SHAWN T. WOODEN
TREASURER

State of Connecticut
Office of the Treasurer

DARRELL V. HILL
DEPUTY TREASURER

MEMORANDUM

TO: **Members of Investment Advisory Council**

FROM: **Shawn T. Wooden, State Treasurer and Council Secretary**

DATE: **September 3, 2021**

SUBJECT: **Investment Advisory Council Meeting – September 8, 2021**

Enclosed is the agenda package for the Investment Advisory Council meeting on Wednesday, September 8, 2021 starting at 9:00 A.M.

The following subjects will be covered at the meeting:

Item 1: **Approval of the Minutes of the August 11, 2021 IAC Meeting & August 11, 2021 IAC Audit Subcommittee Meeting**

Item 2: **Opening Comments by the Treasurer**

Item 3: **Update on the Market and the CRPTF Performance**

Ted Wright, Chief Investment Officer, will provide an update on the capital market environment and will report on the following:

- The CRPTF performance as of June 30, 2021 and July 31, 2021

Item 4: **Presentation by and Consideration of the Finalists for the Domestic Equity Fund - Small Capitalization Search**

Paul Osinloye, Principal Investment Officer, will provide opening remarks and introduce the following firms as the finalists for the Domestic Equity Fund - Small Capitalization search.

- Ariel Investments, LLC
- Channing Capital Management, LLC
- Lord Abbett & Co.
- Riverbridge Partners, LLC
- Wellington Management Company, LLP

Item 5: **HarbourVest CRPTF Co-Investment Partnership**

Mark Evans, Principal Investment Officer, will provide opening remarks and introduce HarbourVest, a Private Investment Fund opportunity.

Item 6: **Morgan Stanley Investment Management Real Assets Co-Investment Strategic Partnership**

Raynald Leveque, Deputy Chief Investment Officer, will provide opening remarks and introduce Morgan Stanley Investment Management, a Real Assets Fund opportunity.

Item 7: **Other Business**

- Discussion of the preliminary agenda for the October 13, 2021 IAC meeting

Item 8: **Comments by the Chair**

We look forward to reviewing these agenda items with you at the September 8th meeting.

Please confirm your attendance with katrina.farquhar@ct.gov as soon as possible.

STW/kf

Enclosures

INVESTMENT ADVISORY COUNCIL
Wednesday, August 11, 2021

SUCH MINUTES ARE IN DRAFT FORM AND SUBJECT TO THE FINAL REVIEW AND APPROVAL OF THE INVESTMENT ADVISORY COUNCIL

MEETING NO. 495

Members present:	D. Ellen Shuman, Chair
	Treasurer Wooden, Secretary
	Thomas Fiore, representing Secretary Melissa McCaw
*10:41am departure	Joshua Hall
	Michael Knight
	Michael LeClair
	William Murray
	Patrick Sampson
Members absent:	Steven Muench
Others present:	Steven Meier, Interim Chief Investment Officer
	Kevin Cullinan, Chief Risk Officer
	Patricia DeMaras, Legal Counsel
	Mark Evans, Principal Investment Officer
	Lyndsey Farris, Principal Investment Officer
	Karen Grenon, Legal Counsel
	Darrell Hill, Deputy Treasurer
	Harvey Kelly, Pension Fund Analyst
	Peter Gajowiak, Senior Investment Officer
	Felicia Genca, Pension Fund Analyst
	Raynald Leveque, Deputy Chief Investment Officer
	Paul Osinloye, Principal Investment Officer
	Veronica Sanders, Executive Secretary
	Christine Shaw, Assistant Treasurer for Corporate Governance & Sustainable Investment
	Michael Terry, Principal Investment Officer
	Olivia Wall, Investment Officer
Guests:	Greg Balewicz, Lord Abbett
	Mary Mustard, Meketa Investment Group
	Liz Smith, AllianceBernstein
	Peter Woolley, Meketa Investment Group
	Public Line

With a quorum present, Chair D. Ellen Shuman called the Investment Advisory Council (“IAC”) meeting to order at 9:01 a.m.

Approval of Minutes of the July 14, 2021 IAC Meeting

Chair Shuman called for a motion to accept the minutes of the July 14, 2021 IAC Meeting. **William Murray moved to approve the minutes. The motion was seconded by Michael**

LeClair. There was one abstention from Patrick Sampson. There being no further discussion, the Chair called for a vote and the motion passed.

Comments by the Treasurer

Treasurer Wooden welcomed IAC members and began by thanking Interim Chief Investment Officer ("CIO") Steven Meier for his hard work and diligence through one of the most challenging economic climates the State has ever faced. He stated that this was Mr. Meier's last IAC and announced Edward "Ted" Wright of Los Angeles County Employees Retirement Association ("LACERA") was selected as the next CIO and would start on Monday, August 23rd.

Treasurer Wooden gave a brief overview of the agenda and thanked the members for joining the meeting.

Update on the Market and the Connecticut Retirement Plans and Trust Funds Performance

Mr. Meier, Interim CIO, provided an update on the Connecticut Retirement Plans and Trust Fund's performance and commented on the capital market environment and the economic outlook.

Cash Flow Analysis

Raynald Leveque, Deputy CIO and Peter Gajowiak, Senior Investment Officer, presented the Cash Flow Report projections for Fiscal Year 2021 and provide an update on actual cash flows for Fiscal Year 2020.

Peer Performance Review Analysis

Mary Mustard and Peter Wooley of Meketa Investment Group presented a public pension plan peer performance review analysis.

Executive Session

Chair Shuman asked for a motion to move into Executive Session. **A motion was made by Thomas Fiore, seconded by Mr. Murray that the Investment Advisory Council enter into Executive Session to consider personnel matters and discuss a potential contractual matter at 10:42 a.m. The motion passed unanimously.** Darrell Hill, Deputy Treasurer; Steven Meier, Interim CIO; and Mark Evans, Principal Investment Officer; were invited to attend the Executive Session.

Chair Shuman reconvened the regular session at 11:10 a.m**. Chair Shuman noted that no substantive votes or actions were taken during the Executive Session.**

Consent to the Waive the 45-day Comment Period for the Potential Contractual Matter

Chair Shuman asked for a motion to waive the 45-day comment period for the potential contractual matter. **A motion was made by Mr. Sampson, seconded by Mr. Murray to waive the 45-day comment period for the potential contractual matter. The motion passed.**

Vote to approve the Revised Relocation Policy

Chair Shuman called for a motion to approve the revised relocation policy. **A motion was made by Mr. Murray, seconded by Mr. Sampson, to approve the revised relocation policy**. There being no further discussion, Chair Shuman called for a vote and the motion passed.

Other Business

Chair Shuman invited the council members to submit agenda items for the next meeting being held on September 8, 2021.

Comments by the Chair

There being no further business, Chair Shuman called for a motion to adjourn the meeting. **Treasurer Wooden moved to adjourn the meeting and the motion was seconded by Mr. Fiore. There being no discussion, the meeting was adjourned at 11:13 a.m.**

SUCH MINUTES ARE IN DRAFT FORM AND SUBJECT TO THE FINAL REVIEW AND APPROVAL OF THE INVESTMENT ADVISORY COUNCIL

MEETING NO. 496

Members present:	Michael Knight, Audit Subcommittee Chair D. Ellen Shuman Thomas Fiore, representing Secretary Melissa McCaw
Members absent:	Michael LeClair Steven Muench
Others present:	Katrina Farquhar, Executive Assistant Darrell Hill, Deputy Treasurer Peter Gajowiak, Senior Investment Officer
Guests:	Lisa Daly, State Auditor David Tarallo, State Auditor Public Line

With a quorum present, Chair Michael Knight called the Investment Advisory Council ("IAC") Audit Subcommittee meeting to order at 11:301 a.m.

Opening Comments by the Chair

Chair Knight welcomed the IAC audit subcommittee members to the meeting.

Executive Session

Chair Knight asked for a motion to move into Executive Session. **A motion was made by Thomas Fiore, seconded by D. Ellen Shuman that the Investment Advisory Council Audit Subcommittee enter into Executive Session to discuss the audit process at 11:31 a.m. The motion passed unanimously.** Lisa Daly, State Auditor; David Tarallo, State Auditor; Darrell Hill, Deputy Treasurer; and Peter Gajowiak, Senior Investment Officer were invited to attend the Executive Session.

Chair Knight reconvened the regular session at 12:29 p.m**. Chair Knight noted that no substantive votes or actions were taken during the Executive Session.**

Meeting Adjourned

There being no further business, Chair Knight called for a motion to adjourn the meeting. **Mr. Fiore moved to adjourn the meeting and the motion was seconded by Ms. Shuman. There being no discussion, the meeting was adjourned at 12:29 p.m.**

TEACHER'S RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Teacher's Retirement Fund					**$21,942.3**	**1.29**	**5.94**	**24.28**	**8.12**	**24.28**	**10.24**	**10.40**	**7.79**	**8.03**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.61*	*10.54*	*7.90*	*8.28*
Dynamic Benchmark						*1.13*	*4.83*	*23.99*	*7.73*	*23.99*	*10.61*	*10.56*	*7.85*	*N/A*
Domestic Equity	**22.4%**	**20.0**	15.0	25.0	**$4,913.9**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.46**	**17.87**	**13.88**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$2,903.7**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.39**	**6.99**	**7.75**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*7.85*
Emerging Markets ISF	**12.6%**	**9.0**	4.0	14.0	**$2,766.3**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**5.18**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*4.31*
Global Equities [4]	**48.2%**	**40.0**	25.0	55.0	**$10,583.8**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$2,729.9**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$1,140.7**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.79**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.2%**	**3.0**	0.0	8.0	**$1,351.6**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.12**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**2.0%**	**2.0**	0.0	3.0	**$444.2**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.90**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets[1]	**11.8%**	**19.0**	10.0	25.0	**$2,598.3**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.32**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*8.92*
Private Investment[1]	**8.8%**	**10.0**	5.0	15.0	**$1,926.5**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**14.14**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*15.13*
Private Credit[1]	**0.9%**	**5.0**	0.0	10.0	**$189.9**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.5%**	**3.0**	0.0	10.0	**$977.4**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**3.16**
Absolute Return Strategy blended benchmark [3]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns: Three Year	Five Year	Seven Year	Ten Year
State Employees' Retirement Fund					**$16,156.0**	**1.29**	**5.95**	**24.36**	**8.13**	**24.36**	**10.28**	**10.47**	**7.84**	**8.08**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.60*	*10.54*	*7.91*	*8.29*
Dynamic Benchmark						*1.13*	*4.84*	*24.08*	*7.73*	*24.08*	*10.66*	*10.66*	*7.95*	*N/A*
Domestic Equity	**22.3%**	**20.0**	15.0	25.0	**$3,603.7**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.87**	**13.88**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$2,128.9**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.39**	**6.99**	**7.75**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*7.85*
Emerging Markets ISF	**12.6%**	**9.0**	4.0	14.0	**$2,029.3**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**5.18**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*4.31*
Global Equities (4)	**48.0%**	**40.0**	25.0	55.0	**$7,761.9**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$2,009.8**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$837.0**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.79**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.2%**	**3.0**	0.0	8.0	**$993.8**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.12**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**2.3%**	**2.0**	0.0	3.0	**$376.7**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.91**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets(1)	**11.8%**	**19.0**	10.0	25.0	**$1,901.6**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.32**
*Blended Custom Benchmark 1Q in Arrears^* (2)						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*8.92*
Private Investment(1)	**8.8%**	**10.0**	5.0	15.0	**$1,418.5**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**14.15**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*15.13*
Private Credit(1)	**0.9%**	**5.0**	0.0	10.0	**$138.1**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	8.0	**$718.7**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**3.16**
Absolute Return Strategy blended benchmark (3)						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

MUNICIPAL EMPLOYEES RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns Three Year	Five Year	Seven Year	Ten Year
Municipal Employees' Retirement Fund					**$3,290.1**	**1.29**	**5.97**	**24.39**	**8.16**	**24.39**	**10.47**	**10.10**	**7.68**	**7.70**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.67*	*10.11*	*7.59*	*7.97*
Dynamic Benchmark						*1.14*	*4.86*	*24.11*	*7.75*	*24.11*	*10.84*	*10.21*	*7.69*	*N/A*
Domestic Equity	**22.3%**	**20.0**	15.0	25.0	**$732.8**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.87**	**13.88**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$432.9**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.40**	**6.99**	**7.75**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*7.85*
Emerging Markets ISF	**12.5%**	**9.0**	4.0	14.0	**$411.0**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**5.18**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*4.31*
Global Equities [(4)]	**47.9%**	**40.0**	25.0	55.0	**$1,576.7**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$409.3**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$168.9**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.79**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$200.8**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.12**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**2.6%**	**2.0**	0.0	3.0	**$86.3**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.90**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets[(1)]	**11.8%**	**19.0**	15.0	25.0	**$387.5**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.32**
*Blended Custom Benchmark 1Q in Arrears^* [(2)]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*8.92*
Private Investment[(1)]	**8.8%**	**10.0**	5.0	15.0	**$288.0**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**14.15**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*15.13*
Private Credit[(1)]	**0.9%**	**5.0**	0.0	10.0	**$28.6**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	10.0	**$143.9**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**3.16**
Absolute Return Strategy blended benchmark [(3)]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

OPEB FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

											Compound, annualized returns			
Funds *Benchmark*	**Percent Holdings**	**Policy Weights**	**Lower Range**	**Upper Range**	**Market Value (mil.)**	**Month**	**Three Months**	**Fiscal YTD**	**Calendar YTD**	**One Year**	**Three Year**	**Five Year**	**Seven Year**	**Ten Year**
OPEB					**$2,026.4**	**1.30**	**6.00**	**24.61**	**8.21**	**24.61**	**10.71**	**9.94**	**7.79**	**N/A**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.77*	*9.82*	*7.74*	*N/A*
Dynamic Benchmark						*1.14*	*4.87*	*24.34*	*7.81*	*24.34*	*11.24*	*10.06*	*7.92*	*N/A*
Domestic Equity	**22.1%**	**20.0**	15.0	25.0	**$447.5**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.88**	**13.88**	**N/A**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*N/A*
Developed Markets ISF	**13.1%**	**11.0**	6.0	15.0	**$264.7**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.98**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**12.5%**	**9.0**	4.0	14.0	**$253.0**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [4]	**47.6%**	**40.0**	25.0	54.0	**$965.2**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.3%**	**13.0**	8.0	18.0	**$249.5**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**N/A**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*N/A*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$105.8**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.79**	**4.29**	**2.74**	**N/A**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*N/A*
High Yield	**6.2%**	**3.0**	0.0	8.0	**$125.5**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**N/A**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*N/A*
Liquidity Fund	**2.9%**	**2.0**	0.0	3.0	**$58.5**	**0.01**	**0.02**	**0.13**	**0.03**	**0.13**	**1.41**	**1.41**	**0.94**	**N/A**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*N/A*
Real Assets [1]	**11.6%**	**19.0**	15.0	25.0	**$235.5**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.19**	**7.88**	**N/A**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*N/A*
Private Investment [1]	**8.8%**	**10.0**	5.0	15.0	**$177.8**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.60**	**17.59**	**15.79**	**N/A**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*N/A*
Private Credit [1]	**1.0%**	**5.0**	0.0	10.0	**$20.1**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	10.0	**$88.5**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**N/A**
Absolute Return Strategy blended benchmark [3]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

PROBATE JUDGES EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns Three Year	Five Year	Seven Year	Ten Year
Probate Judges Employees' Retirement Fund					**$139.3**	**1.25**	**5.88**	**24.30**	**8.06**	**24.30**	**10.36**	**10.04**	**7.64**	**7.72**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.67*	*10.18*	*7.64*	*8.05*
Dynamic Benchmark						*1.09*	*4.78*	*24.02*	*7.67*	*24.02*	*10.87*	*10.30*	*7.75*	*N/A*
Domestic Equity	**21.4%**	**20.0**	15.0	25.0	**$29.8**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.87**	**13.88**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**12.7%**	**11.0**	6.0	16.0	**$17.7**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.40**	**6.99**	**7.75**
MSCI EAFE IMI						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*7.85*
Emerging Markets ISF	**12.1%**	**9.0**	4.0	14.0	**$16.8**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.12**	**7.63**	**5.18**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*4.31*
Global Equities (4)	**46.2%**	**40.0**	25.0	55.0	**$64.3**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**11.9%**	**13.0**	8.0	18.0	**$16.6**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.0%**	**5.0**	0.0	10.0	**$6.9**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.78**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**5.9%**	**3.0**	0.0	8.0	**$8.3**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.12**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**5.9%**	**2.0**	0.0	3.0	**$8.3**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.90**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets(1)	**11.4%**	**19.0**	15.0	25.0	**$15.8**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.32**
*Blended Custom Benchmark 1Q in Arrears^* (2)						*N/A*	2.59	4.23	2.77	4.23	5.20	5.99	7.75	8.92
Private Investment(1)	**8.5%**	**10.0**	5.0	15.0	**$11.9**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**14.15**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	7.08	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*15.13*
Private Credit(1)	**0.8%**	**5.0**	0.0	10.0	**$1.1**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	2.00	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.3%**	**3.0**	0.0	10.0	**$6.0**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**3.16**
Absolute Return Strategy blended benchmark (3)						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE JUDGES RETIREMENT FUND

Net of All Fees and Expenses
Periods Ending June 30, 2021

											Compound, annualized returns			
Funds *Benchmark*	**Percent Holdings**	**Policy Weights**	**Lower Range**	**Upper Range**	**Market Value (mil.)**	**Month**	**Three Months**	**Fiscal YTD**	**Calendar YTD**	**One Year**	**Three Year**	**Five Year**	**Seven Year**	**Ten Year**
State Judges Retirement Fund					**$294.8**	**1.30**	**5.97**	**24.37**	**8.15**	**24.37**	**10.45**	**10.11**	**7.68**	**7.79**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.67*	*10.11*	*7.59*	*7.97*
Dynamic Benchmark						*1.14*	*4.86*	*24.08*	*7.75*	*24.08*	*10.96*	*10.30*	*7.75*	*N/A*
Domestic Equity	**22.2%**	**20.0**	15.0	25.0	**$65.5**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.87**	**13.88**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.1%**	**11.0**	6.0	16.0	**$38.7**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.40**	**6.99**	**7.75**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*7.85*
Emerging Markets ISF	**12.5%**	**9.0**	4.0	14.0	**$36.8**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**5.18**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*4.31*
Global Equities [4]	**47.8%**	**40.0**	25.0	55.0	**$141.0**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$36.4**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.12**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$15.2**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.79**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$18.0**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.11**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**2.7%**	**2.0**	0.0	3.0	**$8.0**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.90**	**0.73**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets[1]	**11.7%**	**19.0**	15.0	25.0	**$34.5**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.32**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*8.92*
Private Investment[1]	**8.8%**	**10.0**	5.0	15.0	**$26.0**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**14.15**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*15.13*
Private Credit[1]	**0.9%**	**5.0**	0.0	10.0	**$2.6**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	10.0	**$13.0**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**3.16**
Absolute Return Strategy blended benchmark [3]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE'S ATTORNEYS' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
State's Attorneys' Retirement Fund					**$2.7**	**1.29**	**5.94**	**24.29**	**8.12**	**24.29**	**10.06**	**10.15**	**7.35**	**7.49**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*11.03*	*10.59*	*7.80*	*N/A*
Dynamic Benchmark						*1.13*	*4.83*	*24.01*	*7.73*	*24.01*	*10.99*	*10.57*	*7.78*	*N/A*
Domestic Equity	**22.1%**	**20.0**	15.0	25.0	**$0.6**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.88**	**13.89**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.1%**	**11.0**	6.0	16.0	**$0.4**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**12.5%**	**9.0**	4.0	14.0	**$0.3**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.12**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [4]	**47.8%**	**40.0**	25.0	55.0	**$1.3**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.3%**	**13.0**	8.0	18.0	**$0.3**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.12**	**3.39**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$0.1**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.78**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$0.2**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.10**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**3.0%**	**2.0**	0.0	3.0	**$0.1**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.36**	**0.91**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets[1]	**11.7%**	**19.0**	15.0	25.0	**$0.3**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**N/A**	**N/A**	**N/A**	**N/A**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*N/A*	*N/A*	*N/A*	*N/A*
Private Investment[1]	**8.7%**	**10.0**	5.0	15.0	**$0.2**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**N/A**	**N/A**	**N/A**	**N/A**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*N/A*	*N/A*	*N/A*	*N/A*
Private Credit[1]	**0.9%**	**5.0**	0.0	10.0	**$0.0**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	10.0	**$0.1**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**N/A**	**N/A**	**N/A**	**N/A**
Absolute Return Strategy blended benchmark [3]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*N/A*	*N/A*	*N/A*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

AGRICULTURAL COLLEGE FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Agricultural College Fund	**100.0%**				**$0.7**	**0.84**	**2.09**	**0.55**	**-1.27**	**0.55**	**5.29**	**3.35**	**3.16**	**3.35**
Policy Benchmark						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.35*
Dynamic Benchmark						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*N/A*
Core Fixed Income	**102.6%**	**100.0**	100.0	100.0	**$0.7**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund [(1)]	**-2.6%**				**($0.0)**	**0.00**	**0.00**	**0.06**	**0.00**	**0.06**	**1.29**	**1.07**	**0.68**	**0.59**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

[(1)] Operational cash balance and expense accruals

ANDREW C. CLARK FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Andrew C. Clark Fund					**$1.4**	**0.79**	**3.56**	**12.12**	**2.86**	**12.12**	**8.34**	**7.02**	**5.54**	**6.00**
Policy Benchmark						*0.72*	*3.24*	*10.73*	*2.38*	*10.73*	*8.24*	*6.69*	*5.57*	*5.98*
Dynamic Benchmark						*0.74*	*3.39*	*11.31*	*2.60*	*11.31*	*8.40*	*6.80*	*5.65*	*N/A*
Domestic Equity	**16.5%**	**15.0**	10.0	20.0	**$0.2**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.48**	**17.88**	**13.89**	**14.56**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**12.3%**	**11.0**	6.0	16.0	**$0.2**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**4.4%**	**4.0**	0.0	5.0	**$0.1**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.12**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [(1)]	**33.2%**	**30.0**	16.0	41.0	**$0.5**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**66.2%**	**67.0**	57.0	77.0	**$0.9**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund	**0.6%**	**3.0**	0.0	4.0	**$0.0**	**0.00**	**0.01**	**0.82**	**0.03**	**0.82**	**3.69**	**3.18**	**2.13**	**1.66**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

SOLDIERS' SAILORS' & MARINES' FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Soldiers' Sailors' & Marines Fund					**$91.0**	**0.79**	**3.54**	**12.15**	**2.86**	**12.15**	**8.34**	**7.02**	**5.54**	**6.03**
Policy Benchmark						*0.72*	*3.24*	*10.73*	*2.38*	*10.73*	*8.24*	*6.69*	*5.57*	*6.01*
Dynamic Benchmark						*0.73*	*3.37*	*11.35*	*2.60*	*11.35*	*8.41*	*6.82*	*5.66*	*N/A*
Domestic Equity	**15.9%**	**15.0**	10.0	20.0	**$14.4**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.48**	**17.88**	**13.89**	**14.58**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**12.1%**	**11.0**	6.0	16.0	**$11.0**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**4.4%**	**4.0**	0.0	5.0	**$4.0**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [(1)]	**32.3%**	**30.0**	16.0	41.0	**$29.4**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**64.7%**	**67.0**	57.0	77.0	**$58.9**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund	**3.0%**	**3.0**	0.0	4.0	**$2.7**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.90**	**0.76**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

SCHOOL FUND

Net of All Fees and Expenses
Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year (Compound, annualized returns)	Seven Year (Compound, annualized returns)	Ten Year (Compound, annualized returns)
School Fund					**$13.7**	**0.80**	**3.57**	**12.22**	**2.83**	**12.22**	**8.35**	**7.04**	**5.56**	**5.98**
Policy Benchmark						*0.72*	*3.24*	*10.73*	*2.38*	*10.73*	*8.24*	*6.69*	*5.57*	*5.98*
Dynamic Benchmark						*0.75*	*3.39*	*11.42*	*2.56*	*11.42*	*8.41*	*6.82*	*5.67*	*N/A*
Domestic Equity	**15.9%**	**15.0**	10.0	20.0	**$2.2**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.48**	**17.88**	**13.89**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**11.9%**	**11.0**	6.0	16.0	**$1.6**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**4.2%**	**4.0**	0.0	5.0	**$0.6**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [(1)]	**32.1%**	**30.0**	16.0	41.0	**$4.4**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**66.5%**	**67.0**	57.0	77.0	**$9.1**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.12**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund	**1.4%**	**3.0**	0.0	4.0	**$0.2**	**0.01**	**0.03**	**0.20**	**0.05**	**0.20**	**2.36**	**2.26**	**1.48**	**1.11**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

