819.0
Total Plan Ending NAV	\$5,549.5	\$5,926.9	\$6,329.9	\$6,760.4	\$7,220.1	\$7,711.0	\$8,354.9	\$9,052.5	\$9,808.4	\$10,627.4
Target Private Credit Allocation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Target Private Credit NAV	\$166.5	\$177.8	\$189.9	\$202.8	\$216.6	\$231.3	\$250.6	\$271.6	\$294.3	\$318.8

Total Projected Plan Assets and Target Private Credit Allocation



COMMITMENT PACE GOING FORWARD

(\$ in millions)



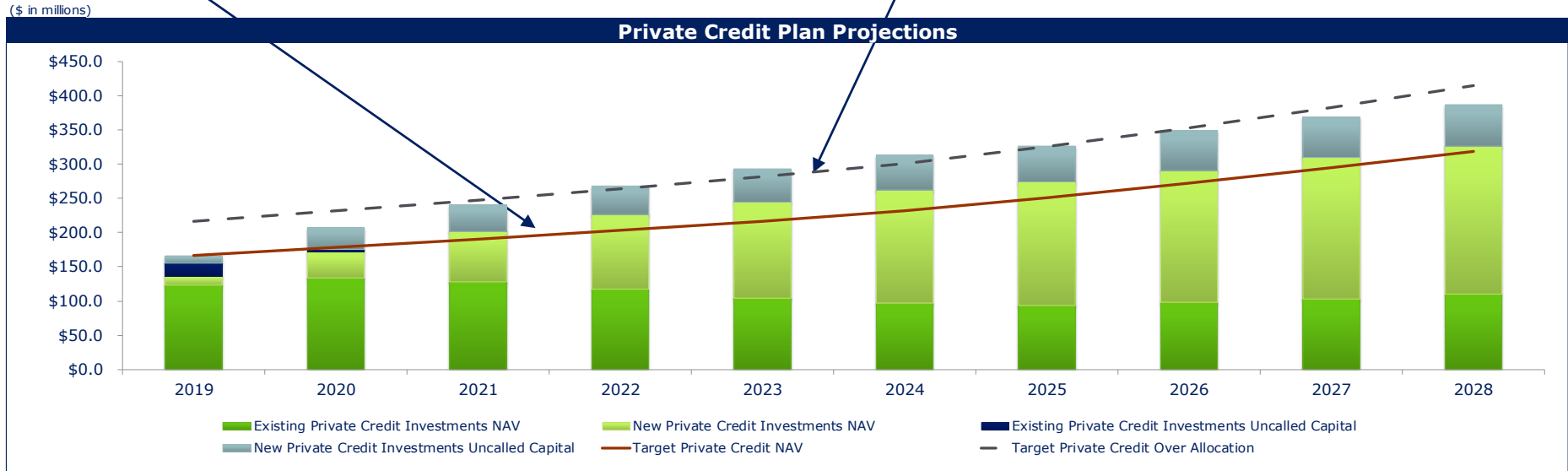
Private Credit Commitments by Vintage Year

Year	More Certain			Less Certain							
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
Total Commitments	\$75.0	\$50.0	\$50.0	\$50.0	\$60.0	\$60.0	\$60.0	\$60.0	\$70.0	\$70.0	\$70.0



FUND PROJECTIONS

- **Red line** is the 3% target Private Credit allocation based on projected plan total NAV; **Blue line** is the 1.3x recommended over-commitment pace.
- Goal is to keep private credit NAV (**green bar**) plus uncalled capital commitments (**blue bar**), between red line and blue line.



Year	Projected									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Private Credit NAV	\$136.3	\$171.9	\$200.9	\$226.0	\$244.1	\$261.7	\$273.8	\$290.7	\$309.0	\$326.0
Uncalled Capital Commitments	\$29.8	\$36.0	\$39.2	\$41.4	\$48.8	\$51.4	\$52.2	\$58.1	\$60.2	\$61.0
Private Credit NAV + Uncalled Capital Commitments	\$166.0	\$207.9	\$240.0	\$267.4	\$292.9	\$313.1	\$326.0	\$348.8	\$369.2	\$387.0
Target Private Credit NAV	\$166.5	\$177.8	\$189.9	\$202.8	\$216.6	\$231.3	\$250.6	\$271.6	\$294.3	\$318.8
Over-Commitment Pace	1.3x	1.3x	1.3x	1.3x	1.3x	1.3x	1.3x	1.3x	1.3x	1.3x
Target Private Credit Over Allocation	\$216.4	\$231.1	\$246.9	\$263.7	\$281.6	\$300.7	\$325.8	\$353.0	\$382.5	\$414.5
Beginning Plan NAV	\$5,198.1	\$5,549.5	\$5,926.9	\$6,329.9	\$6,760.4	\$7,220.1	\$7,711.0	\$8,354.9	\$9,052.5	\$9,808.4
Yearly Return	\$351.4	\$377.4	\$403.0	\$430.4	\$459.7	\$491.0	\$643.9	\$697.6	\$755.9	\$819.0
Ending Plan NAV	\$5,549.5	\$5,926.9	\$6,329.9	\$6,760.4	\$7,220.1	\$7,711.0	\$8,354.9	\$9,052.5	\$9,808.4	\$10,627.4
Private Credit Percent of Total Plan Assets										
Private Credit NAV	2.5%	2.9%	3.2%	3.3%	3.4%	3.4%	3.3%	3.2%	3.2%	3.1%
Private Credit Uncalled Capital Commitments	0.5%	0.6%	0.6%	0.6%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%
NAV + Uncalled Capital Commitments	3.0%	3.5%	3.8%	4.0%	4.1%	4.1%	3.9%	3.9%	3.8%	3.6%
Target Private Credit Allocation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%



PACING PLAN DISCLAIMERS

- **NEPC's private markets pacing analysis projects a potential level of future assets and cash flows for a single scenario based on a series of assumptions. This analysis is intended to help estimate future exposure levels. It is not a guarantee of future cash flows, appreciation or returns.**
- **The timing and amounts of projected future cash flows and market values of investments could vary significantly from the amounts projected in this pacing analysis due to manager-specific and industry-wide macroeconomic factors.**
- **Estimates of projected cash flows and market values for existing private markets commitments were made at the Fund level and do not incorporate any underlying portfolio company projections or analysis.**
- **The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Data used to prepare this report was obtained directly from the investment managers and other third parties. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **This report may contain confidential or proprietary information and is intended only for the designated recipient(s). If you are not a designated recipient, you may not copy or distribute this document.**



ALTERNATIVE INVESTMENT DISCLOSURES

It is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds and private equity:

- 1. Performance can be volatile and investors could lose all or a substantial portion of their investment**
- 2. Leverage and other speculative practices may increase the risk of loss**
- 3. Past performance may be revised due to the revaluation of investments**
- 4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms**
- 5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value**
- 6. These funds are not subject to the same regulatory requirements as registered investment vehicles**
- 7. Managers may not be required to provide periodic pricing or valuation information to investors**
- 8. These funds may have complex tax structures and delays in distributing important tax information**
- 9. These funds often charge high fees**
- 10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy**



NEPC 2019 INVESTMENT OUTLOOK

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

March 25, 2019

Allan Martin, Partner

Anthony Ferrara, CAIA, Consultant

Michael Miranda, CFA, Senior Analyst



VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

OVERVIEW

On an annual basis (and more frequently based on developments), NEPC spends a significant amount of time reviewing capital markets

This includes a review of significant capital market themes on a global basis

NEPC's recommendation of specific opportunities for all clients

These are then customized for each client based on their specific situation, including investment goals and risk tolerance

We also publish intermediate and long term capital market projections for over 40 asset classes

We continue to refine and enhance our process where appropriate



2019 SUMMARY OUTLOOK

Market dynamics shifted significantly in 2018, with Fed policy and US-China trade tensions disrupting many of our key market themes

As a result we have removed Federal Reserve Gradualism, Extended US Economic Cycle, and Global Synchronized Growth as key themes

We believe we have entered a late-cycle market environment and the dynamics of such an environment will be a focal point for investors

However, late-cycle does not mean end of cycle and equities can still offer lucrative returns, though are likely to be accompanied by additional volatility

We encourage investors to rebalance developed market equity exposure

We have downgraded our outlook for non-US developed equities and removed the overweight recommendation from our current opportunities list

The main driver of the change is negative sentiment surrounding economic and political conditions of Europe, concerns related to the earnings growth outlook, and central banks paring back their support of easy financial conditions

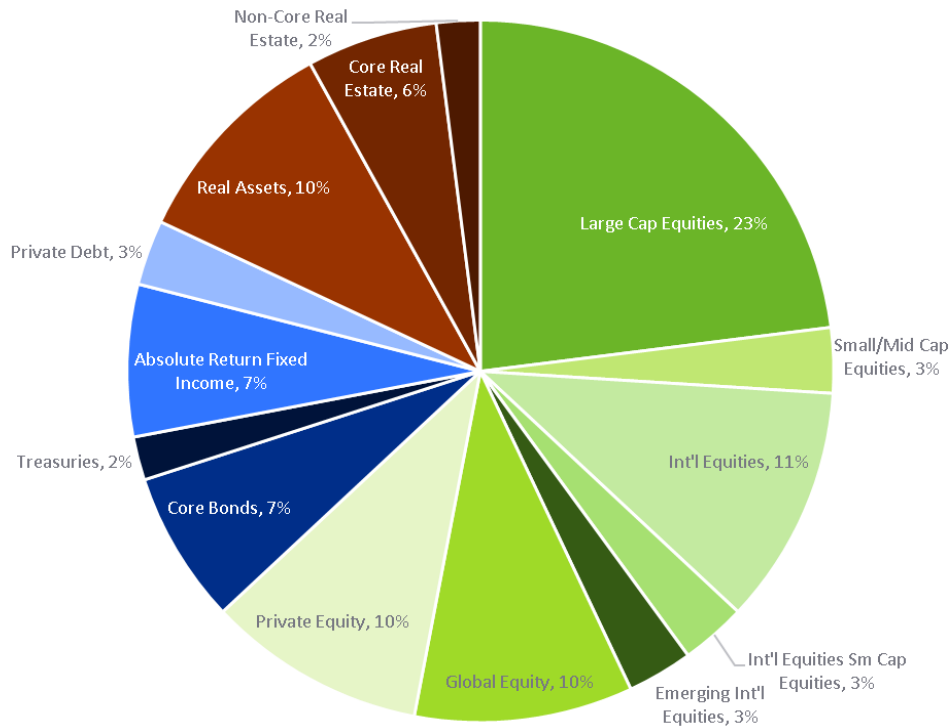
The transition to a late-cycle is accompanied with a more risk-averse investment outlook as economic risks become more pronounced

After years of low volatility and outsized equity returns, the market is likely to transition to a higher volatility regime, which offers more risk but also tactical opportunities

We recommend reducing lower quality credit exposure as higher default rates are a common aspect of late-cycle market dynamics



VCERA TARGET MIX – USING NEPC’S 2019 ASSUMPTIONS

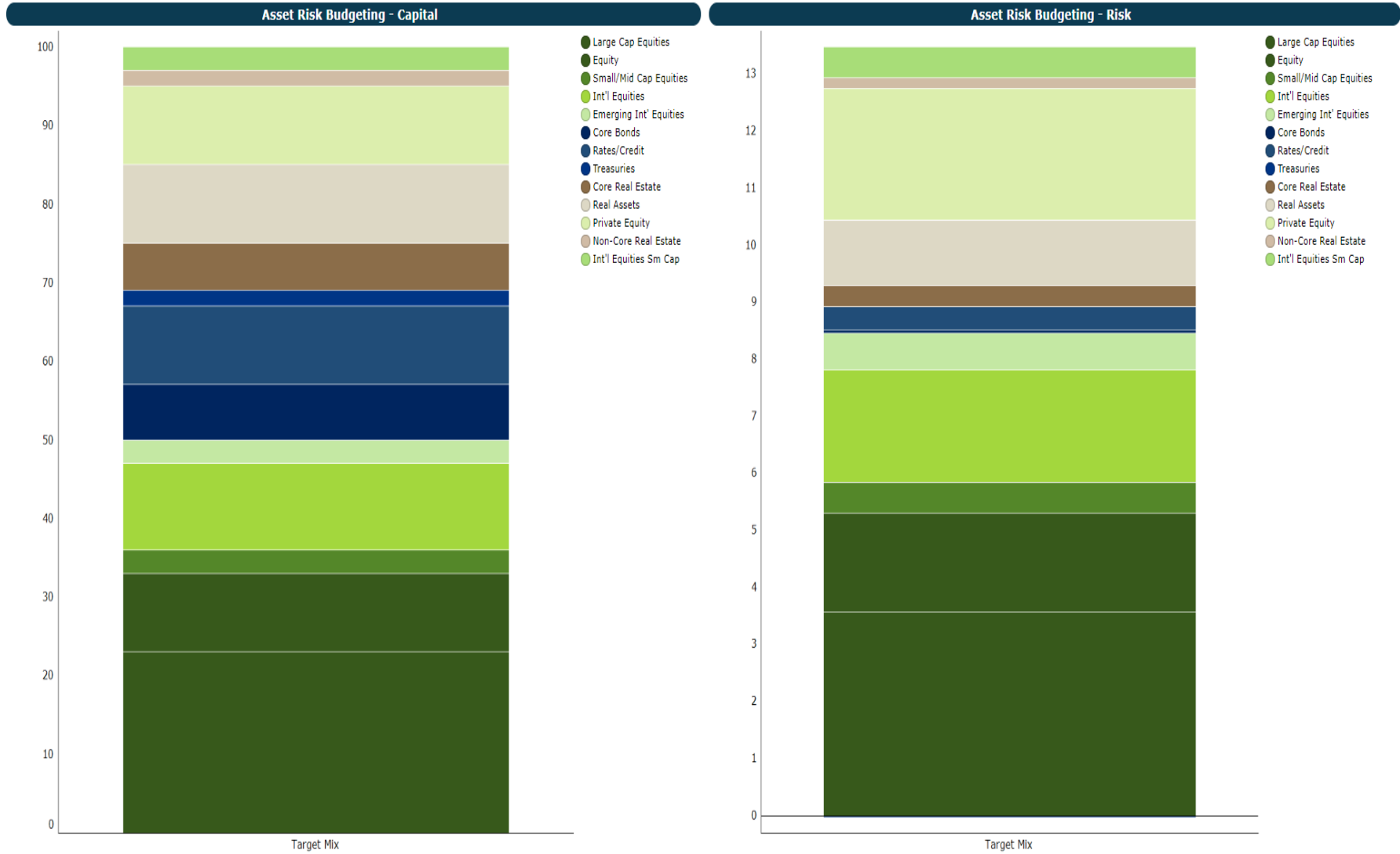


	5-7 Year		30 Year	
	2018	2019	2018	2019
Expected Return	6.7%	7.0%	7.7%	8.1%
Expected Volatility	12.1%	13.5%	12.1%	13.5%
Sharpe Ratio	0.38	0.33	0.43	0.38
Sortino Ratio	0.69	0.63	0.80	0.75

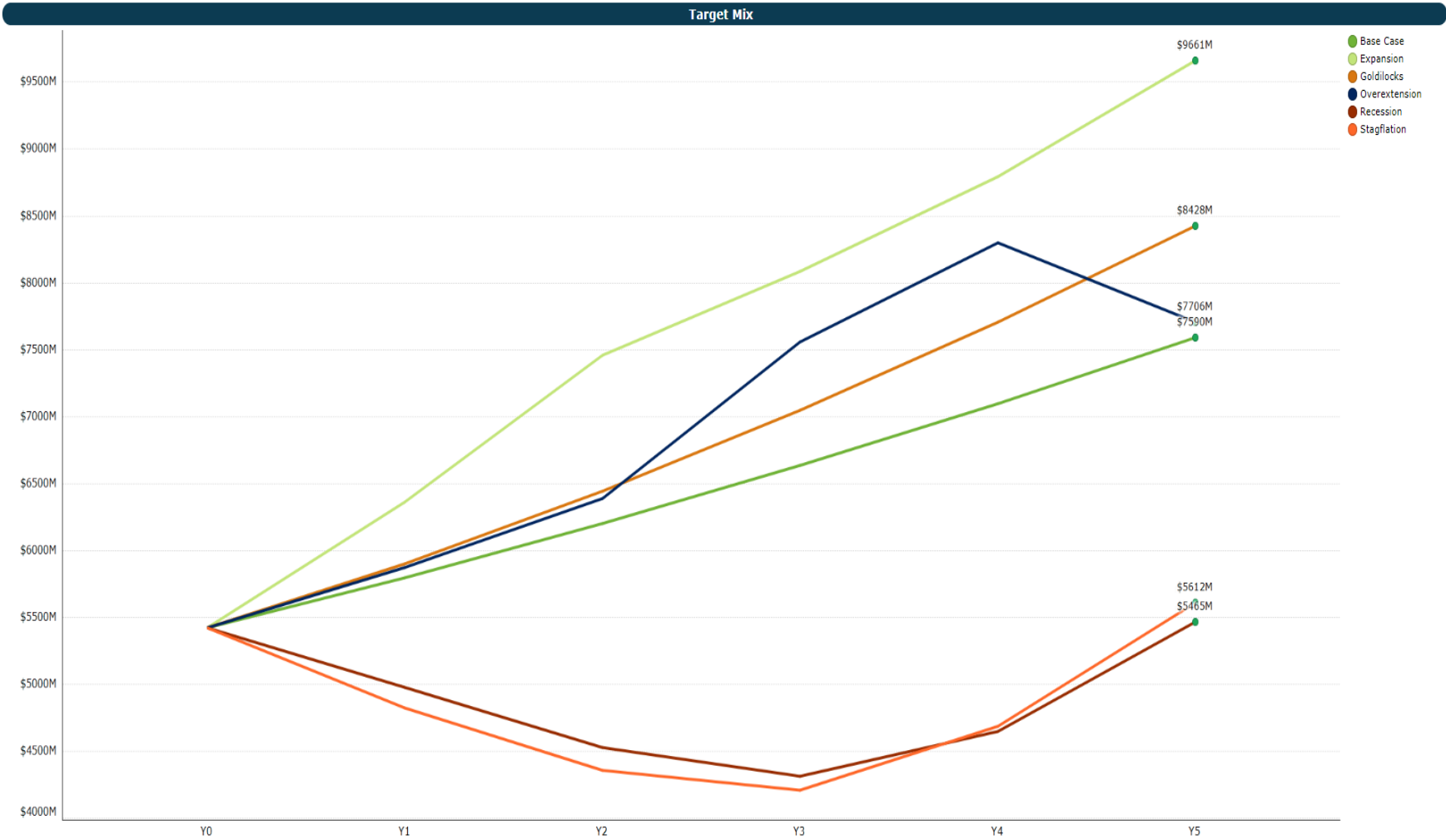
Probabilities using 2019 Assumptions	
Probability of 1-Year Return Under 0.00%	30.2%
Probability of 5-7 Year Return Under 0.00%	10.2%
Probability of 5-7 Year Return Over 7.25%	48.0%
Probability of 30-Year Return Over 7.25%	62.9%



VCERA RISK BUDGETING



VCERA SCENARIO ANALYSIS



KEY MARKET THEMES

NEPC, LLC

THEMES AND OPPORTUNITIES

Key Market Themes

Key Market Themes are factors that define global markets and can be expected to both evolve and remain relevant without a clear timeline of conclusion. At times, themes may be challenged or disrupted and generate market volatility. The conclusion of a theme likely alters both market dynamics and our market outlook. Our intent is for clients to be aware of these themes and understand their implications for asset allocation and portfolio implementation.



KEY MARKET THEMES

Late Cycle Dynamics

Tightening Global Liquidity

China Transitions

Globalization Backlash



KEY MARKET THEMES

Late Cycle Dynamics

The US economy has transitioned from a mid- to late-cycle environment

Late cycle does not mean end of cycle; equity markets can offer strong returns and abandoning risk assets early may detract from long-term results

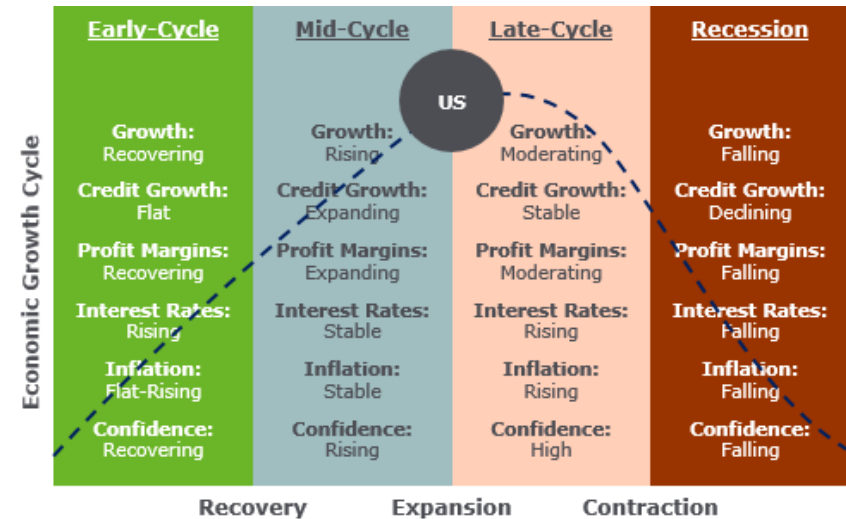
Positive economic data can support continued US economic expansion and further equity gains

However, moving into a late cycle negatively skews the range of outcomes and our investment outlook reflects a more risk-averse posture with a bias toward selling low quality credit and increasing safe-haven fixed income exposure

Trends among key indicators suggest a transition to late-cycle has occurred

These indicators provide a useful guide to recognize changes in the economic cycle

Despite the recent trend, there is minimal evidence in economic/financial indicators to suggest that a US recession is imminent



US Indicators	Late-Cycle Trend	Current Trend
Equities	Peaking	Uncertain
Interest Rates	Rising	Yes
Yield Curve	Flattening	Yes
Inflation	Rising	Yes
GDP Growth	Moderating	Uncertain
Credit Spreads	Stable/Rising	Yes
Output Gap	Near/Above Potential	Yes
Unemployment	Falling/Bottoming	Uncertain


Source: (Top) NEPC
Source: (Bottom) NEPC



KEY MARKET THEMES

Late Cycle Dynamics

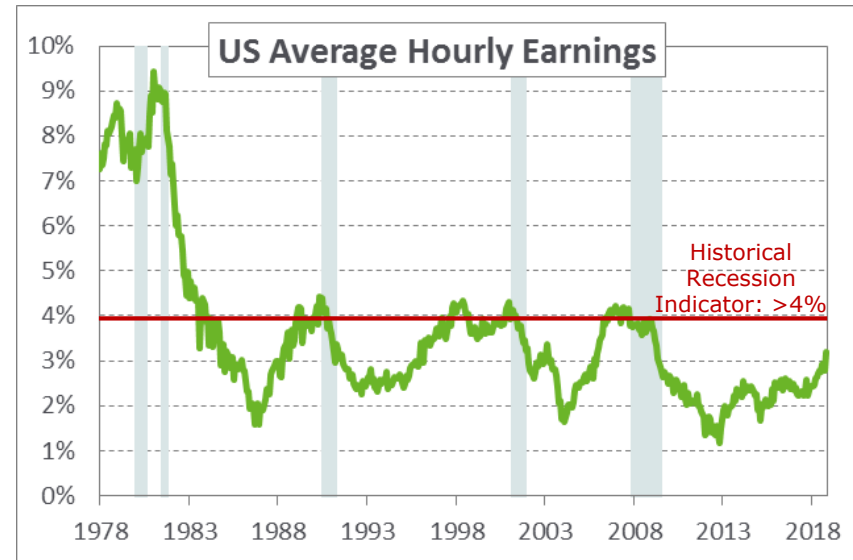
Key indicators are helpful guides, but all business cycles are different

Late-Cycle Dynamics		<u>Growth</u> : This expansion has been the longest ever, but cumulative GDP growth remains well below average. Sustainability of current growth from fiscal stimulus remains unclear.
		<u>Interest Rates</u> : The Fed has methodically increased rates off post-crisis lows. They appear to be on a tightening path to push rates above the long-term neutral rate through 2019 and beyond.
		<u>Inflation</u> : Despite record low unemployment rates, inflation pressures have been slow to materialize relative to history. Yet US inflation is up nearly 2% over the last three years, but remains below historic levels.