IDA EATON COTTON FUND

Net of All Fees and Expenses
Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year (Compound, annualized returns)	Seven Year (Compound, annualized returns)	Ten Year (Compound, annualized returns)
IDA Eaton Cotton Fund					**$3.0**	**0.79**	**3.53**	**12.11**	**2.81**	**12.11**	**8.32**	**7.01**	**5.53**	**5.99**
Policy Benchmark						*0.72*	*3.24*	*10.73*	*2.38*	*10.73*	*8.24*	*6.69*	*5.57*	*5.98*
Dynamic Benchmark						*0.74*	*3.36*	*11.30*	*2.55*	*11.30*	*8.38*	*6.79*	*5.64*	*N/A*
Domestic Equity	**16.3%**	**15.0**	10.0	20.0	**$0.5**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.48**	**17.88**	**13.89**	**14.57**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**12.2%**	**11.0**	6.0	16.0	**$0.4**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**4.3%**	**4.0**	0.0	5.0	**$0.1**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [(1)]	**32.8%**	**30.0**	16.0	41.0	**$1.0**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**66.2%**	**67.0**	57.0	77.0	**$2.0**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund	**1.0%**	**3.0**	0.0	4.0	**$0.0**	**0.00**	**0.01**	**0.70**	**0.03**	**0.70**	**4.08**	**3.36**	**2.25**	**1.73**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

HOPEMEAD FUND

Net of All Fees and Expenses
Periods Ending June 30, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Hopemead Fund					**$4.9**	**0.79**	**3.53**	**12.10**	**2.81**	**12.10**	**8.28**	**6.98**	**5.50**	**5.89**
Policy Benchmark						*0.72*	*3.24*	*10.73*	*2.38*	*10.73*	*8.24*	*6.69*	*5.57*	*5.98*
Dynamic Benchmark						*0.74*	*3.36*	*11.31*	*2.55*	*11.31*	*8.36*	*6.77*	*5.62*	*N/A*
Domestic Equity	**15.9%**	**15.0**	10.0	20.0	**$0.8**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.48**	**17.88**	**13.89**	**14.56**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**11.8%**	**11.0**	6.0	16.0	**$0.6**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.87**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**4.3%**	**4.0**	0.0	5.0	**$0.2**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [(1)]	**32.1%**	**30.0**	16.0	41.0	**$1.6**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**64.7%**	**67.0**	57.0	77.0	**$3.2**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Liquidity Fund	**3.3%**	**3.0**	0.0	4.0	**$0.2**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.91**	**0.75**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

ARTS ENDOWMENT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year (Compound, annualized returns)	Seven Year (Compound, annualized returns)	Ten Year (Compound, annualized returns)
Arts Endowment Fund					**$24.4**	**0.83**	**5.30**	**27.43**	**7.58**	**27.43**	**11.07**	**9.04**	**6.96**	**7.00**
Policy Benchmark						*0.75*	*4.87*	*26.33*	*7.15*	*26.33*	*10.67*	*8.57*	*6.90*	*7.08*
Dynamic Benchmark						*0.77*	*4.97*	*26.27*	*7.32*	*26.27*	*11.01*	*N/A*	*N/A*	*N/A*
Domestic Equity	**28.4%**	**28.0**	23.0	33.0	**$6.9**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.88**	**13.89**	**N/A**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*N/A*
Developed Markets ISF	**17.4%**	**17.0**	12.0	22.0	**$4.3**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.41**	**7.00**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**12.2%**	**12.0**	7.0	17.0	**$3.0**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.14**	**7.64**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [2]	**58.0%**	**57.0**	42.0	72.0	**$14.2**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**14.7%**	**16.0**	11.0	21.0	**$3.6**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.12**	**3.35**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**7.3%**	**8.0**	3.0	13.0	**$1.8**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**N/A**	**N/A**	**N/A**	**N/A**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*N/A*	*N/A*	*N/A*	*N/A*
High Yield	**8.6%**	**9.0**	4.0	14.0	**$2.1**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**N/A**	**N/A**	**N/A**	**N/A**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*N/A*	*N/A*	*N/A*	*N/A*
Private Credit [1]	**8.9%**	**9.0**	4.0	14.0	**$2.2**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Liquidity Fund	**2.5%**	**1.0**	0.0	3.0	**$0.6**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.32**	**0.88**	**0.73**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*

(1) Actual performance, reported one quarter in arrears,

(2) Unofficial Benchmark, for comparison purposes only

POLICEMEN AND FIREMEN SURVIVORS' BENEFIT FUND

Net of All Fees and Expenses

Periods Ending June 30, 2021

											Compound, annualized returns			
Funds *Benchmark*	**Percent Holdings**	**Policy Weights**	**Lower Range**	**Upper Range**	**Market Value (mil.)**	**Month**	**Three Months**	**Fiscal YTD**	**Calendar YTD**	**One Year**	**Three Year**	**Five Year**	**Seven Year**	**Ten Year**
Policemen and Firemen Survivors' Benefit Fund					**$47.1**	**1.29**	**5.96**	**24.28**	**8.13**	**24.28**	**10.30**	**10.19**	**7.76**	**8.27**
Policy Benchmark						*1.19*	*4.55*	*24.36*	*7.64*	*24.36*	*10.64*	*10.27*	*7.70*	*N/A*
Dynamic Benchmark						*1.13*	*4.85*	*23.96*	*7.73*	*23.96*	*10.81*	*10.39*	*7.80*	*N/A*
Domestic Equity	**22.2%**	**20.0**	15.0	25.0	**$10.5**	**2.22**	**8.14**	**43.70**	**15.12**	**43.70**	**18.47**	**17.87**	**13.88**	**14.75**
Russell 3000						*2.47*	*8.24*	*44.16*	*15.11*	*44.16*	*18.73*	*17.89*	*13.95*	*14.70*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$6.2**	**-1.13**	**5.40**	**35.03**	**9.69**	**35.03**	**8.86**	**11.40**	**6.99**	**N/A**
MSCI EAFE IMI Net						*-1.21*	*5.04*	*33.57*	*8.86*	*33.57*	*9.34*	*11.61*	*7.24*	*N/A*
Emerging Markets ISF	**12.5%**	**9.0**	4.0	14.0	**$5.9**	**0.31**	**5.08**	**46.08**	**7.36**	**46.08**	**14.58**	**14.13**	**7.63**	**N/A**
MSCI Emerging Markets IMI						*0.42*	*5.73*	*43.21*	*8.75*	*43.21*	*11.38*	*12.86*	*6.34*	*N/A*
Global Equities [4]	**47.9%**	**40.0**	25.0	55.0	**$22.6**	*0.82*	*6.61*	*41.70*	*11.60*	*41.70*	*14.65*	*15.07*	*10.41*	*N/A*
MSCI All Country World Net Index						*1.32*	*7.39*	*39.26*	*12.30*	*39.26*	*14.57*	*14.61*	*9.75*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$5.8**	**0.84**	**2.09**	**0.52**	**-1.27**	**0.52**	**5.24**	**3.32**	**3.13**	**3.41**
Barclays U.S. Aggregate Bond Index						*0.70*	*1.83*	*-0.33*	*-1.60*	*-0.33*	*5.34*	*3.03*	*3.28*	*3.39*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$2.4**	**-0.10**	**4.36**	**10.11**	**-1.41**	**10.11**	**4.78**	**4.28**	**2.74**	**3.26**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.24*	*3.81*	*7.07*	*-2.02*	*7.07*	*5.46*	*4.11*	*2.59*	*3.91*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$2.9**	**1.44**	**2.80**	**17.22**	**4.27**	**17.22**	**7.12**	**7.26**	**4.89**	**6.09**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*1.34*	*2.74*	*15.34*	*3.61*	*15.34*	*6.97*	*7.13*	*5.04*	*6.32*
Liquidity Fund	**2.6%**	**2.0**	0.0	3.0	**$1.2**	**0.00**	**0.01**	**0.13**	**0.03**	**0.13**	**1.40**	**1.35**	**0.91**	**0.74**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*-0.08*	*-0.02*	*0.06*	*-0.04*	*0.06*	*1.62*	*1.42*	*1.08*	*0.82*
Real Assets [1]	**11.7%**	**19.0**	15.0	25.0	**$5.5**	**N/A**	**4.47**	**6.48**	**4.46**	**6.48**	**4.97**	**6.18**	**7.87**	**8.28**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*2.59*	*4.23*	*2.77*	*4.23*	*5.20*	*5.99*	*7.75*	*8.92*
Private Investment [1]	**8.8%**	**10.0**	5.0	15.0	**$4.1**	**N/A**	**17.12**	**46.05**	**23.60**	**46.05**	**20.59**	**17.58**	**15.79**	**N/A**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*7.08*	*65.03*	*23.17*	*65.03*	*19.69*	*18.25*	*14.52*	*N/A*
Private Credit [1]	**0.9%**	**5.0**	0.0	10.0	**$0.4**	**N/A**	**5.03**	**16.93**	**7.74**	**16.93**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*2.00*	*22.21*	*6.23*	*22.21*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.4%**	**3.0**	0.0	10.0	**$2.1**	**0.02**	**1.90**	**9.57**	**2.95**	**9.57**	**3.02**	**4.43**	**2.91**	**N/A**
Absolute Return Strategy blended benchmark [3]						*-0.01*	*0.60*	*2.63*	*1.06*	*2.63*	*4.42*	*3.01*	*2.17*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

TEACHER'S RETIREMENT FUND

Net of All Fees and Expenses
Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Teacher's Retirement Fund					**$22,200.5**	**0.26**	**3.36**	**0.26**	**8.41**	**20.22**	**9.73**	**9.87**	**7.94**	**8.12**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.35*	*10.09*	*8.13*	*8.44*
Dynamic Benchmark						*0.50*	*2.97*	*0.50*	*8.26*	*19.63*	*10.20*	*10.03*	*8.05*	*N/A*
Domestic Equity	**22.4%**	**20.0**	15.0	25.0	**$4,978.0**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.85**	**17.28**	**14.44**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$2,926.4**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.37**	**10.47**	**7.38**	**8.03**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*8.20*
Emerging Markets ISF	**11.9%**	**9.0**	4.0	14.0	**$2,640.1**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**4.66**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*3.67*
Global Equities [4]	**47.5%**	**40.0**	25.0	55.0	**$10,544.4**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$2,754.8**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.36**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$1,136.4**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.05**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$1,352.4**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.10**	**6.06**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**3.1%**	**2.0**	0.0	3.0	**$695.4**	**0.00**	**0.01**	**0.00**	**0.04**	**0.11**	**1.34**	**1.33**	**0.92**	**0.71**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets[1]	**11.8%**	**19.0**	10.0	25.0	**$2,628.0**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**8.48**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*9.03*
Private Investment[1]	**8.9%**	**10.0**	5.0	15.0	**$1,976.1**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**14.17**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*15.95*
Private Credit[1]	**1.0%**	**5.0**	0.0	10.0	**$220.1**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.0%**	**3.0**	0.0	10.0	**$893.0**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**3.21**
Absolute Return Strategy blended benchmark [3]						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year (Compound, annualized returns)	Seven Year (Compound, annualized returns)	Ten Year (Compound, annualized returns)
State Employees' Retirement Fund					**$16,152.3**	**0.27**	**3.36**	**0.27**	**8.42**	**20.26**	**9.78**	**9.94**	**7.99**	**8.17**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.36*	*10.08*	*8.14*	*8.45*
Dynamic Benchmark						*0.51*	*2.98*	*0.51*	*8.27*	*19.67*	*10.27*	*10.13*	*8.16*	*N/A*
Domestic Equity	**22.7%**	**20.0**	15.0	25.0	**$3,667.3**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.85**	**17.28**	**14.44**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.3%**	**11.0**	6.0	16.0	**$2,145.5**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.37**	**10.47**	**7.38**	**8.03**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*8.20*
Emerging Markets ISF	**12.0%**	**9.0**	4.0	14.0	**$1,936.7**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**4.66**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*3.67*
Global Equities [4]	**48.0%**	**40.0**	25.0	55.0	**$7,749.5**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.6%**	**13.0**	8.0	18.0	**$2,028.1**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.2%**	**5.0**	0.0	10.0	**$833.9**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.05**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.2%**	**3.0**	0.0	8.0	**$994.4**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.10**	**6.06**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**2.1%**	**2.0**	0.0	3.0	**$335.6**	**0.00**	**0.01**	**0.00**	**0.03**	**0.10**	**1.34**	**1.33**	**0.92**	**0.72**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets [1]	**12.0%**	**19.0**	10.0	25.0	**$1,937.8**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**8.48**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*9.03*
Private Investment [1]	**9.0%**	**10.0**	5.0	15.0	**$1,455.5**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**14.17**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*15.95*
Private Credit [1]	**1.0%**	**5.0**	0.0	10.0	**$162.3**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.1%**	**3.0**	0.0	8.0	**$655.4**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**3.21**
Absolute Return Strategy blended benchmark [3]						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*1.54*

[1] Actual performance, reported one quarter in arrears.

[2] A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

[3] A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

[4] Unofficial Benchmark, for comparison purposes only

MUNICIPAL EMPLOYEES RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns Three Year	Five Year	Seven Year	Ten Year
Municipal Employees' Retirement Fund					**$3,294.9**	**0.27**	**3.37**	**0.27**	**8.45**	**20.31**	**10.02**	**9.64**	**7.80**	**7.74**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.46*	*9.71*	*7.82*	*8.07*
Dynamic Benchmark						*0.51*	*2.98*	*0.51*	*8.29*	*19.72*	*10.50*	*9.76*	*7.89*	*N/A*
Domestic Equity	**22.6%**	**20.0**	15.0	25.0	**$744.2**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.85**	**17.28**	**14.44**	**15.02**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$436.3**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.37**	**10.47**	**7.38**	**8.03**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*8.20*
Emerging Markets ISF	**11.9%**	**9.0**	4.0	14.0	**$392.3**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**4.66**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*3.67*
Global Equities (4)	**47.7%**	**40.0**	25.0	55.0	**$1,572.8**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.5%**	**13.0**	8.0	18.0	**$413.0**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$168.3**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.05**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$200.9**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.09**	**6.06**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**2.7%**	**2.0**	0.0	3.0	**$87.9**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.34**	**0.92**	**0.72**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets(1)	**11.9%**	**19.0**	15.0	25.0	**$393.7**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**8.48**
*Blended Custom Benchmark 1Q in Arrears^* (2)						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*9.03*
Private Investment(1)	**8.9%**	**10.0**	5.0	15.0	**$294.5**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**14.17**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*15.95*
Private Credit(1)	**1.0%**	**5.0**	0.0	10.0	**$31.7**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.0%**	**3.0**	0.0	10.0	**$132.2**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**3.21**
Absolute Return Strategy blended benchmark (3)						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

OPEB FUND

Net of All Fees and Expenses
Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
OPEB					**$2,048.4**	**0.27**	**3.39**	**0.27**	**8.50**	**20.48**	**10.34**	**9.52**	**7.91**	**N/A**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.62*	*9.48*	*7.98*	*N/A*
Dynamic Benchmark						*0.51*	*3.00*	*0.51*	*8.36*	*19.91*	*10.98*	*9.67*	*8.12*	*N/A*
Domestic Equity	**22.7%**	**20.0**	15.0	25.0	**$464.1**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.44**	**N/A**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*N/A*
Developed Markets ISF	**13.2%**	**11.0**	6.0	15.0	**$269.8**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.37**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**11.9%**	**9.0**	4.0	14.0	**$244.3**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.06**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities (4)	**47.8%**	**40.0**	25.0	54.0	**$978.2**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.5%**	**13.0**	8.0	18.0	**$255.8**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**N/A**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*N/A*
Emerging Market Debt	**5.3%**	**5.0**	0.0	10.0	**$109.4**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.84**	**3.92**	**2.76**	**N/A**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*N/A*
High Yield	**6.3%**	**3.0**	0.0	8.0	**$129.6**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.09**	**N/A**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*N/A*
Liquidity Fund	**2.2%**	**2.0**	0.0	3.0	**$44.8**	**0.01**	**0.02**	**0.01**	**0.04**	**0.11**	**1.35**	**1.38**	**0.96**	**N/A**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*N/A*
Real Assets (1)	**11.9%**	**19.0**	15.0	25.0	**$243.1**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**N/A**
*Blended Custom Benchmark 1Q in Arrears^* (2)						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*N/A*
Private Investment (1)	**9.0%**	**10.0**	5.0	15.0	**$183.6**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**N/A**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*N/A*
Private Credit (1)	**1.1%**	**5.0**	0.0	10.0	**$22.6**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.0%**	**3.0**	0.0	10.0	**$81.3**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**N/A**
Absolute Return Strategy blended benchmark (3)						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

PROBATE JUDGES EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

											Compound, annualized returns			
Funds *Benchmark*	**Percent Holdings**	**Policy Weights**	**Lower Range**	**Upper Range**	**Market Value (mil.)**	**Month**	**Three Months**	**Fiscal YTD**	**Calendar YTD**	**One Year**	**Three Year**	**Five Year**	**Seven Year**	**Ten Year**
Probate Judges Employees' Retirement Fund					**$140.0**	**0.27**	**3.31**	**0.27**	**8.35**	**20.24**	**9.89**	**9.58**	**7.78**	**7.76**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.45*	*9.77*	*7.88*	*8.16*
Dynamic Benchmark						*0.51*	*2.93*	*0.51*	*8.22*	*19.66*	*10.52*	*9.83*	*7.95*	*N/A*
Domestic Equity	**22.6%**	**20.0**	15.0	25.0	**$31.6**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.85**	**17.28**	**14.44**	**15.02**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$18.5**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.37**	**10.47**	**7.38**	**8.03**
MSCI EAFE IMI						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*8.20*
Emerging Markets ISF	**11.9%**	**9.0**	4.0	14.0	**$16.6**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**4.66**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*3.67*
Global Equities [4]	**47.7%**	**40.0**	25.0	55.0	**$66.8**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.5%**	**13.0**	8.0	18.0	**$17.5**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$7.2**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.06**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$8.5**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.09**	**6.06**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**3.0%**	**2.0**	0.0	3.0	**$4.2**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.33**	**0.91**	**0.72**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets [1]	**11.8%**	**19.0**	15.0	25.0	**$16.6**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**8.48**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	3.03	*1.00*	3.81	4.30	5.55	6.20	7.91	9.03
Private Investment [1]	**9.0%**	**10.0**	5.0	15.0	**$12.5**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**14.17**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	12.87	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*15.95*
Private Credit [1]	**0.9%**	**5.0**	0.0	10.0	**$1.3**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	1.38	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**3.9%**	**3.0**	0.0	10.0	**$5.5**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**3.21**
Absolute Return Strategy blended benchmark [3]						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE JUDGES RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns Three Year	Five Year	Seven Year	Ten Year
State Judges Retirement Fund					**$298.6**	**0.27**	**3.37**	**0.27**	**8.44**	**20.28**	**10.00**	**9.65**	**7.81**	**7.81**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.46*	*9.71*	*7.82*	*8.07*
Dynamic Benchmark						*0.51*	*2.99*	*0.51*	*8.29*	*19.70*	*10.63*	*9.84*	*7.95*	*N/A*
Domestic Equity	**22.3%**	**20.0**	15.0	25.0	**$66.5**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.85**	**17.28**	**14.44**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.1%**	**11.0**	6.0	16.0	**$39.0**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.47**	**7.38**	**8.04**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*8.20*
Emerging Markets ISF	**11.8%**	**9.0**	4.0	14.0	**$35.1**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**4.66**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*3.67*
Global Equities (4)	**47.1%**	**40.0**	25.0	55.0	**$140.6**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.3%**	**13.0**	8.0	18.0	**$36.8**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$15.2**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.06**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.0%**	**3.0**	0.0	8.0	**$18.0**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.09**	**6.06**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**3.8%**	**2.0**	0.0	3.0	**$11.4**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.33**	**0.92**	**0.70**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets(1)	**11.8%**	**19.0**	15.0	25.0	**$35.2**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**5.36**	**6.49**	**8.10**	**8.48**
*Blended Custom Benchmark 1Q in Arrears^* (2)						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*9.03*
Private Investment(1)	**8.9%**	**10.0**	5.0	15.0	**$26.6**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**20.41**	**17.63**	**15.83**	**14.17**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*15.95*
Private Credit(1)	**1.0%**	**5.0**	0.0	10.0	**$2.9**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.0%**	**3.0**	0.0	10.0	**$12.0**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**2.99**	**4.23**	**2.76**	**3.21**
Absolute Return Strategy blended benchmark (3)						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*1.54*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

STATE'S ATTORNEYS' RETIREMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns: Three Year	Five Year	Seven Year	Ten Year
State's Attorneys' Retirement Fund					**$2.7**	**0.26**	**3.35**	**0.26**	**8.40**	**20.22**	**9.47**	**9.52**	**7.53**	**7.46**
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.64*	*10.09*	*8.06*	*N/A*
Dynamic Benchmark						*0.50*	*2.97*	*0.50*	*8.27*	*19.64*	*10.48*	*10.01*	*8.00*	*N/A*
Domestic Equity	**22.5%**	**20.0**	15.0	25.0	**$0.6**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.28**	**14.45**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**13.2%**	**11.0**	6.0	16.0	**$0.4**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**11.9%**	**9.0**	4.0	14.0	**$0.3**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.06**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [4]	**47.6%**	**40.0**	25.0	55.0	**$1.3**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**12.4%**	**13.0**	8.0	18.0	**$0.3**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.34**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**5.1%**	**5.0**	0.0	10.0	**$0.1**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**3.83**	**3.91**	**2.76**	**3.05**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	**6.1%**	**3.0**	0.0	8.0	**$0.2**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**6.76**	**6.82**	**5.09**	**6.04**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	**3.1%**	**2.0**	0.0	3.0	**$0.1**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.34**	**0.92**	**0.72**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets[1]	**11.9%**	**19.0**	15.0	25.0	**$0.3**	**N/A**	**3.83**	**1.41**	**5.93**	**7.08**	**N/A**	**N/A**	**N/A**	**N/A**
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*N/A*	*N/A*	*N/A*	*N/A*
Private Investment[1]	**8.9%**	**10.0**	5.0	15.0	**$0.2**	**N/A**	**11.93**	**0.21**	**23.87**	**44.70**	**N/A**	**N/A**	**N/A**	**N/A**
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*N/A*	*N/A*	*N/A*	*N/A*
Private Credit[1]	**0.9%**	**5.0**	0.0	10.0	**$0.0**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	**4.0%**	**3.0**	0.0	10.0	**$0.1**	**0.07**	**1.63**	**0.07**	**3.02**	**8.34**	**N/A**	**N/A**	**N/A**	**N/A**
Absolute Return Strategy blended benchmark [3]						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*N/A*	*N/A*	*N/A*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

AGRICULTURAL COLLEGE FUND

Net of All Fees and Expenses
Periods Ending July 31, 2021

											Compound, annualized returns			
Funds *Benchmark*	**Percent Holdings**	**Policy Weights**	**Lower Range**	**Upper Range**	**Market Value (mil.)**	**Month**	**Three Months**	**Fiscal YTD**	**Calendar YTD**	**One Year**	**Three Year**	**Five Year**	**Seven Year**	**Ten Year**
Agricultural College Fund	**100.0%**				**$0.7**	**1.06**	**2.23**	**1.06**	**-0.22**	**-0.02**	**5.61**	**3.39**	**3.32**	**3.41**
Policy Benchmark						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.41*
Dynamic Benchmark						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*N/A*
Core Fixed Income	**102.5%**	**100.0**	100.0	100.0	**$0.7**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund [1]	**-2.5%**				**($0.0)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**1.29**	**1.07**	**0.68**	**0.56**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

[1] Operational cash balance and expense accruals

ANDREW C. CLARK FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year (Compound, annualized returns)	Seven Year (Compound, annualized returns)	Ten Year (Compound, annualized returns)
Andrew C. Clark Fund					**$1.4**	**0.87**	**2.53**	**0.87**	**3.75**	**9.95**	**8.30**	**6.78**	**5.74**	**6.03**
Policy Benchmark						*0.86*	*2.32*	*0.86*	*3.26*	*8.98*	*8.24*	*6.50*	*5.78*	*6.02*
Dynamic Benchmark						*0.87*	*2.39*	*0.87*	*3.50*	*9.45*	*8.37*	*6.61*	*5.86*	*N/A*
Domestic Equity	**16.2%**	**15.0**	10.0	20.0	**$0.2**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**15.01**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**11.5%**	**11.0**	6.0	16.0	**$0.2**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**4.2%**	**4.0**	0.0	5.0	**$0.1**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [1]	**31.9%**	**30.0**	16.0	41.0	**$0.5**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**68.7%**	**67.0**	57.0	77.0	**$1.0**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund	**-0.6%**	**3.0**	0.0	4.0	**($0.0)**	**-0.01**	**0.00**	**-0.01**	**0.02**	**0.38**	**3.35**	**3.11**	**2.21**	**1.64**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

[1] Unofficial Benchmark, for comparison purposes only

SOLDIERS' SAILORS' & MARINES' FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Soldiers' Sailors' & Marines Fund					**$91.2**	**0.85**	**2.50**	**0.85**	**3.73**	**10.01**	**8.30**	**6.79**	**5.73**	**5.99**
Policy Benchmark						*0.86*	*2.32*	*0.86*	*3.26*	*8.98*	*8.24*	*6.50*	*5.78*	*5.97*
Dynamic Benchmark						*0.86*	*2.37*	*0.86*	*3.48*	*9.52*	*8.38*	*6.63*	*5.87*	*N/A*
Domestic Equity	**15.9%**	**15.0**	10.0	20.0	**$14.5**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**11.5%**	**11.0**	6.0	16.0	**$10.4**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**4.2%**	**4.0**	0.0	5.0	**$3.8**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [1]	**31.5%**	**30.0**	16.0	41.0	**$28.8**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**67.3%**	**67.0**	57.0	77.0	**$61.4**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund	**1.1%**	**3.0**	0.0	4.0	**$1.0**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.34**	**0.92**	**0.73**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

[1] Unofficial Benchmark, for comparison purposes only

SCHOOL FUND
Net of All Fees and Expenses
Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
School Fund					**$13.9**	**0.86**	**2.53**	**0.86**	**3.71**	**10.06**	**8.32**	**6.81**	**5.75**	**6.01**
Policy Benchmark						*0.86*	*2.32*	*0.86*	*3.26*	*8.98*	*8.24*	*6.50*	*5.78*	*6.02*
Dynamic Benchmark						*0.87*	*2.40*	*0.87*	*3.45*	*9.57*	*8.39*	*6.63*	*5.88*	*N/A*
Domestic Equity	**16.1%**	**15.0**	10.0	20.0	**$2.2**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**15.03**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**11.3%**	**11.0**	6.0	16.0	**$1.6**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**4.0%**	**4.0**	0.0	5.0	**$0.6**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [(1)]	**31.4%**	**30.0**	16.0	41.0	**$4.3**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**67.8%**	**67.0**	57.0	77.0	**$9.4**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund	**0.8%**	**3.0**	0.0	4.0	**$0.1**	**0.01**	**0.03**	**0.01**	**0.06**	**0.17**	**2.25**	**2.23**	**1.50**	**1.09**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

IDA EATON COTTON FUND

Net of All Fees and Expenses
Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year (Compound, annualized returns)	Five Year	Seven Year	Ten Year
IDA Eaton Cotton Fund					**$3.0**	**0.87**	**2.52**	**0.87**	**3.71**	**9.93**	**8.29**	**6.78**	**5.73**	**6.02**
Policy Benchmark						*0.86*	*2.32*	*0.86*	*3.26*	*8.98*	*8.24*	*6.50*	*5.78*	*6.02*
Dynamic Benchmark						*0.88*	*2.38*	*0.88*	*3.45*	*9.44*	*8.37*	*6.60*	*5.86*	*N/A*
Domestic Equity	**16.2%**	**15.0**	10.0	20.0	**$0.5**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**15.02**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**11.3%**	**11.0**	6.0	16.0	**$0.3**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**4.1%**	**4.0**	0.0	5.0	**$0.1**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [1]	**31.6%**	**30.0**	16.0	41.0	**$1.0**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**68.7%**	**67.0**	57.0	77.0	**$2.1**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund	**-0.4%**	**3.0**	0.0	4.0	**($0.0)**	**-0.01**	**0.00**	**-0.01**	**0.02**	**0.32**	**3.83**	**3.30**	**2.32**	**1.71**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

[1] Unofficial Benchmark, for comparison purposes only

HOPEMEAD FUND

Net of All Fees and Expenses
Periods Ending July 31, 2021

											Compound, annualized returns			
Funds *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
Hopemead Fund					**$5.0**	**0.85**	**2.50**	**0.85**	**3.68**	**9.96**	**8.25**	**6.75**	**5.69**	**5.93**
Policy Benchmark						*0.86*	*2.32*	*0.86*	*3.26*	*8.98*	*8.24*	*6.50*	*5.78*	*6.02*
Dynamic Benchmark						*0.86*	*2.36*	*0.86*	*3.43*	*9.48*	*8.33*	*6.58*	*5.83*	*N/A*
Domestic Equity	**15.9%**	**15.0**	10.0	20.0	**$0.8**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**15.01**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	**11.1%**	**11.0**	6.0	16.0	**$0.6**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.48**	**7.38**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**4.1%**	**4.0**	0.0	5.0	**$0.2**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.07**	**12.05**	**6.71**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [(1)]	**31.1%**	**30.0**	16.0	41.0	**$1.5**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**67.1%**	**67.0**	57.0	77.0	**$3.3**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Liquidity Fund	**1.8%**	**3.0**	0.0	4.0	**$0.1**	**0.00**	**0.01**	**0.00**	**0.03**	**0.11**	**1.34**	**1.34**	**0.92**	**0.73**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

(1) Unofficial Benchmark, for comparison purposes only

ARTS ENDOWMENT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Arts Endowment Fund					**$24.6**	**0.57**	**2.90**	**0.57**	**8.19**	**22.15**	**10.51**	**8.75**	**7.12**	**6.90**
Policy Benchmark						*0.17*	*2.15*	*0.17*	*7.33*	*21.18*	*10.03*	*8.23*	*7.00*	*6.93*
Dynamic Benchmark						*0.19*	*2.19*	*0.19*	*7.52*	*21.19*	*10.30*	*N/A*	*N/A*	*N/A*
Domestic Equity	**30.4%**	**28.0**	23.0	33.0	**$7.5**	**1.62**	**4.45**	**1.62**	**16.98**	**37.75**	**17.86**	**17.29**	**14.45**	**N/A**
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*N/A*
Developed Markets ISF	**17.4%**	**17.0**	12.0	22.0	**$4.3**	**0.82**	**3.15**	**0.82**	**10.59**	**31.94**	**8.38**	**10.49**	**7.39**	**N/A**
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	**11.6%**	**12.0**	7.0	17.0	**$2.8**	**-4.50**	**-1.28**	**-4.50**	**2.53**	**26.26**	**12.06**	**12.06**	**6.72**	**N/A**
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [2]	**59.4%**	**57.0**	42.0	72.0	**$14.6**	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	**14.8%**	**16.0**	11.0	21.0	**$3.6**	**1.03**	**2.21**	**1.03**	**-0.25**	**-0.03**	**5.56**	**3.35**	**3.28**	**3.30**
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	**7.2%**	**8.0**	3.0	13.0	**$1.8**	**-0.20**	**1.66**	**-0.20**	**-1.61**	**5.42**	**N/A**	**N/A**	**N/A**	**N/A**
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*N/A*	*N/A*	*N/A*	*N/A*
High Yield	**8.6%**	**9.0**	4.0	14.0	**$2.1**	**0.21**	**1.98**	**0.21**	**4.49**	**12.12**	**N/A**	**N/A**	**N/A**	**N/A**
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*N/A*	*N/A*	*N/A*	*N/A*
Private Credit [1]	**8.9%**	**9.0**	4.0	14.0	**$2.2**	**N/A**	**5.97**	**3.62**	**11.65**	**16.31**	**N/A**	**N/A**	**N/A**	**N/A**
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Liquidity Fund	**1.1%**	**1.0**	0.0	3.0	**$0.3**	**0.00**	**0.01**	**0.00**	**0.03**	**0.10**	**1.34**	**1.30**	**0.89**	**0.70**
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*

(1) Actual performance, reported one quarter in arrears,

(2) Unofficial Benchmark, for comparison purposes only

POLICEMEN AND FIREMEN SURVIVORS' BENEFIT FUND

Net of All Fees and Expenses

Periods Ending July 31, 2021

Funds / *Benchmark*	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
											Compound, annualized returns			
Policemen and Firemen Survivors' Benefit Fund					$47.2	0.27	3.37	0.27	8.42	20.22	9.84	9.72	7.88	8.31
Policy Benchmark						*0.79*	*3.27*	*0.79*	*8.50*	*20.00*	*10.42*	*9.86*	*7.93*	*N/A*
Dynamic Benchmark						*0.51*	*2.99*	*0.51*	*8.28*	*19.63*	*10.47*	*9.92*	*8.00*	*N/A*
Domestic Equity	22.5%	20.0	15.0	25.0	$10.6	1.62	4.45	1.62	16.98	37.75	17.85	17.28	14.44	15.21
Russell 3000						*1.69*	*4.67*	*1.69*	*17.06*	*38.73*	*18.10*	*17.36*	*14.55*	*15.16*
Developed Markets ISF	13.3%	11.0	6.0	16.0	$6.3	0.82	3.15	0.82	10.59	31.94	8.37	10.47	7.38	N/A
MSCI EAFE IMI Net						*0.90*	*2.74*	*0.90*	*9.84*	*31.52*	*8.81*	*10.70*	*7.55*	*N/A*
Emerging Markets ISF	11.9%	9.0	4.0	14.0	$5.6	-4.50	-1.28	-4.50	2.53	26.26	12.07	12.05	6.71	N/A
MSCI Emerging Markets IMI						*-6.09*	*-3.48*	*-6.09*	*2.13*	*23.42*	*8.33*	*10.38*	*5.12*	*N/A*
Global Equities [4]	47.7%	40.0	25.0	55.0	$22.5	*-0.20*	*2.60*	*-0.20*	*11.37*	*33.08*	*13.59*	*13.99*	*10.57*	*N/A*
MSCI All Country World Net Index						*0.69*	*3.60*	*0.69*	*13.08*	*33.18*	*13.70*	*13.81*	*10.05*	*N/A*
Core Fixed Income	12.5%	13.0	8.0	18.0	$5.9	1.03	2.21	1.03	-0.25	-0.03	5.56	3.35	3.28	3.36
Barclays U.S. Aggregate Bond Index						*1.12*	*2.16*	*1.12*	*-0.50*	*-0.70*	*5.73*	*3.13*	*3.48*	*3.35*
Emerging Market Debt	5.1%	5.0	0.0	10.0	$2.4	-0.20	1.66	-0.20	-1.61	5.42	3.83	3.91	2.76	3.05
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						*-0.01*	*1.53*	*-0.01*	*-2.02*	*3.58*	*4.69*	*3.86*	*2.63*	*3.71*
High Yield	6.1%	3.0	0.0	8.0	$2.9	0.21	1.98	0.21	4.49	12.12	6.76	6.82	5.09	6.04
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						*0.38*	*2.02*	*0.38*	*4.00*	*10.62*	*6.74*	*6.68*	*5.30*	*6.22*
Liquidity Fund	2.7%	2.0	0.0	3.0	$1.3	0.00	0.01	0.00	0.03	0.11	1.34	1.34	0.92	0.72
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						*0.09*	*0.05*	*0.09*	*0.05*	*0.10*	*1.59*	*1.43*	*1.09*	*0.82*
Real Assets [1]	11.9%	19.0	15.0	25.0	$5.6	N/A	3.83	1.41	5.93	7.08	5.36	6.49	8.10	8.44
*Blended Custom Benchmark 1Q in Arrears^* [2]						*N/A*	*3.03*	*1.00*	*3.81*	*4.30*	*5.55*	*6.20*	*7.91*	*9.03*
Private Investment [1]	9.0%	10.0	5.0	15.0	$4.3	N/A	11.93	0.21	23.87	44.70	20.41	17.63	15.83	N/A
*Russell 3000 + 250 basis points 1Q in Arrears^*						*N/A*	*12.87*	*5.18*	*29.55*	*53.42*	*21.72*	*18.59*	*15.57*	*N/A*
Private Credit [1]	1.0%	5.0	0.0	10.0	$0.5	N/A	5.97	3.62	11.65	16.31	N/A	N/A	N/A	N/A
*S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^*						*N/A*	*1.38*	*0.68*	*6.96*	*17.60*	*N/A*	*N/A*	*N/A*	*N/A*
Alternative Investment Fund	4.0%	3.0	0.0	10.0	$1.9	0.07	1.63	0.07	3.02	8.34	2.99	4.23	2.76	N/A
Absolute Return Strategy blended benchmark [3]						*0.04*	*0.31*	*0.04*	*1.10*	*2.27*	*4.30*	*3.01*	*2.18*	*N/A*

(1) Actual performance, reported one quarter in arrears.

(2) A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

(3) A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

(4) Unofficial Benchmark, for comparison purposes only

AGENDA ITEM #4

SHAWN T. WOODEN
TREASURER

State of Connecticut
Office of the Treasurer

DARRELL V. HILL
DEPUTY TREASURER

September 3, 2021

Members of the Investment Advisory Council ("IAC")

Re: Consideration of Finalists for the Domestic Equity Fund ("DEF") Small Capitalization Manager Search

Dear Fellow IAC Member:

At the September 8, 2021 meeting of the IAC, I will present five firms for the DEF small capitalization investment manager assignment for the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Ariel Investments, Channing Capital Management, Lord Abbett, Riverbridge Partners and Wellington Management Company. This is the culmination of a competitive search process, conducted through a Request for Proposal process as outlined and reviewed by the IAC at the December 9, 2020 meeting.

At the upcoming meeting, I will review the proposed restructure of the DEF portfolio which focuses on creating a more balanced alignment with the inclusion of small capitalization strategies, providing the opportunity to achieve stronger risk-adjusted returns going forward. Then we will hear brief presentations from each firm that will provide details on their investment philosophy and strategies in the small capitalization segment of the market.

Attached for your review is a recommendation from Chief Investment Officer, Ted Wright, along with an overview of each firm. I look forward to discussing this with you at the September meeting of the IAC and receiving your feedback on these finalists.

Sincerely,

Shawn T. Wooden
State Treasurer

OFFICE OF THE STATE TREASURER

MEMORANDUM

DECISION

TO: **Shawn T. Wooden, Treasurer**

FROM: **Ted Wright, Chief Investment Officer**

CC: **Darrel Hill, Deputy Treasurer**
Raynald Leveque, Deputy Chief Investment Officer
Paul Osinloye, Principal Investment Officer
Lyndsey Farris, Principal Investment Officer
Peter Gajowiak, Investment Officer

DATE: **August 30, 2021**

SUBJECT: **Domestic Equity Fund - Small Capitalization Recommendations**

Summary

The purpose of this memorandum is to provide the results and recommendation for the Domestic Equity Fund ("DEF") Small Capitalization Request for Proposal ("RFP"). The Scope of Services and Project Timeline were presented to the Investment Advisory Committee on December 9, 2020 and the RFP was issued on January 8, 2021 with a submission deadline of February 19, 2021. The RFP was undertaken to reposition the structure of the DEF portfolio by adding a Small Capitalization segment.

The RFP was well received by the institutional marketplace with 80 firms submitting proposals with 112 strategy offerings which were evaluated by Pension Fund Management ("PFM") investment professionals with the assistance of the Connecticut Retirement Plans and Trust Funds (the "CRPTF") general consultant Meketa Investment Group ("Meketa"). PFM and Meketa interviewed nineteen semi-finalist firms from April to June, selecting five firms to be considered for the Small Capitalization ("small-cap") portion of the DEF. The following memorandum will provide a proposed framework of the DEF and a recommendation for restructuring of the portfolio, via small capitalization investments, with the objective of improving the diversification and long-term performance of the portfolio.

Recommendation

I recommend the approval of five small-capitalization managers with both growth and value strategies to be placed on a manager panel or bench. The current DEF is positioned as a core US portfolio. The addition of these new small cap managers will continue to maintain DEF's core profile given the size of the proposed manager allocations. The US economy has resumed the trend of the longest US economic expansion in history, fully shifting into the mid to late-cycle phase of the business cycle. The mid to late-cycle phase is an environment that historically tends to benefit growth strategies over value strategies. We will retain the flexibility to allocate to several high-quality managers who favor both value and growth strategies, while maintaining the overall core DEF position. The DEF restructure will result in an initial small cap allocation that includes three of the five recommended small cap managers, in addition to two pre-approved managers for this market segment.

The proposed small capitalization allocation being added to the passive index portion of DEF incorporates an active risk/return profile to a passive-dominant fund and provides additional diversification benefits, broad small capitalization manager leadership across the economic cycle, and increased alpha potential for the modified DEF. In addition, this proposed allocation presents an opportunity for direct investments with high-quality diverse investment managers.

DEF Overview

The DEF invests primarily in common stocks of U.S. corporations to meet CRPTF asset allocation guidelines for domestic equities and to achieve a strong, long-term real rate of return above the US inflation rate. Specific to this RFP, including small capitalization DEF investments is designed to generate new sources of risk-adjusted active returns in the portfolio and to provide diversification for CRPTF performance. A full complement of DEF managers is optimum to execute the investment strategy.

The DEF, focused on the U.S. domestic equity market, is benchmarked to the Russell 3000 Index which encompasses the entire capitalization spectrum of the U.S. public market. The DEF's large capitalization ("large-cap") allocation is held in passive indexing strategies, recognizing that this segment of the market is relatively efficient and provides difficulties for active large capitalization managers to consistently outperform their benchmarks. The large capitalization allocation is managed as follows:

- T. Rowe Price - enhanced S&P 500 Index strategy
- Rhumbline Advisers - Russell 1000 Index replication strategy
- Xponance - S&P 500 Index replication strategy

The proceeds from previous allocations to two manager-of-manager mandates were invested in two transition funds managed by State Street Global Advisers ("SSGA") and Northern Trust Asset Management ("Northern Trust"). SSGA manages a passive small-cap Russell 2000 Index replication strategy and Northern Trust manages a passive combined small/mid-cap Russell 2000 Index/ Russell 2500 Index replication strategy.

The current DEF fund structure (Table 1) is sub-optimal, with an oversized large capitalization bias and no active small capitalization exposure. The inclusion of a revised small capitalization allocation (direct manager investments and Ci^3 investments) seeks to address this bias and improve the overall structure of the DEF.

Table 1
Current DEF Manager Allocations as of July 31, 2021

Manager	Strategy	Amount ($M)	Percent
T. Rowe Price	Passive S&P 500	$4,279	43%
Rhumbline	Passive Russell 1000	$3,826	38%
Xponance	Passive S&P 500	$749	7%
State Street Global Advisors Transition	Passive Russell 2000	$622	6%
Northern Trust Investment Transition	Passive Russell 2000/2500	$511	5%
Total		$9,995	100%

Request for Proposal Process

Proposals were submitted by 80 firms across 112 strategies (see Tables 2). The RFP respondents were assessed from both a qualitative and quantitative perspective through a review of their organization, investment team, investment philosophy, investment process, investment performance, ESG implementation, diversity & inclusion initiatives, management fee proposal, and portfolio fit.

Table 2
DEF Small-Cap RFP Respondents
(Summarized by Strategy)

Strategy	Micro	Small	SMID	Total
Core	3	18	7	28
Value	4	29	10	43
Growth	4	29	8	41
Total	11	76	25	112

Following the initial screening, PFM and Meketa interviewed nineteen semi-finalists over a period from April 12, 2021 through June 4, 2021. Consequently, five firms were selected for recommendation to manage DEF's small-cap allocation (see Table 3).

Table 3
DEF Small-Cap RFP Finalists

Firm Name	Product Name	Investment Style	Investment Approach
Lord,Abbett & Co. LLC	Small Cap Growth	Small Growth	Fundamental
Riverbridge Partners, LLC	Small Cap Growth	Small Growth	Fundamental
Ariel Investments, LLC	Ariel Small Cap Value	Small Value	Fundamental
Channing Capital Management, LLC	Channing Small-Cap Value	Small Value	Fundamental
Wellington Management Company LLP	Emerging Companies	Micro Cap Core	Fundamental

Restructure of the DEF

The objective of restructuring the DEF is to achieve stronger long-term returns by utilizing a combination of active management and passive indexing to capitalize on market efficiencies and inefficiencies in the U.S., bearing in mind the capitalization segments of the Russell 3000 Index benchmark.

PFM envisions a two-step process to complete the DEF restructuring: (1) addition of small capitalization managers (2) subsequent addition of mid capitalization ("mid-cap") managers. Specific to this RFP, the first step of the process, PFM proposes allocations to active small capitalization managers to complement existing passive large capitalization managers.

Table 6 provided the following page presents the historical DEF performance which reflects a consistent, slight under-performance (on a net-of-fees basis) relative to the index which can be attributed primarily to a dominant large-cap passive allocation.

Table 6
DEF Historical Net Performance
As of June 30, 2021

	YTD	Fiscal YTD	1 Year	3 Year	5 Year	7 Year	10 Year
Domestic Equity Fund	15.12%	43.69%	43.69%	18.45%	17.83%	13.84%	14.58%
Russell 3000 Index	15.11%	44.16%	44.16%	18.73%	17.89%	13.95%	14.70%
Excess Return	0.01%	-0.47%	-0.47%	-0.28%	-0.06%	-0.11%	-0.12%

To improve DEF's long-term performance, we recommend restructuring the portfolio to improve diversification through the addition of a small capitalization allocation. Table 7 details the current market capitalization segments of the Russell 3000 Index and the corresponding segments of the post-CHF period DEF and the proposed portfolio.

Table 7
DEF and Benchmark Market Capitalization Segment Weights

Market Capitalization Segment	Russell 3000 Index (Current)	DEF (As of 1/31/21)	**DEF (Proposed)**
Large Capitalization	73%	89%	**90%****
Mid Capitalization	23%	3%*	**0%****
Small Capitalization	4%	8%*	**10%*****
TOTAL	100%	100%	**100%**

*Via small-cap and smid-cap transition index funds
** PFM is anticipating a subsequent mid-cap RFP to re-allocate a portion of the large-cap segment
***Via direct manager investments and Ci³ program

In 2020, CRPTF's emerging manager program, the Connecticut Horizon Program ("CHF"), was replaced by a new program, the Connecticut Inclusive Investment Initiative ("Ci³"). This initiative resulted in an updated array of emerging managers participating in the CRPTF funds. In the DEF, the previous emerging managers, Capital Prospects and Bivium were terminated, to be replaced by the new Ci³ slate of managers. Leading Edge Investment Advisors ("Leading Edge"), proposed for its US small-cap strategy, and Bivium Capital Partners ("Bivium"), proposed for its US micro-cap strategy, both reside on the Ci³ Manager-of-Managers ("MOM") program manager panel, having been selected and approved in a prior RFP process.

Portfolio Construction

For diversification purposes, the direct investment small capitalization allocation was segmented into the value and growth style categories. In addition, an allocation was created for micro capitalization. Given the wide range of strategy responses in the RFP, there was a focus on incorporating, where appropriate, the diversification benefits within each style category.

- **Small Capitalization Growth** – would utilize the diversification benefits between aggressive growth and defensive growth strategies via a single manager in each sub-strategy.
  - Lord Abbett & Co. LLC ("Lord Abbett") - Aggressive
  - Riverbridge Partners, LLC ("Riverbridge") - Defensive
- **Small Capitalization Value** – would utilize the diversification benefits between deep value and traditional value strategies via a single manager in each sub-strategy.
  - Ariel Investments, LLC ("Ariel") – Deep Value
  - Channing Capital Management, LLC ("Channing") - Value

- **Micro Capitalization Core** - given the smaller allocation, it was prudent to use a single manager with a core strategy.
  - Wellington Management Company, LLP ("Wellington") – Core

Table 8 details the allocations of a proposed small-cap managers composite incorporating the recommended managers. As previously noted, the portfolio is tilted to growth based on our estimation of current economic conditions.

Table 8
Proposed Small-Cap Manager Composite Allocations

	% of Total (%)	$ Allocation ($ mm)
Wellington	7.6	50
Riverbridge	27.3	180
Lord Abbett	27.3	180
Bivium	7.6	50
Leading Edge	30.3	200
Total	*100.0*	*660*

Table 9 illustrates the excess return correlations of each manager.