We are evaluating market indicators such as the yield curve that would lead us to adopt a defensive outlook

Should the yield curve invert and economic metrics weaken, our recommendation will be to materially increase safe-haven fixed income and reduce equity exposure

There is a greater need to seek portfolio balance in a late cycle, while the increased volatility may offer tactical opportunities



Source: (Top) Bloomberg, NEPC
 Source: (Bottom) Federal Reserve Bank of St. Louis, NEPC;
 Light blue shading indicates recession



KEY MARKET THEMES

Tightening Global Liquidity

The Fed has shifted from a “lower for longer” policy to a more balanced posture of raising rates in line with higher inflation

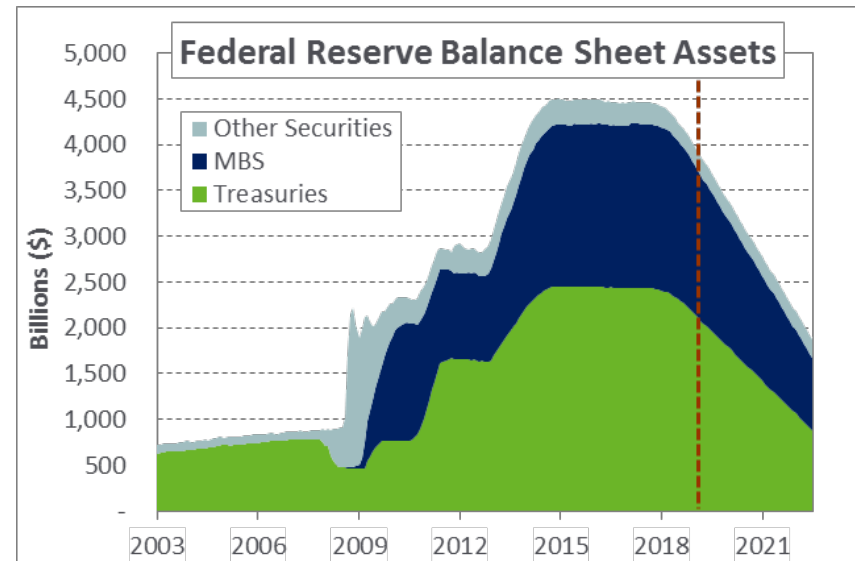
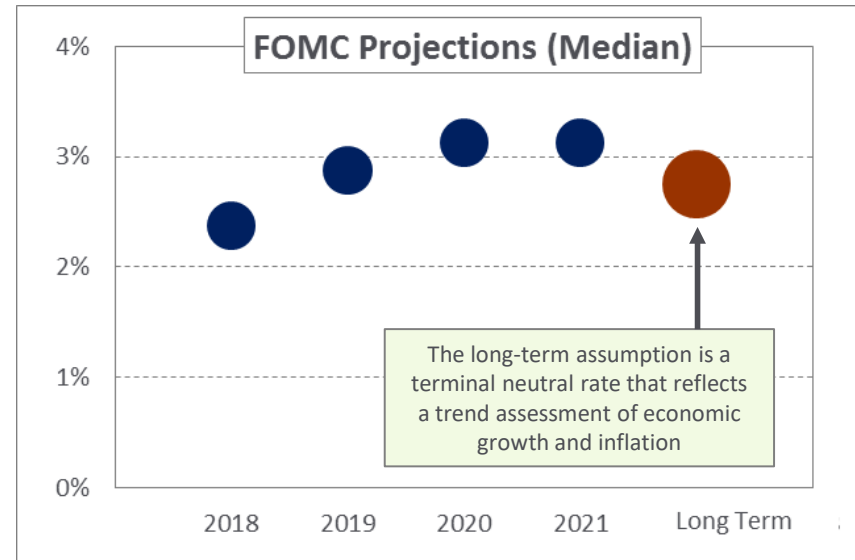
Based on the FOMC projections, the Fed is communicating a tightening path as their forecast for interest rate hikes moves beyond the long-term neutral rate

Markets are discounting a muted pace of hikes relative to Fed projections, creating potential for capital market disruption. However, the Fed’s bias appears to be to raise rates in the absence of market turmoil

The Fed’s balance sheet has shrunk by \$400B and will continue to decline by a monthly maximum target of \$50B

Normalization of the balance sheet is a form of monetary policy tightening as liquidity is methodically extracted from the system

The impact of the balance sheet reduction is untested – potentially mirroring how the Fed’s balance sheet expansion (QE) had easing effects



Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC



KEY MARKET THEMES

Tightening Global Liquidity

Transmission of tighter liquidity is already underway and is felt globally

Slowing money supply growth rates tighten financial conditions and are a headwind for credit and equity markets across the world

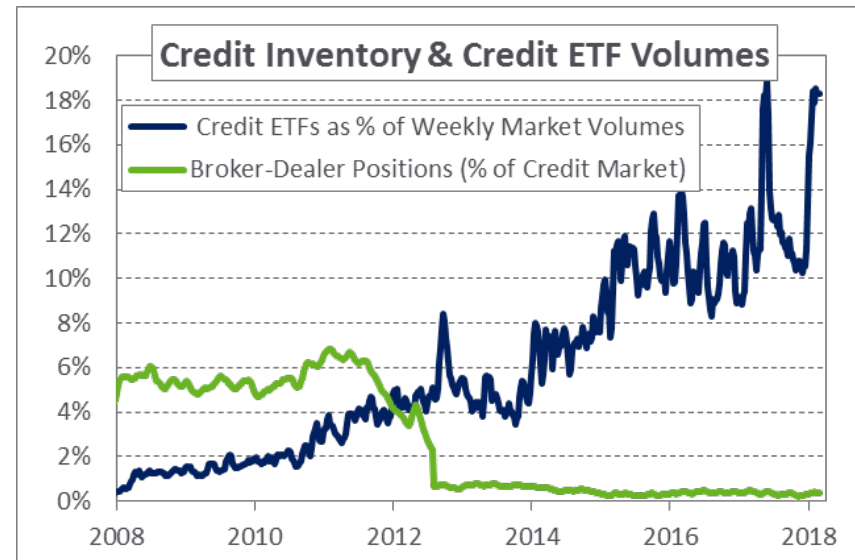
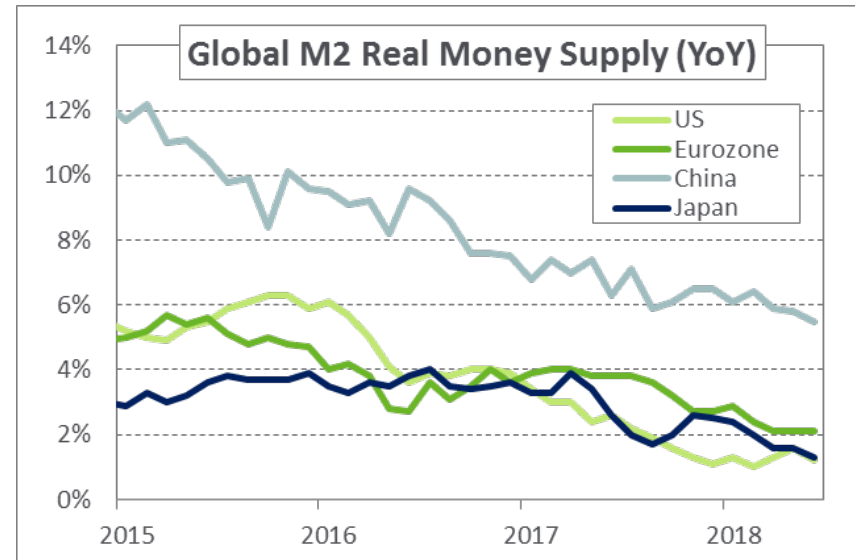
Ability to ease financial conditions is limited outside the US as central banks do not have dry powder with interest rates near historic lows and the ECB restricted in their ability to expand QE purchasing capacity

A pause in Fed tightening or a large stimulus program from China are the limited global levers available to ease tighter conditions

The diminishing support from central banks warrants caution regarding liquidity in credit markets

Underlying trading conditions for ETF and credit markets remain fragile and are likely to be severely tested to absorb an exodus from crowded credit positions

The “Fed put” or a reversal of balance sheet normalization may be necessary to avoid a liquidity crisis in a severe market disruption



Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC



KEY MARKET THEMES

China Transitions

China is the global growth engine but faces fundamental transitions

China's economy is transitioning from a focus on production and investment to a service and consumption based economy

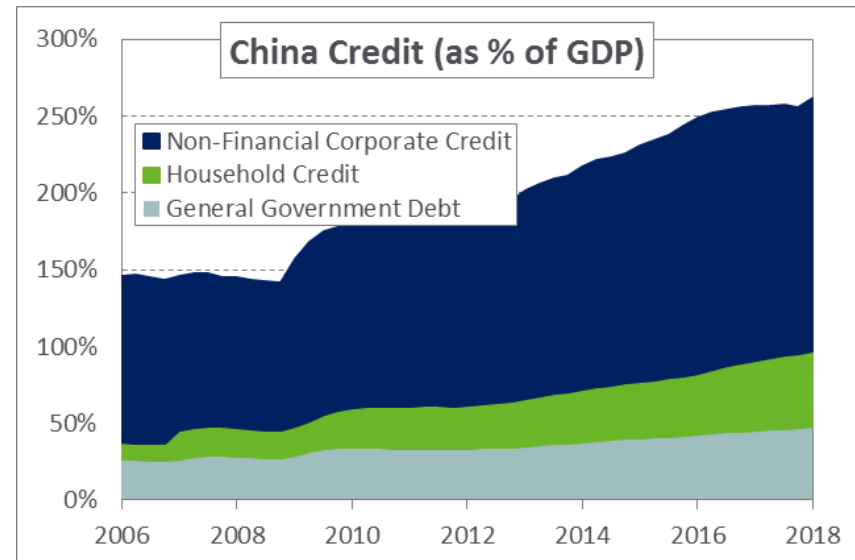
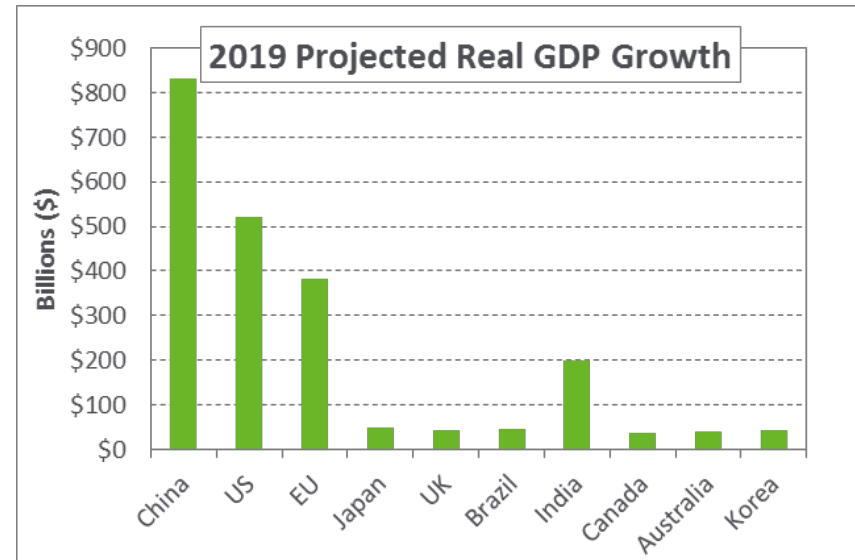
Fixed investment and credit expansion is needed to sustain the "old" production-based economy and support employment as the population shifts to urban centers

Any disruption to these transitions will be transmitted globally due to China's outsized role in the world economy

Policy makers must continue to balance goals of moderating credit expansion against sustaining healthy economic growth rates

Recent shifts in policy suggest a tilt away from credit moderation to offset the harmful effects of the US-China trade dispute

However, an uncontrolled expansion of credit growth and real estate development pose a future systemic risk to the economy



Source: (Top) Bloomberg, NEPC
Source: (Bottom) BIS, NEPC



KEY MARKET THEMES

China Transitions

China's economy is expected to equal the size of the US within 25 years

China's increased economic and geopolitical prominence on the world stage can be viewed as a threat to US leadership

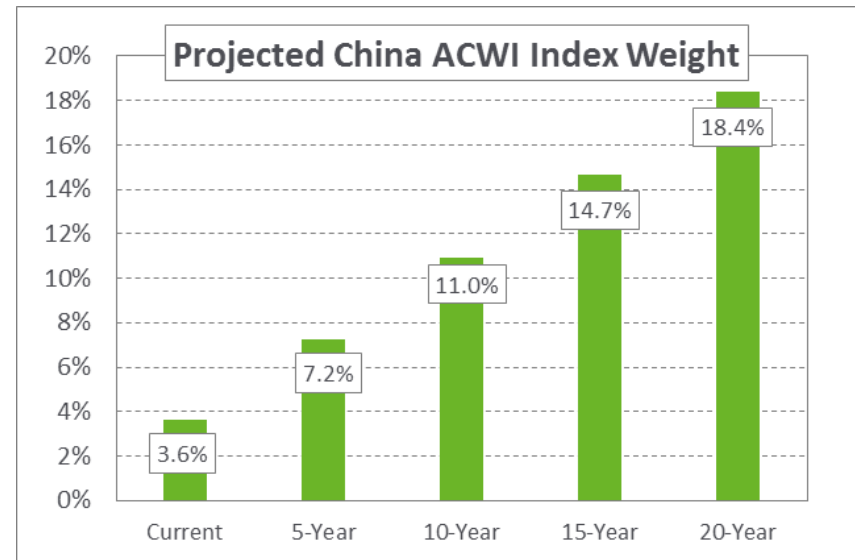
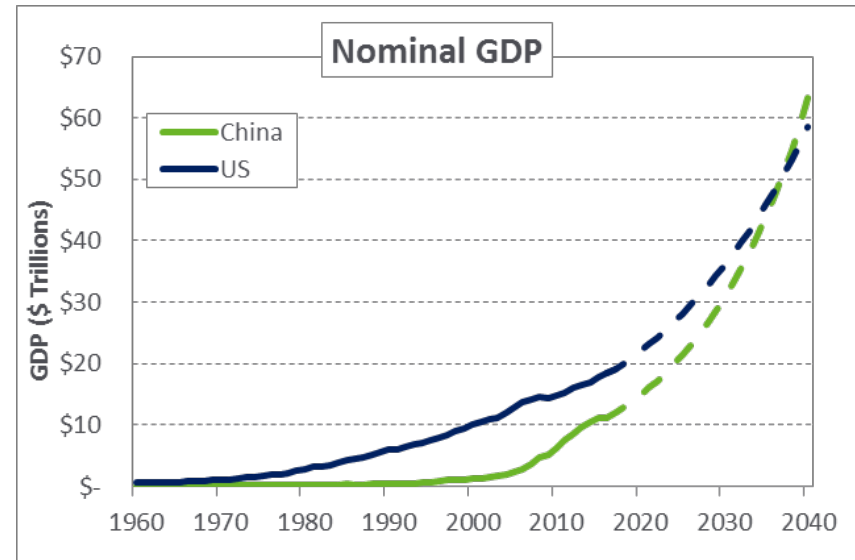
Tariffs and trade conflict are a form of "Thucydides Trap", where a rising power causes fear in an established power

China is in a race against time: *Can they get rich before they get old?* This race may conflict with some US geopolitical interests and risks a zero-sum dynamic of economic competition between the US and China

Access to local financial markets is accelerating and expected to expand

Expansion of Hong Kong-mainland stock connect program broadens access to A-shares and strengthens the case for increasing size of Chinese equities in indices

With limited access for foreign investors, China is looking to slowly open access to the world's third largest fixed income market



Source: (Top) St. Louis Fed, NEPC; China is projected to grow at 7.5% and the US is projected to grow at 5.0%

Source: (Bottom) MSCI, Bloomberg, NEPC



KEY MARKET THEMES

Globalization Backlash

Uneven economic growth and wage gains have fueled political discontent in the developed and emerging world

Fatigue over globalization has led to a turn inward and greater political interest in nationalism, while multilateral relationships are viewed with suspicion

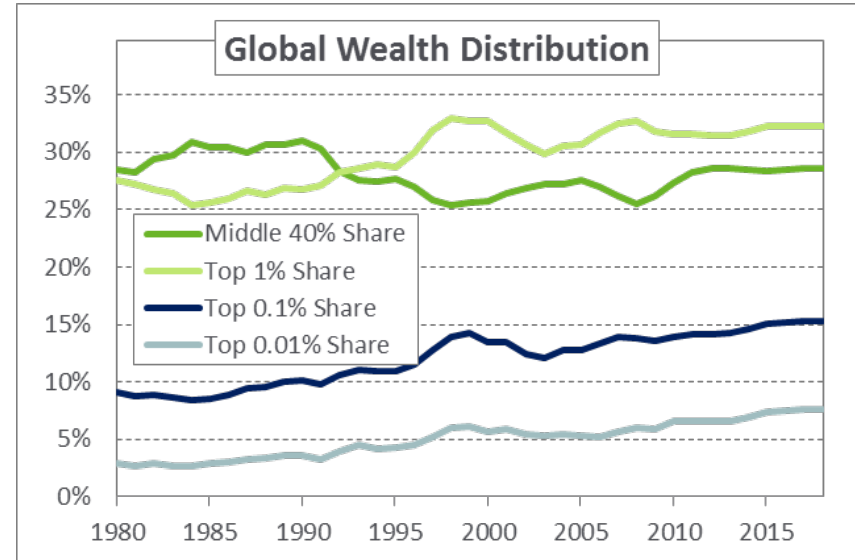
Globalization Backlash is a long-term trend as populist movements lead to shifts away from political/economic orthodoxy, which heightens tail risks

US-China trade tensions are a full expression of our backlash theme

Levying tariffs is a dangerous game as both the US and China look to negotiate an end to the tensions but must demonstrate strength for their domestic audience

In the past, markets have taken the US administration's rhetoric with a grain of salt but the tit-for-tat tariff escalation with China is a concern for market sentiment

We have likely settled into a prolonged "cold war" in the ongoing US-China trade battle



Source: (Top) WID.World, World Inequality Lab
Source: (Bottom) USTR, Bloomberg, NEPC



KEY MARKET THEMES

Globalization Backlash

Expanding protectionism from US trade policy is a material risk to global markets and the economy

US adopted a more restrictive trade policy in 2018 and investor sentiment outside the US deteriorated along with US-China relations

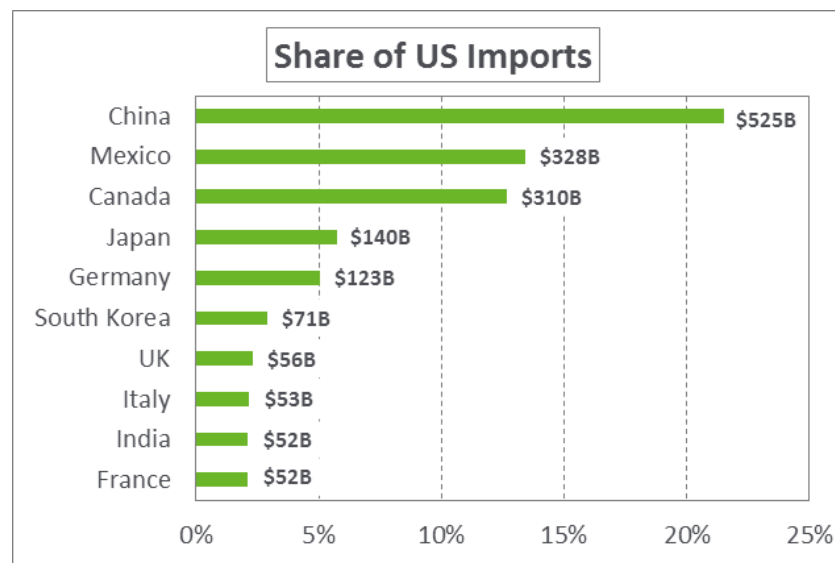
US-China tariffs are the “new normal” and we expect this dynamic to continue for the foreseeable future. We do not anticipate the trade dispute to escalate beyond tariff levies and prohibit the flow of goods and services

The UK serves as a live case study for the effects of globalization backlash

Economic metrics across the country have turned lower in the time since the UK voted to leave the European Union

Deterioration in business and consumer confidence along with potential disruption to the financial sector are a cautionary tale

The economic unease of voters remain and the political instability likely leads to higher levels of currency volatility over time



	Brexit Vote	Current
Real GDP (YoY%)	1.7%	1.5%
Household Consumption	3.3%	1.8%
Exports (YoY%)	1.1%	-1.3%
Imports (YoY%)	3.2%	0.2%
CPI (YoY%)	0.4%	2.5%
Unemployment (%)	4.9%	4.0%
Central Bank Rate	0.50%	0.75%
GBP/USD Exchange Rate	1.49*	1.28
Economic Sentiment	106.9	105.6

Source: (Top) Bloomberg, NEPC

Source: (Bottom) Bloomberg, NEPC, *Data as of 6/23/16



2019 ASSET CLASS ASSUMPTIONS

NEPC, LLC

2019 ASSET CLASS OVERVIEW

NEPC asset class assumptions offer both an intermediate (5-7 years) and long term (30 years) forecast horizon

November 30th replaced by December 31st market data for inputs to asset class models

Return expectations for credit asset classes are broadly higher relative to last year due to interest rate increases and wider credit spreads

Despite the increase in return expectations, we encourage caution when investing in lower-quality credit exposure as we expect default rates to trend higher in the current late-cycle market environment

US equity return expectations increased relative to last year following a sizable correction in the fourth quarter of 2018

Our outlook for international developed equities is less optimistic than prior years, resulting in a significantly lower 5-7 year return expectation

We continue to refine and enhance our process where appropriate

New asset class assumptions were added this year to provide greater differentiation in credit, including investment and speculative grade corporate ratings (AAA-CCC)

Private equity and private debt sub-strategies were added to offer a distinction among private market implementation options with different volatility and return profiles

Asset class correlation and volatility assumptions were adjusted to integrate private markets and new asset classes, to improve risk modeling and scenario analysis



ASSUMPTION DEVELOPMENT

Capital market assumptions are published for over 60 asset classes

Assumptions include 5-7 year and 30 year return forecasts, average annual volatility expectations, and correlations

The 5-7 year forecast is designed to capture the return outlook for the current investment cycle

30 year return assumptions reflect a long-term outlook and are informed by the historical relationships among asset classes

Assumptions are published annually in December and use market data as of November 30

Assumptions are developed by the Asset Allocation Committee and approved by the Partners Research Committee (PRC)

Assumptions are developed with proprietary valuation models and rely on a core building block methodology

Asset Allocation Committee	
September	<p>Asset Allocation Committee Assumptions Kickoff</p> <p>Finalize List of New Asset Class Assumptions</p>
October	<p>Review Draft of Asset Class Return Assumptions</p> <p>Discuss Outlook with NEPC Research Beta Groups</p>
November	<p>Finalize Volatility and Correlation Assumptions</p> <p>Final Update of Asset Class Models (As of 11/30)</p>
December	<p>Review Model Output and Create Return Assumptions</p> <p>Present Draft to the PRC</p> <p>Publish Assumptions on December 14th</p>



BUILDING BLOCKS METHODOLOGY

Forward-looking asset class models incorporate current and forecasted market and economic data to inform expected returns