Table 9
Proposed Small-Cap Managers
Excess Return Correlations vs Russell 2000 Index
April 1, 2016 – June 30, 2021

	Ariel	Channing	Lord Abbett	Riverbridge	Wellington	Bivium	Leading Edge
Ariel	1.00						
Channing	0.55	1.00					
Lord Abbett	-0.35	-0.32	1.00				
Riverbridge	-0.24	-0.20	0.72	1.00			
Wellington	0.09	0.30	-0.14	0.03	1.00		
Bivium	-0.07	-0.02	-0.16	-0.21	0.17	1.00	
Leading Edge	-0.04	0.17	0.72	0.65	0.08	0.04	1.00

Each proposed manager's excess returns have low or, in some instances, negative correlation to each other. This correlation profile illustrates that diversification benefits are available for the portfolio's construction. It also indicates that this combination of managers is not over-diversified. Over-diversification would be illustrated by much higher positive correlations between the managers, indicating that their excess returns tend to move together as a group in a tighter manner than those of the proposed managers.

The proposed multi-manager composite generated excess returns in most periods. As detailed in Table 10, for trailing periods, the multi-manager composite generated excess returns over longer timeframes. In addition, on a calendar-year basis, excess returns were generated in each year.

Table 10
Proposed Small-Cap Multi-Manager Composite
Historical Performance
As of June 30, 2021

	Composite (%)	Russell 2000 (%)	Relative Returns (%)
Trailing Period Returns (%):			
YTD	12.0	17.5	-5.5
1 Year	60.9	62.0	-1.1
3 Year	24.2	13.5	10.7
5 Year	25.6	16.5	9.1
Since inception (4/2016)	25.2	16.4	8.8
Calendar Year Returns (%):			
2020	52.2	20.0	32.2
2019	29.8	25.5	4.3
2018	0.7	-11.0	11.7
2017	23.5	14.6	8.9

The proposed manager lineup generated a favorable risk-adjusted performance profile. As illustrated in Table 11, the multi-manager composite provided the following attractive characteristics:

- outperformance over the common period of the managers
- the majority of periods (94%) were above index
- lower risk than the index (standard deviation and downside deviation)
- low tracking error, beta < 1 for an active allocation
- favorable up/down capture profile - 108% upside, 78% downside
- favorable risk-adjusted performance metrics - alpha, Sharpe Ratio, Information Ratio

Table 11
Proposed Small-Cap Multi-Manager Composite
Common Period Returns and Risk Statistics (gross of fees)
April 1, 2016 – June 30, 2021

	Composite (%)	*Russell 2000 (%)*
Performance:		
Performance (%)	25.2	*16.5*
% of One-Year Periods above Index (%)	94	---
Best 3 Months (%)	36.2	*35.2*
Worst 3 Months (%)	-22.2	*-30.6*
Risk Measures[1]:		
Standard Deviation (%)	19.6	*20.5*
Tracking Error (%)	6.6	---
Beta	0.91	---
Correlation to Benchmark	0.95	---
Semi Deviation (%)	20.1	*23.7*
Upside Capture (%)	107.8	---
Downside Capture (%)	78.0	---
Risk-Adjusted Performance[2]:		
Jensen's Alpha (%)	9.0	---
Sharpe Ratio	1.23	*0.75*
Information Ratio	1.33	---

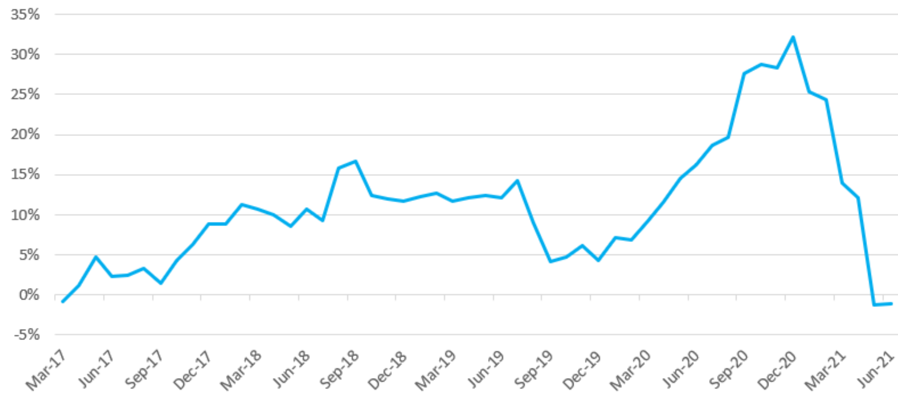
Table 12 illustrates the consistent nature of the composite portfolio's excess return:

- Over the trailing period, the composite portfolio outperformed the Russell 2000 index in 94% of rolling one-year periods.

- The average small cap core strategy[1] outperformed the index in 50% of rolling one-year periods over that time.

[1] Peer group: eVestment US Small Cap Core Equity universe

Table 12
Proposed Small-Cap Multi-Manager Composite
One-Year Rolling Excess Return* vs Russell 2000 Index
(Common Period April 2016 - June 2021)



*Gross of fees

The recommended managers have a history of generating excess returns, as evidenced in Table 13. Evaluation of the composite during rolling multi-year periods (Table 14) indicated:

- Rolling one-year time periods between 2016 and 2021 - the composite outperformed during 94 of the 100 time periods, generating average annualized excess returns of 11.1%.
- Rolling three-year time periods between 2016 and 2021 - the composite outperformed during all 28 of the 28 time periods, generating average annualized excess returns of 11.1%.

Table 13
Proposed Managers
Rolling Three-Year Excess Returns vs. Russell 2000 Index
Rolling Three-Year Periods as of June 2021

	Total Periods	Periods Outperformed	(%)	Average Ann. Excess Return	Max	Min	Range
Ariel	418	235	56%	2.8%	28.8%	-11.4%	40.2%
Channing	145	89	61%	0.3%	4.5%	-5.0%	9.5%
Lord Abbett	379	235	62%	3.1%	25.8%	-9.3%	35.1%
Riverbridge	361	256	71%	3.9%	24.3%	-10.8%	35.1%
Wellington	379	260	69%	2.5%	16.4%	-6.3%	22.7%
Bivium	67	45	67%	1.2%	7.6%	-2.3%	9.9%
Leading Edge	28	28	100%	7.5%	10.7%	4.8%	5.9%

Table 14
Proposed Small-Cap Multi-Manager Composite
Rolling Period Excess Returns vs. Russell 2000
Index April 2016 to June 2021

	Total Periods	Periods Outperformed	(%)	Average Ann. Excess Return	Max	Min	Range
1-Year	52	49	94.2%	11.09%	32.0%	-1.3%	33.3%
3-Year	28	28	100%	11.05%	15.4%	7.1%	8.3%

Portfolio construction, utilizing the Aapryl analytical software, positioned the entire small cap manager allocation (recommended small cap managers and Ci³ MOMs - Leading Edge and Bivium) along the 4 phases of a typical economic cycle (Figure 1). This manager mapping was based on the strategy and performance profile of each manager and indicates the period in the economic cycle where each manager would be expected to maximize the impact of its strategy.

In Figure 1, the profile for the proposed small-cap managers and Ci³ MOMs illustrates that this diverse collection of managers is positioned to provide benefits across the breadth of the economic cycle.

Figure 1
Proposed Small Cap Managers*
Cyclical Manager Positioning

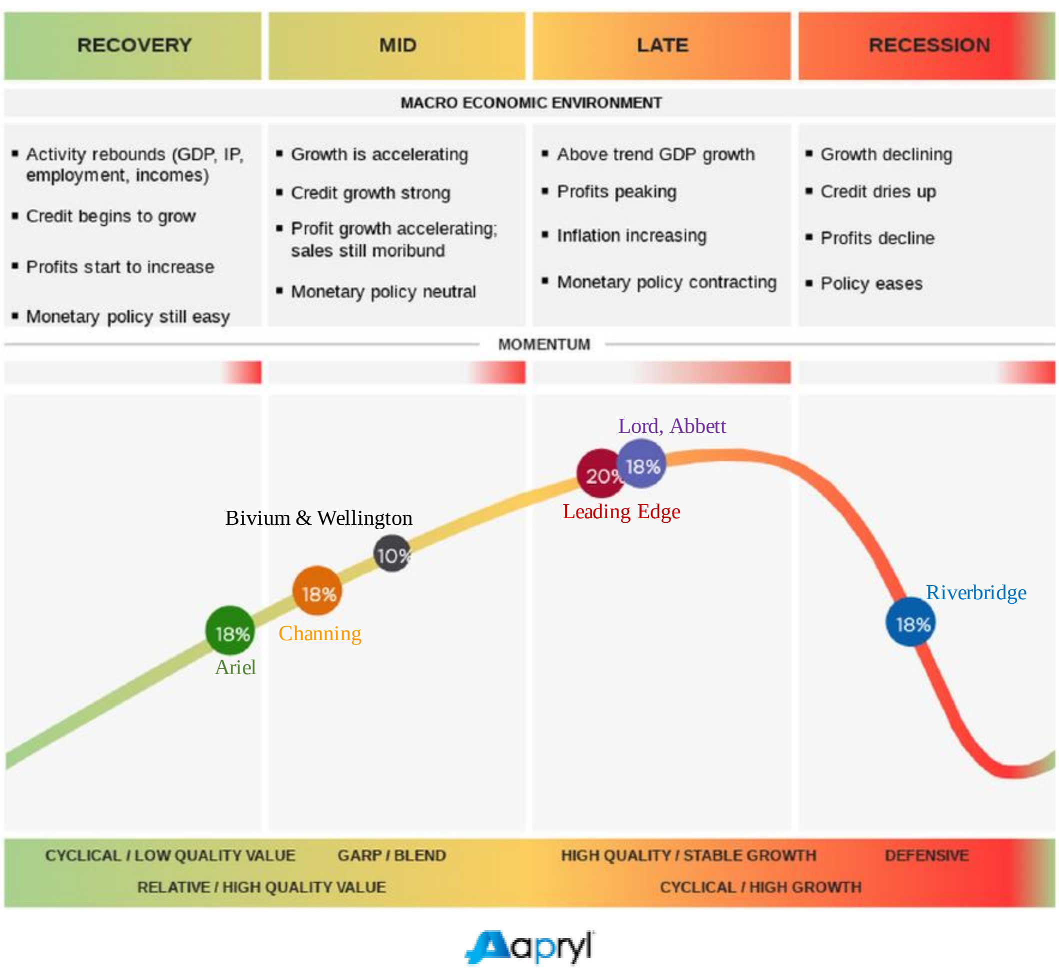
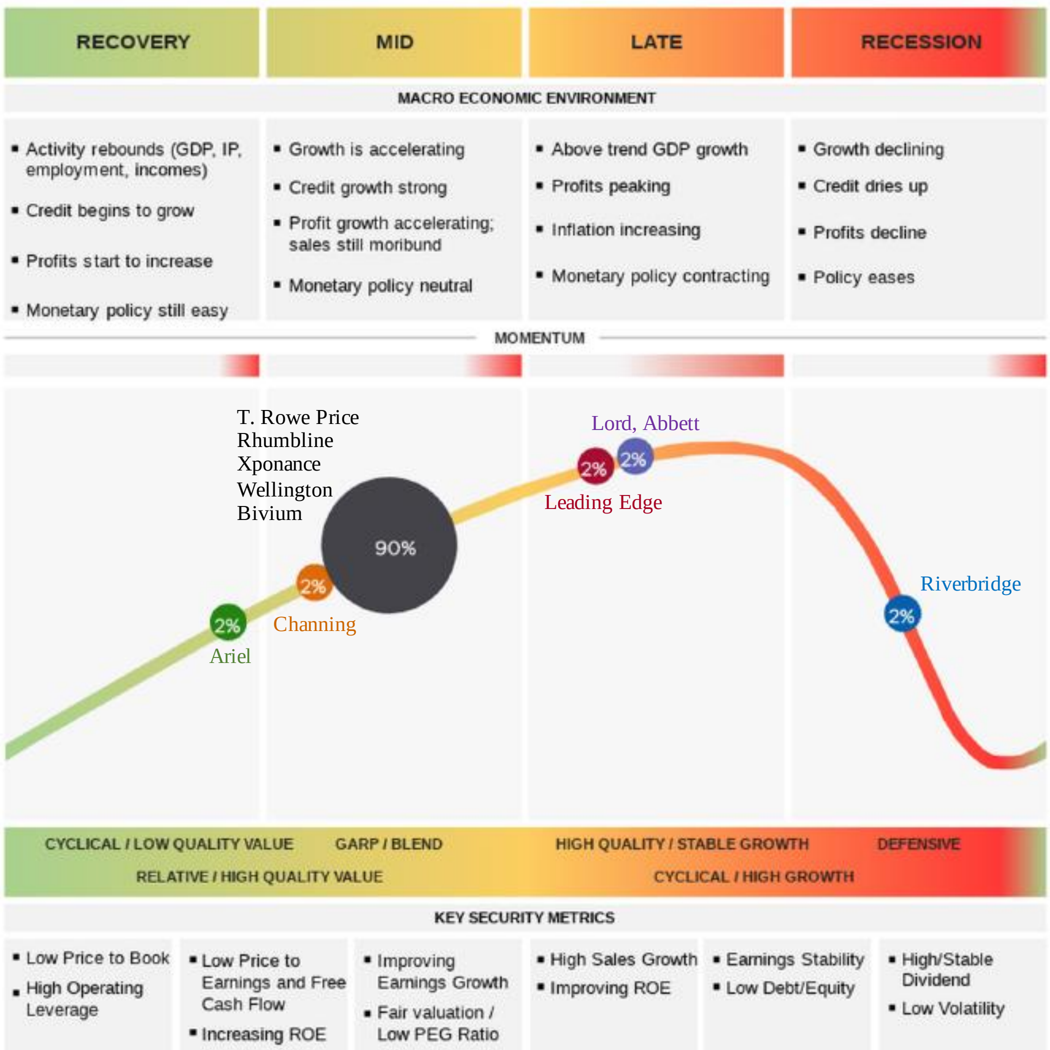


Figure 2 illustrates the manager positioning of the DEF after the inclusion of the proposed small-cap managers and Ci³ MOMs. Note the potential for a wider swath of active managers to be performance enhancers across the economic cycle, compared to the relatively narrow footprint of the large-cap passive allocation (T. Rowe Price, Rhumbline and Xponance) in the Mid-Cycle phase. This modified version of DEF presents a scenario where, in each phase of the economic cycle, it is expected that at least one active manager is positioned to maximize the impact of its performance.

Figure 2
Domestic Equity Fund (including small cap managers)
Cyclical Manager Positioning



Proposed Portfolio Structure

The current DEF is positioned as a core US portfolio. The addition of these new small cap managers will continue to maintain DEF's core profile given the size of the proposed manager allocations. The US economy has resumed the trend of the longest US economic expansion in history, fully shifting into the mid to late-cycle phase of the business cycle. The mid to late-cycle phase is an environment that historically tends to benefit growth strategies over value strategies. We will retain the flexibility to allocate to several high-quality managers who favor both value and growth strategies, while maintaining the overall core DEF position. The DEF restructure will result in an initial small cap allocation that includes three of the five recommended small cap managers, in addition to two pre-approved managers for this market segment.

Table 15 summarizes the proposed initial DEF portfolio structure including the proposed small-cap managers.

Table 15
Proposed DEF Manager Structure

Strategy/Manager	DEF Manager Status	Amount ($M)	Percent
Large Cap Core (Passive)			
T. Rowe Price	Existing	4,279	43%
Rhumbline	Existing	3,826	38%
Xponance	Existing	749	7%
Small Cap Growth			
Leading Edge (Ci^3)	Existing	200	2%
Lord, Abbett	New	180	2%
Riverbridge	New	180	2%
Small Cap Value			
Ariel	New	0	0%
Channing	New	0	0%
Micro Cap Core			
Bivium (Ci^3)	Existing	50	1%
Wellington	New	50	1%
Small Cap Transition Fund	*State Street Global Advisers*	481	5%
TOTAL		**9,995**	**100%**

* Based on July 31, 2021. Small-cap allocation might not total 10% due to rounding.

Manager Summaries

Manager summaries are provided on the following pages which review each firm's organization, investment team, investment philosophy, investment process, investment performance, ESG implementation, diversity & inclusion initiatives, and management fee proposal. Additionally, Table 17 provides summary information on the recommended firms and their portfolio characteristics.

Table 17
Manager Overviews

	Lord Abbett	Riverbridge	Russell 2000
Firm Location	Jersey City, NJ	Minneapolis, MN	
Firm Inception	1929	1987	
Ownership Structure	100% Employees	49% Employees 51% Northill Capital (passive investor)	
Strategy Name	Small Cap Growth	Small Cap Growth	
Strategy Style	Growth	Growth	
Strategy Inception	1987	1988	
AUM-Firm	$234.5B	$13.4B	
AUM-Strategy	$5.9B	$3.5B	
Trailing P/E Ratio	33.2x	42.5x	18.7x
Price/Book Value Ratio	6.7x	5.9x	2.5x
Wtd. Average Market Cap	$5.7B	$5.5B	$3.7B
Median Market Cap	$4.5B	$4.7B	$1.1B
Typical Holdings	90-110	50	2,056
Expected Annual Turnover	100-200%	15-20%	NA
Top 3 Sector Weightings	Healthcare 30% Tech 25% Consumer Disc.19%	Tech 35% Healthcare 24% Consumer Disc. 17%	Healthcare 19% Industrials 16% Financials 16%
Market Cap Weightings			
>$5billion	49.1%	50.2%	22.2%
$2-5 billion	42.4%	34.5%	46.9%
<$2 billion	7.1%	10.8%	30.1%
% Portfolio in Top 10 Holdings	18.3%	32.7%	4.2%

	Ariel	Channing	Wellington	Russell 2000
Firm Location	Chicago, IL	Chicago, IL	Boston, MA	
Firm Inception	1983	2003	1928	
Ownership Structure	93% Employees. 7% outside shareholders.	100% Employees	100% Employees	
Strategy Name	Small Cap Value	Small Cap Value	Emerging Companies	
Strategy Style	Value	Value	Core	
Strategy Inception	1983	2006	1984	
AUM-Firm	$16.2B	$3.0B	$13T	
AUM-Strategy	$1.7B	$2.1B	$1.1B	
Trailing P/E Ratio	22.6x	19.4x	15.1x	18.7x
Price/Book Value Ratio	2.4x	2.3x	2.0x	2.5x
Wtd. Average Market Cap	$5.9B	$4.0B	$1.7B	$3.7B
Median Market Cap	$4.5B	$3.3B	$1.0B	$1.1B
Typical Holdings	40	35-45	75-150	2,056
Expected Annual Turnover	25%	50%	30-50%	NA
Top 3 Sector Weightings	Industrials 33% Consumer Disc. 17% Financials 14%	Financials 24% Industrials 20% Consumer Disc. 18%	Industrials 28% Financials 24% Technology 17%	Healthcare 19% Industrials 16% Financials 16%
Market Cap Weightings				
>$5 billion	51.2%	28.9%	0.0%	22.2%
$2-5 billion	25.8%	51.2%	13.8%	46.9%
<$2 billion	21.5%	17%	86.2%	30.1%
% Portfolio in Top 10 Holdings	43%	29.2%	29.3%	4.2%

LORD ABBETT

Organization

Founded in 1929, Lord Abbett became an independent partnership in 1948 and transitioned to a limited liability company in July of 2002. The firm is 100% owned by approximately 50 partners, all of whom are in senior management, and retired employees or members of their family. Non-employees are limited partners.

Lord Abbett's total AUM was $224 billion as of 12/31/20. The firm manages a wide range of fixed income and equity products. Approximately 83% of total assets were in taxable and tax-free fixed income strategies. The remaining 13% was in equity assets spread among 18 domestic value, domestic growth, and global/international equity strategies.

At the end of 2020, the innovation growth equity team managed four growth strategies with $15 billion in AUM. These products included micro, small, all-cap and concentrated all-cap. $5.2 billion was in the small-cap growth portfolio.

Lord Abbett's employee base is 67% male and 33% female. The firm is 73% white, 4% black, 4% Hispanic, 19% Asian, and 2% multi-category.

Investment Team

The 8-person Innovation Growth Equity team consists of three PMs, two PM/analysts and three analysts. Two portfolio managers who oversee the firm's convertible securities strategy are also part of this team.

Tom O'Halloran and Matt DeCicco, both of whom are partners and portfolio managers, lead the team. Mr. O'Halloran joined Lord Abbett in 2001. He took over the Small Cap Growth portfolio in 2003.

Matt DeCicco, who joined Lord Abbett in 2002 as a junior analyst, became a PM in 2017 and a partner in 2020. He was named Director of Equities in 2019 when the firm disbanded its central research group and moved to three product focused investment teams. The separate Innovation Growth Equity team has always existed. That model was replicated with the creation of three other equity teams. Mr. DeCicco oversees all the analysts on the Innovation team, as well as the PMs of the three teams.

Mr. DeCicco and one other PM, Ben Ebel, also do analytical work. Mr. DeCicco has followed a number of sectors, most recently health care. In managing the portfolio, Mr. O'Halloran defers to Mr. DeCicco when it comes to health care stocks. For technology investments, the roles are reversed. Mr. Ebel covers the technology and telecomm sectors.

The third PM is a Certified Market Technician (CMT). He provides a technical viewpoint on all stocks.

The two PM/analysts and three analysts on the team specialize by sector. As part of the reorganization two years ago, two new analysts were added to the Innovation Growth team. These two analysts cover biotech, consumer staples, and health care.

Investment Philosophy

The Lord Abbett Innovation team are aggressive growth investors. They believe that the market persistently underestimates the growth and return potential of highly transformative companies. Based on their experience, however, they recognize that superior growth companies do not always make great investments, and that successful growth investing requires the ability to make this critical distinction. They focus on identifying innovative companies whose growth prospects are underestimated by the market.

The portfolio managers invest in four categories of growth. These include secular, cyclical, stable, and defensive growth.

In addition to fundamental analysis, technical analysis is integral to their approach. The PMs want to see proof that there is "quantifiable operating momentum" combined with stock price momentum.

Exceeding expectations in terms of growth drivers, and positive sales and earnings estimate revisions, are important factors that make stocks attractive.

The PMs are not second derivative investors and will not necessarily sell a stock if the growth rate decelerates. A growth deceleration that is greater than expectations can sometimes be positive. Bottom-up fundamental research accounts for an estimated 80% of the investment process. 20% is a top down assessment of macro factors, industry conditions, and technical market behavior.

Investment Process

From a fundamental perspective, the team looks for companies with "exceptional business models", "competent and credible management", "sustainable competitive advantages," and "favorable industry conditions".

The group screens the universe of stocks with market capitalizations in the range of the Russell 2000 Index for high, sustainable revenue growth, conservative capital structures, and compelling gross margins. They also look for operating and price momentum.

The analysts perform due diligence on attractive candidates. Due diligence entails determining the quality of the company's business model, sizing the company's market opportunity and identifying the economic forces that will shape its future direction, assessing the company's competitive position and evaluating management. In addition to high revenue growth and strong margins, they look for growth drivers exceeding expectations, and positive sales and earnings estimate revisions. The team builds financial models for all investment candidates.

The underlying stocks of these high growth companies must also have favorable absolute and relative price momentum. The PMs will evaluate shifts in momentum, moving averages, relative strength, and price/volume metrics. All stocks receive a technical rating. Every buy and sell decision is "informed" by technical analysis.

The risk-reward profile of each stock influences the conviction level of the PM team, which in turn determines position sizes. The largest positions in the portfolio are generally around 2%. The portfolio consists of ~90 to 110 stocks.

The investment team monitors short-term company developments. The PMs are quick to sell if fundamentals deviate from expectations or price momentum deteriorates. Stocks may also be sold to ensure adequate portfolio diversification. Annual portfolio turnover has historically been between 100% and 200%.