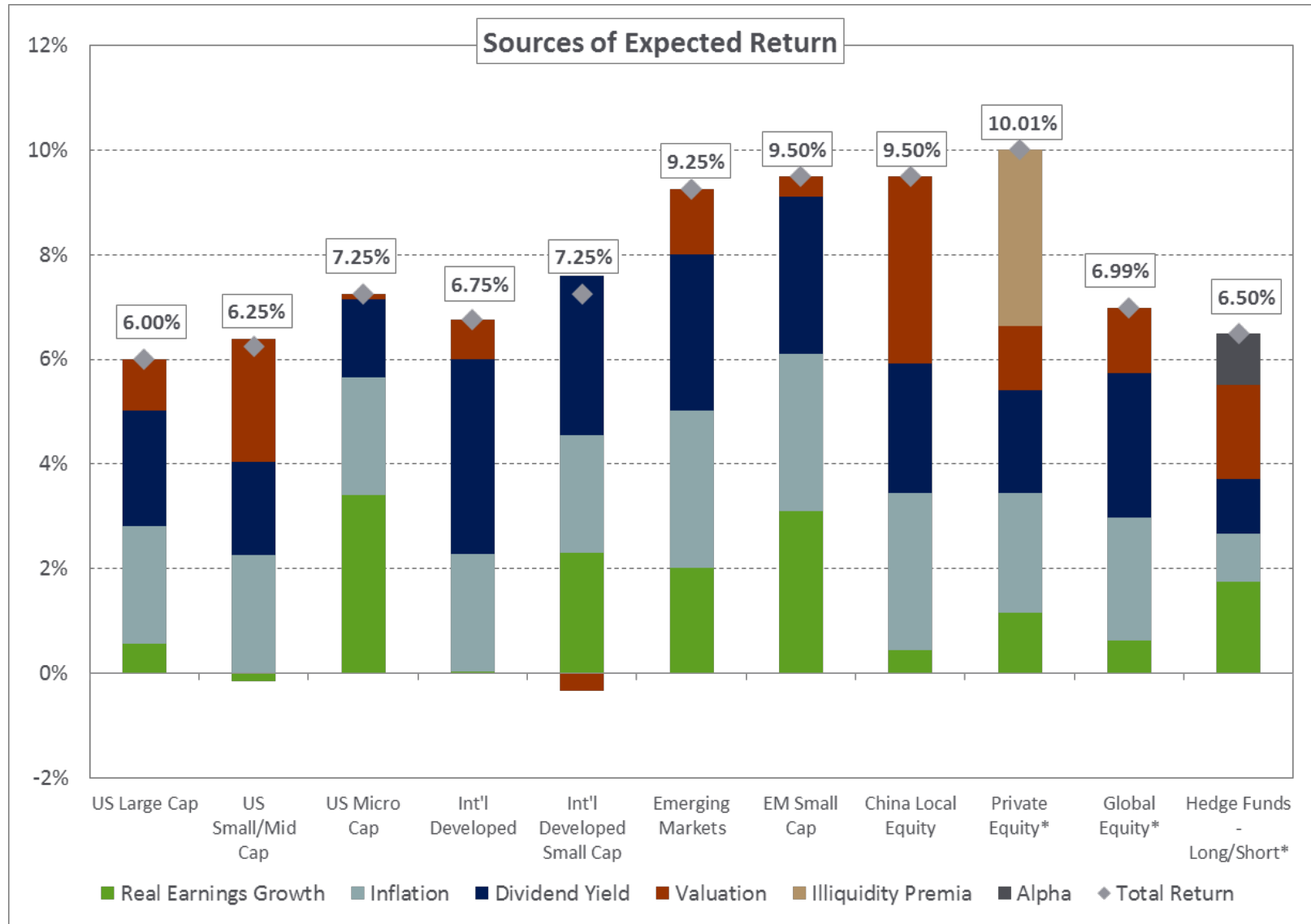
Quantitative inputs combined with qualitative factors and investor sentiment (capital flows, etc.) drive the 5-7 year return outlook

Components are combined to capture core drivers of return across asset classes – forming the foundation of our building blocks framework

Building blocks will vary across equity, credit, and real assets



EXAMPLE: EQUITY 5-7 YR BUILDING BLOCKS



Source: NEPC

*Calculated as a blend of other classes – see page 39 for additional details



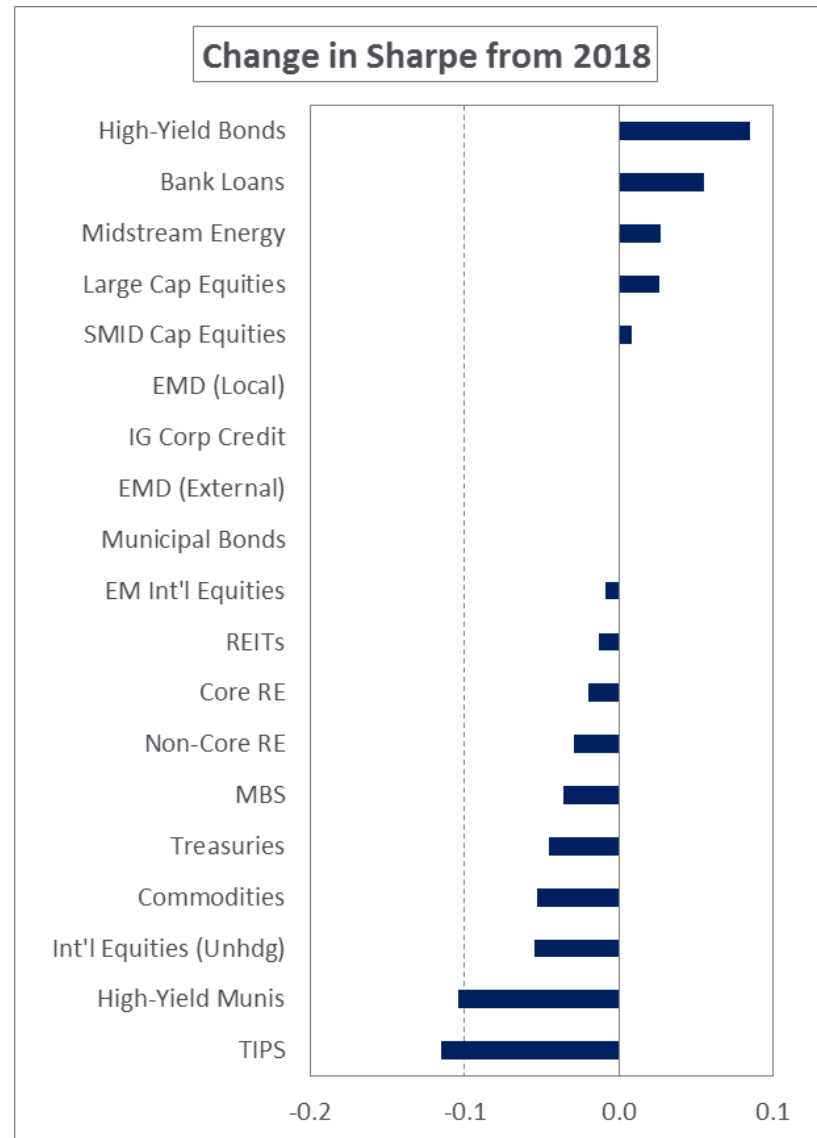
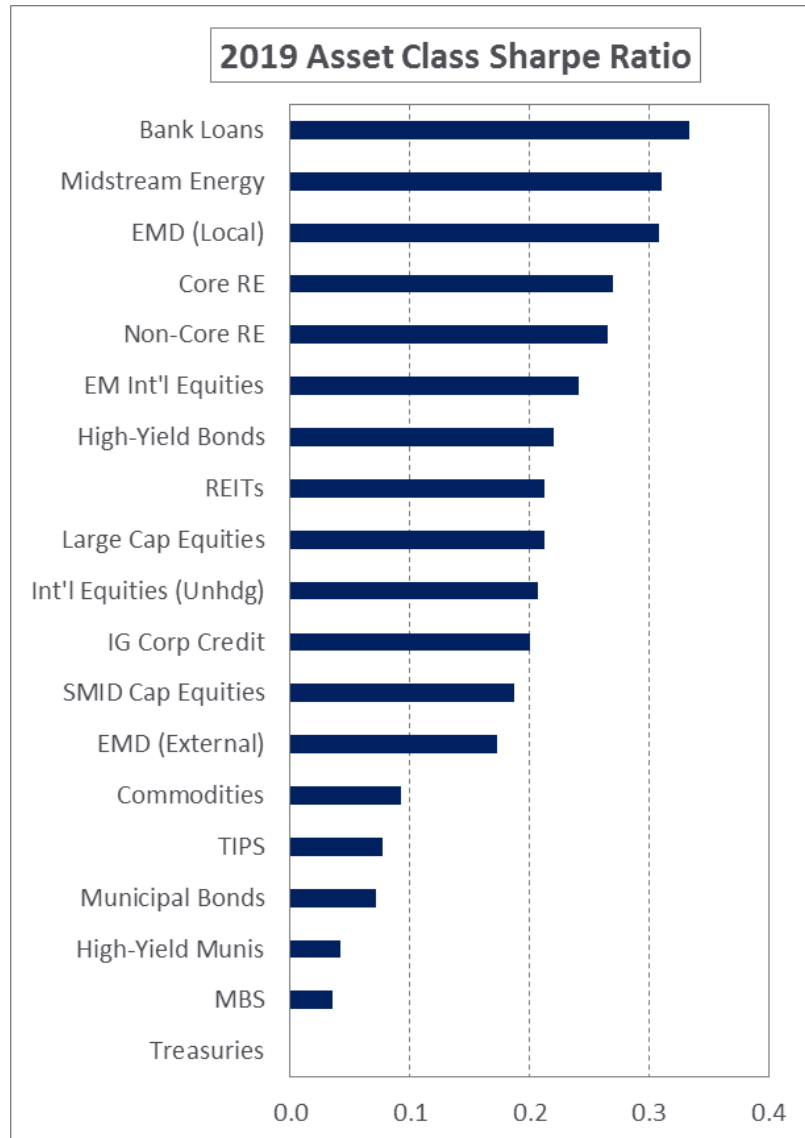
CORE RETURN ASSUMPTIONS

	Asset Class	5-7 Year Return	Change 2019-2018	Volatility
	Cash	2.50%	+0.50%	1.00%
	US Inflation	2.25%	-0.25%	-
Equity	Large Cap Equities	6.00%	+0.75%	16.50%
	International Equities (Unhedged)	6.75%	-0.75%	20.50%
	Emerging International Equities	9.25%	+0.25%	28.00%
	<i>Private Equity*</i>	10.01%	+2.01%	24.16%
Rates/Credit	Treasuries	2.50%	+0.25%	5.50%
	<i>Core Bonds*</i>	3.04%	+0.29%	6.10%
	High Yield Bonds	5.25%	+1.50%	12.50%
	<i>Private Debt*</i>	7.60%	+1.10%	11.97%
Real Assets	Commodities	4.25%	-0.50%	19.00%
	Midstream Energy	8.25%	+1.00%	18.50%
	REITs	6.75%	+0.25%	20.00%
	Core Real Estate	6.00%	+0.25%	13.00%
Multi-Asset	<i>US 60/40*</i>	5.07%	+0.53%	10.45%
	<i>Global 60/40*</i>	5.08%	+0.17%	10.95%
	<i>Absolute Return*</i>	5.74%	-0.09%	8.15%

*Calculated as a blend of other asset classes – see page 39 for additional details



RELATIVE ASSET CLASS ATTRACTIVENESS



Source: NEPC



MACRO ASSUMPTIONS

NEPC, LLC

INFLATION OVERVIEW

Inflation is an integral component of our asset allocation assumptions

Represents an essential building block for developing asset class returns

Inflation building blocks are model driven and informed by multiple sources for both the US and global asset classes

Includes forecasts from international organizations (e.g. IMF), local consumer and producer price indices, break-even inflation expectations, and global interest rate curves

US inflation is based upon the TIPS breakeven inflation curve adjusted for expectations of economic activity, employment, and capacity levels

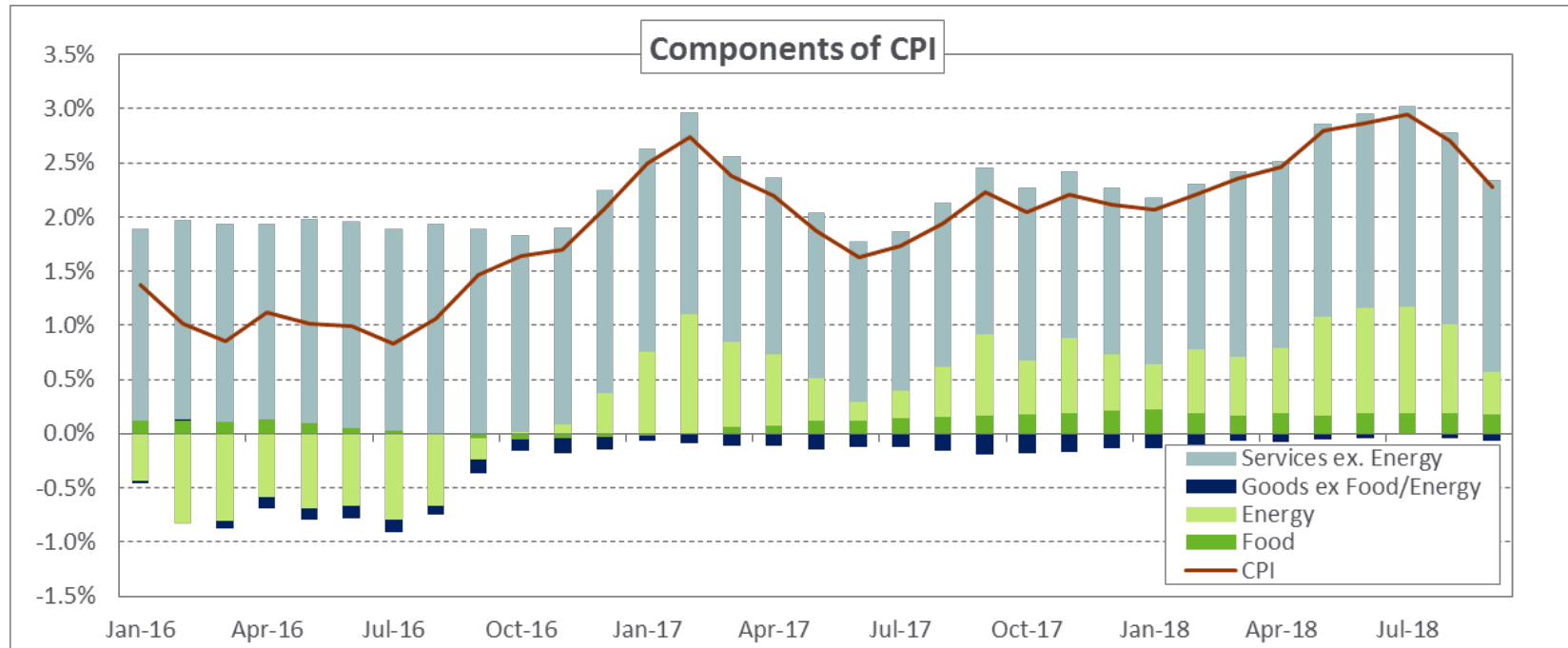
Global inflation expectations are informed by consensus forecasts across countries along with implied inputs from global bond curves

The 30 year global inflation forecast assumes purchase power parity holds across the globe and country specific inflation levels converge to a terminal value

Region	5-7 Year Inflation Assumption	30-Year Inflation Assumption
United States	2.25%	2.75%
Global	3.00%	3.25%



US INFLATION



Source: Bloomberg, NEPC

US inflation has increased, but has yet to materially accelerate despite strong economic growth and a tight labor market

Underlying inflation has risen with a modest increase in wages due to the tightening labor market but market-based inflation expectations have declined considerably this year

A significant decline in energy prices in the latter half of 2018 has minimized overall price pressures

Energy is historically the most volatile component of CPI and a sustained decline in prices can cause inflation to remain muted



GLOBAL INFLATION

In most developed economies, core inflation has failed to reach or exceed central bank targets

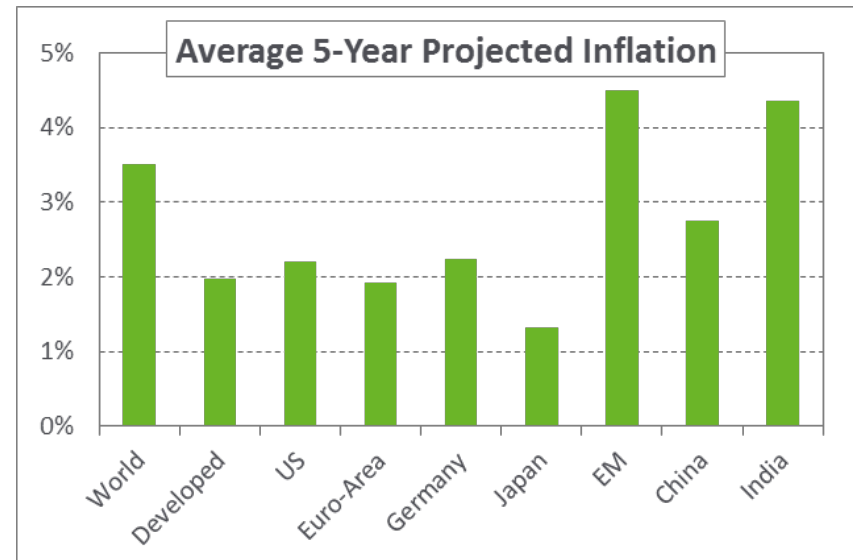
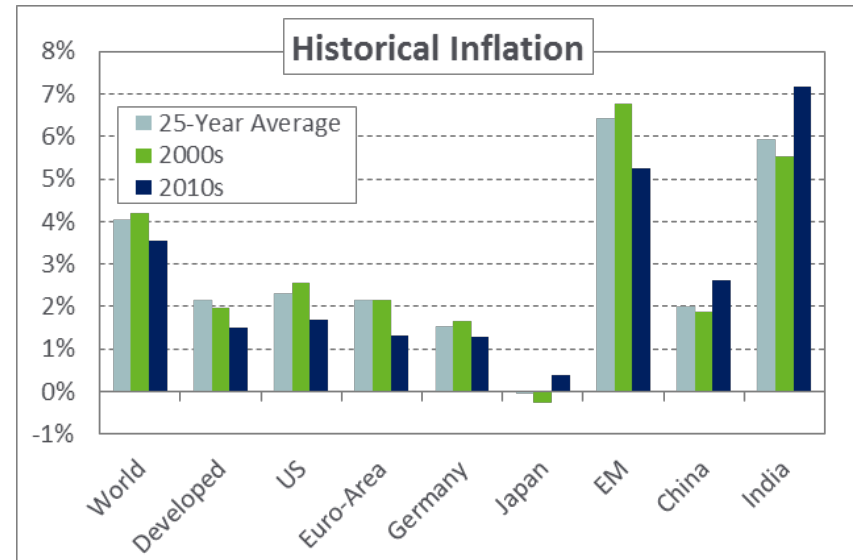
The European Central Bank is expected to end the expansion of its quantitative easing program at the end of the year despite a weakening economic outlook

Japan has been the only developed economy to drive inflation above historical levels, although still less than other countries

Emerging market inflation remains significantly lower than long-term averages in most economies

Turkey and Argentina remain notable outliers as idiosyncratic risks and inconsistent monetary policy have fueled rising prices

Lower inflation is likely to give select countries room to ease monetary policy, as needed, to bolster economic growth



Source: (Top) IMF, NEPC
Source: (Bottom) IMF, NEPC



US CASH EXPECTATIONS

Cash is a foundation for all asset classes

The assumption flows through as a direct building block component or as a relative value adjustment (cash + risk premia)

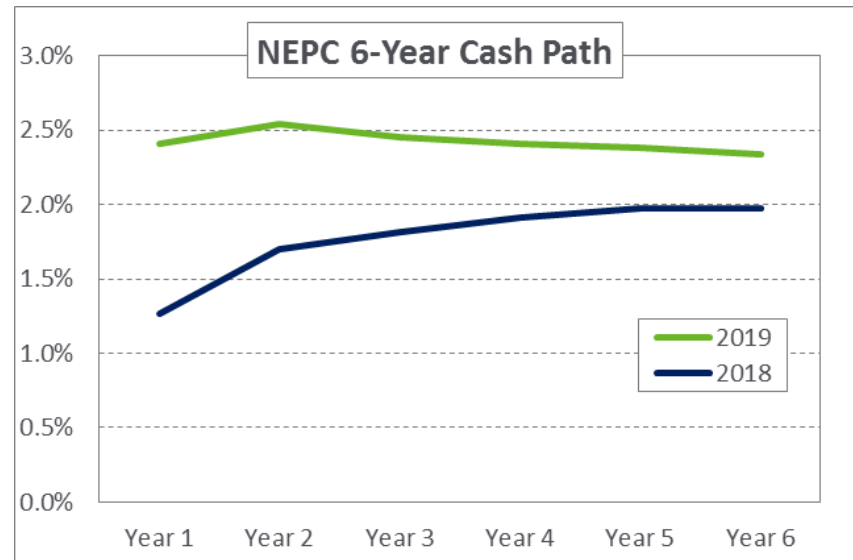
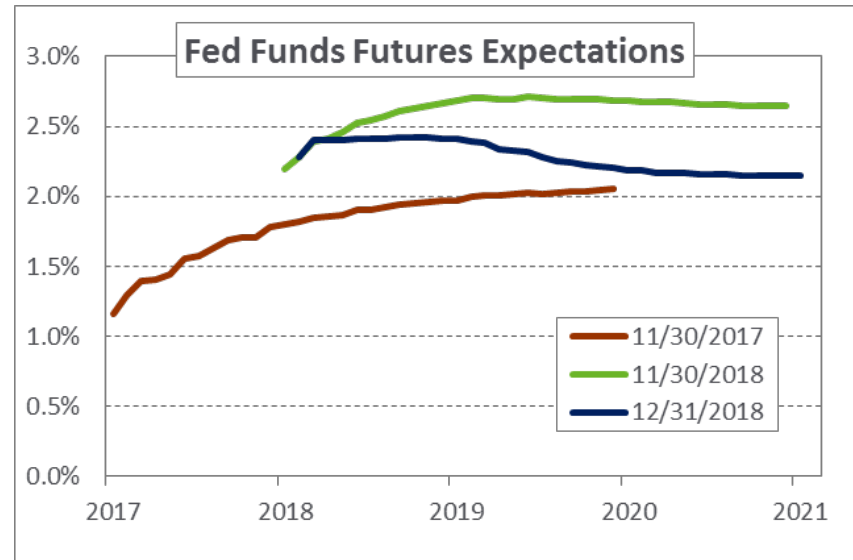
The longer-term cash assumption is a result of the inflation assumption in conjunction with our forecasted real interest rate path

The Fed has shifted from a “lower for longer” policy to a more balanced posture of raising rates relative to changes in inflation

With Fed action impacting the front-end of the yield curve, a progressively flatter yield curve has formed as longer-term rate expectations remain muted

Markets are discounting a more muted pace of rate hikes relative to Fed projections, especially after December markets

Key risks to our overall investment outlook are an increased pace in Fed rate hikes or a Fed misstep disrupting capital markets



Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC



US INTEREST RATE EXPECTATIONS

Real yields moved materially higher relative to last year with continued Fed rate hikes and subdued inflation

The real yield curve flattened relative to last year, with an inversion at the 2 year point

Late-cycle expectations of growth and continued Fed rate hikes increase market forward-looking expectations

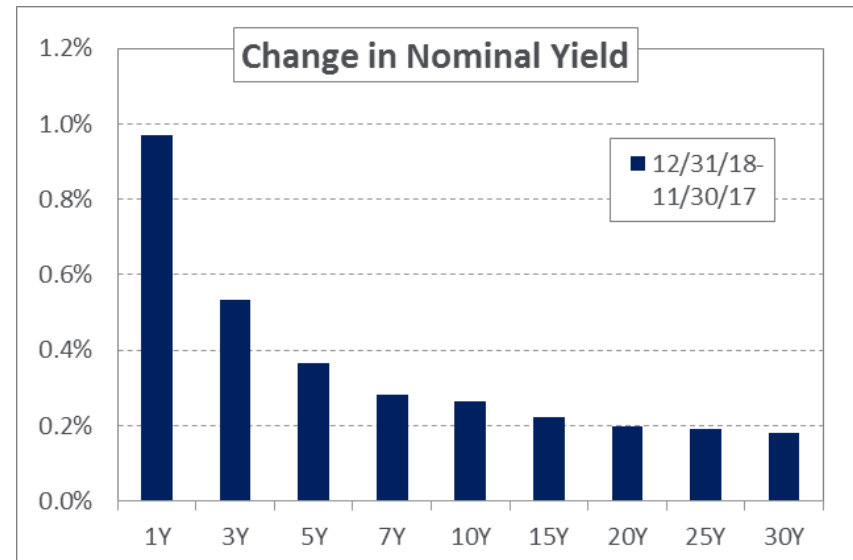
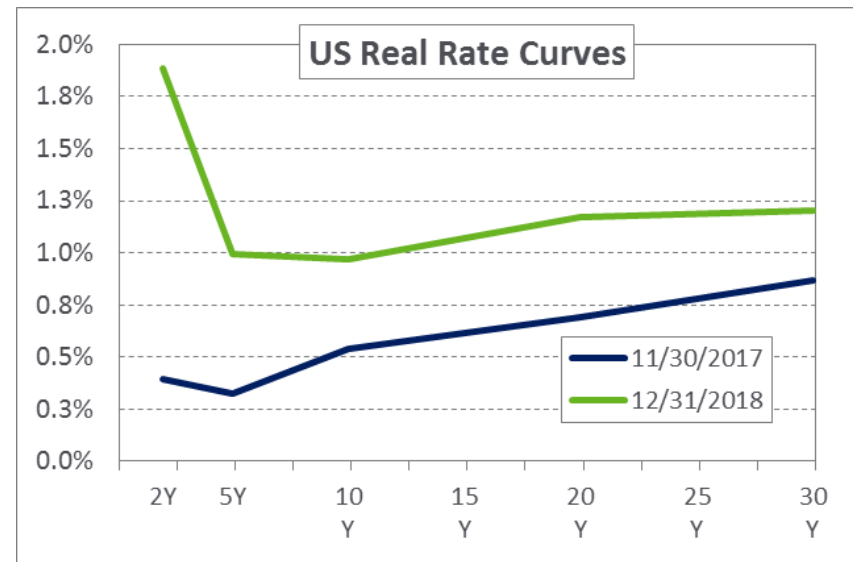
Long-term yields continue to rise but remain low relative to history in the US

Low real rates depress the return outlook for risk assets over the long-term

The flatter nominal curve is likely to invert during the late cycle

Uncertainty has surfaced surrounding the path of rates for 2019 and beyond

The Fed has recently expressed a willingness to slow the pace via a wait-and-see approach should material risks to the US economy develop



Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC



GLOBAL INTEREST RATE EXPECTATIONS

Government bond yields remain low across much of the developed world

European sovereign yields have increased relative to Germany due to political and economic concerns

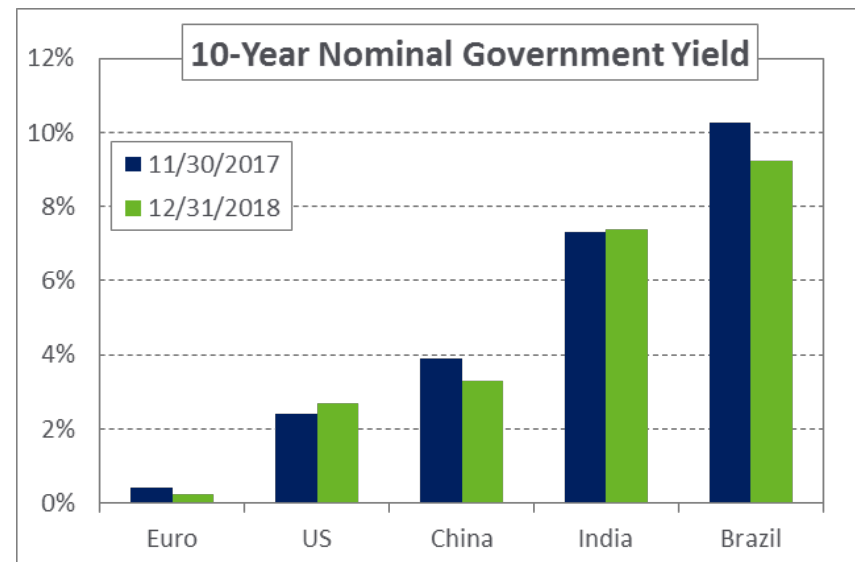
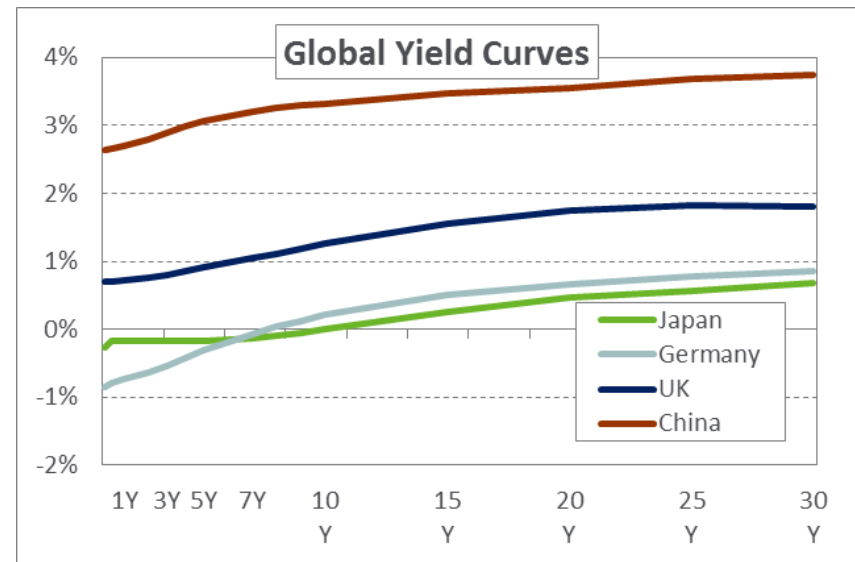
Ongoing political turmoil in the UK and budget concerns in Italy caused periphery yields to increase during the year

German bund yields are lower due to heightened demand for safe-haven assets in Europe

Emerging market local interest rates are attractively priced as real yields remain elevated

Emerging market yields continue to retain a healthy premia over developed world rates

Additionally, positive real rates provide a larger cushion for EM central banks to cut interest rates and ease monetary conditions



Source: (Top) Bloomberg, NEPC
Source: (Bottom) Bloomberg, NEPC



EQUITY ASSUMPTIONS

NEPC, LLC

EQUITY: ASSUMPTIONS

Equity Building Blocks	
Illiquidity Premium	The additional return expected for investments carrying liquidity risk
Valuation	An input representing P/E multiple contraction or expansion relative to long-term trend
Inflation	Represents market-specific inflation derived from index country revenue contribution and region-specific forecasted inflation
Real Earnings Growth	Reflects market-specific real growth for each equity asset class as a weighted-average derived from index country revenue contribution and forecasted GDP growth
Dividend Yield	Informed by current income distributed to shareholders with adjustments made to reflect market conditions and trends

Asset Class	5-7 Year Return	Change 2019-2018
US Large Cap	6.00%	+0.75%
US Small/Mid-Cap	6.25%	+0.50%
US Micro Cap	7.25%	N/A
International (Unhedged)	6.75%	-0.75%
International Small Cap	7.25%	-0.50%
Emerging International	9.25%	+0.25%
Emerging Intl. Small Cap	9.50%	+0.25%
China Local	9.50%	N/A
Absolute Return – Long/Short	5.50%	-0.75%
<i>Global Equity</i>	6.99%	+0.11%
<i>Private Equity</i>	10.01%	+2.01%



EQUITY: REAL EARNINGS GROWTH

US growth accelerated relative to the rest of the world during 2018

Strong earnings growth fueled by corporate tax cuts helped support US equities

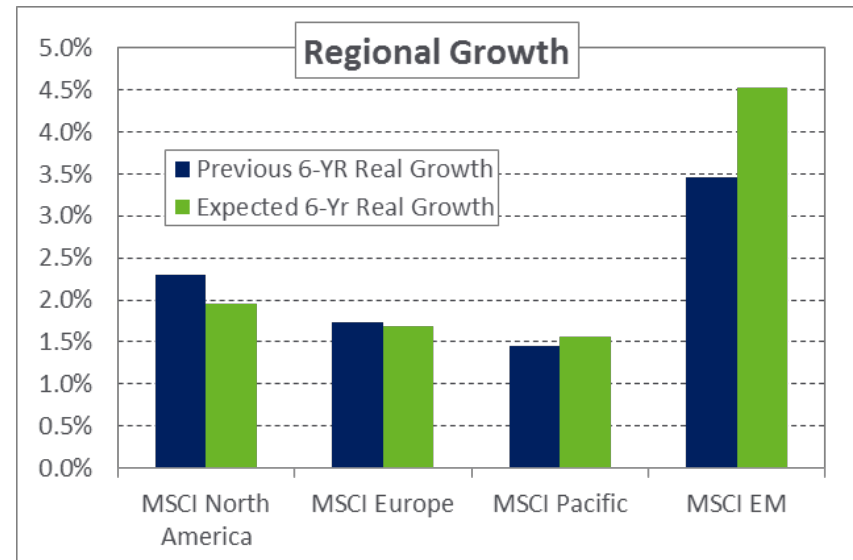
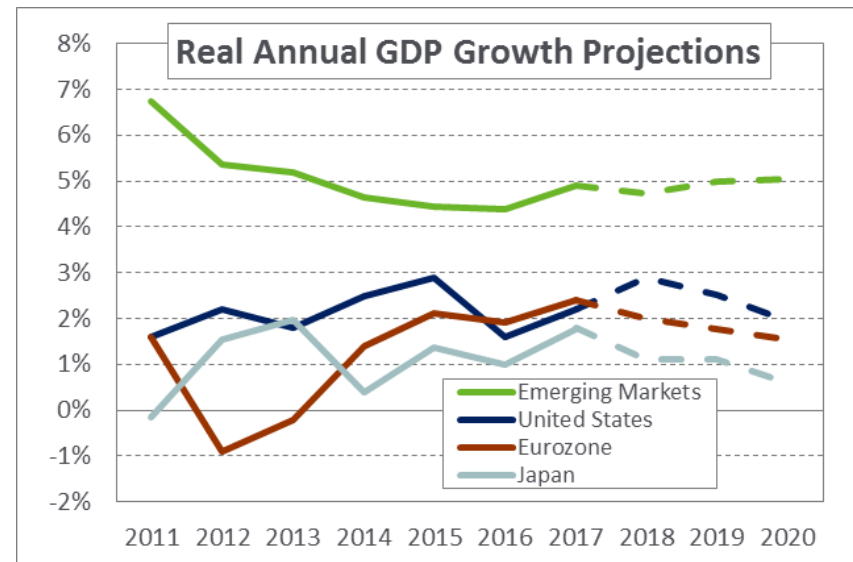
Additionally, fiscal stimulus and pre-purchases from China for tariffed goods fueled above-trend GDP growth

Global trade tensions and political-economic concerns regarding Europe have led to a weaker growth outlook for international developed economies

Strong economic growth is expected to continue in the emerging markets

However, China's real growth is expected to slow in future years as the country transitions to a consumption based model

Ongoing reforms in southeast Asia and India are expected to boost investment, productivity, and per-capita growth

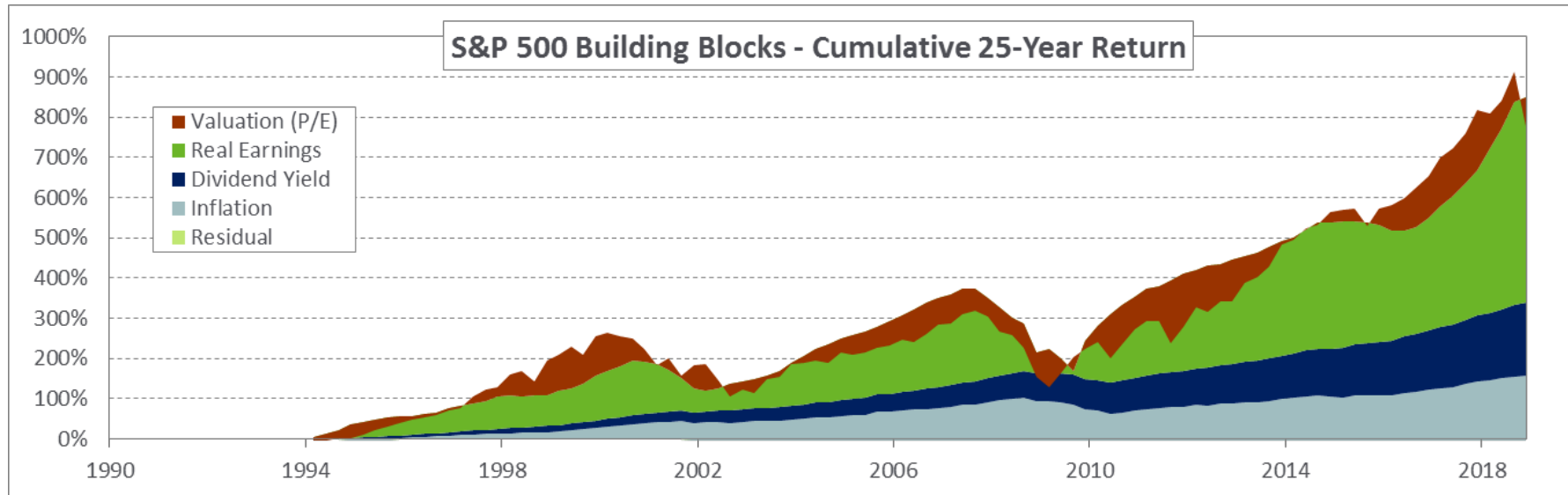


Source: (Top) Bloomberg, NEPC

Source: (Bottom) IMF, MSCI, Bloomberg, NEPC



EQUITY: DIVIDEND YIELD

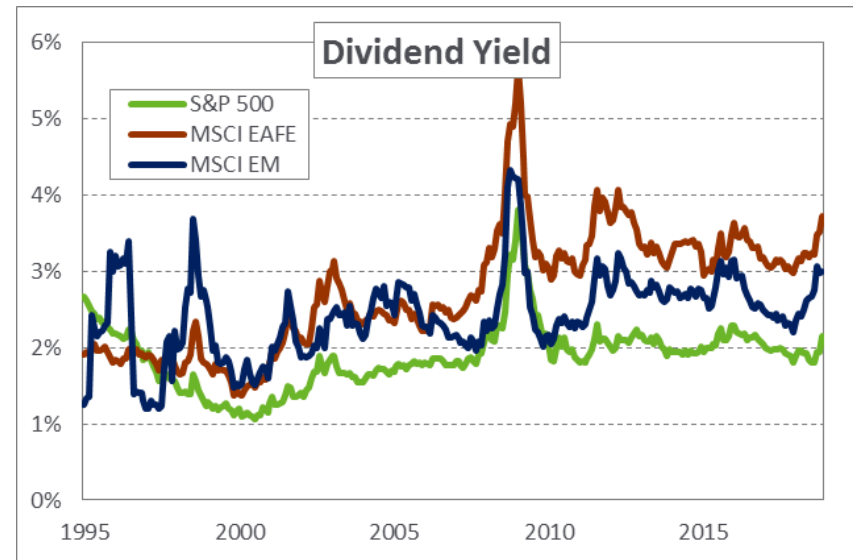


Global dividend payouts hit record levels this year

Much of the growth came from emerging markets following years of declining dividend yields

Corporate tax cuts in the US helped increase dividend payout rates

International and emerging markets continue to offer higher dividend yields relative to the US equity market



Source: (Top) S&P, Bloomberg, NEPC
Source: (Bottom) S&P, MSCI, Bloomberg, NEPC



EQUITY: VALUATION

US equities were an outlier relative to global equities this year

US equities benefited from an extended US economic cycle and added fuel from the fiscal stimulus package

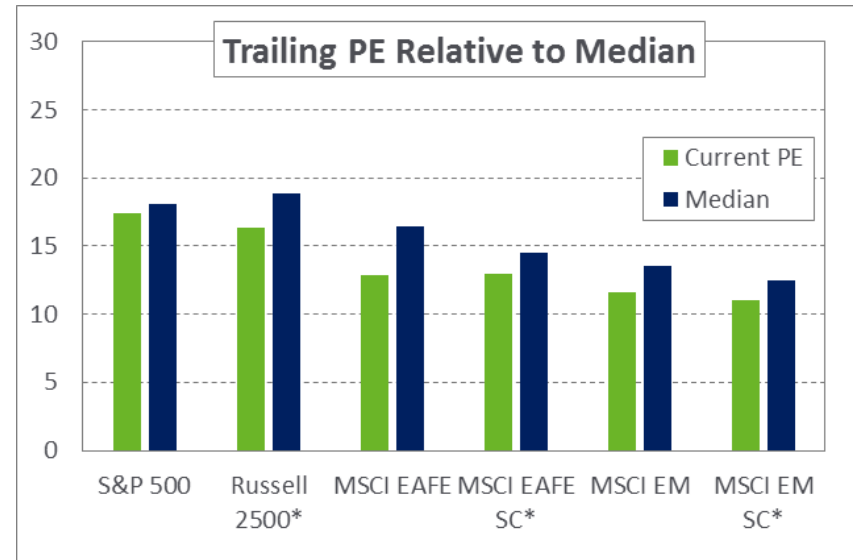
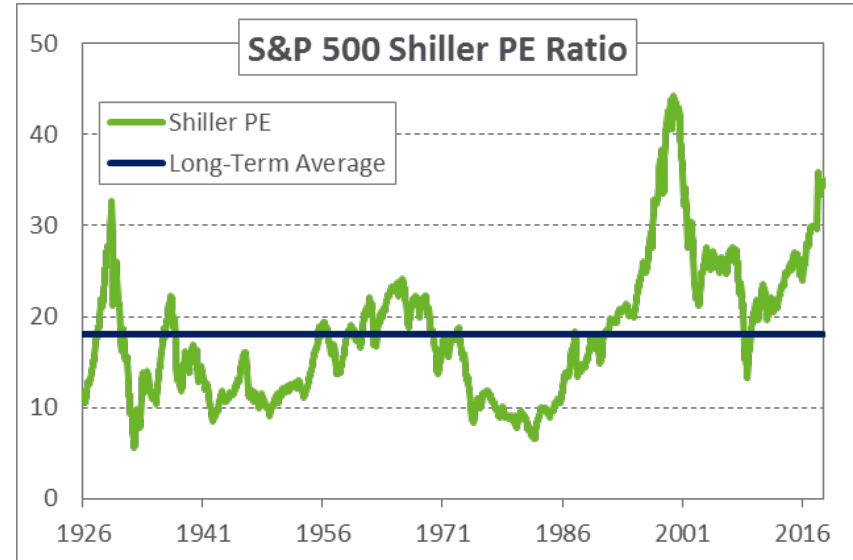
Strong earnings growth fueled by corporate tax cuts pushed valuations lower for large-cap US equities

Increased volatility in December resulting from fears of a global slowdown erased gains made throughout the year

International and emerging market valuations fell despite strong earnings growth as price declines were fueled by negative sentiment and US-China trade tensions

We anticipate the negative sentiment and macro concerns weighing on emerging markets to moderate

Attractive equity and currency valuations support an overweight to emerging markets due to the high total-return potential



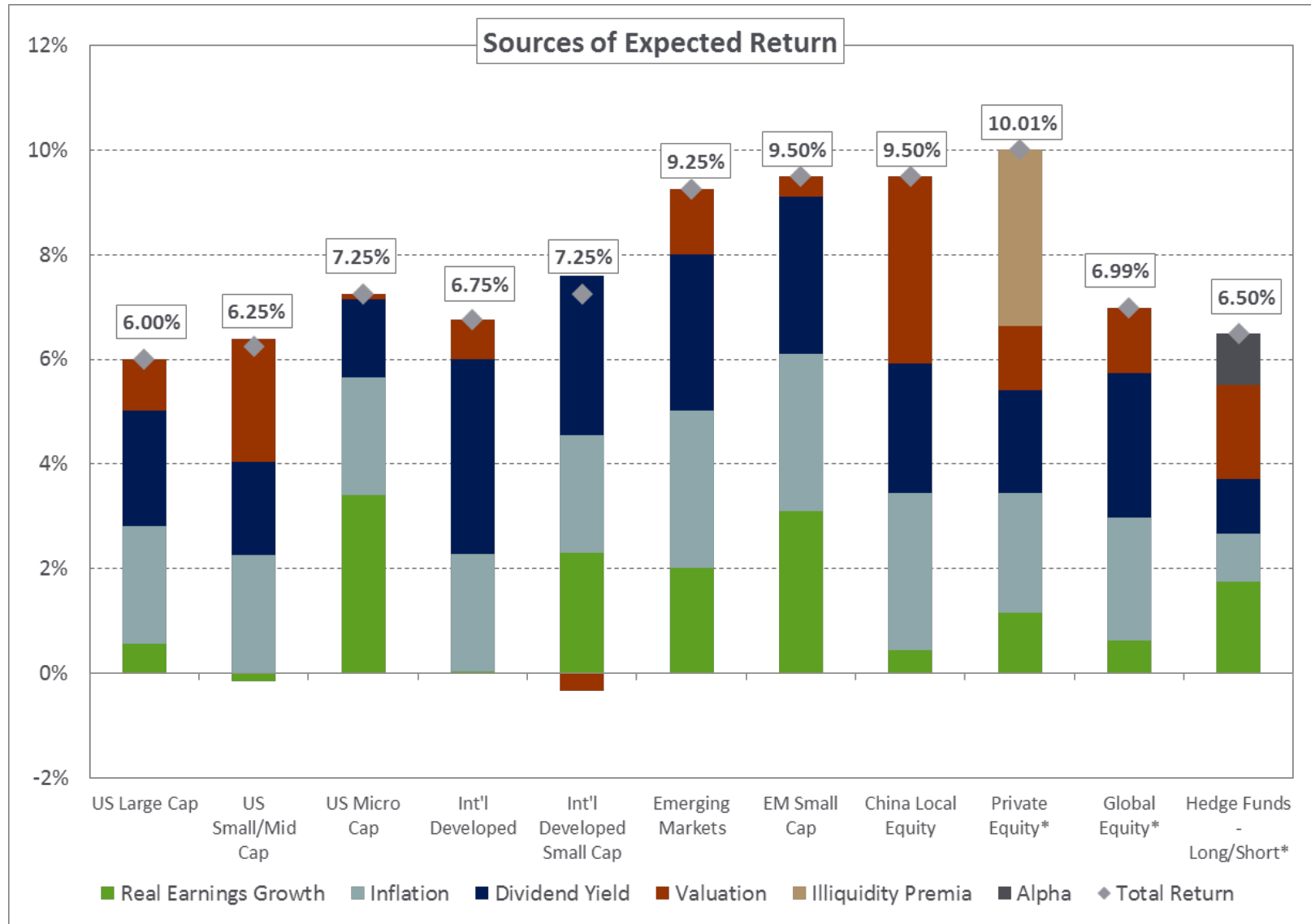
Source: (Top) S&P, Shiller, NEPC; long-term average beginning in 1926

Source: (Bottom) S&P, Russell, MSCI, Bloomberg, NEPC

*Small cap indices use index positive-adjusted earnings



EQUITY: BUILDING BLOCKS (5-7 YEARS)



Source: NEPC

*Calculated as a blend of other classes – see page 39 for additional details



RATES & CREDIT ASSUMPTIONS

NEPC, LLC

RATES & CREDIT: ASSUMPTIONS

Rate & Credit Building Blocks	
Illiquidity Premium	The additional return expected for investments carrying liquidity risk
Government Rates Price Change	The valuation change resulting from a change in the current yield curve to forecasted rates
Spread Price Change	The valuation change resulting from a change in credit spreads over the duration of the investment and highly sensitive to economic cycles
Credit Deterioration	The average loss for credit securities associated with an expected default cycle and recovery rates
Credit Spread	Additional yield premium provided by securities with credit risk
Government Rates	The yield attributed to sovereign bonds that do not have credit risk associated with their valuation

Asset Class	5-7 Year Return	Change 2019-2018
TIPS	3.00%	-0.25%
Treasuries	2.50%	+0.25%
Investment-Grade Corporate Credit	4.00%	+0.50%
MBS	2.75%	+0.25%
High-Yield Bonds	5.25%	+1.50%
Bank Loans	5.00%	+1.00%
EMD (External)	4.75%	+0.50%
EMD (Local Currency)	6.50%	+0.50%
Non-US Bonds (Unhedged)	0.75%	+0.25%
Core Bonds	3.04%	+0.29%
Private Debt	7.60%	+1.10%

RATES & CREDIT: CREDIT SPREAD

Credit spreads rose across investment and speculative grade debt relative to 2018's below average spread levels

The later stages of an economic cycle often see an increase in credit spreads as the probability of defaults trend upward