Performance

Table 1
Trailing Period Returns (%, gross of fees)
As of March 31, 2021

	1 Year	3 Year	5 Year	7 Year	10 Year
Lord Abbett	113.4	32.6	29.1	17.2	17.3
Russell 2000 Growth	90.2	17.2	18.6	12.8	13.0
Russell 2000 Index	94.8	14.8	16.4	11.0	11.7

Table 2
Calendar Year Returns (%, gross of fees)
As of March 31, 2021

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Lord Abbett	74.3	33.1	6.0	31.1	-1.7	-8.0	4.3	58.8	11.6	-0.6
Russell 2000 Growth	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3	14.6	-2.9
Russell 2000 Index	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2

Management Fee

Table 3

Fee Schedule	Mandate Size ($M)	Estimated Effective Fee	Peer Group Percentile Ranking
0.65% on the first $50M, 0.60% on the next $50M, 0.58% thereafter	180	0.61%	6

Review of Notices of Legal Proceedings *(provided by Legal)*

In its disclosure to the Office of the Treasurer, Lord, Abbett & Co. ("Lord Abbett"), states (i) it has no material legal or non-routine regulatory matters, (ii) no material claims under its fidelity, fiduciary or E&O insurance policies, and (iii) no ongoing internal investigations to report.

Comments to Contract Terms:
With respect to the State's contract, Lord Abbett would seek to modify the insurance coverage to that currently maintained by the company. Lord Abbett would propose to qualify its indemnification obligations in the standard contract to be limited to liabilities resulting directly from the company's negligent actions and clarify that it would not be liable for damages caused by negligent acts of third parties.

Compliance Summary[1] *(provided by Compliance)*

I. Review of Required Legal and Policy Attachments

LORD, ABBETT & CO. LLC ("Lord Abbett") a New Jersey-based firm, completed all required legal and policy attachments. It disclosed no third-party fees, campaign contributions, known conflicts or gifts. Its disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

II. Workforce Diversity

As of December 2020, Lord Abbett employed 742, 5 less than the 747 employed in December 2018. The firm identified 8 women and 4 minorities as Executive/Senior Level Officials and Managers, i.e., serving at the senior-most level. Over the past 3 years, 37 women and 20 minorities were promoted within the ranks of professionals or managers.

Commitment and Plans to Further Enhance Diversity
Lord Abbett is committed to diversity and inclusion (D&I) in the workplace. In 2019 the firm launched a comprehensive D&I strategy focused on initiatives including, attracting, developing and retaining a more diverse talent pipeline. The firm has a 5-year D&I goal of exceeding the asset management industry's average for representation of Asian, Black, Disabled, Hispanic, Latino, LGBTQ+, Military, and Women employees. Since April 2018 the firm has experienced a significant increase in the representation of diversity in senior positions, notably at the Partnership and Managing Director levels. However, an additional goal is to obtain 30% diversity within the Partnership and Managing Director levels. D&I progress to date includes expansion of external recruiting partnerships to ensure a more diverse set of candidates and working with managers to become more inclusive in candidate assessments.

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 15% (8 of 52) of these positions in December 2020, up from 13% (7 of 54) in December 2019 but down from 17% (1 of 6) in December 2018.
- Minorities held 7.69% (4 of 52) (1.92% Asian, 3.85% Hispanic and 1.92% Black) of these positions in December 2020, up from 7.41% (4 of 54) (1.85% Asian, 3.7% Hispanic and 1.85% Black) held in December 2019, and 0% (0 of 6) in December 2018.

At the Management Level overall:

- Women held 29% of these positions in both December 2020 (42 of 145) and December 2019 (40 of 138), down from 30% (31 of 102) in December 2018.
- Minorities held 15.17% (22 of 145) (8.97% Asian, 0.69% Hispanic, 2.76% Black and 2.76% Two or More Races) of these positions in December 2020, slightly down from 15.22% (21 of 138) (8.7% Asian, 3.62% Hispanic, 1.45% Black and 1.45% Two or More Races) in December 2019, and down from 16.67% (17 of 102) (13.73% Asian, 0.98% Hispanic and 1.96% Black) in December 2018.

At the Professional Level:

[1] The Treasury Unit responsible for reviewing Lord Abbett's ESG submission will prepare a separate report.

- Women held 30% (166 of 559) of these positions in December 2020, down from 34% (209 of 619) in December 2019 but up from 28% (168 of 606) in December 2018.
- Minorities held 29.7% (166 of 559) (22.18% Asian, 4.29% Hispanic, 2.86% Black and 0.36% Two or More Races) of these positions in December 2020, down from 36.19% (224 of 619) (22,46% Asian, 10.34% Hispanic, 3.07% Black and 0.32% Two or More Races) in December 2019, and 31.52% (191 of 606) (23.6% Asian, 4.13% Hispanic, 3.47% Black, 0.17% Two or More Races, and 0.17% American Indian or Alaskan Native) in December 2018.

Company-Wide:

- Women held 33% (242 of 742) of these positions in December 2020, down from 36% (293 of 806) in December 2019 but up from 31% (229 of 747) in December 2018.
- Minorities held 27.36% (203 of 742) (18.6% Asian, 8.77 Hispanic, 8.77% Black and 1.21% Two or More Races) of these positions in December 2020, down from 33.13% (267 of 806) (19.6% Asian, 8.81% Hispanic, 3.72% Black and 0.99% Two or More Races) in December 2019, and 29.59% (221 of 747) (21.15% Asian, 4.15% Hispanic, 4.02% Black, 0.13% Two or More Races, and 0.13% American Indian or Alaskan Native) in December 2018.

III. Corporate Citizenship

Charitable Giving:
Lord Abbett is committed to advancing the communities in which "we live and work" through engagement, volunteerism, and financial support. Its focus is on four areas: education, environment, health and wellness, and people. In response to the Covid-19 pandemic the firm donated $250,000 to the Red Cross specifically aimed at relief efforts. In addition, the firm donated $250,000 to Mayor Fulop's Jersey City Local Relief Fund which is working with local community partners to support small businesses and nonprofits in Jersey City. The firm encourages employees to participate in various activities sponsored by the organization. In 2019, 86 Lord Abbett volunteers worked on building homes in New Jersey in partnership with Habitat for Humanity. The firm also allows employees flexibility in work schedules to accommodate participation in initiatives which may not be sponsored by the firm. It has a gift matching program which has been in place for more than 20 years. In 2019 the firm hosted an investment day for a group of students and teachers from North Haven High School in Connecticut.

Internships/Scholarships:
Lord Abbett partners with organizations such as Year Up. The firm also sponsors the Women in Finance Network which provides women with networking and mentoring opportunities. The firm does not track demographics of participants in these initiatives at this time, but these initiatives are part of the firm's D&I strategy and typically benefit women, minorities or both. The firm recently created the Lord Abbett Diversity Scholarship at the University of California Irvine School of Law. This gift will provide a 3-year scholarship totaling $20,000 to a qualified first-year student.

Procurement:
Lord Abbett does not currently have a formal written procurement policy however, its focus on diversity has led to diverse business relationships. For example in 2019 the firm traded over $1.1 billion dollars in fixed income securities with minority-owned brokers.

Environmental, Social, Governance Analysis (“ESG”)

Lord Abbett described a detailed integration of ESG into its investment processes. The firm is a signatory of the UN PRI, and recently joined the Climate Action 100+ and Ceres Investor Network. Their Global Corporate Citizenship Committee in tandem with their Investment Stewardship Council, are responsible for their ESG policies, research, and practices. In addition to offering internal and external training opportunities on ESG issues, the firm utilizes Sustainalytics for ESG research, risk scores, and analysis in conjunction with data from MSCI and Bloomberg.

The firm does not have a policy on investments with civilian firearms manufacturers or retailers.

RIVERBRIDGE

Organization

Mark Thompson and John Wilkie founded Riverbridge in 1987. Prior to starting the firm, Messrs. Thompson and Wilkie had co-managed the New Dimensions fund at IDS. Mr. Wilkie retired from Riverbridge in 1992 and left the investment business. Mr. Thompson is currently Riverbridge's Chief Manager and CIO.

Riverbridge had $12.6 billion in AUM as of 12/31/20. The firm manages eight growth strategies using the same investment approach. Most of the assets are in the all-cap growth ($4.8 billion), small-cap growth ($3.7 billion), and smid-cap growth ($3.5 billion) products.

The firm is 49% owned by 24 employees. London-based Northill Capital, a passive investor, holds 51% of the equity. Northill is a source of perpetual capital for boutique asset managers. They support the long-term stability and independence of the managers in which they invest. Northill initially purchased 59% of Riverbridge in 2012. Their ownership has been reduced over time, as stock has been recycled to Riverbridge employees. Northill is not involved in the day-to-day management of Riverbridge.

Investment Team

The Riverbridge investment team consists of seven individuals. Mark Thompson and Rick Moulton are the "lead portfolio managers" on the small cap growth strategy. The lead portfolio managers are responsible for the portfolio construction process, monitoring the strategy's adherence to the firm's investment and risk disciplines, and ensuring the research pipeline remains robust and diverse. They do not recommend stocks or put names in the portfolio.

The rest of the investment team consists of five portfolio managers. All the PMs have between eight and eleven years of investment experience and have been at the firm for at least eight years. The team has not had any turnover since 2012.

Riverbridge does not believe in the specialist model. The PMs are all generalists. They are also analysts and do all the investment research. This group of five PMs are responsible for adding and removing stocks from the portfolio.

Members of the Riverbridge investment team have a substantial portion of their wealth invested in Riverbridge strategies, Riverbridge portfolio stocks and in the equity of Riverbridge partners.

Investment Philosophy

Riverbridge is a high-quality growth manager. They define high quality as companies that have the ability to sustain high returns on invested capital (ROIC). If a company is able to sustain a high ROIC, they believe it is indicative of a strong market position. Companies must be able to re-invest at high rates in order to maintain a high ROIC.

In addition to a high ROIC, the team looks for strong management, high unit growth, dominant market position and conservative accounting practices. Excluded from consideration are companies that do not have the ability to finance their own growth.

The team will only invest in companies that are profitable at the unit level.

The investment team focuses on the long-term earnings power of a company. They believe investors often underestimate the magnitude of a company's earnings power and the sustainability of its growth.

Riverbridge has a long-term investment horizon. They capture the market inefficiency of investor emotion, behavior, and time. Short-term market movements cause investors to make emotional and behavioral mistakes. Turnover in the small-cap growth portfolio has averaged 17% during the last five years. Most of the turnover comes from selling stocks because their market cap moves out of the small-cap range. The average holding period of eight years reflects the team's belief in the power of compounding.

The firm does not require that each company in which it invests has a minimum growth rate. Portfolio holdings range from companies with 30% to 40% revenue growth to high single-digit or low double-digit top-line growers with margin expansion potential that can be levered to double digit earnings growth.

<u>Investment Process</u>

Ideas are sourced in multiple ways. Many come from Riverbridge's "peer review process" which entails researching companies by talking to customers, suppliers, competitors, and employees. The investment team performs on-site company visits and attends industry and user conferences where they can meet multiple layers of company management. In addition to developing a thorough understanding of the company, the peer review process is intended to avoid "becoming victims to a story told by senior management".

Riverbridge assigns two members of the investment team to every holding, the “champion” and the “devil’s advocate”. The member of the team who leads the fundamental research, and ultimately decides whether to add the company to the portfolio, is the champion for that holding. He or she will discuss the company with the other members of the team throughout the research process, soliciting their input and addressing their concerns. The champion distributes "milestone" meeting notes throughout the research process to the entire team. The PM will also build a financial model on the company, including sensitivity analysis. Researching a new idea takes at least six months.

After socializing the idea and addressing any concerns that arise, the champion may initiate up to a 1.5% position in the company. A formal presentation is not made to the group, but everyone on the investment team is aware of the merits of the idea.

Only the five PMs who perform research can put an idea in the portfolio. CIO Mark Thompson has the authority to veto an idea, but he rarely exercises that power.

After the idea goes into the portfolio, another member of the team is assigned as the devil’s advocate. Very often, the champion will ask the person they worked with on the idea to take on this role. The devil’s advocate then conducts his or her own research. The role of the devil’s advocate is to develop an independent perspective, challenge the champion’s assumptions, and add to the team’s overall understanding of the company.

In order for a position to increase above the initial 1.5% weighting, the devil’s advocate must concur that the stock merits an increased weighting. The weighting can be increased to 3% if that person likes the idea.

Conviction level and valuation determine position sizes. Riverbridge does not set price targets. The largest positions in the portfolio can be 3% to 4%+. The Small Cap Growth portfolio usually holds about 50 stocks.

Positions are most often sold to fund a new, better opportunity. Stocks are also sold when a company's fundamentals deteriorate or the catalysts for their earnings power fail to materialize. Positions are trimmed when they reach 5% of the portfolio. When a company's market cap reaches $10 billion, it becomes a source of funds.

Performance

Table 1
Trailing Period Returns (%, gross of fees)
As of March 31, 2021

	1 Year	3 Year	5 Year	7 Year	10 Year
Riverbridge	88.7	25.9	25.9	17.1	17.0
Russell 2000 Growth	90.2	17.2	18.6	12.8	13.0
Russell 2000 Index	94.8	14.8	16.4	11.0	11.7

Table 2
Calendar Year Returns (%, gross of fees)
As of March 31, 2021

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Riverbridge	55.1	28.3	8.2	24.1	14.2	-2.6	-0.3	43.5	17.9	4.1
Russell 2000 Growth	34.6	28.5	-9.3	22.2	11.3	-1.4	5.6	43.3	14.6	-2.9
Russell 2000 Index	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2

Management Fee

Table 3

Fee Schedule	Mandate Size ($M)	Estimated Effective Fee	Peer Group Percentile Ranking
Flat fee: 80bps	180	0.80%	60

Review of Notices of Legal Proceedings *(provided by Legal)*

In its disclosure to the Office of the Treasurer, Riverbridge Partners ("Riverbridge"), states (i) it has no material legal or non-routine regulatory matters, (ii) no material claims under its fidelity, fiduciary or E&O insurance policies, and (iii) no ongoing internal investigations to report.

Comments to Contract Terms:
Riverbridge does not have any comments to the State's standard contract and accepts the contract without amendment.

<u>Compliance Summary[2] *(provided by Compliance)*</u>

I. Review of Required Legal and Policy Attachments

RIVERBRIDGE PARTNERS LLC ("Riverbridge") a Minnesota-based firm, completed all required legal and policy attachments. It disclosed no third-party fees, campaign contributions, known conflicts, gifts or legal/regulatory proceedings.

II. Workforce Diversity

As of December 2020, Riverbridge employed 39, 2 more than the 37 employed in December 2018. Riverbridge identified 1 woman and 0 minorities as Executive/Senior Level Officials and Managers, i.e., serving at the senior-most level of the firm. For the 3-year period 2018-2020, 3 women and 1 minority were promoted within the ranks of professionals or managers.

Commitment and Plans to Further Enhance Diversity

Riverbridge is committed to cultivating and preserving a culture of diversity and inclusion (D&I). The firm acknowledges at inequalities, injustices, and prejudices exist based on group identity. The firm also acknowledges that it is corporately and individually responsible for breaking down the barriers and biases. The firm's D&I initiatives fall into three categories: personal and professional development of employees, recruiting and hiring practices, and community engagement. The firm continually seeks to make progress to challenge the status quo and create new initiatives that support efforts towards a more diverse and inclusive workplace.

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 13% (1 of 8) of these positions in December 2020, down from 14% (1 of 7) in December 2019 but up from 0% (0 of 4) in December 2018.
- Minorities held 0% of these positions in all 3 years reported as follows: December 2020 (0 of 8), December 2019 (0 of 7), and December 2018 (0 of 4).

At the Management Level overall:

- Women held 9% (1 of 11) of these positions in December 2020, down from 10% (1 of 10) in both December 2019 and December 2018.
- Minorities held 9% (1 of 11) (9% Asian) of these positions in December 2020 down from 10% (10% Asian) (1 of 10) held in both December 2019 and December 2018.

At the Professional Level:

- Women held 42% (8 of 19) of these positions in December 2020, down from 50% (8 of 16) in December 2019 but the same 42% (8 of 19) held in December 2018.
- Minorities held 10.53% (2 of 19) (10.53% Asian) of these positions in December 2020, down from 12.5% (2 of 16) (12.5% Asian) in December 2019, but up from 0% (0 of 19) (% Asian) held in December 2018.

Company-Wide:

[2] The Treasury Unit responsible for reviewing Riverbridge's ESG submission will prepare a separate report.

- Women held 33% (13 of 39) of these positions in December 2020, down from 38% (14 of 37) in December 2019 but up from 32% (12 of 37) in December 2018.
- Minorities held 10.26% (4 of 39) (10.26% Asian) of these positions in December2020, down slightly from 10.81% (4 of 37) (10.81% Asian) in December 2019, but up from 5.41% (2 of 37) (5.41% Asian) in December 2018.

III. Corporate Citizenship

Charitable Giving:
Riverbridge believes investing in "our community" brings strong returns. It is committed to developing its employees both personally and professionally and to being good stewards of its resources. In 2019 the firm supported 124 different organizations nominated by employees and clients. The majority of the organizations were supported with donations but for several, event sponsorship and in-kind support was provided. Riverbridge employees can donate to charitable organizations, and can also nominate a qualified organization to receive a $250 contribution. Employees' contributions are matched dollar-for-dollar up to $1,000 for qualified organizations. In addition, the firm allows each employee up to 16 hours of paid time off to volunteer during business hours each calendar year.

Internships/Scholarships:
Riverbridge is in the process of creating an internship program to help with the education and training of the next generation of workers in the investment management field. It does not currently provide any scholarships.

Procurement:
Riverbridge does not currently have a written procurement policy or program to foster business relationships with diverse businesses.

<u>Environmental, Social, Governance Analysis ("ESG")</u>

Riverbridge described an overall integration of ESG into its investment processes. The firm is a signatory of the UN PRI. Unlike most other firms that have committees or individuals in charge of their ESG policies and research, Riverbridge subscribes to the notion that ESG factors are at the heart of their investment philosophy and thus are the responsibility of each member of their Investment Team. The firm provides training opportunities to staff and engages in industry discussions on ESG topics. They rely on industry peers, leaders, and clients for research. Riverbridge emphasized their longstanding history of ESG integration and noted ESG investing is not a recent add-on approach but rather at the core of their practices.

The firm does not have a policy on investments with civilian firearms manufacturers or retailers.

ARIEL INVESTMENTS

Organization

Ariel Investments is a Chicago-based investment management firm. The firm was founded in 1983 by John Rogers Jr. Ariel continues to be majority (93%) employee- and minority-owned. The balance is held by outside shareholders who helped finance the firm's initial start-up. The two largest shareholders are Co-CEO and founder, John Rogers, Jr, and Co-CEO and president, Mellody Hobson (74% combined interest).

Ariel offers both domestic and global equity strategies and has expanded its offerings over time. The firm has several flavors of small-cap value, notably one that is more deep value oriented than the other.

The firm has a total of $16.2 billion in assets under management with the small-cap value strategy under consideration comprising $1.7 billion of that total.

Investment Team

CIO John Rogers and Kenneth Kuhrt manage the Small Cap Value strategy. Mr. Rogers has managed the strategy since its inception in 1983, the same year he started Ariel. Mr. Rogers started in the investment industry in 1980 as a stock-broker at William Blair. Mr. Kuhrt joined Ariel in 2004. He started in the investment industry in 2000 as an investment banking analyst at William Blair.

In addition to Messrs. Rogers and Kuhrt, the broader domestic equity investment team comprises four other portfolio managers who oversee various strategies and who also have stock coverage. These PMs average 33 years of investment experience. Additionally, seven analysts who average 11 years of investment experience also support the broader domestic equity efforts. The analyst team specializes by sector/industry. Three of the seven analysts focus solely on ESG research. The investment team has been relatively stable with only one analyst departure in the last five years.

Investment Philosophy

The team seeks out companies with differentiated products/services that dominate niches and that are financially strong with experienced management teams. They want to invest in such companies when they trade at a significant discount of 40% or greater to the team's intrinsic value estimate. The strategy follows a benchmark-agnostic, absolute value approach with a long-term 3-5 year horizon.

The approach is decidedly contrarian. The PMs focus on buying out-of-favor, misunderstood and ignored stocks. The team will be patient, often waiting years for a stock that has already been thoroughly vetted to fall on hard times and trade at the required valuation threshold. The strategy's focus on out-of-favor stocks means that the strategy is somewhat deeper value, and the team is not afraid to invest in companies many other quality-oriented value managers eschew (e.g. Norwegian Cruise Lines amidst the COVID pandemic).

Investment Process

Ariel uses a bottom-up, fundamental approach to security selection. The team sources ideas from online sources, periodicals, interviews, meetings, etc. About 50% of the ideas come from the portfolio managers, 40% from the analysts, and 10% from other sources.

The due diligence focuses on financial strength and relative valuation, the competitive backdrop of the industry, management team experience, and quality of products/services. The team considers valuation in relation to earnings. They aim to invest in companies trading at least at a 40% discount to intrinsic value estimates.

Due diligence includes speaking with management and third-party contacts including board members, shareholders, competitors, suppliers, and industry experts. The team triangulates valuation three ways: a discounted cash flow analysis, a change-of-control-based estimate, and a full trading value. Each is weighted differently. Best-case and worst-case valuation scenarios are considered along with the base case. A devil's advocate is assigned to each stock to pick apart the thesis and vet the idea. ESG factors are also considered as part of the process.

All senior members vote on an idea, but the Co-PMs make final investment decisions on the strategy.

The portfolio generally contains approximately 40 stocks. Annual turnover averages around 25%.

Performance

Table 1
Trailing Period Returns (%, gross of fees)
As of March 31, 2021

	1 Year	3 Year	5 Year	7 Year	10 Year
Ariel	104.2	14.5	15.8	10.8	10.8
Russell 2000 Value	97.1	11.6	13.6	8.9	10.1
Russell 2000 Index	94.8	14.8	16.4	11.0	11.7

Table 2
Calendar Year Returns (%, gross of fees)
As of March 31, 2021

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Ariel	19.7	27.5	-13.4	15.1	20.7	-10.2	7.3	37.6	21.6	-10.6
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.1	-5.5
Russell 2000 Index	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2

Management Fee

Table 3

Fee Schedule	Mandate Size ($M)	Estimated Effective Fee	Peer Group Percentile Ranking
1.00% on the first $10M, 0.75% on the next $10M, 0.50% on the next $30M, 0.40% thereafter	TBD	TBD	TBD

Review of Notices of Legal Proceedings *(provided by Legal)*

Pursuant to its response on Attachment G, Ariel Investments LLC (along with its affiliates, "Ariel") disclosed the following legal and regulatory matters occurring in the last 5 years: (a) in April 2018, the SEC asked Ariel to voluntarily provide information related to its global and international strategies, which matter was closed without action in June 2019; and (b) Ariel sued a firm in Naples, Florida operating under the name of Ariel Capital Advisors. Ariel received a favorable verdict in connection with this lawsuit and the defendant was ordered to change its name by April 19, 2017. Additionally, Ariel notes that it filed a D&O/E&O policy claim related to the costs of responding the 2018 SEC inquiry. Ariel confirms that there are no ongoing internal investigations to report.

Ariel disclosed the following changes to its organization or corporate structure in the past two years: Mellody Hobson was promoted to Co-CEO in July 2019 and became a controlling shareholder of Ariel. In February 2021, Ariel Alternatives LLC was created as an affiliate to Ariel.

Ariel affirmed that it has adequate internal investigation procedures.

Comments to Contract Terms:
In connection with the Treasurer's standard form of investment management agreement, Ariel has proposed various changes, none of which at this stage appear to be insurmountable for contracting purposes but will require negotiation.

Compliance Summary[3] *(provided by Compliance)*

I. Review of Required Legal and Policy Attachments

ARIEL INVESTMENTS, LL ("Ariel") a Chicago Illinois-based, minority (Black)-owned firm[4], completed all required legal and policy attachments. Ariel disclosed no third-party fees, campaign contributions, known conflicts or gifts. Its disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

II. Workforce Diversity

As of December 2020, Ariel employed 103, 2 more than the 101 employed in December 2018. Ariel identified 13 women and 10 minorities as Executive/Senior Level Officials and Managers, i.e., serving at the senior-most level of the firm. For the 3-year period 2018-2020, 5 women and/or minorities were promoted within the ranks of professionals or managers.

Commitment and Plans to Further Enhance Diversity
Ariel was founded in 1983 by an African American male. The firm's mission is to manage money with the highest expertise and integrity, while creating an environment that includes a broad range of backgrounds, experiences and viewpoints. The minority ownership of the firm is 87%, and 64% of the firm's leadership team are minorities and or women. Women comprise over half of the firm. The co-CEO and President is an African American woman and prominent global business leader. An additional 13 women hold executive or senior-level positions. In 2002 Ariel co-founded the Black Corporate Directors Conference to ensure the Civil Rights agenda is not forgotten in public company board rooms. In 2018,

[3] The Treasury Unit responsible for reviewing Ariel's ESG submission will prepare a separate report.
[4] Not Connecticut certified

the firm implemented a firm-wide diversity and inclusion mandate underscoring its commitment to diversity of: employees, purchasing relationships and philanthropic contributions. Ariel's founder supported Illinois legislation to advance diversity on public company boards. As a result, in 2019 a bill was passed requiring an annual report card from Illinois companies on their diversity efforts. This data will be published by the University of Illinois and will be used to implement "real change". Ariel has been formally recognized as a minority-owned Business Enterprise certified by the National Minority Business Council, Inc., Chicago Minority Supplier Development Council, Inc., and the California Utility Supplier Clearinghouse.