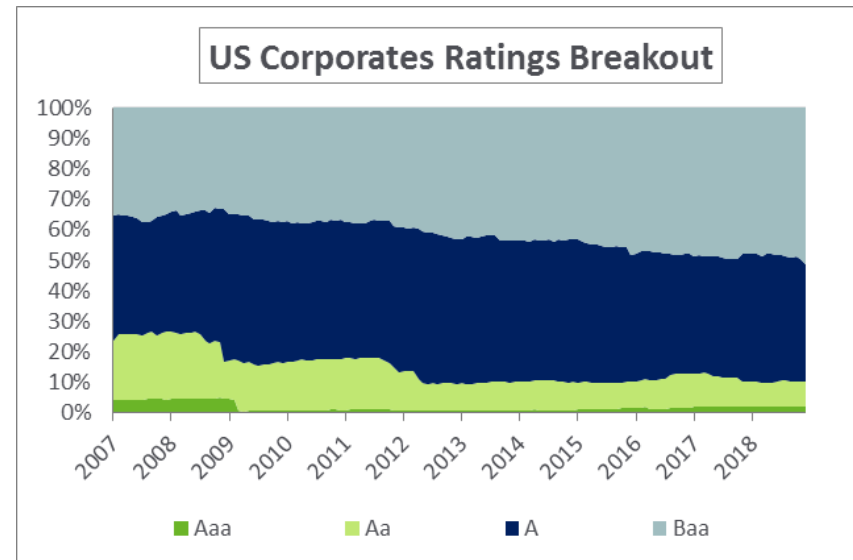
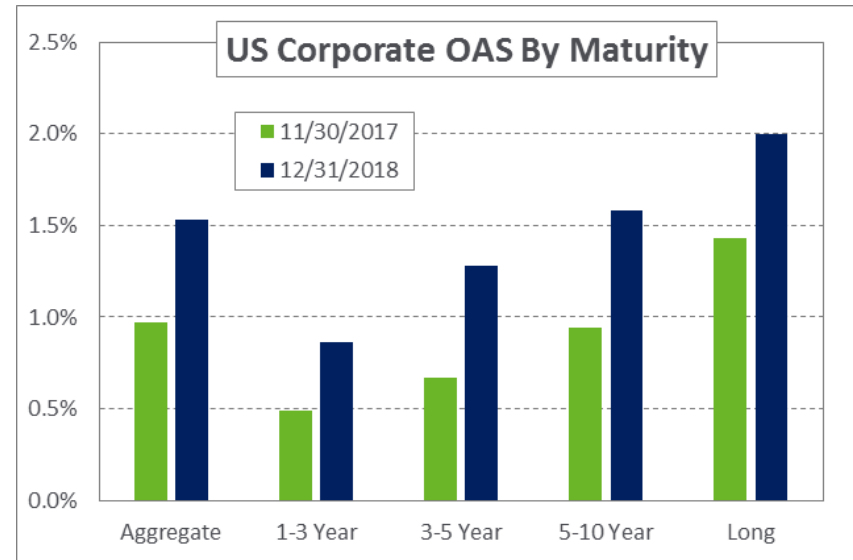
Lower-quality credit spreads increased most significantly during the year, partially due to the fall in the price of oil

Higher credit spreads partially reflect the risk in investment grade credit

There are a record number of BBB-rated corporates – suggesting a greater risk of fallen angel downgrades

Corporate debt issuance has expanded rapidly in recent years with the majority of new debt rated BBB

As such, we advocate for a reduction in lower-quality credit that does not provide adequate compensation for the associated risk



Source: (Top) Barclays, Bloomberg, NEPC
 Source: (Bottom) Barclays, Bloomberg, NEPC



RATES & CREDIT: RATES PRICE CHANGE

Government Rates Price Change: The change in the level of interest rates, shape of the curve, and roll down that impact the price of a bond

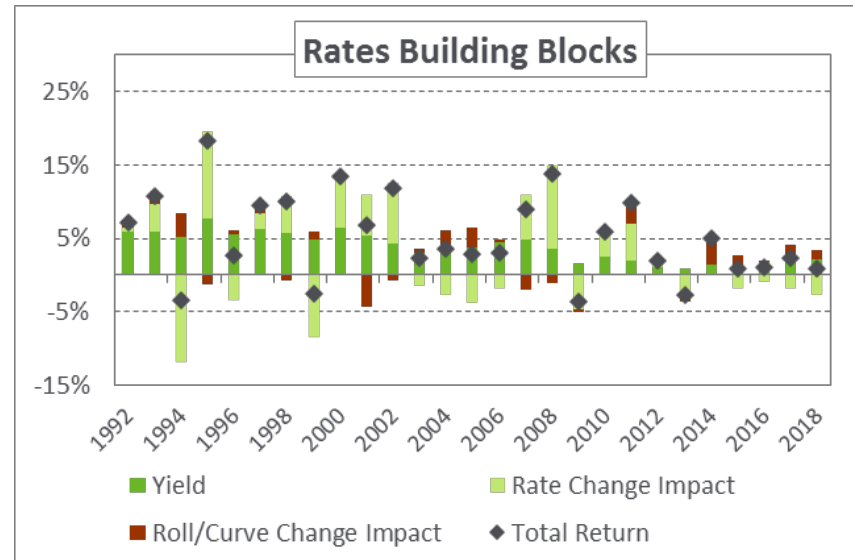
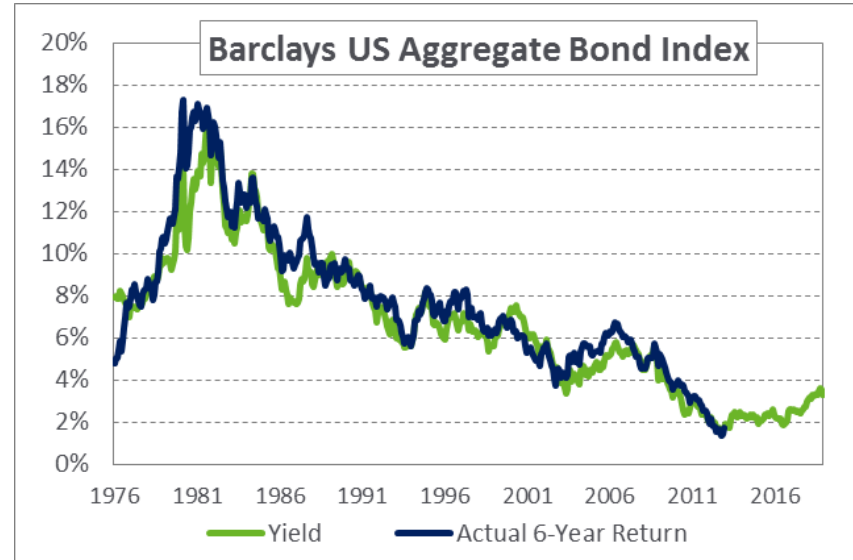
Roll down refers to the price change due to the aging of a bond along the yield curve

The rate price change is a significant component of total return and expectations of higher rates can drag on future year returns

The path of interest rates for each market is tied to both central bank actions and inflation expectations

Roll down offers some relief to rising rates when yield curves are steep

As the yield curve flattens the benefit of the roll down is muted, often pushing investors to shorter duration bonds



Source: (Top) Barclays, Bloomberg, NEPC
Source: (Bottom) Barclays, Bloomberg, NEPC



RATES & CREDIT: SPREAD PRICE CHANGE

Credit spreads broadly remain near historic medians

Above-average credit spreads are generally associated with a late-cycle environment as credit default risks increase

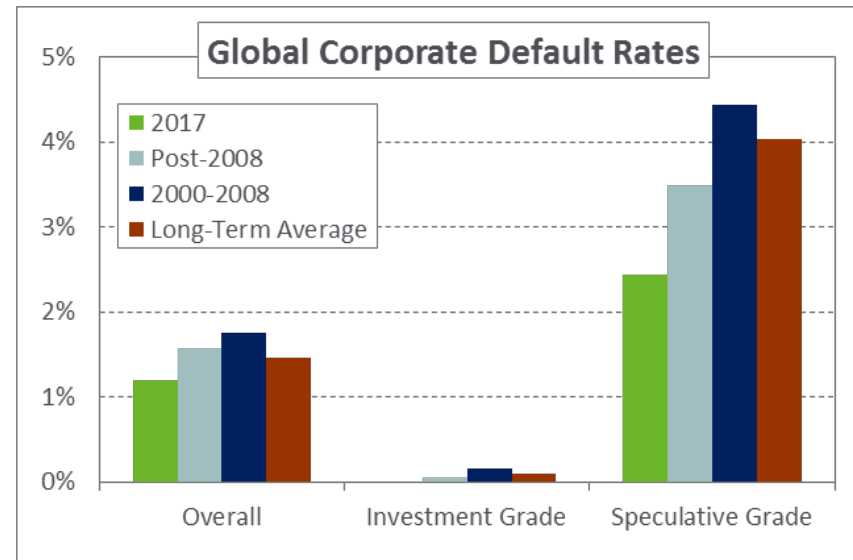
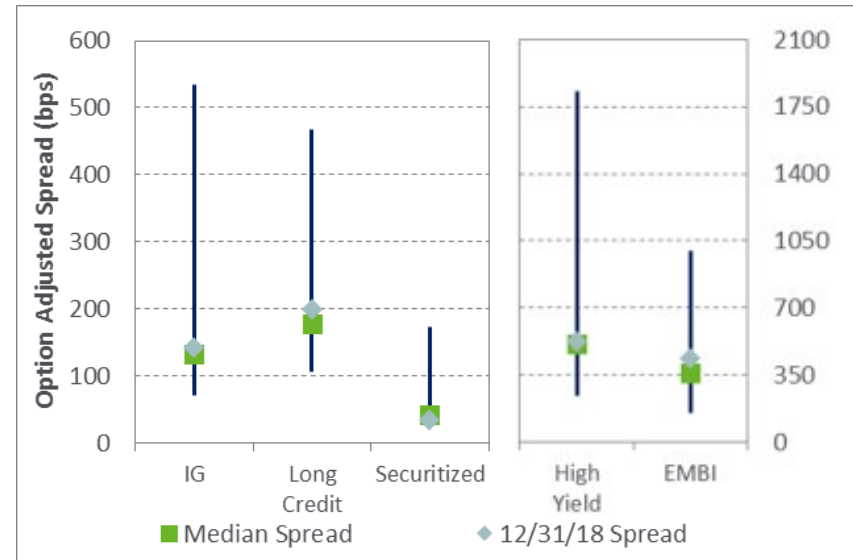
Despite the spread increase relative to 2018, we do not believe lower-quality credit exposure compensates investors for the risk relative to safer alternatives

The number of defaults decreased last year to a three-year low despite residual stress from the energy sector and an uptick in retail defaults

Higher expected default rates were incorporated in our building blocks

This can be attributed to the increase in lower-quality (BBB) credit as a percentage of the investment grade universe

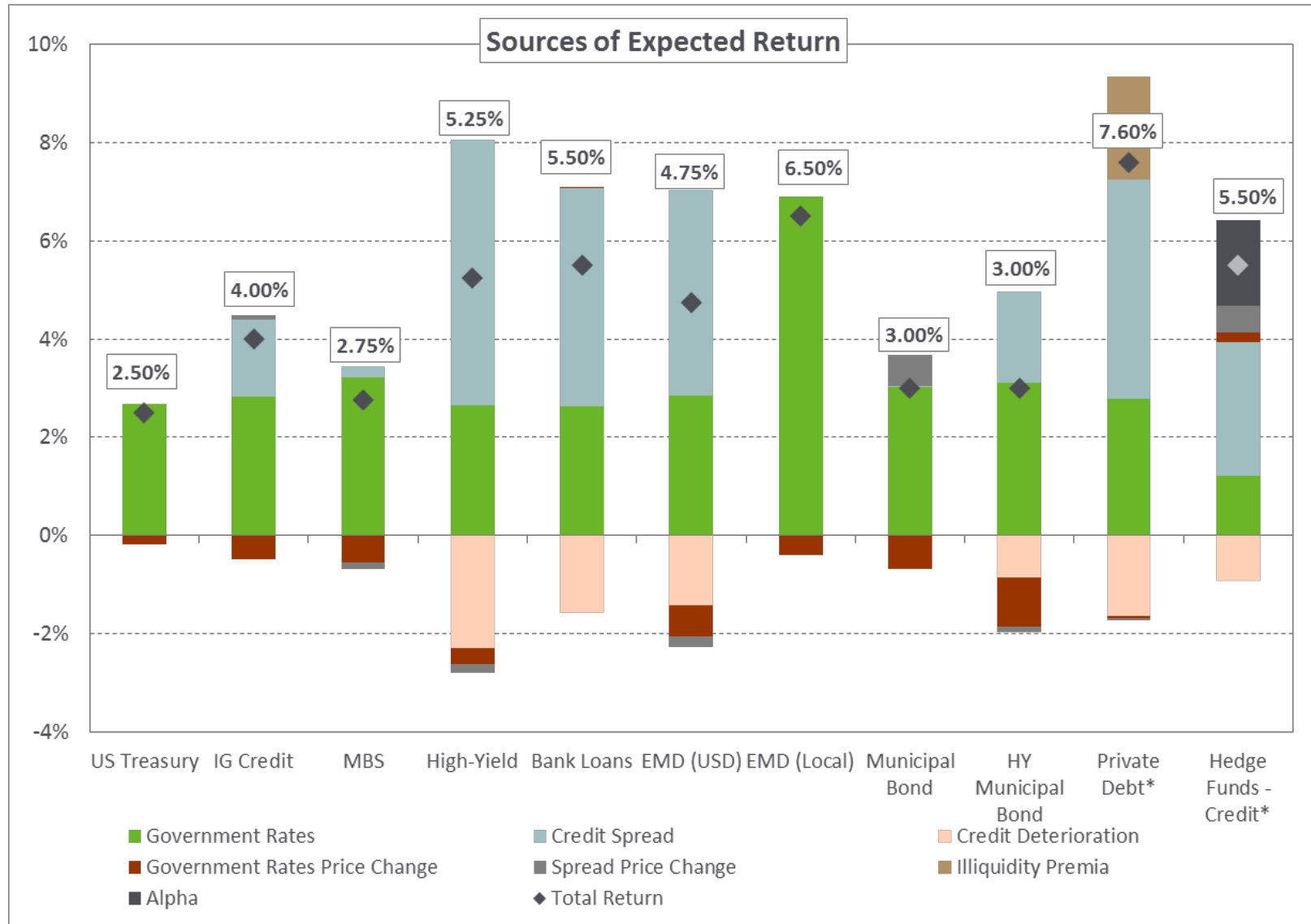
This is also a reflection of the late cycle environment and the stress generally seen within the high yield market during these periods



Source: (Top) JPM, Bloomberg, NEPC. As of 01/31/2000
Source: (Bottom) S&P, NEPC



CREDIT: BUILDING BLOCKS (5-7 YEARS)

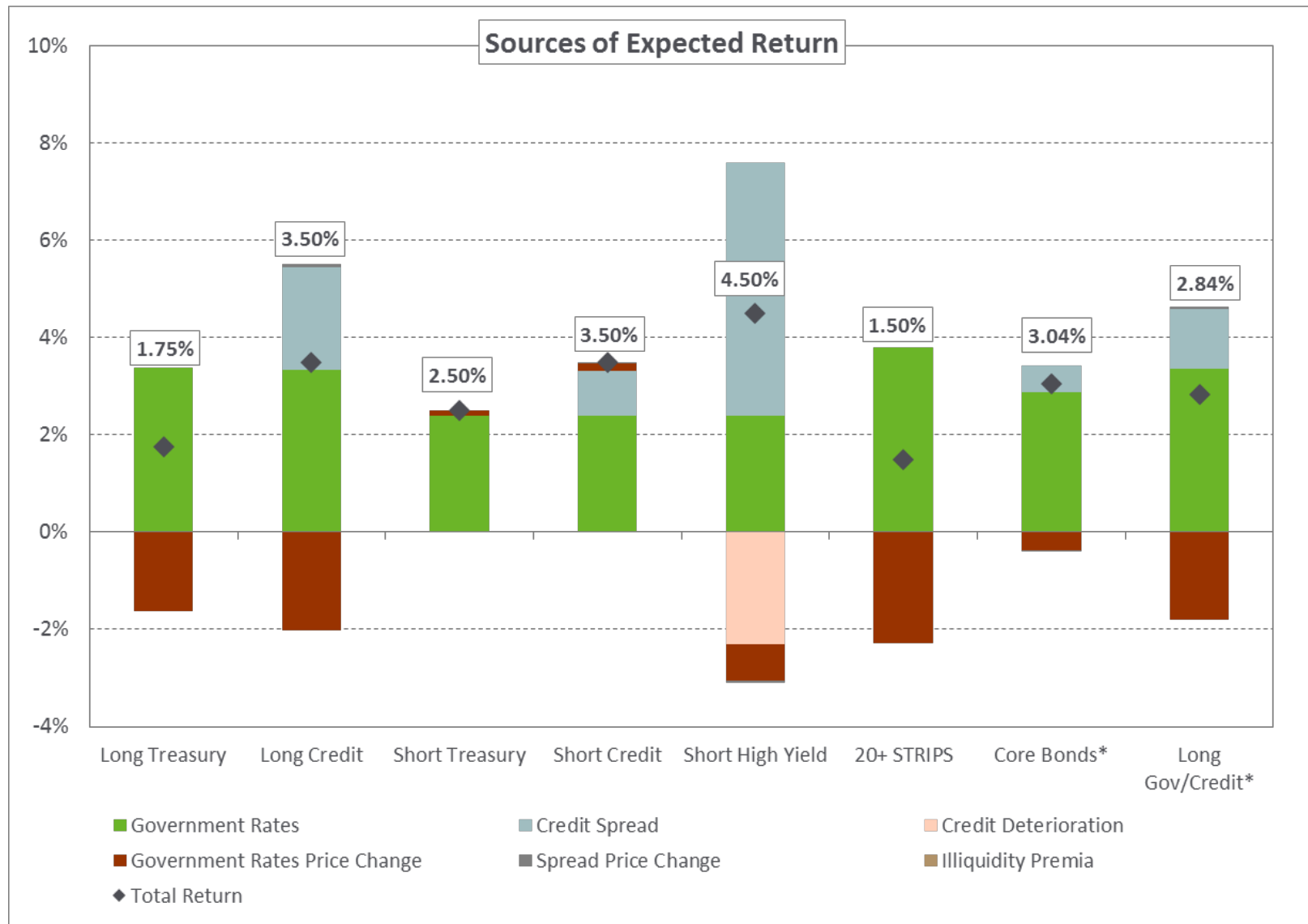


Source: NEPC

*Calculated as a blend of other classes – see page 39 for additional details



CREDIT: BUILDING BLOCKS (5-7 YEARS)



Source: NEPC

*Calculated as a blend of other classes – see page 39 for additional details



REAL ASSETS ASSUMPTIONS

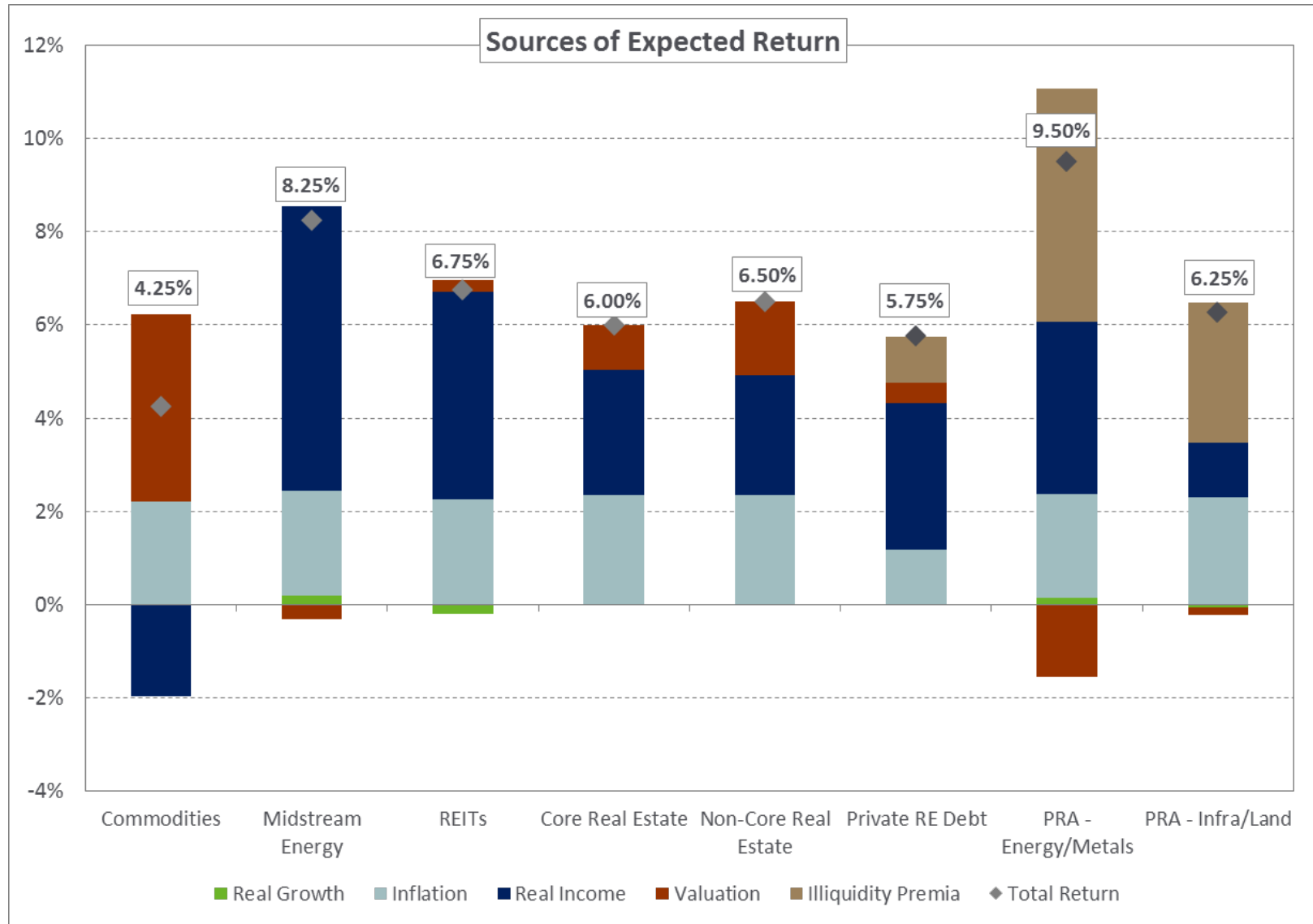
NEPC, LLC

REAL ASSETS: ASSUMPTIONS

Real Assets Building Blocks	
Illiquidity Premium	The additional return expected for investments carrying liquidity risk
Valuation	The expected change in price of the underlying asset reverting to a long-term real average or terminal value assumption
Inflation	Incorporates the inflation paths as defined by TIPS breakeven expectations and NEPC expected inflation assumptions
Real Earnings Growth	Reflects market-specific real growth for each equity asset class as a weighted-average derived from index country revenue contribution and forecasted GDP growth
Real Income	Represents the inflation-adjusted income produced by the underlying tangible or physical asset

Asset Class	5-7 Year Return	Change 2019-2018
Commodities	4.25%	-0.50%
Midstream Energy	8.25%	+1.00%
REITs	6.75%	+0.25%
Core Real Estate	6.00%	+0.25%
Non-Core Real Estate	7.00%	-
Private RE Debt	5.75%	N/A
Private Real Assets: Energy/Metals	9.50%	+1.50%
Private Real Assets: Infrastructure/Land	6.25%	+0.25%

REAL ASSETS: BUILDING BLOCKS (5-7 YEARS)



Source: NEPC



DERIVED COMPOSITES

NEPC, LLC

DERIVED COMPOSITES

Derived composites are the result of the sum of equity, credit, and real asset building blocks

Global 60/40: 60% global equity and 40% global bonds

US 60/40: 60% US equity and 40% core bonds

Risk Parity: Average of AQR GRP EL 10%, Bridgewater All Weather, Panagora Multi-Asset

Global Equity: Market-weighted blend of MSCI ACWI IMI (US, Non-US Developed, Emerging)

Private Equity: 34% US Buyout, 34% US Growth, 8.5% US Secondary, 8.5% US Venture, 15% Non-US PE

Core Bonds: Market weighted blend of Bloomberg Barclays US Aggregate Bond Index (Treasuries, IG Credit, MBS)

Private Debt: 50% Direct Lending, 25% Mezzanine, 25% Distressed

Real Assets (Liquid): Weighted blend of TIPS, global equities, REITs, and commodities

Absolute Return: Weighted blend of 40% AR equity, 40% AR credit, and 20% AR macro

Asset Class	5-7 Year Return	Change 2019-2018
Global 60/40	5.08%	+0.17%
US 60/40	5.07%	+0.53%
Risk Parity	4.67%	-0.44%
Global Asset Allocation	5.73%	+0.29%
<i>Global Equity</i>	6.99%	+0.11%
<i>Private Equity</i>	10.01%	+2.01%
<i>Core Bonds</i>	3.04%	+0.29%
<i>Private Debt</i>	7.60%	+1.10%
<i>Real Assets (Liquid)</i>	5.79%	-0.08%
<i>Absolute Return</i>	5.74%	-0.09%



PRIVATE MARKETS METHODOLOGY

In previous years, private equity and private debt assumptions were constructed using betas to public market assumptions with an added illiquidity premia

For 2019, sub-strategies were incorporated to offer a distinction among private market implementation options with different risk/return profiles

The sub-strategies were constructed using the same build-up methodology using public market betas and an illiquidity premia based on historical returns analysis relative to appropriate public market equivalents

The composite Private Equity and Private Debt line items are derived from a custom blend of sub-strategies

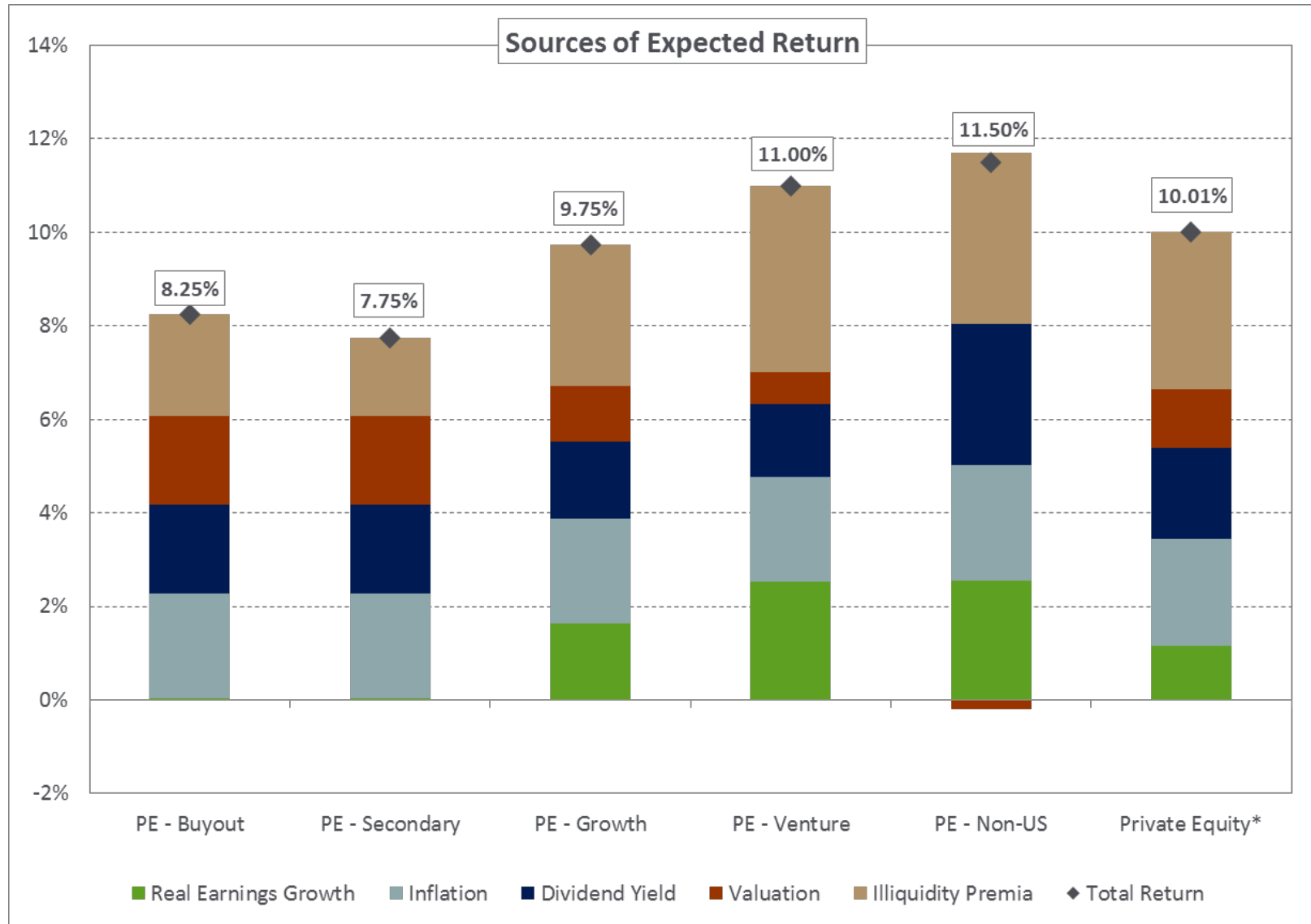
Private Equity: 34% Buyout, 34% Growth, 15 % Non-US, 8.5% Secondaries, 8.5% Venture

Private Debt: 50% Direct Lending, 25% Mezzanine, 25% Distressed

The methodology change generally resulted in a higher return expectations from incorporating the granularity of the sub-strategies and including a non-US component



PRIVATE EQUITY: BUILDING BLOCKS (5-7 YEARS)

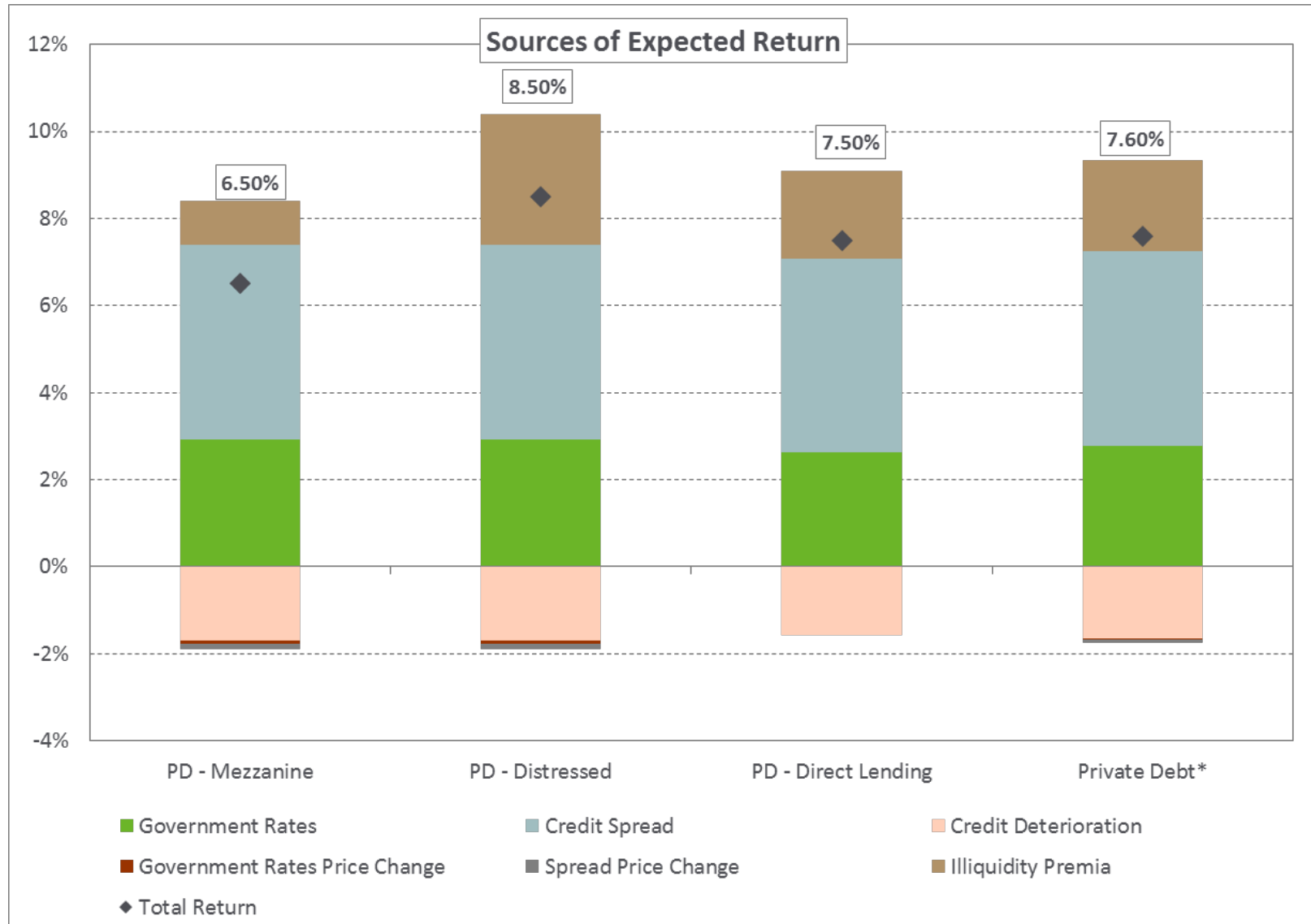


Source: NEPC

*Private Equity is a derived composite of 34% US Buyout, 34% US Growth, 8.5% US Secondary, 8.5% US Venture, 15% Non-US PE



PRIVATE DEBT: BUILDING BLOCKS (5-7 YEARS)

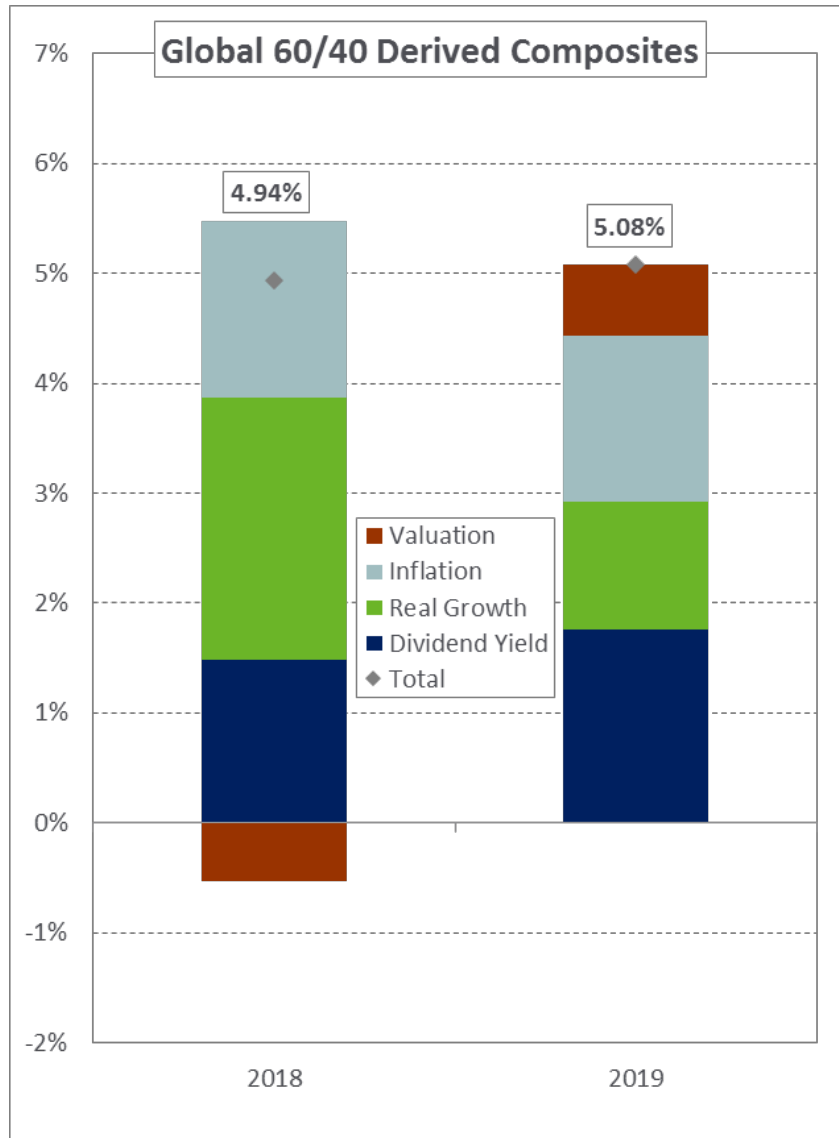


Source: NEPC

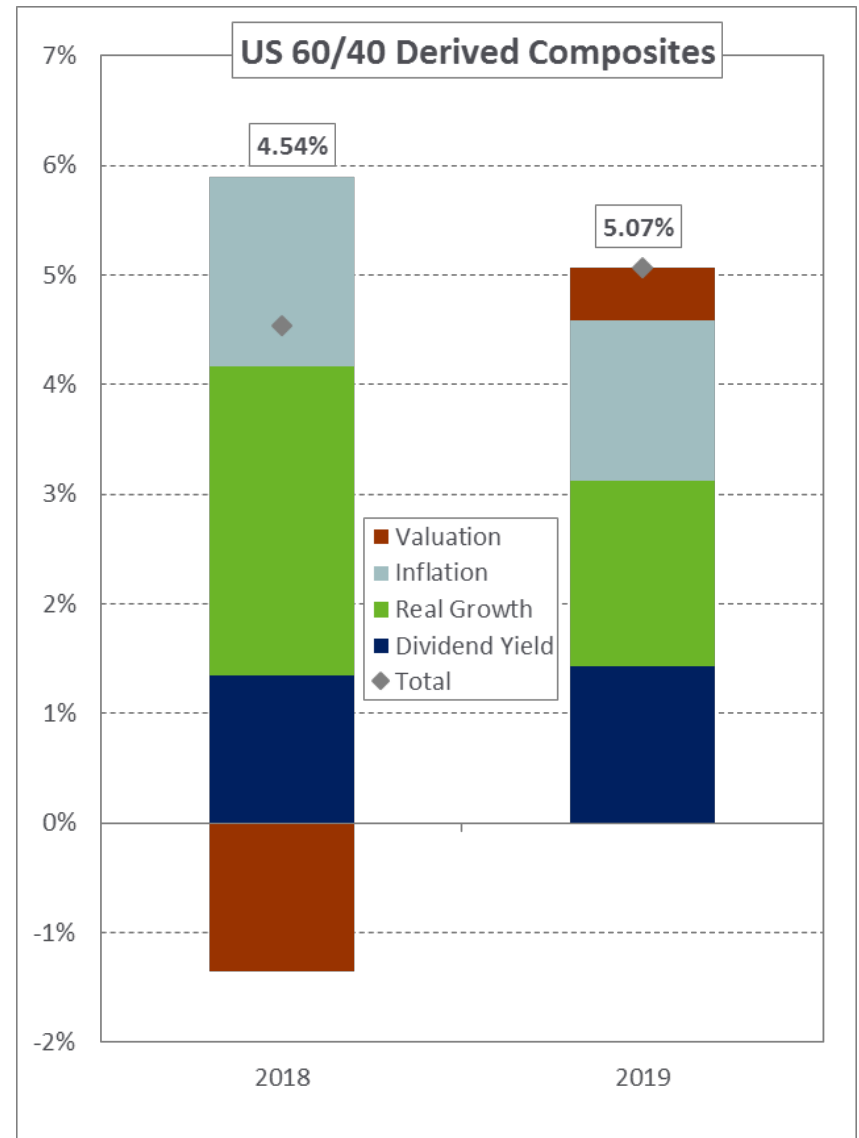
*Private Debt is a derived composite of 25% Mezzanine, 25% Distressed, 50% Direct Lending



GLOBAL VS. US 60/40 DERIVED COMPOSITES



Source: NEPC



Source: NEPC



INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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PRELIMINARY MONTHLY PERFORMANCE REPORT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

February 28, 2019

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VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	5,525,906,748	100.0	100.0	1.7	7.1	2.5	3.1	10.5	6.2	11.6	7.9	Apr-94
<i>Policy Index</i>				<u>2.0</u>	<u>7.6</u>	<u>2.5</u>	<u>3.1</u>	<u>10.7</u>	<u>6.8</u>	<u>11.3</u>	<u>8.0</u>	<i>Apr-94</i>
Over/Under				-0.3	-0.5	0.0	0.0	-0.2	-0.6	0.3	-0.1	
60% MSCI ACWI (Net) / 40% FTSE WGBI				1.2	6.6	1.0	-0.8	8.3	4.0	8.7	--	Apr-94
60% S&P 500 / 40% BBgBarc Aggregate				1.9	7.2	3.7	4.4	9.8	7.4	11.6	8.2	Apr-94
Total Fund ex Parametric	5,474,863,384	99.1	--	1.7	7.0	2.1	2.7	10.3	6.1	11.4	7.9	Apr-94
Total Fund ex Private Equity	5,138,168,971	93.0	--	1.8	7.7	2.2	2.4	10.3	5.9	--	8.4	Jan-12
<i>Policy Index</i>				<u>2.0</u>	<u>7.6</u>	<u>2.5</u>	<u>3.1</u>	<u>10.7</u>	<u>6.8</u>	<u>11.3</u>	<u>9.1</u>	<i>Jan-12</i>
Over/Under				-0.2	0.1	-0.3	-0.7	-0.4	-0.9	--	-0.7	
Total US Equity	1,662,315,551	30.1	28.0	3.4	12.3	3.6	5.1	15.8	10.3	17.2	9.2	Dec-93
<i>Policy Index</i>				<u>3.5</u>	<u>12.4</u>	<u>3.2</u>	<u>5.0</u>	<u>15.5</u>	<u>10.1</u>	<u>16.8</u>	<u>9.5</u>	<i>Dec-93</i>
Over/Under				-0.1	-0.1	0.4	0.1	0.3	0.2	0.4	-0.3	
Western U.S. Index Plus	210,935,755	3.8		3.4	12.4	4.1	4.6	16.1	11.1	20.2	5.9	May-07
<i>Policy Index</i>				<u>3.2</u>	<u>11.5</u>	<u>3.8</u>	<u>4.7</u>	<u>15.3</u>	<u>10.7</u>	<u>16.7</u>	<u>7.5</u>	<i>May-07</i>
Over/Under				0.2	0.9	0.3	-0.1	0.8	0.4	3.5	-1.6	
Blackrock Russell 1000 Index	1,386,876,778	25.1		3.4	12.1	3.7	5.1	--	--	--	11.1	May-17
<i>Policy Index</i>				<u>3.4</u>	<u>12.0</u>	<u>3.7</u>	<u>5.0</u>	<u>15.4</u>	<u>10.4</u>	<u>16.8</u>	<u>11.0</u>	<i>May-17</i>
Over/Under				0.0	0.1	0.0	0.1	--	--	--	0.1	
Blackrock Russell 2500 Index	64,503,018	1.2		4.7	16.8	-0.3	6.4	--	--	--	9.2	May-17
<i>Policy Index</i>				<u>4.7</u>	<u>16.8</u>	<u>-0.3</u>	<u>6.4</u>	<u>15.9</u>	<u>7.9</u>	<u>17.3</u>	<u>9.2</u>	<i>May-17</i>
Over/Under				0.0	0.0	0.0	0.0	--	--	--	0.0	

Policy Index: Currently, 28% Russell 3000, 20% BBgBarc US Aggregate, 15% MSCI ACWI ex U.S., 10% MSCI ACWI, 10% Russell 3000 Index + 3%, 10% CPI+4% Index, and 7% NCREIF ODCE Real Estate Index.

Prior to January 2016 the Total U.S. Equity Benchmark was a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Non-US Equity	901,576,805	16.3	15.0	2.1	9.4	-1.7	-4.9	11.3	3.3	10.1	6.3	Mar-94
<i>MSCI ACWI ex USA</i>				<u>2.0</u>	<u>9.7</u>	<u>-2.2</u>	<u>-6.5</u>	<u>10.7</u>	<u>2.5</u>	<u>9.6</u>	<u>5.1</u>	<i>Mar-94</i>
Over/Under				0.1	-0.3	0.5	1.6	0.6	0.8	0.5	1.2	
<i>MSCI EAFE</i>				2.5	9.3	-3.1	-6.0	9.3	2.1	9.6	4.7	<i>Mar-94</i>
<i>MSCI ACWI ex USA NR LCL</i>				2.8	9.4	-1.0	-1.2	10.3	6.0	10.2	--	<i>Mar-94</i>
<i>MSCI EAFE NR LCL</i>				3.5	9.1	-1.9	-0.8	9.1	5.6	10.0	4.7	<i>Mar-94</i>
BlackRock ACWI ex-U.S. Index	459,175,409	8.3		2.0	9.7	-2.9	-6.8	10.9	2.8	10.1	2.4	Mar-07
<i>MSCI ACWI ex USA IMI</i>				<u>2.0</u>	<u>9.7</u>	<u>-2.9</u>	<u>-7.0</u>	<u>10.6</u>	<u>2.6</u>	<u>10.0</u>	<u>2.2</u>	<i>Mar-07</i>
Over/Under				0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.2	
<i>MSCI ACWI ex USA NR LCL</i>				2.8	9.4	-1.0	-1.2	10.3	6.0	10.2	3.1	<i>Mar-07</i>
Sprucegrove	225,807,284	4.1		2.1	10.3	-1.2	-5.3	13.4	3.5	10.7	7.3	Mar-02
<i>MSCI ACWI ex USA</i>				<u>2.0</u>	<u>9.7</u>	<u>-2.2</u>	<u>-6.5</u>	<u>10.7</u>	<u>2.5</u>	<u>9.6</u>	<u>6.2</u>	<i>Mar-02</i>
Over/Under				0.1	0.6	1.0	1.2	2.7	1.0	1.1	1.1	
<i>MSCI EAFE</i>				2.5	9.3	-3.1	-6.0	9.3	2.1	9.6	5.7	<i>Mar-02</i>
<i>MSCI ACWI ex USA NR LCL</i>				2.8	9.4	-1.0	-1.2	10.3	6.0	10.2	5.2	<i>Mar-02</i>
<i>MSCI EAFE NR LCL</i>				3.5	9.1	-1.9	-0.8	9.1	5.6	10.0	4.3	<i>Mar-02</i>
Hexavest	90,636,638	1.6		1.2	7.8	-0.5	-3.2	7.2	1.9	--	3.8	Dec-10
<i>MSCI EAFE</i>				<u>2.5</u>	<u>9.3</u>	<u>-3.1</u>	<u>-6.0</u>	<u>9.3</u>	<u>2.1</u>	<u>9.6</u>	<u>4.4</u>	<i>Dec-10</i>
Over/Under				-1.3	-1.5	2.6	2.8	-2.1	-0.2	--	-0.6	
<i>MSCI EAFE NR LCL</i>				3.5	9.1	-1.9	-0.8	9.1	5.6	10.0	6.9	<i>Dec-10</i>
Walter Scott	125,957,474	2.3		3.4	8.2	1.0	1.5	12.2	5.6	--	5.7	Dec-10
<i>MSCI ACWI ex USA</i>				<u>2.0</u>	<u>9.7</u>	<u>-2.2</u>	<u>-6.5</u>	<u>10.7</u>	<u>2.5</u>	<u>9.6</u>	<u>3.4</u>	<i>Dec-10</i>
Over/Under				1.4	-1.5	3.2	8.0	1.5	3.1	--	2.3	
<i>MSCI ACWI ex USA NR LCL</i>				2.8	9.4	-1.0	-1.2	10.3	6.0	10.2	6.2	<i>Dec-10</i>
<i>MSCI EAFE</i>				2.5	9.3	-3.1	-6.0	9.3	2.1	9.6	4.4	<i>Dec-10</i>
Total Global Equity	604,518,621	10.9	10.0	2.7	10.8	1.0	-0.4	13.5	5.9	11.2	5.9	May-05
<i>MSCI ACWI</i>				<u>2.7</u>	<u>10.8</u>	<u>0.8</u>	<u>-0.8</u>	<u>12.9</u>	<u>6.3</u>	<u>12.7</u>	<u>6.7</u>	<i>May-05</i>
Over/Under				0.0	0.0	0.2	0.4	0.6	-0.4	-1.5	-0.8	
BlackRock MSCI ACWI Equity Index	604,518,621	10.9		2.7	10.8	1.0	-0.4	13.3	6.7	--	9.9	Aug-12
<i>MSCI ACWI</i>				<u>2.7</u>	<u>10.8</u>	<u>0.8</u>	<u>-0.8</u>	<u>12.9</u>	<u>6.3</u>	<u>12.7</u>	<u>9.5</u>	<i>Aug-12</i>
Over/Under				0.0	0.0	0.2	0.4	0.4	0.4	--	0.4	



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Private Equity	387,737,777	7.0	10.0	0.0	0.1	8.4	16.3	14.2	15.3	--	14.5	Jan-12
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>17.4</u>	<i>Jan-12</i>
Over/Under				-3.8	-12.8	3.2	8.1	-4.8	1.9		-2.9	
<i>Cambridge Associates Global All PE (Qtr Lag)</i>				0.0	0.0	8.1	16.6	13.6	12.8	11.1	12.9	<i>Jan-12</i>
Adams Street Global Fund Series	172,036,804	3.1		0.0	0.0	9.4	19.6	13.2	13.9	--	13.3	Jan-12
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>17.4</u>	<i>Jan-12</i>
Over/Under				-3.8	-12.9	4.2	11.4	-5.8	0.5		-4.1	
Harbourvest	84,142,132	1.5		-0.2	-0.3	9.8	14.5	17.2	19.7	--	19.2	Aug-13
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>14.7</u>	<i>Aug-13</i>
Over/Under				-4.0	-13.2	4.6	6.3	-1.8	6.3		4.5	
Pantheon Global Secondary Funds	39,845,681	0.7		0.0	0.0	8.7	17.3	18.9	15.8	--	13.1	Jan-12
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>17.4</u>	<i>Jan-12</i>
Over/Under				-3.8	-12.9	3.5	9.1	-0.1	2.4		-4.3	
Drive Capital Fund	6,833,057	0.1		-1.2	-1.2	0.3	-3.7	--	--	--	-27.2	Sep-16
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>16.0</u>	<i>Sep-16</i>
Over/Under				-5.0	-14.1	-4.9	-11.9				-43.2	
Abbott Secondary Opportunities	12,219,909	0.2		0.0	0.0	26.0	26.0	--	--	--	21.9	Jan-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>8.7</u>	<i>Jan-18</i>
Over/Under				-3.8	-12.9	20.8	17.8				13.2	
CVI Credit Value Fund	12,231,704	0.2		1.9	-0.1	2.1	4.5	--	--	--	3.8	Jan-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>8.7</u>	<i>Jan-18</i>
Over/Under				-1.9	-13.0	-3.1	-3.7				-4.9	
Clearlake Capital Partners V	5,353,071	0.1		0.0	0.0	32.9	29.7	--	--	--	29.7	Mar-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>8.2</u>	<i>Mar-18</i>
Over/Under				-3.8	-12.9	27.7	21.5				21.5	
Battery Ventures XII	5,116,558	0.1		-1.9	-1.9	-9.8	--	--	--	--	-9.8	Apr-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>10.1</u>	<i>Apr-18</i>
Over/Under				-5.7	-14.8	-15.0					-19.9	