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 48% (13 of 27) of these positions in December 2020, up from 42% (13 of 31) in December 2019 and 43% (12 of 28) in December 2018.
- Minorities held 37.04% (10 of 27) (7.41% Asian and 29.63% Black) of these positions in December 2020, up from 29.03% (9 of 31) (9.68% Asian and 19.35% Black) in December 2019, and 32.14% (9 of 28) (10.71% Asian and 21.43% Black) in 2018.

At the Management Level overall:

- Women held 57% (26 of 46) of these positions in December 2020, up from 48% held in both December 2019 (24 of 50) and December 2018 (22 of 46).
- Minorities held 41.3% (19 of 46) (13.04% Asian and 28.26% Black) of these positions in December 2020, up from 40% (20 of 50) (12% Asian, 2% Hispanic, and 26% Black) held in December 2019, and the same 41.3% (19 of 46) (13.04% Asian and 28.26% Black) held in 2018.

At the Professional Level:

- Women held 50% (20 of 40) of these positions in December 2020, up from 45% (18 of 40) in December 2019 and 47% (17 of 36) in December 2018.
- Minorities held 52.5% (21 of 40) (12.5% Asian, 10% Hispanic, 27.5% Black and 2.5% Two or More Races) of these positions in December 2020, up from 45% (18 of 40) (17.5% Asian, 7.5% Hispanic and 20% Black) in December 2019, but slightly down from 52.78% (19 of 36) (22.22% Asian, 13.89% Hispanic and 16.67% Black) held in 2018.

Company-Wide:

- Women held 75% (77 of 103) of these positions in December 2020, up from 71% (71 of 106) in December 2019 and 68% (69 of 101) in December 2018.
- Minorities held 48.54% (50 of 103) (13.59% Asian, 3.88% Hispanic, 30.1% Black and 0.97% Two or More Races) of these positions in December 2020, up from 44.34% (47 of 106) (12.26% Asian, 5.66% Hispanic and 26.42% Black) in December 2019, and 48.51% (49 of 101) (13.86% Asian, 6.93% Hispanic and 27.72% Black) in 2018.

III. Corporate Citizenship

Charitable Giving:

Ariel believes it is its duty to support the neighborhoods in which it does business and where its employees live. The firm has promoted a firm-wide policy of community involvement and civic responsibility. It is committed to among other areas, education, advancing civil rights, promoting cultural expression and community well-being. Volunteerism by employees is a distinctive attribute of the firm. Financial and in-kind donations are essential for communities and the firm contributes to local and national organizations to the tune of over $1,000,000 annually.

Internships/Scholarships:
The Ariel Education Initiative creates educational opportunities for economically disadvantaged youths. In addition to academic offerings, the initiative provides resources for low-income, inner-city youth which are often otherwise unavailable. In 1991 the Initiative adopted the entire sixth grade class of Shakespeare Elementary School in Chicago and pledged to make college affordable and accessible to each student who graduated from high school. The firm's vice chairman developed the Big Shoulders Stock Market program, which includes 65 participating inner city Chicago Catholic schools, to educate and involve 8th grade students in managing an actual portfolio. In 1996 the firm launched the Black Investor Survey to compare and contrast the saving and investing behaviors of middle-income black and white Americans. In 2017, the John W. Rogers Junior Internship Program in Finance was created at the University of Chicago. The goal is to provide students from underrepresented backgrounds with knowledge, understanding and experience in the investment field. Also, in January of 2019, Ariel released FUTURES, a free educational resource available for download. The FUTURES free program guides students from a basic to an advanced understanding of personal finance, economics, entrepreneurship and investing concepts.

Procurement:
Ariel's founder, chairman and CIO meets with department heads to review spend by category, employee diversity data by department, as well as discuss best practices for improvement. Annual spend is reviewed with a view to improve major spend categories, including, gender, ethnicity, veteran and disabled status.

In 2019, 15% of business was conducted with women and minority-owned businesses.

Environmental, Social, Governance Analysis (“ESG”)

Ariel described a thorough integration of ESG into its investment processes. The firm is a signatory of the Carbon Disclosure Project and a member of the SASB Alliance, the Ceres Investor Network, and the Thirty Percent Coalition. Their ESG committee -- comprised of their Senior Vice President/Director of ESG Investing, an ESG research analyst and a ESG research associate -- oversees ESG policies and research. Ariel conducts quarterly training sessions on ESG issues and relies on third-party research and/or ratings (MSCI, ISS, Bloomberg, etc.) for analysis.

The firm does not have an explicit policy on investments with civilian firearms manufacturers or retailers, but their traditional value strategies avoid corporations whose primary source of revenue is derived from the manufacture of firearms.

CHANNING CAPITAL

Organization

Founded in 2003, Channing Capital Management (CCM) is a value manager based in Chicago, IL. Up until recently, two of the firm's co-founders, CIO Wendell Mackey and Head of Business Development Rodney Herenton, each owned 50% of the firm. However, on April 1, 2021, all members of the investment team became owners. In total, Channing issued 5% of the shares to the investment team (ex-Mr. Mackey) with a balance of 10% reserved once they achieve items stated in their development goals.

The firm is a value manager and offers four domestic equity strategies and five global equity strategies that are managed by a separate team based in Florida. The domestic equity offerings include small-cap value, small/mid-cap value, large-cap value and all-cap value. The large-cap and all-cap strategies are managed by a separate individual and are managed primarily for a few legacy accounts. Wendell Mackey and his team of four focus on the small-cap value and small/mid-cap value.

The firm has a total of $3.0 billion in assets under management with small-cap value comprising $2.1 billion of that total.

Investment Team

The small cap value investment team is led by Portfolio Manager Wendell Mackey. He has been the sole decision maker on this strategy since the product's inception in 2006. Before small cap was launched, Mr. Mackey worked on the mid cap value strategy from 2003 to 2006. Mid cap was wound down in 2019.

Mr. Mackey is also an analyst. He is a generalist, but he gravitates towards financials and technology. Mr. Mackey started in the investment industry in 1993 and joined Channing in 2003. Prior to joining Channing, he was a managing director at Valenzuela Capital Partners, a Portfolio Manager at Barrett Capital Advisors, and a portfolio manager at NCM Capital Management Group. Mr. Mackey is a CFA charter-holder, and has a BBA from Howard University and MM from the Kellogg Graduate School of Management at Northwestern University.

Mr. Mackey is supported by four analyst/PMs. These individuals focus on specific sectors. They started in the investment industry between 1991 and 2006 and are seasoned. In addition to these two dedicated analysts, Deryck Lampe, CFA, the Portfolio Manager for the large-cap and all-cap strategies, covers energy for all the strategies including small-cap. Mr. Lampe started in the investment industry in 1994. The team has been stable over time.

Investment Philosophy

Channing's philosophy is best defined as traditional value with a catalyst. They take a contrarian approach to finding ideas, but this strategy is not deep value. They will purchase stocks of good companies when investors have potentially overreacted and driven the valuation below Channing's estimate of fair value. They will also research stocks that are not heavily followed and have limited, if any, analyst coverage.

Channing believes that good companies are those with a strong competitive position, solid free cash flow, a healthy balance sheet, and a good management team.

They also believe that a catalyst must be on the horizon in order to drive the stock price higher. Catalysts also help avoid value traps.

They believe in managing a concentrated portfolio of the firm's "best ideas".

Investment Process

Channing employs a fundamentally driven, bottom-up approach to investing. Ideas typically come from screens, but analysts are also free to generate candidates. The firm screens on metrics including forward P/E, EV/EBITDA, debt-to-capital, and return on equity. They will also consider stocks that have declined 25% or more relative to the benchmark during the past year. This group is then ranked by P/E and classified by sector⁄industry to help narrow the universe to attractively valued stocks that could potentially help diversify the portfolio.

Mr. Mackey believes that it is important to speak to company managements. Information is not as abundant in the small cap universe, so an investor can gain an information edge by meeting with companies. Channing will sometimes perform on-site company visits, but these trips are not imperative. They will speak with management on conference calls and at investment conferences. Channing will speak to the sell-side as well, primarily to provide an initial overview if they are unfamiliar with a new company. They may talk to customers, suppliers, and competitors, but not always.

Channing builds its own financial model on each company. They will apply a multiple to EBITDA, construct a discounted cash flow model or use a sum-of-the parts analysis to determine intrinsic value. A stock needs to trade at a 30% discount to Channing's estimate of intrinsic value. Management needs a plan to improve profitability, grow revenue and outline steps to manage the balance sheet in order to be considered for purchase.

Mr. Mackey is the final decision-maker on all stocks. The portfolio contains 35 to 45 stocks. Turnover averages around 50% (40% on a name basis).

Performance

Table 1
Trailing Period Returns (%, gross of fees)
As of March 31, 2021

	1 Year	3 Year	5 Year	7 Year	10 Year
Channing	104.3	13.0	14.6	10.0	11.3
Russell 2000 Value	97.1	11.6	13.6	8.9	10.1
Russell 2000 Index	94.8	14.8	16.4	11.0	11.7

Table 2
Calendar Year Returns (%, gross of fees)
As of March 31, 2021

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Channing	17.6	25.9	-16.6	7.6	29.5	-4.4	5.5	39.5	22.9	-5.8
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.1	-5.5
Russell 2000 Index	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2

Management Fee

Table 3

Fee Schedule	Mandate Size ($M)	Estimated Effective Fee	Peer Group Percentile Ranking
0.50% on the first $250M, 0.45% thereafter	TBD	TBD	TBD

Review of Notices of Legal Proceedings *(provided by Legal)*

Pursuant to its response on Attachment G, Channing Capital Management LLC (along with its affiliates, "the "Firm") stated that, in the past five years, (i) there have been no material lawsuits involving the Firm, (ii) the Firm (A) agreed to pay a civil penalty fine of $50,000 in 2019 in connection with a determination by the SEC that the Firm violated its own trading policy and (B) was ordered to cease and desist from committing or causing any further violations, and (iii) there have been no claims on the Firm's insurance policies. The Firm further confirmed there are no ongoing internal investigations to report, nor are there any recent or pending material changes to its organization or corporate structure.

The Firm affirmed that it has adequate internal investigation procedures pursuant to its Code of Ethics and Employee Handbook.

Comments to Contract Terms:
The Firm accepts the State's form of investment management agreement in its entirety.

Compliance Summary[5] *(provided by Compliance)*

I. Review of Required Legal and Policy Attachments

CHANNING CAPITAL MANAGEMENT, LLC ("CCM") a Chicago Illinois-based, minority (Black)-owned firm[6], completed all required legal and policy attachments. CCM disclosed no third-party fees, campaign contributions, known conflicts or gifts. Its disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

II. Workforce Diversity

As of December 2020, CCM employed 17, 1 less than the 18 employed in December 2018. CCM identified 0 women and 2 minorities as Executive/Senior Level Officials and Managers, i.e., serving at the senior-most level of the firm. For the 3-year period 2018-2020, no women or minorities were promoted within the ranks of professionals or managers.

Commitment and Plans to Further Enhance Diversity
Diversity is at the core of CCM's guiding principles. As a minority-owned firm it remains dedicated to providing opportunities to women and minorities and to support diversity and inclusion at all levels. The firm also makes a good faith effort to use third-party vendors who are businesses owned and/ or managed by women and minorities.

[5] The Treasury Unit responsible for reviewing CCM's ESG submission will prepare a separate report.
[6] Not Connecticut certified

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 0% of these positions in all 3 years reported as follows: (0 of 2) in December 2020 and December 2019, and (0 of 3) in December 2018.
- Minorities held 100% of these position in all 3 years reported as follows: (2 of 2) (100% Black) in both December 2020 and December 2019, and (3 of 3) (100% Black) in 2018.

At the Management Level overall:

- Women held 0% of these positions in all 3 years reported as follows: (0 of 2) in December 2020 and December 2019, and (0 of 3) in December 2018.
- Minorities held 100% of these position in all 3 years reported as follows: (2 of 2) (100% Black) in both December 2020 and December 2019, and (3 of 3) (100% Black) in 2018.

At the Professional Level:

- Women held 31% (4 of 13) of these positions in December 2020, 26% (4 of 14) in December 2019 and 31% (4 of 13) in December 2018.
- Minorities held 45.15% (6 of 13) (7.69% Hispanic and 38.46% Black) of these positions in December 2020, up from 42.86% (6 of 14) (7.14% Hispanic and 35.71% Black) in December 2019, and 45.15% (6 of 13) (7.69% Hispanic and 38.46% Black) in December 2018.

Company-Wide:

- Women held 35% (6 of 17) of these positions in December 2020 and 33% (6 of 18) in both December 2019 and December 2018.
- Minorities held 58.82% (10 of 17) (11.76% Hispanic and 47.06% Black) of these positions in December 2020, up from 55.56% (10 of 18) (11.11% Hispanic and 44.44% Black) held in both December 2019 and December 2018.

III. Corporate Citizenship

Charitable Giving:
CCM is actively involved with and has sponsored a number of organizations that support diversity and inclusion. Both co-founders of the firm are graduates of historically black colleges and universities and are actively involved in giving back to their communities. The firm is an active sponsor of the National Association of Securities Professionals and the Asian Association of American Investment Managers. The firm's co-founder and CIO serves on the board of Howard University and recently sponsored a $250,000 donation to support the creation of a Bloomberg Finance Lab contracting with Bloomberg to finance licenses for 12 terminals at the University. The firm also supports various charitable and nonprofit organizations including, the National Urban League, United Negro College Fund, and Lydia Smith Sickle Cell Foundation.

Internships/Scholarships:
The firm is actively engaged with a number HBCUs to recruit interns on an annual basis every summer. 100% of internships have benefited minorities.

Procurement:
CCM makes a good faith effort to use third-party vendors that are diverse. Currently the firm is working with 9 service providers “that have representation from brokerage firms that targets female and or underrepresented minorities”.

Environmental, Social, Governance Analysis (“ESG”)

Channing described a general integration of ESG into its investment processes, with a dedicated committee -- including their co-founders -- in charge of ESG policies and research. The firm began the signatory process for the UN PRI and plans to receive approval by end of Q1 this year. The Channing investment team is focused on education across ESG topics and emphasizes participation in webinars, white paper reviews, and training session to keep abreast of industry trends.

The firm does not have a policy on investments with civilian firearms manufacturers or retailers.

WELLINGTON MANAGEMENT

Organization

Wellington Management Company, LLP was founded in 1928 and is a Boston-based, independent, employee-owned firm focused on institutional clients. As of year-end 2020, the firm served as an investment adviser to over 2,300 clients located in more than 60 countries. Wellington had fourteen offices around the world including in London, Sydney, Singapore, Hong Kong and Tokyo.

The firm has been an independent, private partnership since 1979. As of March 31, 2021, Wellington is owned by 182 partners, all of whom are active in the firm. The firm employs over 2,600 people, including approximately 800 investment professionals.

As of March 31, 2021, Wellington managed over $1 trillion in total assets across multiple asset classes. Equity represents 45% of the firm's assets. The Emerging Companies strategy had $1.1 billion in AUM.

Investment Team

David DuBard was named lead PM on the Emerging Companies strategy in March 2012 when the prior PM was taken off the product for performance reasons.

Mr. DuBard joined Wellington in 1992 as an analyst on the micro-cap team supporting the Emerging Companies strategy and lead PM Binckley Shorts. Prior to joining Wellington, Mr. DuBard was in the research department at Morgan Keegan and Company. He earned his MBA from the University of Pennsylvania and is a CFA charterholder.

Mr. DuBard is supported by three sector-focused analysts who, unlike Wellington's global industry analysts, are dedicated to Mr. DuBard and the micro-cap strategies. However, Mr. DuBard and his analysts can leverage Wellington's approximately 50 global industry analysts as needed. Mr. DuBard covers health care, transportation, banks and specialty finance. Kevin Barry covers industrials, business services, aerospace and defense, and energy. Peter Carpi covers consumer and technology. Don Porter was hired in August 2019 to replace analyst Jason Goins, who left at the end of 2018 to join the firm's global impact team. Mr. Porter covers industrials, business services, and materials.

By managing the only two micro-cap products offered by Wellington, Mr. DuBard and his team have the best of both worlds. They have all the benefits of working for a very large, well-established and well-resourced firm, but do not have to deal with any of the mindshare and liquidity headaches that are usually inherent in a firm of Wellington's size. While the team can leverage Wellington's analysts, the micro-cap team has very little overlap with the other Wellington small cap portfolios.

Investment Philosophy

The philosophy is similar to a private equity approach to public markets. Mr. Dubard is essentially a conservative growth investor with a focus on high quality businesses. He generally thinks about companies in terms of valuation on an absolute basis, but he is cognizant of relative value.

Mr. Dubard believes that the efficiency of the market increases considerably as you move up the market cap spectrum. He has a long-term investment horizon and believes that micro-cap companies often carry an illiquidity discount that offers patient investors attractive valuations and a larger universe of potential investments. His ideal scenario is to own companies before they become more visible and reach the "bar of institutional relevance." He acknowledged that one risk of microcap investing is that the companies are never discovered by other investors.

Investment Process

Ideas are sourced primarily from the 400 to 600 company meetings the team conducts annually. Idea generation is augmented with quantitative screens that incorporate factors based on valuation, profitability, growth and cash flow or quality metrics. The investment team defines their investable universe as the Russell Microcap Index. When they eliminate companies without earnings and/or capital-intensive companies, the result is an investable universe of 500 to 600 companies.

The process is iterative. Mr. Dubard and the analysts have ongoing discussions about new ideas. Ideas are generated via company meetings, conferences and field trips, quantitative screens, third-party sources, and Wellington's resources. The team seeks to invest in well-capitalized, distinctive niche leaders with a proven management team and a price/value disconnect.

The analysts conduct very thorough due diligence on all potential investment ideas and will always meet with or speak to management before purchasing a stock. There is continual discussion between the analysts and PM. When an idea is at an advanced stage, the sponsoring analyst and Mr. Dubard discuss whether to add it the portfolio. The primary valuation metric is EV/EBITDA, but the team will also look at P/E, P/B, free cash flow yield, etc. The analysts drive idea generation in their areas of coverage, but Mr. Dubard is the ultimate decision maker.

The portfolio will hold 75-150 stocks. However, the number of stocks is typically in the 75-100 range.

Performance

Table 1
Trailing Period Returns (%, gross of fees)
As of March 31, 2021

	1 Year	3 Year	5 Year	7 Year	10 Year
Wellington	102.8	17.8	18.4	12.9	12.7
Russell Microcap	120.3	16.6	18.1	11.0	12.2
Russell 2000 Index	94.8	14.8	16.4	11.0	11.7

Table 2
Calendar Year Returns (%, gross of fees)
As of March 31, 2021

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Wellington	23.7	28.2	-14.0	19.2	23.7	-3.7	7.2	41.9	13.1	-8.4
Russell Microcap	21.0	22.4	-13.1	13.2	20.4	-5.2	3.6	45.6	19.7	-9.3
Russell 2000 Index	20.0	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2

Management Fee

Table 3

Fee Schedule	Mandate Size ($M)	Estimated Effective Fee	Peer Group Percentile Ranking
0.85% on the first $50M, 0.80% on the next $25M, 0.75% thereafter.	50	0.85%	7

Review of Notices of Legal Proceedings *(provided by legal)*

Pursuant to its response on Attachment G, Wellington Management Company LLP (along with its affiliates, "the "Firm") disclosed that from time to time it is involved in litigation in the ordinary course of business, none of which is material with respect to the Firm's investment management business or its ability to provide advisory services. Additionally, the Firm states that, to the best of its knowledge, none of its investment professionals have been or are currently subject to litigation that related to his or her investment activities on behalf of the Firm. The Firm notes, however, that it periodically receives inquiries, requests for information and subpoenas from various regulators and governmental entities with regard to its trading activities, securities of companies followed by the Firm, clients of the Firm and industry practices. To the best of its knowledge, the Firm is not the subject of any such investigation or administrative proceeding that is material to its investment management business or its ability to provide investment advisory services. The Firm states that it has not filed any material insurance claim that would approach coverage limits or constitute a financial burden on its normal operations. During internal counsel's discussions with the Firm, representatives confirmed that there are no ongoing material internal investigations to report.

The Firm disclosed a number of recent or pending organizational changes including business line changes, the creation of an Enterprise Risk Management Group, and several senior personnel changes, including a change in CEO and President, effective July 1, 2021 and January 2, 2021, respectively, and a change in the Firm's Chief Information Officer, effective December 31, 2020.

The Firm affirmed that it has adequate internal investigation procedures in place, including as set forth in the Firm's Code of Ethics.

Comments to Contract Terms:
In connection with the Treasurer's standard form of investment management agreement, the Firm requests entering into a contract with terms either the same or substantially similar to the State's current contract with Wellington.

Compliance Summary[7] *(provided by Compliance)*

I. Review of Required Legal and Policy Attachments

WELLINGTON MANAGEMENT COMPANY LLP ("Wellington") a Boston Massachusetts-based company, completed all required legal and policy attachments. Wellington disclosed no third-party fees, campaign contributions, known conflicts or gifts. Its disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

[7] The Treasury Unit responsible for reviewing Wellington's ESG submission will prepare a separate report.

II. Workforce Diversity

As of December 2019[8], Wellington employed 2012, 114 more than the 1898 employed in December 2017. The firm identified 51 women and 13 minorities as Executive/Senior Level Officials and Managers, i.e., serving at the highest level of the firm. Over the 3-year period 2017-2020, Wellington promoted 520 minorities and 731 women within the ranks of professionals or managers.

Commitment and Plans to Further Enhance Diversity
Diversity and Inclusion are "core to who we are". Wellington believes that a diverse workforce and inclusive culture are vital to being successful in the asset management business. The firm has created a five-year global diversity and inclusion strategy. Its approach to fostering a diverse and inclusive culture is driven by firm leaders, implemented by managers, supported by employees, and guided by the diversity and inclusion team with a Director of Global Diversity and Inclusion. The firm has set specific goals and conducts an annual review of quantitative diversity metrics. It has undertaken numerous initiatives including: the Diversity Internship, Early in Career Programs, Historically Black Colleges and Universities, and use of specialized search firms to identify underrepresented talent for lateral positions.

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 38% (51 of 134) of these positions in 2019, up slightly from 37% (51 of 137) held in 2018, and up from 32% (43 of 134) held in 2017.
- Minorities held 9.7% of these positions (5.97% Asian, 2.99% Hispanic and 0.75% Black) or (13 of 134) in 2019, up slightly from 8.76% (5.84% Asian, 2.19% Hispanic and 0.73% Black) or (12 of 137) held in 2018, and 8.21% (4.48% Asian, 2.24% Hispanic, 0.75 % Black and 0.75% Two or More Races) or (11 of 134) held in 2017.

At the Management Level overall:

- Women held 36% (126 of 351) of these positions in 2019, down from 38% (140 of 372) in 2018, and 37% (120 of 321) in 2017.
- Minorities held 17.09% of these positions (13.39% Asian, 1.42% Hispanic, 1.42% Black, 0.28% American Indian or Alaskan Native and 0.57% Two or More Races) or (60 of 351) in 2019, up from 15.86% (12.9% Asian, 1.88% Hispanic, 0.81% Black and 0.27% American Indian or Alaskan) or (59 of 372) held in 2018, and 13.08% (10.28% Asian, 1.56% Hispanic, 0.93% Black, and 0.31% Two or More Races) or (42 of 321) held in 2017.

At the Professional Level:

- Women held 36% (541 of 1522) of these positions in 2019, up from 34% (495 of 1465) in 2018, and 32% (463 of 1427) in 2017.
- Minorities held 33.44% of these positions (24.05% Asian, 4.01% Hispanic, 3.61% Black, 0.2% American Indian or Alaskan Native and 1.58% Two or More Races) or (509 of 1522) in 2019, up from 32.29% of these positions (23.28% Asian, 3.82% Hispanic, 3.75% Black, 0.14% American Indian or Alaskan Native and 1.3% Two or More Races) or (473 of 1465) held in 2018, and 29.57% of these positions (21.86% Asian, 3.01% Hispanic,

[8] Wellington reported that 2020 data was not available as of the date of this Report.

3.22% Black, 0.21% American Indian or Alaskan Native and 1.26% Two or More Races) or (422 of 1427) held in 2017.

Company-Wide:

- Women held 66% (1335 of 2012) of these positions in 2019, up from 63% (1255 of 1977) in 2018, and 62% (1181 of 1898) in 2017.
- Minorities held 29.77% of these positions (20.87% Asian, 3.78% Hispanic, 3.58% Black, 0.2% American Indian or Alaskan Native and 1.34% Two or More Races) or (599 of 2012) in 2019, up from 28.43% (19.98% Asian, 3.54% Hispanic, 3.64% Black, 0.2% American Indian or Alaskan Native and 1.06% Two or More Races) or (562 of 1977) held in 2018, and 26.4% of these positions (18.6% Asian, 3.06% Hispanic, 3.32% Black, 0.32% American Indian or Alaskan Native and 1.37% Two or More Races) or (501 of 1898) held in 2017.

III. Corporate Citizenship

Charitable Giving:
At Wellington "we seek to actively support the communities in which we live and work." Wellington Management Foundation and the Wellington Management UK Foundation support programs and organizations that improve educational opportunities for youth from traditionally underserved and economically challenged communities in the regions where Wellington has offices. The majority of students benefiting from these programs identify as minorities and/or low income and many of these community-based programs are led by people from within the community or who have similar lived experiences. The Wellington Management Foundation was founded in 1992 as the Wellington Management Company Charitable Fund. It relies on Wellington employees who volunteer their time and talent through service on the Foundation's Advisory Board. In 2020, the US Foundation awarded more than US $9.5 million in funding to 113 educational organizations in eastern Massachusetts, greater Philadelphia, Chicago, the San Francisco Bay Area, Toronto, Tokyo, Hong Kong, Singapore and Sydney, and to Wellington’s UK Foundation. Wellington has a matching gift program which matches employee donations to registered non-profit organizations. In response to the covid-19 pandemic beginning in March 2020 the US-based Foundation offered emergency grants of US $25,000 to more than 100 global grantees. Over the course of the year the US Foundation went on to provide an additional $700,000 in funding to organizations working to support remote learning in schools and programs throughout eastern Massachusetts.

Internships/Scholarships:
The diversity undergraduate internship program is open to all undergraduate students but focuses on targeting underrepresented groups in the investment management industry including, but not limited to, women and people of color. The firm also offers a graduate internship program. In addition, the firm supports numerous organizations such as, 100 Women in Finance, Girls Who Invest, and InRoads, to name a few.

Procurement: To the best of its knowledge for the 12 months ending December 31, 2020 Wellington partnered with more than 98 US-based diverse suppliers, with spend of approximately $14.2 million. The suppliers include small businesses, businesses owned by minorities, women, veterans, individuals with disabilities, and members of the LGBTQ community.

Environmental, Social, Governance Analysis (“ESG”)

Wellington described a comprehensive integration of ESG into its investment processes. They have been a signatory of the UN PRI since 2012 and are members of several sustainability-oriented organizations including the International Corporate Governance Network (ICGN), Global Real Estate Sustainability Benchmark (GRESB), Climate Action 100+, Carbon Disclosure Project, and Ceres Investor Network. The firm relies on their Director of Sustainable Investment, who sits on the UN PRI board, to lead and shape their ESG policies and research. Wellington engages with and provides a multitude of ESG training opportunities, with an emphasis on collaboration. The firm has a clear focus on carbon footprint analysis and board diversity metrics and uses third-party providers such as MSCI and Sustainalytics for data and benchmarking.

The firm does not have a policy on investments with civilian firearms manufacturers or retailers, given their practice of avoiding negative screens across their investment platform.

APPENDIX

Table 1
Proposed Managers
Rolling Three-Year Excess Returns vs. Manager-Preferred Benchmark
Rolling Three-Year Periods as of June 2021

	Benchmark	Total Periods	Periods Outperformed	(%)	Average Ann. Excess Return	Max	Min	Range
Lord Abbett	Russell 2000 Growth	376	281	75%	4.0%	19.4%	-9.8%	29.2%
Riverbridge	Russell 2000 Growth	358	264	74%	4.9%	23.7%	-7.0%	30.7%
Ariel	Russell 2000 Value	421	256	61%	2.0%	14.3%	-12.7%	27.0%
Channing	Russell 2000 Value	142	113	80%	1.9%	7.4%	-3.2%	10.6%
Wellington	Russell Microcap	376	175	82%	2.1%	8.4%	-4.4%	12.7%
Bivium	Russell Microcap	67	61	91%	2.1%	6.2%	-0.8%	7.0%
Leading Edge	Russell 2000	28	28	100%	7.5%	10.7%	4.8%	5.9%

Impact of a shorter timeframe on analysis of the proposed composite

In the proposed composite (Table 8), Bivium and Leading Edge have shorter track records than the other proposed managers in that composite. This resulted in a common period of April 2016 to June 2021. Given the relative long-term outperformance of the remaining managers, Lord Abbett, Riverbridge and Wellington, to the Russell 2000 benchmark (Table 13), it would stand to reason that a composite consisting of those three managers, analyzed over a longer-timeframe, would lead to a positive investment narrative.

In taking our analysis one step further, we compared a fully diversified composite of the five recommended managers to the proposed composite listed in Table 8. The managers each have longer track records than the Ci³ managers. The diversified recommended composite utilized equal-weighted growth and value allocations and a micro-cap allocation (Table A8) and was analyzed using a longer common period of July 2006 to June 2021.

Table A8
Diversified Recommended Small-Cap Manager Composite Allocations

	% of Total (%)	$ Allocation ($ mm)
Wellington	10.0	75.0
Channing	22.5	168.8
Ariel	22.5	168.7
Riverbridge	22.5	168.8
Lord Abbett	22.5	168.7
Total	*100*	*750.0*

Comparisons were made of the relationships in manager correlations, composite performance and risk-adjusted return metrics.
Correlations, as outlined in Table A9, for the diversified recommended managers maintain the same relationships as those in Table 9 for the proposed composite, low or negative correlations.

Table A9
Diversified Recommended Small-Cap Managers
Excess Return Correlations vs Russell 2000 Index
July 1, 2006 – June 30, 2021

	Wellington Emerging Companies	Channing Small Cap Value	Ariel Small Cap Value	Lord Abbett Small Cap Growth	Riverbridge Small Cap Growth
Wellington Emerging Companies	1.00				
Channing Small Cap Value	0.16	1.00			
Ariel Small Cap Value	0.07	0.33	1.00		
Lord Abbett Small Cap Growth	0.05	-0.20	-0.29	1.00	
Riverbridge Small Cap Growth	0.02	0.00	-0.18	0.54	1.00

As Table 10 showed for the proposed composite, the diversified recommended composite also generated excess returns in most periods, as detailed in Table A10.

Table A10
Diversified Recommended Small-Cap Multi-Manager Composite
Historical Performance
As of June 30, 2021

	Composite (%)	Russell 2000 (%)	Relative Returns (%)
Trailing Period Returns (%):			
YTD	12.5	17.5	-5.0
1 Year	60.6	62.0	-1.4
3 Year	20.0	13.5	6.5
5 Year	21.8	16.5	5.3
7 Year	14.5	11.4	3.1
10 Year	15.0	12.3	2.7
Calendar Year Returns (%):			
2020	40.2	20.0	20.2
2019	28.7	25.5	3.2
2018	-4.8	-11.0	6.2
2017	19.5	14.6	4.9
2016	16.4	21.3	-4.9
2015	-6.1	-4.4	-1.7
2014	4.4	4.9	-0.5
2013	44.6	38.8	5.8
2012	18.1	16.3	1.8
2011	-3.7	-4.2	0.5
2010	32.8	26.9	5.9
2009	43.5	27.2	16.3
2008	-40.0	-33.8	-6.2

The risk-adjusted return profile for the diversified recommended composite (Table A11) is similar to the profile of the proposed composite (Table 11). Table A11 provided the following attractive characteristics:

- outperformance over the common period of the managers
- the majority of periods (57%) were above index
- lower risk than the index (standard deviation and downside deviation)
- reasonable tracking error, beta < 1 for an active allocation

- favorable up/down capture profile - 102% upside, 92% downside
- favorable risk-adjusted performance metrics - alpha, Sharpe Ratio, Information Ratio

Table A11
Diversified Recommended Small-Cap Multi-Manager Composite
Common Period Returns and Risk Statistics (gross of fees)
July 1, 2006 – June 30, 2021

	Composite (%)	*Russell 2000 (%)*
Performance:		
Performance (%)	12.8	*9.5*
% of Periods above Index (%)	57	---
Best 3 Months (%)	32.3	*35.2*
Worst 3 Months (%)	-36.2	*-35.7*
Risk Measures[1]**:**		
Standard Deviation (%)	19.8	*20.2*
Tracking Error (%)	4.1	---
Beta	0.96	---
Correlation to Benchmark	0.98	---
Downside Deviation (%)	13.2	*14.1*
Upside Capture (%)	101.9	---
Downside Capture (%)	91.8	---
Risk-Adjusted Performance[3]:		
Jensen's Alpha (%)	3.4	---
Sharpe Ratio	0.59	*0.42*
Information Ratio	0.81	---

In summation, a comparison of the relationships in manager correlations, composite performance and risk-adjusted return metrics of the proposed composite and diversified recommended composite leads to the conclusion that, despite the shorter timeframe for the proposed composite (driven by Ci³ manager track records), the investment narrative for each composite is similar.

MEKETA

INVESTMENT GROUP

State of Connecticut Retirement Plans and Trust Funds

September 2021

US Equity Small Cap Finalist Manager Overviews

Agenda

1. Background
2. Microcap Core Manager Overview
3. Small Cap Value Manager Overviews
4. Small Cap Growth Manager Overviews

Background

Background

- On January 8, 2021, the State of Connecticut Retirement Plans and Trust Funds ("CRPTF") issued a US Small Capitalization Equity Fund RFP.
- As of June 30, 2021, at $10.4 billion, the Domestic Equity Fund represented 23.7% of the overall CRPTF portfolio.
- The CRPTF requested that all respondents submit the RFP by February 19, 2021.
  - In total, 80 firms responded with 112 strategy offerings, as shown in the table below;

Strategy	Micro	Small	SMID	Total
Core	3	18	7	28
Value	4	29	10	43
Growth	4	29	8	41
Total	11	76	25	112

- Of the firms that responded, 36 (or 45%) are majority-employee owned. Only 4 (or 5%) are majority-women and/or minority-employee owned.
  - 50% of the firms provided detail regarding diversity among their workforce.
  - Of the firms that provided the detail, on average, 14% of executive/senior level positions were held by women, and 10% were held by minorities.

Background (continued)

- Meketa worked with PFM to narrow down the respondents to 19 semi-finalist managers, and subsequently met with each of these firms.
  - Of the 19 semi-finalists, 8 (or 42%) are majority-employee owned, and 2 firms (or 11%) are majority-women and/or minority employee owned.
  - Of the semi-finalists who provided the diversity detail, on average 25% and 10% of executive/senior level positions were held by women and minorities, respectively, at the firms.
- Subsequent to the meetings, Meketa and PFM further narrowed the respondents to five finalist managers. These managers are detailed on the following pages.

Asset Class Structure Considerations

- The combination of the size of the mandate and inherent difficulties for active managers to add value, on average, combine to present a unique set of challenges.
- Given the size of the mandate in scope, allocating to too few managers can prove self-limiting as it narrows the opportunity towards managers with greater levels of AUM and lesser capacity constraints (i.e., managers that by design offer lower alpha propositions).
  - A portfolio design of this nature runs the risk of consisting of "closet index" mandates, which can drive management fees up without the compensation of higher excess return potential.
- A better way to utilize managers includes using a mix of managers with more concentrated portfolios, higher tracking error, more specific return profiles, and broader portfolio mandates.
- In an effort to overcome these challenges as we build this asset class, are to:
  - Achieve stronger returns from active management by utilizing only managers that are truly "active."
  - Achieve stronger returns per dollar of management fees paid.
  - Control interim volatility by using a group of complementary strategies.
- A variety of portfolio structure options can be considered to satisfy the mandate. While each option is viable, each carries its own set of pros and cons.
- The following pages outline the proposed structure for the small cap US equity allocation within the Domestic Equity Fund.

Proposed Asset Class Structure

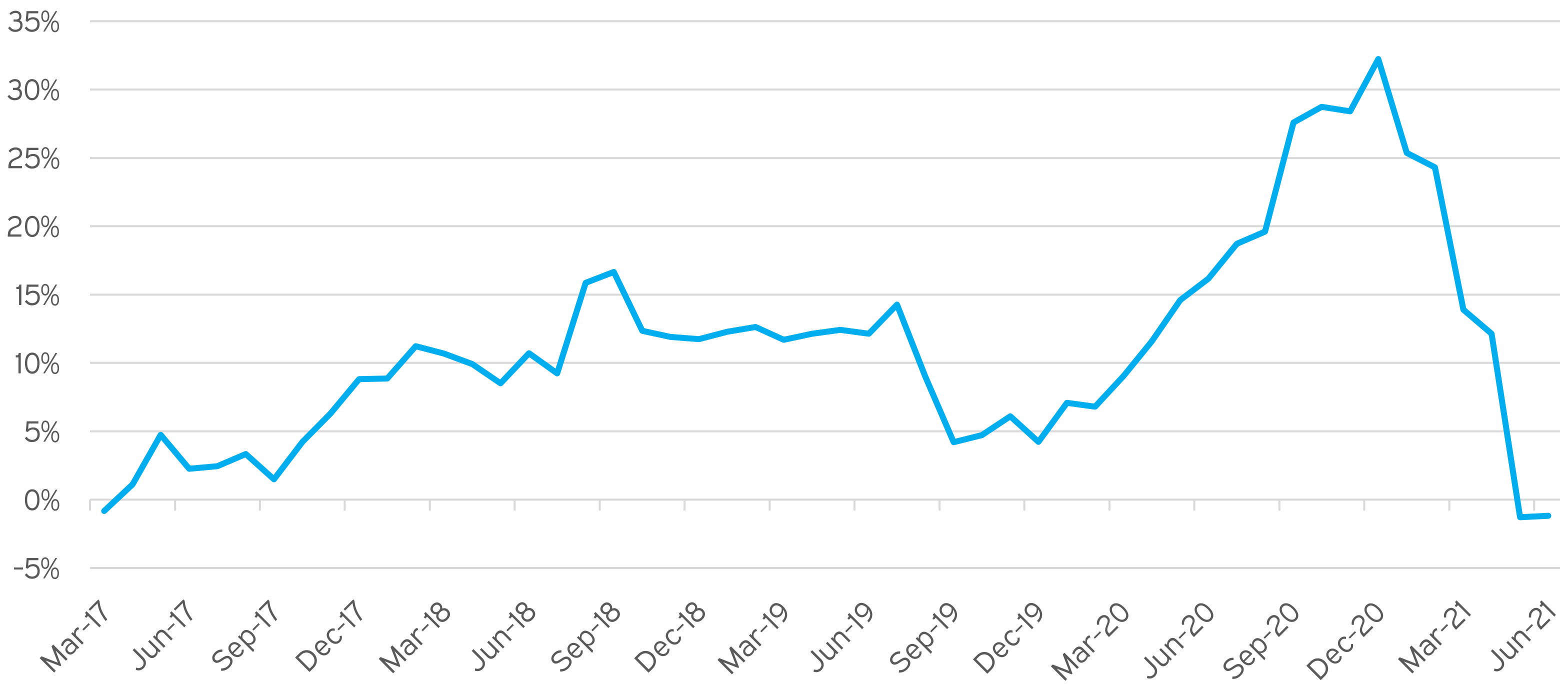
- The proposed structure will include two growth managers, two value managers, and one microcap manager in addition to the two manager of manager strategies within the Ci3 program.
  - However, the portfolio will be initially funded with a subset of the managers as outlined in the table below.
    - The performance and risk data on the follow pages reflect the allocations in this table.

	% of Total (%)	$ Allocation ($ mm)
Wellington	7.6	50
Riverbridge	27.3	180
Lord Abbett	27.3	180
Bivium	7.6	50
Leading Edge	30.3	200
Total	*100.0*	*660*

Combined Multi-Manager Historical Performance (gross of fees)
(As of June 30, 2021)

	Composite (%)	*Russell 2000 (%)*
Trailing Period Returns (%):		
YTD	12.0	17.5
1 Year	60.9	62.0
3 Year	24.2	13.5
5 Year	25.6	16.5
Since Inception (4/2016)	25.2	16.4
Calendar Year Returns (%):		
2020	52.2	20.0
2019	29.8	25.5
2018	0.7	-11.0
2017	23.5	14.6

One-Year Rolling Excess Returns (gross of fees)
(Common Period April 2016-June 2021)



- Over the common period, the composite portfolio outperformed the Russell 2000 Core index in 94% of rolling one-year periods. The average small cap core strategy[1] has outperformed the index in 50% of rolling three-year periods over that time.

---

[1] The peer group is the eVestment US Small Cap Core Equity universe.

Common Period Returns and Risk Statistics (gross of fees)
(April 1, 2016 – June 30, 2021)

	Composite (%)	*Russell 2000 (%)*
Performance:		
Performance (%)	25.2	*16.5*
% of One-Year Periods above Index (%)	94	---
Best 3 Months (%)	36.2	*35.2*
Worst 3 Months (%)	-22.2	*-30.6*
Risk Measures[1]:		
Standard Deviation (%)	19.6	*20.5*
Tracking Error (%)	6.6	---
Beta	0.91	---
Correlation to Benchmark	0.95	---
Semi Deviation (%)	20.1	*23.7*
Upside Capture (%)	107.8	---
Downside Capture (%)	78.0	---
Risk-Adjusted Performance[2]:		
Jensen's Alpha (%)	9.0	---
Sharpe Ratio	1.23	*0.75*
Information Ratio	1.33	---

- The composite outperformed the index with less volatility and lower beta, enhancing risk-adjusted returns.

[1] The benchmark used for all calculations is the Russell 2000 index.

Excess Returns Correlation vs Russell 2000 Index
April 30, 2016 – June 30, 2021

	Ariel	Channing	Lord Abbett	Riverbridge	Wellington	Bivium	Leading Edge
Ariel	1.00						
Channing	0.55	1.00					
Lord Abbett	-0.35	-0.32	1.00				
Riverbridge	-0.24	-0.20	0.72	1.00			
Wellington	0.09	0.30	-0.14	0.03	1.00		
Bivium	-0.07	-0.02	-0.16	-0.21	0.17	1.00	
Leading Edge	-0.04	0.17	0.72	0.65	0.08	0.04	1.00

Microcap Core Manager Overview

Investment Manager Overview

	Wellington
Firm Location	Boston, Massachusetts
Firm Inception	1928
Percent Employee Ownership	100%
Percent Minority Females in Management	9.0%
Strategy Name	Emerging Companies
Strategy Inception	1984
Assets Under Management (Strategy)	$1.0 billion
Asset Under Management (Firm)	$1.4 trillion

Wellington Management

Organization

- Wellington Management Company, LLP was founded in 1928 and is a Boston based, independent, employee-owned firm focused on institutional clients. As of year-end 2020, the firm served as an investment adviser to over 2,300 clients located in more than 60 countries. Wellington had fourteen offices around the world including in London, Sydney, Singapore, Hong Kong and Tokyo.
- The firm has been an independent, private partnership since 1979. As of March 31, 2021, Wellington is owned by 182 partners, all of whom are active in the firm. The firm employs over 2,600 people, including approximately 800 investment professionals.
- As of June 30, 2021, Wellington managed over $1.4 trillion in total assets across multiple asset classes. Equity represents 45% of the firm's assets. The Emerging Companies strategy had $1.0 billion in AUM.
- Wellington's global employee base is 43% male and 57% female. The firm's US employees are 68% white, 5% black, 4% Hispanic ,21% Asian, and 2% American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, or multi-category.

Wellington Management

Investment Team

- David DuBard was named lead PM on the Emerging Companies strategy in March 2012 when the prior PM was taken off the product for performance reasons.
- Mr. DuBard joined Wellington in 1992 as an analyst on the microcap team supporting the Emerging Companies strategy and lead PM Binckley Shorts. Prior to joining Wellington, Mr. DuBard was in the research department at Morgan Keegan and Company. He earned his MBA from the University of Pennsylvania and is a CFA charterholder.
- Mr. DuBard is supported by three sector focused analysts who, unlike Wellington's global industry analysts, are dedicated to Mr. DuBard and the microcap strategies. However, Mr. DuBard and his analysts can leverage Wellington's approximately 50 global industry analysts as needed.
- Mr. DuBard covers health care, transportation, banks and specialty finance. Kevin Barry covers industrials, business services, aerospace and defense, and energy. Peter Carpi covers consumer and technology. Don Porter was hired in August of 2019 to replace analyst Jason Goins, who left at the end of 2018 to join the firm's global impact team. Mr. Porter covers industrials, business services, and materials.
- By managing the only two microcap products offered by Wellington, Mr. DuBard and his team have the best of both worlds. They have all of the benefits of working for a very large, well-established and well-resourced firm, but do not have to deal with any of the mindshare and liquidity headaches that are usually inherent in a firm of Wellington's size. While the team can leverage Wellington's analysts, the microcap team has very little overlap with the other Wellington small cap portfolios.

Wellington Management

Investment Philosophy

- The philosophy is similar to a private equity approach to public markets. Mr. DuBard is essentially a conservative growth investor with a focus on high quality businesses. He generally thinks about companies in terms of valuation on an absolute basis, but is cognizant of relative value.
- Mr. DuBard believes that the efficiency of the market increases considerably as you move up the market cap spectrum. He has a long-term investment horizon and believes that microcap companies often carry an illiquidity discount that offers patient investors attractive valuations and a larger universe of potential investments. His ideal scenario is to own companies before they become more visible and reach the "bar of institutional relevance." He acknowledged that one risk of microcap investing is that the companies are never discovered by other investors.

Wellington Management

Investment Process

- Ideas are sourced primarily from the 400 to 600 company meetings the team conducts annually. Idea generation is augmented with quantitative screens that incorporate factors based on valuation, profitability, growth and cash flow or quality metrics. The investment team defines their investable universe as the Russell Microcap Index. When they eliminate companies without earnings and/or capital-intensive companies, the result is an investable universe of 500 to 600 companies.
- The process is iterative. Mr. DuBard and the analysts have ongoing discussions about new ideas. Ideas are generated via company meetings, conferences and field trips, quantitative screens, third-party sources, and Wellington's resources. The team seeks to invest in well-capitalized, distinctive niche leaders with a proven management team and a price/value disconnect.
- The analysts conduct very thorough due diligence on all potential investment ideas and will always meet with or speak to management before purchasing a stock. There is continual discussion between the analysts and PM. When an idea is at an advanced stage, the sponsoring analyst and Mr. DuBard discuss whether to add it the portfolio. The primary valuation metric is EV/EBITDA, but the team will also look at P/E, P/B, free cash flow yield, etc. The analysts drive idea generation in their areas of coverage, but Mr. DuBard is the ultimate decision maker.
- The portfolio will hold 75-150 stocks. However, the number of stocks is typically in the 75-100 range.