Please Note:

Private Equity performance is shown on a time-weighted return basis. Values are cash adjusted with current month cash flows.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Insight Venture Partners X	12,660,848	0.2		3.3	3.3	-2.6	--	--	--	--	-2.6	May-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>9.4</u>	<i>May-18</i>
Over/Under				-0.5	-9.6	-7.8					-12.0	
GTCR Fund XII	5,272,692	0.1		-3.2	-3.2	-44.0	--	--	--	--	-44.0	Jun-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>6.2</u>	<i>Jun-18</i>
Over/Under				-7.0	-16.1	-49.2					-50.2	
Buenaventure One, LLC	17,820,574	0.3		0.0	0.0	-0.8	--	--	--	--	-0.8	Jul-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>5.2</u>	<i>Jul-18</i>
Over/Under				-3.8	-12.9	-6.0					-6.0	
ECI 11	1,612,067	0.0		2.6	29.8	--	--	--	--	--	26.5	Dec-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>2.7</u>	<i>Dec-18</i>
Over/Under				-1.2	16.9						23.8	
Buenaventure Two, LLC	180,006	0.0		-0.7	-0.7	--	--	--	--	--	66.3	Dec-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>2.7</u>	<i>Dec-18</i>
Over/Under				-4.5	-13.6						63.6	
Monroe Capital Private Credit Fund III	9,751,831	0.2		0.0	0.0	--	--	--	--	--	0.0	Dec-18
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>2.7</u>	<i>Dec-18</i>
Over/Under				-3.8	-12.9						-2.7	
The Resolute Fund IV L.P.	2,047,844	0.0		0.0	7.6	--	--	--	--	--	7.6	Jan-19
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>12.9</u>	<i>Jan-19</i>
Over/Under				-3.8	-5.3						-5.3	
GGV Capital VII L.P.	508,000	0.0		0.0	--	--	--	--	--	--	0.0	Feb-19
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>3.8</u>	<i>Feb-19</i>
Over/Under				-3.8							-3.8	
GGV Discovery II, L.P.	105,000	0.0		0.0	--	--	--	--	--	--	0.0	Feb-19
<i>Russell 3000 + 3%</i>				<u>3.8</u>	<u>12.9</u>	<u>5.2</u>	<u>8.2</u>	<u>19.0</u>	<u>13.4</u>	<u>20.3</u>	<u>3.8</u>	<i>Feb-19</i>
Over/Under				-3.8							-3.8	

Please Note: Private Equity performance is shown on a time-weighted return basis. Values are cash adjusted with current month cash flows. GGV Capital VII L.P. and GGV Discovery II L.P. funded 1/22/2019.



VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION PRIVATE EQUITY LIMITED PARTNERSHIP PERFORMANCE

Fund Name	Vintage Year	Initial Investment Date	Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Add'l Fees ²	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
													Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
Abbott Secondary Opportunities, LP.	2017	12/21/2017	\$25,000,000	\$13,348,706	\$12,014,011	53%	--	\$2,625,000	\$12,219,907	\$14,844,907	\$1,496,201	18.2%	0.2x	1.11x
ABRY Partners IX	2019	12/6/2018	\$10,600,000	--	\$10,600,000	0%	--	--	--	--	--	--	--	--
Adams Street 2010 U.S. Fund	2010	5/21/2010	\$42,500,000	\$37,442,500	\$5,057,500	88%	\$15,213	\$25,869,869	\$36,820,450	\$62,690,319	\$25,232,606	13.8%	0.69x	1.67x
Adams Street 2010 Non-U.S. Dev. Mkts Fund	2010	5/21/2010	\$25,500,000	\$22,325,249	\$3,174,751	88%	\$1,589	\$16,269,043	\$16,978,823	\$33,247,866	\$10,921,028	11.2%	0.73x	1.49x
Adams Street 2010 Non-U.S. Emg Mkts Fund	2010	1/3/2011	\$8,500,000	\$7,633,000	\$867,000	90%	\$0	\$2,030,308	\$9,914,136	\$11,944,444	\$4,311,444	10.9%	0.27x	1.56x
Adams Street 2010 Direct Fund	2010	5/21/2010	\$8,500,000	\$8,066,500	\$433,500	95%	\$6,697	\$10,080,715	\$4,565,139	\$14,645,854	\$6,572,657	13.5%	1.25x	1.82x
Adams Street 2013 Global Fund	2013	6/27/2013	\$75,000,000	\$56,625,000	\$18,375,000	76%	\$10,728	\$8,075,792	\$70,923,287	\$78,999,079	\$22,363,351	11.2%	0.14x	1.4x
Adams Street 2016 Global Fund	2016	12/22/2016	\$60,000,000	\$28,200,000	\$31,800,000	47%	\$0	\$3,621,043	\$28,506,158	\$32,127,201	\$3,927,201	16.4%	0.13x	1.14x
Adams Street Co-Investment Fund IV A	2018	9/24/2018	\$30,000,000	\$4,567,808	\$25,500,000	15%	\$67,808	--	\$4,500,000	\$4,500,000	-\$135,616	-4.5%	--	0.99x
Astorg VII	2019	12/17/2018	\$8,762,908	--	\$8,762,908	0%	--	--	--	--	--	--	--	--
Battery Ventures XII	2018	2/1/2018	\$9,050,000	\$3,201,890	\$5,848,110	35%	\$0	\$0	\$3,006,957	\$3,006,957	-\$194,933	-15.8%	0x	0.94x
Battery Ventures XII Side Fund	2018	2/1/2018	\$5,050,000	\$2,156,855	\$2,893,145	43%	\$0	\$0	\$2,109,603	\$2,109,603	-\$47,252	-6.9%	0x	0.98x
Buenaventure One, LLC	2018	1/5/2018	\$67,072,500	\$18,355,590	\$48,716,910	27%	--	\$403,156	\$17,820,572	\$18,223,728	-\$131,862	-1.6%	--	0.99x
CapVest Equity Partners IV	2019	7/11/2018	\$12,546,891	--	\$12,546,891	0%	--	--	--	--	--	--	--	--
Clearlake Capital Partners V	2017	12/22/2017	\$9,950,000	\$4,781,476	\$5,258,013	48%	\$46,158	\$150,190	\$5,295,982	\$5,446,172	\$618,538	29.6%	0.03x	1.14x
CVI Credit Value Fund IV	2017	12/31/2017	\$12,000,000	\$12,000,000	\$18,000,000	40%	--	\$6,147	\$11,998,081	\$12,004,228	\$4,228	0.1%	0x	1x
Drive Capital Fund II	2016	9/1/2016	\$15,000,000	\$7,461,666	\$7,541,544	50%	\$3,210	\$0	\$6,918,344	\$6,918,344	-\$546,532	-6.8%	0x	0.93x
ECI 11	2018	7/5/2018	\$9,921,971	\$1,252,530	\$8,669,441	13%	--	--	\$1,211,989	\$1,211,989	-\$40,541	-13.5%	--	0.97x
Genstar Capital Partners IX	2019	2/21/2019	\$7,500,000	--	\$7,500,000	0%	--	--	--	--	--	--	--	--
Genstar Capital Partners IX Opportunities Program	2019	2/21/2019	\$2,500,000	--	\$2,500,000	0%	--	--	--	--	--	--	--	--
GGV Capital VII	2019	8/15/2018	\$10,160,000	\$508,000	\$9,652,000	5%	--	--	\$508,000	\$508,000	--	--	--	1x
GGV Capital VII Plus	2019	8/15/2018	\$2,540,000	--	\$2,540,000	0%	--	--	--	--	--	--	--	--
GGV Discovery II	2019	8/15/2018	\$2,100,000	\$105,000	\$1,995,000	5%	--	--	\$105,000	\$105,000	--	--	--	1x
GTCR Fund XI	2017	9/29/2017	\$30,000,000	\$6,423,000	\$23,672,792	21%	--	\$264,502	\$4,032,467	\$4,296,969	-\$2,126,031	-67.2%	0.04x	0.67x
HarbourVest - Dover Street VIII	2013	5/30/2013	\$67,500,000	\$60,834,954	\$6,750,000	90%	\$84,954	\$66,622,008	\$26,707,943	\$93,329,951	\$32,410,043	20.8%	1.1x	1.53x
HarbourVest - Dover Street IX	2016	12/16/2016	\$60,000,000	\$34,800,000	\$25,200,000	58%	\$0	\$10,045,257	\$32,678,497	\$42,723,754	\$7,923,754	30.7%	0.29x	1.23x
HarbourVest - PRTNS CO INVEST IV L.P.	2017	6/2/2017	\$30,000,000	\$22,428,591	\$7,768,149	75%	\$0	\$1,736,653	\$24,886,761	\$26,623,414	\$4,194,823	13.7%	0.08x	1.19x
HarbourVest - PRTNS CO INVEST V L.P.	2019	7/31/2018	\$35,000,000	--	\$35,000,000	0%	--	--	-\$111,140	-\$111,140	--	--	--	--
Hellman & Friedman Capital Partners IX	2019	9/28/2018	\$19,800,000	--	\$19,800,000	0%	--	--	--	--	--	--	--	--
Insight Venture Partners X	2017	10/13/2017	\$25,000,000	\$12,500,000	\$12,500,000	50%	--	\$8,561	\$12,660,846	\$12,669,407	\$169,407	3.1%	0x	1.01x
M/C Partners VIII	2019	4/2/2018	\$10,000,000	--	\$10,000,000	0%	--	--	--	--	--	--	--	--
Monroe Capital Private Credit Fund III	2018	9/5/2018	\$25,000,000	\$6,250,000	\$18,750,000	25%	--	\$248,169	\$6,001,831	\$6,250,000	--	0.0%	--	1x
Pantheon Global Secondary Fund IV	2010	8/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	\$0	\$12,450,001	\$3,342,817	\$15,792,818	\$5,832,818	14.0%	1.25x	1.59x
Pantheon Global Secondary Fund V	2015	2/28/2015	\$50,000,000	\$33,566,509	\$16,433,491	67%	(\$162,514)	\$9,600,205	\$36,490,269	\$46,090,474	\$12,686,479	18.8%	0.29x	1.37x
The Resolute Fund IV	2018	5/2/2018	\$20,000,000	\$1,903,855	\$18,096,145	10%	--	--	\$2,047,844	\$2,047,844	\$143,989	37.8%	--	1.08x
Riverside Micro-Cap Fund V	2018	8/21/2018	\$10,000,000	--	\$10,000,000	0%	--	--	--	--	--	--	--	--
Total VCERA Private Equity Program	--	5/21/2010	\$875,054,270	\$416,698,679	\$459,256,301	48%	\$73,843	\$170,106,619	\$382,140,563	\$552,247,182	\$135,585,800	14.1%	0.41x	1.33x

1. Includes recycled/recallable distributions received to date.

2. Add'l Fees represents notional interest paid/(received).

2. Add'l Fees for Pantheon Global Secondary Fund V includes notional interest paid/(received) and management fee rebates paid to VCERA.

Note: Private equity performance data is reported net of fees.

Performance shown is based on 2/28/2019 statement of investments produced by Abbott Capital.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total US Fixed Income	1,026,049,507	18.6	20.0	0.1	1.3	2.7	2.9	3.3	2.5	6.8	5.7	Feb-94
BBgBarc US Aggregate TR				<u>-0.1</u>	<u>1.0</u>	<u>2.7</u>	<u>3.2</u>	<u>1.7</u>	<u>2.3</u>	<u>3.7</u>	<u>5.1</u>	Feb-94
Over/Under				0.2	0.3	0.0	-0.3	1.6	0.2	3.1	0.6	
BlackRock U.S. Debt Fund	276,960,374	5.0		0.0	1.0	2.7	3.2	1.7	2.4	3.8	5.0	Nov-95
BBgBarc US Aggregate TR				<u>-0.1</u>	<u>1.0</u>	<u>2.7</u>	<u>3.2</u>	<u>1.7</u>	<u>2.3</u>	<u>3.7</u>	<u>5.0</u>	Nov-95
Over/Under				0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	
Western	301,720,745	5.5		-0.1	1.5	3.1	3.5	3.1	3.3	6.5	5.9	Dec-96
BBgBarc US Aggregate TR				<u>-0.1</u>	<u>1.0</u>	<u>2.7</u>	<u>3.2</u>	<u>1.7</u>	<u>2.3</u>	<u>3.7</u>	<u>5.0</u>	Dec-96
Over/Under				0.0	0.5	0.4	0.3	1.4	1.0	2.8	0.9	
Reams	315,089,076	5.7		0.1	1.0	2.3	2.3	3.4	1.4	7.6	5.1	Sep-01
Reams Custom Index				<u>0.2</u>	<u>0.5</u>	<u>1.8</u>	<u>2.5</u>	<u>1.6</u>	<u>1.1</u>	<u>3.0</u>	<u>3.8</u>	Sep-01
Over/Under				-0.1	0.5	0.5	-0.2	1.8	0.3	4.6	1.3	
BBgBarc US Aggregate TR				<u>-0.1</u>	<u>1.0</u>	<u>2.7</u>	<u>3.2</u>	<u>1.7</u>	<u>2.3</u>	<u>3.7</u>	<u>4.2</u>	Sep-01
3-Month LIBOR + 3%				0.5	0.9	3.8	5.6	4.6	4.1	3.8	4.8	Sep-01
Loomis Strategic Alpha	47,417,030	0.9		0.3	1.8	1.4	1.8	4.5	2.5	--	2.6	Jul-13
BBgBarc US Aggregate TR				<u>-0.1</u>	<u>1.0</u>	<u>2.7</u>	<u>3.2</u>	<u>1.7</u>	<u>2.3</u>	<u>3.7</u>	<u>2.5</u>	Jul-13
Over/Under				0.4	0.8	-1.3	-1.4	2.8	0.2		0.1	
3-Month LIBOR + 3%				0.5	0.9	3.8	5.6	4.6	4.1	3.8	4.0	Jul-13
Loomis Sayles Multi Strategy	84,862,283	1.5		0.5	2.4	3.4	2.4	6.2	3.8	9.4	6.1	Jul-05
Loomis Custom Index				<u>0.4</u>	<u>2.6</u>	<u>3.0</u>	<u>3.5</u>	<u>4.1</u>	<u>2.9</u>	<u>5.9</u>	<u>4.9</u>	Jul-05
Over/Under				0.1	-0.2	0.4	-1.1	2.1	0.9	3.5	1.2	
BBgBarc US Govt/Credit TR				<u>-0.1</u>	<u>1.1</u>	<u>2.6</u>	<u>3.0</u>	<u>1.8</u>	<u>2.3</u>	<u>3.8</u>	<u>3.9</u>	Jul-05

Reams Custom Index: Merrill Lynch 3 Month Libor Constant Maturity Index, prior to February 2013 the Barclays Aggregate.

Loomis Custom Index: 65% BBgBarc US Aggregate, 30% Citigroup High Yield Market Index and 5% JPM Non-US Hedged Bond Index.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL NET OF FEES

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	433,137,514	7.8	7.0	0.0	0.0	3.2	6.9	6.6	8.8	5.3	7.8	Mar-94
<i>NCREIF ODCE Net</i>				<i>0.0</i>	<i>0.0</i>	<i>3.4</i>	<i>7.4</i>	<i>7.3</i>	<i>9.4</i>	<i>6.0</i>	<i>8.0</i>	<i>Mar-94</i>
Over/Under				0.0	0.0	-0.2	-0.5	-0.7	-0.6	-0.7	-0.2	
Prudential Real Estate	156,400,478	2.8		0.0	0.0	4.0	8.2	7.8	10.0	6.1	6.3	Jun-04
<i>NCREIF ODCE Net</i>				<i>0.0</i>	<i>0.0</i>	<i>3.4</i>	<i>7.4</i>	<i>7.3</i>	<i>9.4</i>	<i>6.0</i>	<i>7.0</i>	<i>Jun-04</i>
Over/Under				0.0	0.0	0.6	0.8	0.5	0.6	0.1	-0.7	
<i>NCREIF ODCE</i>				<i>0.0</i>	<i>0.0</i>	<i>3.9</i>	<i>8.3</i>	<i>8.2</i>	<i>10.4</i>	<i>7.0</i>	<i>8.0</i>	<i>Jun-04</i>
UBS Real Estate	276,737,035	5.0		0.0	0.0	2.8	6.2	5.9	8.0	5.8	7.3	Mar-03
<i>NCREIF ODCE Net</i>				<i>0.0</i>	<i>0.0</i>	<i>3.4</i>	<i>7.4</i>	<i>7.3</i>	<i>9.4</i>	<i>6.0</i>	<i>7.2</i>	<i>Mar-03</i>
Over/Under				0.0	0.0	-0.6	-1.2	-1.4	-1.4	-0.2	0.1	
<i>NCREIF ODCE</i>				<i>0.0</i>	<i>0.0</i>	<i>3.9</i>	<i>8.3</i>	<i>8.2</i>	<i>10.4</i>	<i>7.0</i>	<i>8.2</i>	<i>Mar-03</i>
Total Real Assets	433,320,661	7.8	10.0	0.7	7.6	-0.3	2.3	7.4	1.8	--	4.0	Apr-13
<i>CPI + 4% (Unadjusted)</i>				<i>0.8</i>	<i>1.3</i>	<i>3.0</i>	<i>5.6</i>	<i>6.2</i>	<i>5.5</i>	<i>--</i>	<i>6.2</i>	<i>Apr-13</i>
Over/Under				-0.1	6.3	-3.3	-3.3	1.2	-3.7	--	-2.2	
Bridgewater All Weather Fund	316,052,327	5.7		1.2	5.8	0.7	2.1	7.6	3.7	--	4.6	Aug-13
<i>CPI + 5% (Unadjusted)</i>				<i>0.8</i>	<i>1.4</i>	<i>3.6</i>	<i>6.6</i>	<i>7.3</i>	<i>6.6</i>	<i>--</i>	<i>6.5</i>	<i>Aug-13</i>
Over/Under				0.4	4.4	-2.9	-4.5	0.3	-2.9	--	-1.9	
Tortoise Energy Infrastructure	117,268,335	2.1		-0.8	12.9	-2.9	3.0	7.1	-2.6	--	0.6	Apr-13
<i>Tortoise MLP Index</i>				<i>0.6</i>	<i>14.1</i>	<i>0.0</i>	<i>3.9</i>	<i>9.4</i>	<i>-4.5</i>	<i>--</i>	<i>-2.6</i>	<i>Apr-13</i>
Over/Under				-1.4	-1.2	-2.9	-0.9	-2.3	1.9	--	3.2	
Overlay	77,250,312	1.4	0.0									
Parametric	51,043,364	0.9										
Abbott Capital Cash	26,206,948	0.5										

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index.

Real Estate managers and NCREIF ODCE are valued on a quarterly basis. Performance is not applicable in mid-quarter months, therefore 0% return is shown.

Real Estate Valuation is as of 12/31/2018.



Ventura County Employees' Retirement Association

TOTAL FUND

Cash Flow Summary							
Month Ending February 28, 2019							
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Abbott Capital Cash	\$55,608,643	\$3,778,169	-\$33,277,314	-\$29,499,144	\$0	\$97,449	\$26,206,948
Abbott Secondary Opportunities	\$12,219,909	\$0	\$0	\$0	\$0	\$0	\$12,219,909
Adams Street Global Fund Series	\$173,039,730	\$0	-\$1,002,934	-\$1,002,934	\$0	\$8	\$172,036,804
Battery Ventures XII	\$4,454,818	\$749,075	\$0	\$749,075	\$0	-\$87,334	\$5,116,558
BlackRock ACWI ex-U.S. Index	\$450,259,814	\$0	\$0	\$0	-\$39,931	\$8,915,596	\$459,175,409
BlackRock MSCI ACWI Equity Index	\$588,535,380	\$0	\$0	\$0	-\$21,817	\$15,983,241	\$604,518,621
Blackrock Russell 1000 Index	\$1,341,426,461	\$0	\$0	\$0	-\$11,974	\$45,450,317	\$1,386,876,778
Blackrock Russell 2500 Index	\$61,580,921	\$0	\$0	\$0	-\$1,075	\$2,922,097	\$64,503,018
BlackRock U.S. Debt Fund	\$277,081,703	\$0	\$0	\$0	-\$12,565	-\$121,330	\$276,960,374
Bridgewater All Weather Fund	\$312,221,845	\$0	\$0	\$0	-\$99,178	\$3,830,482	\$316,052,327
Buenaventure One, LLC	\$17,820,574	\$0	\$0	\$0	\$0	\$0	\$17,820,574
Buenaventure Two, LLC	\$181,338	\$0	\$0	\$0	\$0	-\$1,332	\$180,006
Clearlake Capital Partners V	\$4,658,973	\$694,098	\$0	\$694,098	\$0	\$1	\$5,353,071
CVI Credit Value Fund	\$10,498,082	\$1,500,000	\$0	\$1,500,000	\$0	\$233,621	\$12,231,704
Drive Capital Fund	\$6,918,344	\$0	\$0	\$0	\$0	-\$85,287	\$6,833,057
ECI 11	\$1,570,841	\$0	\$0	\$0	\$0	\$41,227	\$1,612,067
GGV Capital VII L.P.	\$508,000	\$0	\$0	\$0	\$0	\$0	\$508,000
GGV Discovery II, L.P.	\$105,000	\$0	\$0	\$0	\$0	\$0	\$105,000
GTCR Fund XII	\$5,444,354	\$0	\$0	\$0	\$0	-\$171,662	\$5,272,692
Harbourvest	\$84,036,426	\$3,000,000	-\$2,763,241	\$236,759	\$0	-\$131,054	\$84,142,132
Hexavest	\$89,484,208	\$0	\$0	\$0	-\$34,379	\$1,152,430	\$90,636,638
Insight Venture Partners X	\$10,035,627	\$2,250,000	\$0	\$2,250,000	\$0	\$375,221	\$12,660,848



Ventura County Employees' Retirement Association

TOTAL FUND

	Month Ending February 28, 2019							Ending Market Value
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change		
Loomis Sayles Multi Strategy	\$84,405,844	\$0	\$0	\$0	-\$27,049	\$456,438	\$84,862,283	
Loomis Strategic Alpha	\$47,265,900	\$0	\$0	\$0	-\$15,806	\$151,130	\$47,417,030	
Monroe Capital Private Credit Fund III	\$6,001,831	\$3,750,000	\$0	\$3,750,000	\$0	\$0	\$9,751,831	
Pantheon Global Secondary Funds	\$39,845,681	\$0	\$0	\$0	\$0	\$0	\$39,845,681	
Parametric	\$52,244,731	\$0	\$0	\$0	-\$5,295	-\$1,201,367	\$51,043,364	
Prudential Real Estate	\$156,400,478	\$0	\$0	\$0	\$0	\$0	\$156,400,478	
Reams	\$314,686,325	\$0	\$0	\$0	-\$45,636	\$402,751	\$315,089,076	
Sprucegrove	\$221,059,241	\$0	\$0	\$0	-\$66,627	\$4,748,043	\$225,807,284	
The Resolute Fund IV L.P	\$2,047,844	\$0	\$0	\$0	\$0	\$0	\$2,047,844	
Tortoise Energy Infrastructure	\$118,114,054	\$0	\$0	\$0	-\$61,077	-\$845,720	\$117,268,335	
UBS Real Estate	\$276,737,035	\$0	\$0	\$0	\$0	\$0	\$276,737,035	
Walter Scott	\$121,679,961	\$0	\$0	\$0	-\$84,854	\$4,277,513	\$125,957,474	
Western	\$301,896,008	\$0	\$0	\$0	-\$50,215	-\$175,263	\$301,720,745	
Western U.S. Index Plus	\$203,979,609	\$0	\$0	\$0	-\$38,867	\$6,956,146	\$210,935,755	
Total	\$5,454,055,534	\$15,721,342	-\$37,043,489	-\$21,322,147	-\$616,345	\$93,173,361	\$5,525,906,748	



Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.





March 25, 2019

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

SUBJECT: AUTHORIZE STAFF TO REQUEST UP TO 140 ADDITIONAL HOURS OF SUPPORT FROM BRENTWOOD I.T.

Dear Board Members:

Background

As the Board is aware, for the past several years, Jo Ford of Brentwood I.T. has been performing vital functions for VCERA, and has done an outstanding job attending to VCERA's security, networking, and other needs. When VCERA's new Chief Technology Officer Leah Oliver was hired several months ago, the Board allowed for the contract with Brentwood I.T. to continue, as it was important for "overlap" to take place to help transition the roles and responsibilities fully to Ms. Oliver, and for key knowledge transfer to be successful. In November of 2018, the Board approved a contract extension through June 2019 (end of the current fiscal year), and authorized expenditures up to the budgeted amounts, including salary savings resulting from the delay in filling the CTO position. The amount budgeted and approved was \$90,100.¹ The knowledge transfer from Jo Ford to Leah Oliver has been progressing and very productive.

Mr. Ford's work has covered all aspects of VCERA's technology development for more than 10 years, and he is responsible for much of our underlying architecture, and these systems are now integral to operations. In fact, his input was required for staff to accurately answer questions from Brown Armstrong on the recent I.T. audit. Staff believes Mr. Ford's background in setting up several of VCERA's systems make him extremely valuable, and perhaps even essential, in fully resolving the issues identified during the audit process. Additionally, there are outstanding infrastructure and system projects as well as data integrity tasks (related to the V3 implementation project) that were begun by Mr. Ford. Staff believes that Mr. Ford would be more suited to complete these than Ms. Oliver, due to the time he has already spent on these projects and his specialized knowledge of these one-off tasks. Put simply, it would be more complicated and time consuming to transition the knowledge and teach than for Mr. Ford to complete (though for some items, Ms. Oliver will be assisting Mr. Ford to leverage the opportunity for training if the Board approves the request).

¹ Amount includes salary savings, as well as already budgeted I.T. expenses.

Provided is a memorandum from CTO Oliver that provides a comprehensive list of these specific tasks with the number of corresponding estimated hours. I have reviewed this list with both Ms. Oliver and Mr. Ford, and I agree with the proposed strategy. To cover the list, we believe an additional 96 hours is needed, though we request 140 hours to allow for any complications or remaining tasks to be completed.


Recommended Action:

1. Authorize staff to request an additional 140 hours (\$19,600) of support from Brentwood IT., for a total amount of \$109,700 for remainder of fiscal year 2018-19.
2. Authorize staff to process the following Budgetary Adjustments:

DECREASE – CONTINGENCY	\$19,600
INCREASE – Service & Supplies	\$19,600

VCERA staff will be pleased to respond to any questions you may have on this matter at the March 25, 2018 Business Meeting.

Sincerely,




Linda Webb
Retirement Administrator



March 11, 2019

To: Linda Webb, Retirement Administrator

From: Leah Oliver, Chief Technology Officer 

SUBJECT: REQUEST FOR SUPPORT HOURS EXTENSION FOR BRENTWOOD I.T.

I am requesting a minimum of 96 hours, not to exceed 140 hours, of additional support from Brentwood I.T. Per your request, provided below are the specific tasks I recommend be completed or lead by Jo Ford, Brentwood I.T.:

The Clustered Virtual Server Environment (Upgrade)

The virtual server clustered environment is new to VCERA and was configured by Jo. To maintain a secure environment, current functionality and vendor support, the cluster environment must be upgraded to the latest version of Windows Server. This would be a practical learning experience for the CTO to be able to better understand the clustered environment and the configurations chosen. Additionally, this will provide a training opportunity so that she can proceed with these tasks during the next iteration of software and/or hardware updates. This task is estimated to take a minimum of 10 hours to complete, barring no issues.

UPS/Power Automated Server Shutdown

The VCERA server infrastructure (located in the VCERA Server Room) is connected to a UPS to ensure consistent uptime, should there be an interruption in power. Runtime is limited based off the voltage of all servers, connected devices, length of power loss and size of the UPS batteries. To ensure that the servers are shut down gracefully (should an interruption of power occur after hours), a custom script is required to perform this task. Development of this script requires both Jo's historical and current knowledge and could transfer that knowledge to the CTO during the process. When working with UPS' and Servers, this is something that often requires multiple people to be able to test and configure accurately. This task is estimated to take a minimum of 15 hours to complete and test.

March 25, 2019

Page 2 of 2

Liberty Document Conversion

Jo has supported Liberty for VCERA for many years and was an integral part of the document migration between Liberty and V3. During the migration, there were conversion issues that arose. There are approximately 70 documents that still need to be “repaired” in Liberty and uploaded to V3. Once the documents are repaired and converted, all documents that were in Liberty will be accessible in V3, closing the loops on the entire conversion. The estimated time to repair these documents is estimated to take at least 35 hours without issue.

Infrastructure Monitoring Software Configurations

Jo is finalizing the installation and configuration of the monitoring nodes on infrastructure devices and servers. For the remaining estimated 6 hours, Jo will work alongside the CTO to complete this task as practical knowledge transfer and training.

Passwords/Security Documentation

Currently not all VCERA passwords are centrally documented nor available to the CTO. There are several passwords that still need to be updated and/or documented to ensure that they are specific to VCERA. This process is estimated to take 6 hours; however changing passwords can be complex and historical configuration knowledge is required to ensure that automated server processes do not stop working unexpectedly.

Infrastructure Documentation

Jo has supported VCERA for more than 10 years and during that time has developed processes, installed hardware and software and configured the infrastructure. Remaining documentation is estimated to take 15 hours and it is recommended that Jo complete this task. Upon completion the CTO can audit the documentation to ensure that the information is relevant and can be used for reference in the future.

Technology Hardware (Surplus/Separate)

VCERA hardware is currently comingled with Brentwood I.T. hardware. The hardware must be separated from Brentwood IT hardware; and this is only a task that can be performed by Jo, since the hardware belongs to his company. This is estimated to take 4 hours to complete.

Batch Upload in V3 Using Kofax

Kofax is the imaging solution provided by the County of Ventura. Potential future projects in V3 may require this solution and therefore testing is required. Jo participated with initial testing of Kofax during the implementation of V3 and is familiar with its requirements. Testing of this feature to confirm functionality is estimated to take 5 hours, which will provide results to confirm if this solution will meet VCERA’s needs.

Thank you for considering my request.



March 25, 2019

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

SUBJECT: ANNOUNCEMENT OF UPCOMING VACANCY IN SEVENTH MEMBER BOARD POSITION AND ELECTION TO FILL VACANCY WITH MEMBER OF FIRE SAFETY GROUP

Dear Board Members:

Trustee Chris Johnston currently serves as the Board's Seventh Member, and he has recently announced his pending retirement after March 27th. This will cause a vacancy in his Board position.

Mr. Johnston's term does not expire until 12/31/2020. Under the Board's policy for board member appointments and elections, and CERL requirements, VCERA will conduct an election to fill the Seventh Member seat. Per prior Board direction, the Board is holding off on conducting an election for the Alternate Seventh Member position until the conclusion of the Civil Service Commission proceedings concerning Mr. Towner's employment.

Per GC 31520.1, the Safety Member position and Alternate Safety position, if any, must be filled by members from different Safety groups. As Mr. Towner is a member of the law enforcement group, the election to fill the regular Seventh Member seat will be limited to members from the fire group.

VCERA staff will be pleased to respond to any questions at the March 25, 2018 Business Meeting.

Sincerely,

Linda Webb
Retirement Administrator



March 25, 2019

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

**SUBJECT: RECOMMENDATION FOR AUTHORIZATION FOR RETIREMENT BENEFITS
MANAGER, SHALINI NUNNA TO ATTEND THE 2019 CALAPRS 2019
MANAGEMENT/LEADERSHIP ACADEMY, APRIL 15 – 16, JUNE 10 – 12, AND JULY
22 – 24, 2019, IN PASADENA, CA**

Dear Board Members:

Staff recommends authorization for Retirement Benefits Manager, Shalini Nunna to attend the CALAPRS 2019 Management/Leadership Academy, Pasadena, CA, April 15 – 16, June 10 – 12, and July 22 – 24, 2019. The course is organized into three separate modules that begin in April. The academy has been offered to help meet the unique challenges for those in mid-level management positions in a public retirement system. The estimated cost to attend all three modules is \$4,500, including registration, hotel, meals and other related expenses. Sufficient funds are in the current adopted budget for this training request.

VCERA staff will be pleased to respond to any questions at the March 25, 2019 business meeting.

Sincerely,

Linda Webb
Retirement Administrator



2019 Management/Leadership Academy

April 15-16, June 10-12, and July 22-24, 2019
The Westin Pasadena, 191 N Los Robles Ave., Pasadena, CA 91101

The Need

Public retirement systems offer management challenges far different than those found in either the private sector or other government settings. But training to fill this unique need is not readily available.

The Solution

The CALAPRS Board of Directors is pleased to offer the Management/Leadership Academy again in 2019. The Academy is for mid-level managers in larger systems and supervisors in smaller systems. The ideal candidate is a retirement system subordinate manager or supervisor with a couple of years of experience leading a team in benefits, accounting, investments or administrative aspects of your public retirement system.

The CALAPRS Board of Directors has contracted with **The Centre for Organization Effectiveness** based in San Diego to present the course. The Centre has the best approach and training resources to give Academy participants outstanding training and exposure to enterprise management, problem solving, leadership and a feedback component in the retirement system context. Previous students have given the Academy **rave reviews**. Here's a typical comment:

"The information presented was top level, but to be able to discuss it with the other retirement system students made the Academy a truly wonderful and beneficial experience. I know it will make me a better retirement manager for years to come." - Gladys Smith, Benefits Manager, San Mateo County Employees' Retirement Association.

The Academy is organized into three cumulative modules:

MODULE ONE	MODULE TWO		MODULE THREE	
APRIL 15-16	JUNE 10-12		JULY 22-24	
<p style="text-align: center;">BEING AN EFFECTIVE MANAGER</p> <ul style="list-style-type: none"> ➤ Changing Role/Expectations ➤ Emerging HR Trends in Industry ➤ Top 10 Success Tips for Managers 	<p style="text-align: center;">360° SURVEY FEEDBACK</p> <ul style="list-style-type: none"> ➤ Leadership Competencies ➤ Review 360° Survey Reports ➤ Prepare Individual Development Plans ➤ Coaching Activities 	<p style="text-align: center;">PERFORMANCE MANAGEMENT</p> <ul style="list-style-type: none"> ➤ Model of Performance Management ➤ Measuring Performance Against Goals/Standards ➤ Giving Performance Feedback ➤ Dealing with Poor Performers 	<p style="text-align: center;">ETHICAL DECISION-MAKING</p> <ul style="list-style-type: none"> ➤ Ethical Theories ➤ Case Examples ➤ 7-Step Model to Resolve 	<p style="text-align: center;">INTER-GENERATIONAL WORKFORCE ISSUES</p> <ul style="list-style-type: none"> ➤ Generational Differences ➤ Defining Characteristics ➤ Managing & Recruiting
<p style="text-align: center;">CUSTOMER SERVICE FOCUS</p> <ul style="list-style-type: none"> ➤ Who Are Our Customers? ➤ Clarifying Expectations ➤ Customer Service Model ➤ Feedback from Customers ➤ Service & Satisfaction Metrics 	<p style="text-align: center;">STRATEGIC THINKING & PLANNING</p> <ul style="list-style-type: none"> ➤ What is Strategic Thinking? ➤ Strategic Planning Model ➤ SWOT Mock Analysis ➤ Balanced Scorecard ➤ Business Metrics 	<p style="text-align: center;">DECISION MAKING & INVOLVEMENT</p> <ul style="list-style-type: none"> ➤ Types of Decisions ➤ A Decision Making Model ➤ Levels of Involvement ➤ Real Cases and Decisions 	<p style="text-align: center;">EFFECTIVE INFLUENCE SKILLS</p> <ul style="list-style-type: none"> ➤ Politics Defined ➤ Political Styles ➤ Political Power and Personal Power ➤ Case Studies 	<p style="text-align: center;">MANAGING CHANGE</p> <ul style="list-style-type: none"> ➤ Manager's Role in Change ➤ Change Model ➤ Change vs. Transition ➤ Mindsets ➤ Overcoming Resistance
GRADUATION				



Where and When

Each of the Academy's three Modules will be held at The Westin Pasadena.

MODULE ONE starts at 10 AM on Monday, April 15. On April 15, lunch will be provided and a working reception will follow the formal instruction; students will be on their own for dinner. A buffet breakfast and lunch will be provided on Tuesday, April 16. The Module ends with a boxed lunch (12 PM) on April 16.

MODULE TWO starts at 10 AM on Monday, June 10. On June 10, lunch will be provided and a working reception will follow the formal instruction; students will be on their own for dinner. On June 11 & 12, buffet breakfast and lunch will be provided; on June 11 a working reception will follow the formal instruction; students will be on their own for dinner. The Module ends with a boxed lunch (12 PM) on June 12.

MODULE THREE starts at 10 AM on Monday, July 22. On July 22, lunch will be provided and a working reception will follow the formal instruction; students will be on their own for dinner. On July 23 and 24 buffet breakfast and lunch will be provided; on July 23 a working reception will follow the formal instruction; students will be on their own for dinner. The Module ends with Graduation and lunch (1 PM) on July 24.

How to Participate

Applications must be received by CALAPRS no later than **Friday, March 1, 2019**. The Retirement System Administrator/CEO/Executive Director nominates the subordinate managers (supervisors in smaller systems) for this unique training experience on the attached Application Form. The Academy will be limited to 36 students and applications will be accepted on a first-come, first-served basis. Due to limited space, CALAPRS reserves the right to limit the number of attendees accepted from each system, if need be.

Each student and his/her administrator must commit to attendance by the student at all three modules. Since the Academy Modules are cumulative, persons may not be substituted after the start of the first Module.

Hotel and Travel Arrangements

It is the System's responsibility to assure that students attend each Module and make appropriate hotel and travel arrangements for Academy student(s) at the system's expense. CALAPRS has arranged for a discounted room rate at The Westin Pasadena of \$175/night + tax and encourages students to stay in the hotel for the following nights: April 15, June 10 & 11, and July 22 & 23. Instructions to obtain the discounted room rate will be distributed to applicants and posted on the CALAPRS website.

Tuition

If you register online, an invoice will be automatically generated for you. If you register using the printed form, please consider the Application to be your invoice. The total cost for each Academy Student is \$3,000 and must be paid by **March 29, 2019**. The \$3,000 covers the meals outlined above and training resources for all three Modules. Tuition is non-refundable after the start of the first session.



2019 Management/Leadership Academy

April 15-16, June 10-12, and July 22-24, 2019
The Westin Pasadena, 191 N Los Robles Ave., Pasadena, CA 91101

APPLICATION FOR ENROLLMENT
Due by Friday, March 1, 2019

Online registration is also available at www.calaprs.org

Applicant must be a subordinate manager/supervisor of a California public retirement system. The Academy will be limited to 36 students and applications will be accepted on a first-come, first-served basis. Due to limited space, CALAPRS reserves the right to limit the number of attendees accepted from each system, if need be. Please use a separate enrollment form for each applicant. Students accepted for enrollment will be notified the week of March 4, 2019. The notification will also include information for making hotel reservations and travel arrangements.

APPLICANT INFORMATION

Name (for certificate/name badge): _____

Retirement System: _____

Title: _____ Years of Management Experience: _____

Mailing Address: _____

Phone: _____ Email: _____

Emergency Contact (name, phone): _____

Dietary Restrictions (if any): _____

Administrative Contact (name, email): _____

Email Student's biography (≤150 words) to register@calaprs.org for printing in the attendee binder.

APPLICANT SIGNATURE

If admitted, I agree to participate in all of the sessions of the CALAPRS Management Academy in full and acknowledge that missing one or more sessions may result in forfeiture of my Certificate of Completion, as determined by the Faculty.

Student Signature (required) _____ Date: _____

ADMINISTRATOR APPROVAL

Administrator Name: _____ Email: _____

I understand that if admitted, this applicant must participate in all of the Sessions of the Management/Supervisory Academy in order to receive a Certificate of Completion.

Administrator Signature (required): _____

TUITION PAYMENT

Please use this Application as your invoice.

The total cost for each Academy Student is \$3,000 and is due upon acceptance, no later than **March 29, 2019**. Tuition covers the meals outlined in the attached packet as well as training resources for all three Modules and is non-refundable after the start of the first session. Payable by check only and mailed to "CALAPRS".

SUBMIT FORM & PAYMENT TO:

CALAPRS
575 Market Street, Suite 2125
San Francisco, CA 94105
Fax: 415-764-4915
Email: register@calaprs.org

Questions? Call 415-764-4860



If, due to a disability, you have any special needs, call 415-764-4860 to let us know. We will do our best to accommodate them.



MAY 7-8, 2019 | BOSTON PARK PLAZA | #NEPC_CONFERENCE

The **24th Annual NEPC Investment Conference** is fast approaching. The event will be held on May 7th and 8th at the Boston Park Plaza Hotel. To help us best meet your needs, we are encouraging attendees to register early. You can view the event summary and agenda by clicking on the links below. Please let us know if you are interested in attending by selecting the Yes button at the bottom of this page. Your response is greatly appreciated.

If you are in need of hotel accommodations, we have reserved a block of rooms at the Boston Park Plaza. To make your hotel reservation, please complete the conference registration and then use the hotel weblink or phone number provided to book your room.

As always, there is no cost associated with the actual conference.

We hope to see you there!

Sincerely,
NEPC, LLC

Please note, this conference is open to NEPC clients and prospective clients only. Investment managers do not subsidize or underwrite NEPC's conferences or workshops.

When

Tuesday, May 7, 2018 11:00 AM - Wednesday, May 8, 2018 3:15 PM
Eastern Time

Where

Boston Park Plaza
50 Park Plaza
Boston, Massachusetts 02116

Dress Code

Business Casual

[View Conference Summary](#)

[View Conference Agenda](#)

Register By

Tuesday, April 30, 2019

Please respond by clicking one of the buttons below.

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

AGENDA

Tuesday, May 7, 2019

8:30 AM - 9:00 AM

Pre-Registration

For those attending the Pre-Conference Workshops, feel free to stop by our registration desk early to pick up your name badge and additional materials for the conference. A continental breakfast will also be available.

9:00 AM - 10:00 AM

Pre-Conference Workshop (Optional)

We will be holding some optional Pre-Conference Workshop sessions on Tuesday morning from 9am-11am at the Boston Park Plaza - two sessions will be offered at 9am and two sessions at 10am. The sessions are listed below. If you are interested, please indicate which session(s) you would like to attend during the registration process.

Option 1: How to Get the Most Out of NEPC

In this session, come learn about the 'whole' NEPC experience, and what you might be missing. NEPC is a multi-faceted firm serving many different kinds of investment programs. While we strive to provide the best coverage, service and research possible, you may not be aware of everything we can offer. This will be an interactive session that will allow you to hear about the entire experience and what is available.

Option 2: What Should One Look for in an Investment Manager?

Gone are the Peter Lynch (Random Walk Down Wall Street) days when, if you 'wore Gap jeans you should buy Gap stock'. The investment landscape is more complex and crowded than ever. What should one look for? We don't believe being a 'good stock picker' is enough anymore. Over the course of this session, we will outline key red flags as well as best practices we believe are most important in managers. This would be spelled out for both small, boutiques as well as big, employee heavy managers.

10:00 AM - 11:00 AM

Pre-Conference Workshop (Optional)**Option 1: Multi-Asset: Investor Fit****Option 2: The Nuts and Bolts of Fiduciary Duty: Managing Personal and Organizational Risk**

What do plan sponsors, managers of foundations and endowments, board members and committee members have in common? They all owe specific legal duties as fiduciaries. This workshop is focused on the core duties every good fiduciary needs to know when making decisions. Among the topics will be:

- What are the core duties of a good fiduciary? When are these duties important?
- Special requirements for ERISA plans and mission-driven endowments and foundations.
- Ways to satisfy fiduciary duties and avoid problems - practical tips.
- Ethical investing, social responsibility and other ESG strategies - does it fit with fiduciary duty?
- Managing risk with third party service providers, consultants, lawyers and others.

11:00 AM - 12:30 PM

Registration / Lunch

12:30 PM - 12:45 PM

Welcome and State of the Firm

12:45 PM - 1:15 PM

Late Cycle and Long Cycle

1:15 PM - 2:30 PM

Keynote Speaker: Laurence D. Fink, Chairman and Chief Executive Officer, BlackRock, Inc.

2:30 PM - 2:45 PM

Networking Break

2:45 PM - 3:45 PM

Featured Economist

3:45 PM - 4:45 PM

Keynote Speaker: Jonathan Karl, ABC News

Business Meeting Agenda - XI. INFORMATIONAL

4:45 PM - 5:45 PM **Cocktail Reception**

5:45 PM - 8:00 PM

Group Dinners

We are excited to host several dinners with our staff to round out the first day of the conference. Please select whether or not you are interested in attending dinner during the registration process. Additional details will be communicated closer to the event.

Wednesday, May 8, 2019

8:00 AM - 8:30 AM

Hot Breakfast

8:30 AM - 8:45 AM

Opening Remarks

8:45 AM - 9:45 AM

Keynote Speaker: Nancy Giordano, Strategic Futurist, Corporate Strategist, TEDx Austin Curator

9:45 AM - 10:00 AM

Transition to Breakout Sessions

10:00 AM - 10:45 AM

Concurrent Sessions I

- A. Impacts on Fixed Income: Tightening Global Liquidity and Sinking Credit Quality
- B. Love It or List It: Does Selling Illiquid Investments Make Sense or Cents?
- C. The Investment Implications of Climate Change
- D. What a Long Strange Trip It's Been: The Journey of the First 401(k) Participants

10:45 AM - 11:00 AM

Networking Break

11:00 AM - 11:45 AM

Concurrent Sessions II

- A. Diversity in Finance (or the Lack Thereof)
- B. Opportunity Zones: Doing Good in a Tax-Advantage Way
- C. Retail Me Not: The Impact of Index Funds and ETFs on the Market
- D. The Millennial Mindset: Evolution of Modern Business Practices

11:45 AM - 1:00 PM

Lunch

1:00 PM - 1:45 PM

Concurrent Sessions III

- A. Dollar\$ and ¢ents: Transitioning Decisions into Dollars for Defined Contribution Participants
- B. Emerging Market Transition Stories
- C. Making Sense of ESG Ratings
- D. The Transition from Advisory to OCIO: Flex Those Muscles!

1:45 PM - 2:00 PM

Transition to Final Session

2:00 PM - 3:00 PM

Around the Horn: Overvalued or Undervalued?

3:00 PM - 3:15 PM

Closing Remarks

BOSTON PARK PLAZA HOTEL



The **Boston Park Plaza** is so much more than a hotel. It is a Boston icon that is as much a part of the city's heritage as the Boston Tea Party and the annual Head of the Charles Regatta. They offer an experience that is truly one-of-a-kind, a place where you can enjoy a richly textured and profoundly memorable taste of the real Boston.

Following a landmark renovation, the Boston Park Plaza offers guests all the charisma and deeply individual charm of a historic hotel with the effortless comforts of a new one. Once again a destination unto itself, the hotel offers incomparable proximity to everything that makes Boston a treasured destination. It is one of the most sought-after hotels near Boston Common and enjoy an ideal location among the hotels in downtown Boston, just steps away from the Public Garden, Theater District and many of the city's most popular historical sites.

Address:

Boston Park Plaza Hotel
50 Park Plaza at Arlington Street
Boston, MA 02116

Valet Parking Entrance
34 Columbus Avenue
Boston, MA 02116

Booking a Hotel Room:

If you need to book a room at the Boston Park Plaza, you can call **(617) 379-7129** or [click here](#) to book your room online.

Please note, booking a hotel room for the conference does not register you for the actual conference. To register, please click the "Register Now" button below and complete the registration process to ensure we have materials for you at the conference.

Directions & Parking:

The Park Plaza is located 15 minutes from Boston's Logan Airport.

For information on driving directions, public transportation and parking at the hotel, [click here](#).