Wellington Management

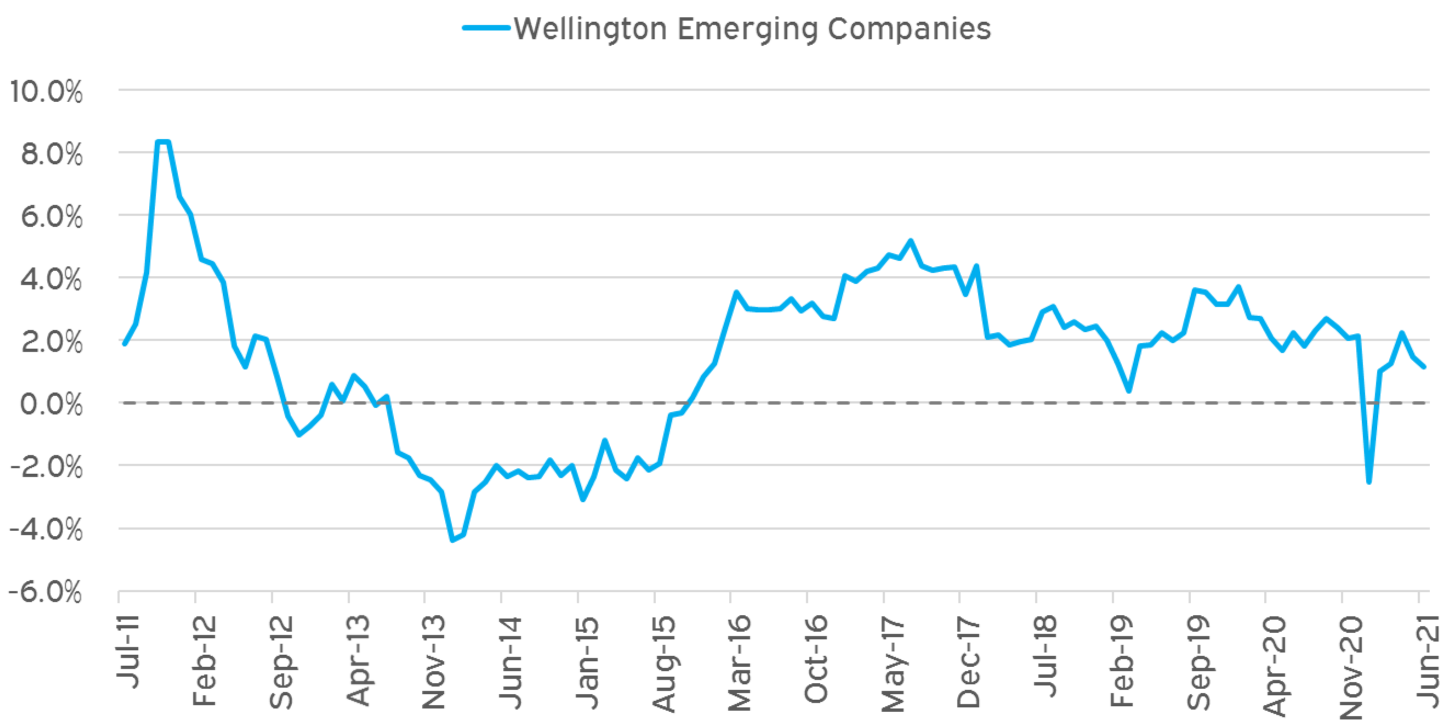
Investment Process (continued)

- Positions are initiated at 30 to 50 bps and the largest holdings average 2.0%. Annual portfolio turnover approximates 30% to 50%. The microcap team has a dedicated syndicate desk and views their traders, who have expertise in trading stocks with lower liquidity, as a competitive advantage.
- The Emerging Companies strategy had historically obtained its biotech exposure through a pooled all cap biotech vehicle managed by Wellington's health care team, which created a substantial market capitalization mismatch for that industry. In February 2021, the team announced that they will be redeeming their position in the all cap vehicle and will instead invest in a custom basket of microcap biopharma stocks created by Wellington's global industry analysts. This transition began in April 2021.

Historical Performance (gross of fees)
(As of June 31, 2021)

	Wellington (%)	*Russell Microcap (%)*
Trailing Period Returns (%):		
YTD	16.7	29.0
1 Year	56.6	75.8
3 Year	15.6	14.5
5 Year	18.3	18.1
7 Year	13.1	11.8
10 Year	13.2	13.1
Calendar Year Returns (%):		
2020	23.7	*21.0*
2019	28.2	*22.4*
2018	-14.0	*-13.1*
2017	19.2	*13.2*
2016	23.7	*20.4*
2015	-3.7	*-5.2*
2014	7.2	*3.6*
2013	41.9	*45.6*
2012	13.1	*19.7*
2011	-8.4	*-9.3*
2010	32.6	*28.9*
2009	45.3	*27.5*
2008	-43.9	*-39.8*

Three-Year Rolling Excess Return (gross of fees)
(Trailing 10-Year Period as of June 30, 2021)



- Over the trailing 10-year period, Wellington Emerging Companies has outperformed the Russell Microcap Core index in 73% of rolling 3-year periods. The average microcap core strategy[1] has outperformed the index in 69% of rolling three-year periods over that span.

[1] The peer group is the eVestment US Microcap Core Equity universe.

Portfolio Characteristics[1]
(As of March 31, 2021)

	Wellington		*Russell Microcap*	
Price-Earnings Ratio	15.1		*14.5*	
Price-Book Value Ratio	2.0		*2..3*	
Dividend Yield	0.9%		*0.7%*	
Return-On-Equity	5.8%		*-7.7%*	
Historical Earnings Growth	7.8%		*14.2%*	
Projected Earnings Growth	12.9%		*16.4%*	
Weighted Average Market	$1.7B		*$1.4B*	
Median Market Cap	$1.0B		*$319M*	
Market Cap > $2bn	13.8%		*16.2%*	
Market Cap $500m - $2bn	72.0%		*54.5%*	
Market Cap < $500m	11.6%		*29.3%*	
Cash	2.6%		*---*	
Number of Holdings	79		*1,325*	
Annual Expected Holdings Range	75 - 150		*---*	
Active Share	94.8%		*---*	
Top Sector Weightings	Industrials	28%	*Health Care*	*26%*
	Financials	24%	*Financials*	*20%*
	Technology	17%	*Cons. Disc.*	*16%*
% of Portfolio in Top 10 Holdings:	29.3%		*9.2%*	

[1] Source: FactSet.

Trailing Returns and Risk Statistics (gross of fees) (March 1, 2012 – June 30, 2021)

	Wellington	*Russell Microcap*
Performance:		
Performance (%)	14.4	14.4
% of Periods above Index (%)	0.57	---
Best 3 Months (%)	30.4	*48.2*
Worst 3 Months (%)	-29.3	*-32.0*
Risk Measures[1]:		
Standard Deviation (%)	18.6	19.8
Tracking Error (%)	7.1	---
Beta	0.88	---
Correlation to Benchmark	0.93	---
Downside Deviation (%)	12.0	12.6
Upside Capture (%)	91.4	---
Downside Capture (%)	90.8	---
Risk-Adjusted Performance[3]:		
Jensen's Alpha (%)	1.6	---
Sharpe Ratio	0.74	*0.69*
Information Ratio	0.00	---

- Wellington has performed in line with the Russell Microcap index since Mr. Dubard took over as lead PM in March of 2012. The strategy has outperformed the index in 57% of monthly periods over that span.
- The strategy has undertaken less risk than the Russell Microcap index as measured by both beta and standard deviation, over that span.

[1] The benchmark used for all calculations is the Russell Microcap Core index.

Fees and Terms[1]

	Wellington
Investment Vehicle Type	SMA
Fee	0.84%
Peer Group Percentile Rank[2]	8

- Wellington's fee of 0.84% on a $70 million mandate is attractive and ranks in the 8th percentile of the Microcap Core peer group.

[1] Fees are based on a $70 million mandate.

[2] The peer group is the eVestment US Microcap Core Equity universe.

Small Cap Value Manager Overviews

Investment Manager Overview

	Channing	Ariel
Firm Location	Chicago, Illinois	Chicago, Illinois
Firm Inception	2003	1983
Percent Employee Ownership	100%	93%
Percent Minority Females in Management	0%	28%
Strategy Name	Small-Cap Value	Small Cap Value
Strategy Inception	2006	1983
Assets Under Management (Strategy)	$2.2 billion	$1.8 billion
Asset Under Management (Firm)	$3.0 billion	$16.8 billion

Channing Capital Management

Organization

- Founded in 2003, Channing Capital Management (CCM) is a Chicago, IL based value manager. Up until recently, two of the firm's co-founders, CIO Wendell Mackey and Head of Business Development Rodney Herenton, each owned 50% of the firm. However, on April 1, 2021, all members of the investment team became owners. In total, Channing issued 5% of the shares to the investment team (ex-Mr. Mackey) with a balance of 10% reserved once they achieve items stated in their development goals.
- The firm is a value manager and offers four domestic equity strategies and five global equity strategies that are managed by a separate team based out of Florida. The domestic equity offerings include Small Cap Value, Small/Mid Cap Value, Large Cap Value and All-Cap Value. The Large and All Cap strategies are managed by a separate individual and are managed primarily for a few legacy accounts. Wendell Mackey and his team of four focus on the Small Cap Value and Small/Mid Cap Value.
- The firm has a total of $3.0 billion in assets under management with Small Cap Value comprising $2.2 billion of that total.
- Channing's employee base is 67% male and 33% female. The firm's employees are 44% white, 44% black, and 11% Hispanic.

Channing Capital Management

Investment Team

- The Small Cap Value investment team is led by Portfolio Manager Wendell Mackey. He has been the sole decision maker on this strategy since the product's inception in 2006. Before Small Cap was launched, Mr. Mackey worked on the Mid Cap Value strategy from 2003 to 2006. Mid Cap was wound down in 2019.
- Mr. Mackey is also an analyst. He is a generalist, but he gravitates towards financials and technology. Mr. Mackey started in the investment industry in 1993 and joined Channing in 2003. Prior to joining Channing, he was a Managing Director at Valenzuela Capital Partners, a portfolio manager at Barrett Capital Advisors, and a portfolio manager at NCM Capital Management Group. Mr. Mackey is a CFA charterholder. BBA – Howard University; MM – Kellogg Graduate School of Management at Northwestern University.
- Mr. Mackey is supported by four Analyst/PMs. These individuals focus on specific sectors. They started in the investment industry between 1991 and 2006 and are seasoned. In addition to these two dedicated analysts, Deryck Lampe, CFA, the portfolio manager for the large and all-cap strategies, covers energy for all the strategies including small cap. Mr. Lampe started in the investment industry in 1994. The team has been stable over time.

Channing Capital Management

Investment Philosophy

- Mr. Mackey's philosophy is best defined as traditional value with a catalyst. He takes a contrarian approach to finding ideas, but this strategy is not deep value. He will purchase stocks of good companies when investors have potentially overreacted and driven the valuation below Channing's estimate of fair value. They will also research stocks that are not heavily followed and have limited, if any, analyst coverage.
- Mr. Mackey believes that good companies are those with a strong competitive position, solid free cash flow, a healthy balance sheet, and a good management team.
- Channing believes that a catalyst must be on the horizon in order to drive the stock price higher. Catalysts also help avoid value traps.
- Mr. Mackey believes in managing a concentrated portfolio of the firm's "best ideas".

Channing Capital Management

Investment Process

- Channing employs a fundamentally driven, bottom-up approach to investing. Ideas typically come from screens, but analysts are also free to generate candidates. The firm screens on metrics including forward P/E, EV/EBITDA, debt-to-capital, and return on equity. They will also consider stocks that have declined 25% or more relative to the benchmark during the past year. This group is then ranked by P/E and classified by sector/industry to help narrow the universe to attractively valued stocks that could potentially help diversify the portfolio
- Mr. Mackey believes that it is important to speak to company managements. Information is not as abundant in the small cap universe, so an investor can gain an information edge by meeting with companies. Channing will sometimes perform on-site company visits, but these trips are not imperative. They will speak with management on conference calls and at investment conferences. Channing will speak to the sell-side as well, primarily to provide an initial overview if they are unfamiliar with a new company. They may talk to customers, suppliers, and competitors, but not always.
- Channing builds its own financial model on each company. They will apply a multiple to EBITDA, construct a discounted cash flow model or use a sum-of-the parts analysis to determine intrinsic value. A stock needs to trade at a 30% discount to Channing's estimate of intrinsic value. Management needs a plan to improve profitability and grow revenue, and outline steps to manage the balance sheet in order to be considered for purchase.
- Mr. Mackey is the final decision-maker on all stocks. The portfolio contains 35 to 45 stocks. Turnover averages around 50% (40% on a name basis).

Ariel Investments

Organization

- Ariel Investments is a Chicago-based investment management firm. The firm was founded in 1983 by John Rogers Jr. Ariel continues to be majority (93%) employee- and minority-owned. The balance is held by outside shareholders who helped finance the firm's initial start-up. The two largest shareholders are Co-CEO and Founder, John Rogers, Jr, and Co-CEO and President, Mellody Hobson (74% combined interest).
- Ariel offers both domestic and global equity strategies and has expanded its offerings over time. The firm has several flavors of small cap value, notably one that is more deep value oriented than the other (though we would argue that both slant deep value).
- The firm has a total of $16.8 billion in assets under management with the Small Cap Value strategy under consideration comprising $1.8 billion of that total.
- Ariel's employee base is 45% male and 55% female. The firm's employees are 51% white, 30% black, 4% Hispanic, 14% Asian, and 1% multi-category.

Ariel Investments

Investment Team

- CIO John Rodgers and Kenneth Kuhrt manage the Small Cap Value strategy. Mr. Rodgers has managed the strategy since its inception in 1983, the same year he started Ariel. Mr. Rodgers started in the investment industry in 1980 as a stock broker at William Blair. Mr. Kuhrt joined Ariel in 2004. He started in the investment industry in 2000 as an investment banking analyst at William Blair.
- In addition to Messrs. Rodgers and Kuhrt, the broader domestic equity investment team comprises four other Portfolio Managers who oversee various strategies and who also have stock coverage. These PMs average 33 years of investment experience. Additionally, seven Analysts who average 11 years of investment experience also support the broader domestic equity efforts. The Analyst team specializes by sector/industry. Three of the seven Analysts focus solely on ESG research.
- The investment team has been relatively stable with only one Analyst departure in the last five years.

Ariel Investments

Investment Philosophy

- The team seeks out companies with differentiated products/services that dominate niches and that are financially strong with experienced management teams. They want to invest in such companies when they trade at a significant discount of 40% or greater to the team's intrinsic value estimate.
- The strategy follows a benchmark-agnostic, absolute value approach with a long-term 3-5 year horizon.
- The approach is decidedly contrarian. The PMs focus on buying out-of-favor, misunderstood and ignored stocks. The team will be patient, often waiting years for a stock that has already been thoroughly vetted to fall on hard times and trade at the required valuation threshold. The strategy's focus on out-of-favor stocks means that the strategy is somewhat deeper value, and the team is not afraid to invest in companies many other quality-oriented value managers eschew (e.g. Norwegian Cruise Lines amidst the COVID pandemic).

Ariel Investments

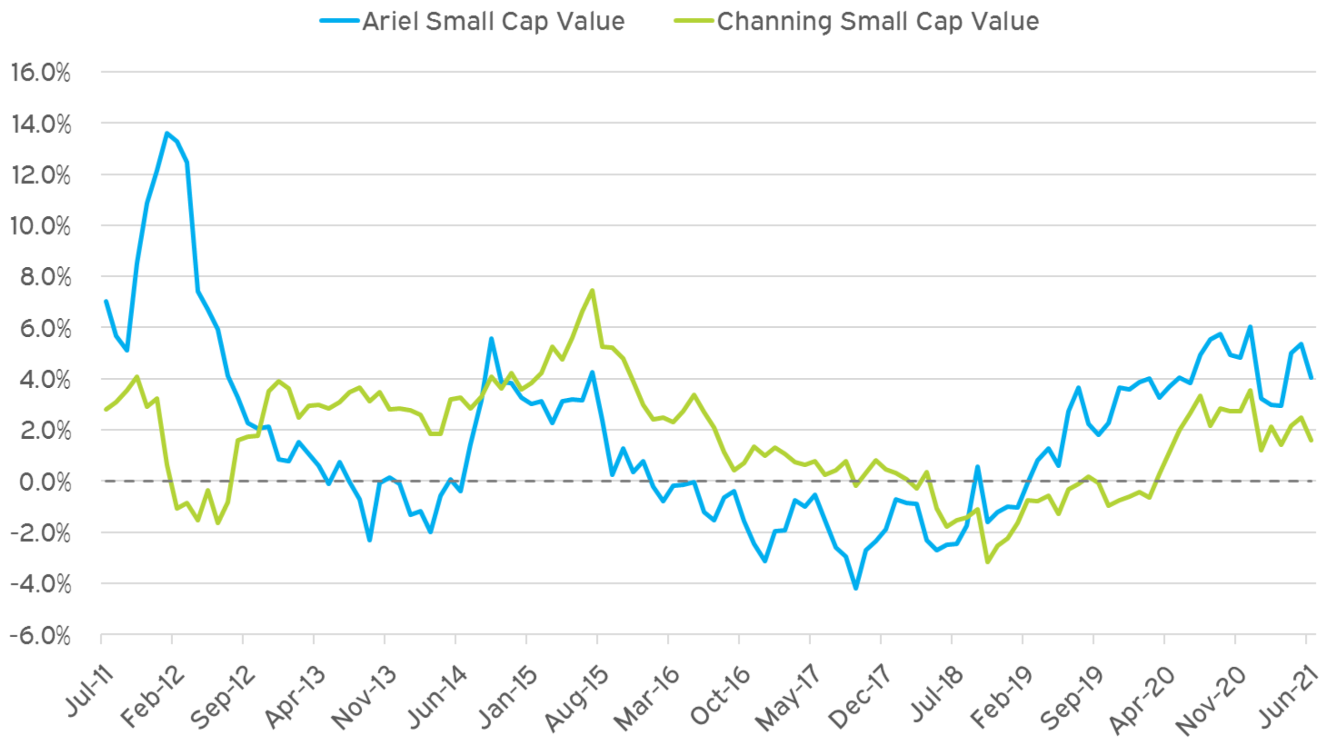
Investment Process

- Ariel uses a bottom-up, fundamental approach to security selection. The team sources ideas from online sources, periodicals, interviews, meetings, etc. About 50% of the ideas come from the Portfolio Managers, 40% from the Analysts, and 10% from other sources.
- The due diligence focuses on financial strength and relative valuation, the competitive backdrop of the industry, management team experience, and quality of products/services. The team considers valuation in relation to earnings. They aim to invest in companies trading at least at a 40% discount to intrinsic value estimates.
- Due diligence includes speaking with management and third-party contacts including board members, shareholders, competitors, suppliers, and industry experts. The team triangulates valuation three ways: a discounted cash flow analysis, a change-of-control-based estimate, and a full trading value. Each is weighted differently. Best-case and worst-case valuation scenarios are considered along with the base case. A devil's advocate is assigned to each stock to pick apart the thesis and vet the idea. ESG factors are also considered as part of the process.
- All senior members vote on an idea, but the Co-PMs make final investment decisions on the strategy.
- The portfolio generally contains approximately 40 stocks. Annual turnover averages around 25%.

Historical Performance (gross of fees)
(As of June 30, 2021)

	Channing (%)	Ariel (%)	*Russell 2000 Value (%)*
Trailing Period Returns (%):			
YTD	17.1	18.7	26.7
1 Year	64.8	75.2	73.3
3 Year	11.9	14.3	10.3
5 Year	13.9	17.2	13.6
7 Year	9.9	10.6	9.3
10 Year	12.2	11.7	10.8
Calendar Year Returns (%):			
2020	17.6	19.7	4.6
2019	25.9	27.5	22.4
2018	-16.6	-13.4	-12.9
2017	7.6	15.1	7.8
2016	29.5	20.7	31.7
2015	-4.4	-10.2	-7.5
2014	5.5	7.3	4.2
2013	39.5	37.6	34.5
2012	22.9	21.6	18.1
2011	-5.8	-10.6	-5.5
2010	33.0	30.6	24.5
2009	23.2	65.3	20.6
2008	-32.7	-45.1	-28.9

Three-Year Rolling Excess Return (gross of fees)
(Trailing 10-Year Period as of June 30, 2021)



- Over the trailing 10-year period, Channing and Ariel have outperformed the Russell 2000 Value index in 76% and 60% of rolling 3-year periods, respectively. The average small cap vale strategy[1] has outperformed the index in 71% of rolling three-year periods over that span.

[1] The peer group is the eVestment US Small Cap Value Equity universe.

Portfolio Characteristics[1]
(As of March 31, 2021)

	Channing		Ariel		*Russell 2000 Value*	
Price-Earnings Ratio	19.4		22.6		*14.7*	
Price-Book Value Ratio	2.3		2.4		*1.7*	
Dividend Yield	1.0%		1.2%		*1.5%*	
Return-On-Equity	-1.2%		1.4%		*-1.2%*	
Historical Earnings Growth	5.1%		4.7%		*7.5%*	
Projected Earnings Growth	14.6%		16.3%		*13.9%*	
Weighted Average Market	$4.0B		$5.9B		*$3.1B*	
Median Market Cap	$3.3B		$4.5B		*$922M*	
Market Cap > $5bn	28.9%		51.2%		*13.7%*	
Market Cap $2b - $5bn	51.2%		25.8%		*48.0%*	
Market Cap < $2b	17.0%		21.5%		*38.3%*	
Cash	2.8%		1.5%		---	
Number of Holdings	45		39		*1507*	
Annual Expected Holdings Range	35 - 45		~40		---	
Active Share	93.8%		98.5%		---	
Top Sector Weightings	Financials	24%	Industrials	33%	*Financials*	*27%*
	Industrials	20%	Cons. Disc.	17%	*Industrials*	*17%*
	Cons. Disc.	18%	Financials	14%	*Cons. Disc.*	*14%*
% of Portfolio in Top 10 Holdings:	29.2%		43.0%		*5.6%*	

[1] Source: FactSet.

Common Period Trailing Returns and Risk Statistics (gross of fees)

July 1, 2006 - June 30, 2021

	Channing	Ariel	Russell 2000 Value
Performance:			
Performance (%)	10.4	9.9	7.9
% of Periods above Index (%)	0.53	0.56	---
Best 3 Months (%)	35.8	43.8	35.5
Worst 3 Months (%)	-33.7	-39.9	-35.7
Risk Measures[1]:			
Standard Deviation (%)	20.7	23.2	20.7
Tracking Error (%)	6.3	7.2	---
Beta	0.96	1.07	---
Correlation to Benchmark	0.95	0.95	---
Downside Deviation (%)	13.9	15.6	14.6
Upside Capture (%)	102.0	108.3	---
Downside Capture (%)	94.5	100.5	---
Risk-Adjusted Performance[3]:			
Jensen's Alpha (%)	2.7	1.8	---
Sharpe Ratio	0.45	0.38	0.33
Information Ratio	0.39	0.28	---

- Channing has outperformed the Russell 2000 Value index over the trailing common period while taking less risk than the index, as measured by beta.
- Ariel has outperformed the index over the common period. The strategy has captured over 100% of the market upside.

[1] The benchmark used for all calculations is the Russell 2000 Value index.

Fees and Terms[1]

	Channing	Ariel
Investment Vehicle Type	SMA	SMA
Fee	0.50%	0.47%
Peer Group Percentile Rank[2]	3	3

- Both Channing and Ariel offer attractive fees than rank in the top decile (least expensive) of the peer group.

[1] Fees are based on a $169 million mandate.

[2] The peer group is the eVestment US Small Cap Value Equity universe.

Small Cap Growth Manager Overviews

Investment Manager Overview

	Riverbridge	Lord Abbett
Firm Location	Minneapolis, Minnesota	Jersey City, New Jersey
Firm Inception	1987	1929
Percent Employee Ownership	49%	100%
Percent Minority Females in Management	0%	8%
Strategy Name	Small Cap Growth	Small Cap Growth
Strategy Inception	1988	1987
Assets Under Management (Strategy)	$3.8 billion	$5.8 billion
Asset Under Management (Firm)	$14.7 billion	$245.6 billion

Riverbridge Partners

Organization

- Mark Thompson and John Wilkie founded Riverbridge in 1987. Prior to starting the firm, Messrs. Thompson and Wilkie had co-managed the New Dimensions fund at IDS. Mr. Wilkie retired from Riverbridge in 1992 and left the investment business. Mr. Thompson is currently Riverbridge's Chief Manager and CIO.
- Riverbridge had $14.7 billion in AUM as of 6/30/21. The firm manages eight growth strategies using the same investment approach. Most of the assets are in the All Cap Growth ($4.8 billion), Small Cap Growth ($3.7 billion), and SMID Cap Growth ($3.5 billion) products.
- The firm is 49% owned by 24 employees. London-based Northill Capital, a passive investor, holds 51% of the equity. Northill is a source of perpetual capital for boutique asset managers. They support the long-term stability and independence of the managers in which they invest. Northill initially purchased 59% of Riverbridge in 2012. Their ownership has been reduced over time, as stock has been recycled to Riverbridge employees. Northill is not involved in the day-to-day management of Riverbridge.
- Riverbridge's employee base is 58% white male, 31% white female, 6% Asian male and 6% Asian female.

Riverbridge Partners

Investment Team

- The Riverbridge investment team consists of seven individuals.
- Mark Thompson and Rick Moulton are the "Lead Portfolio Managers" on the Small Cap Growth strategy. The lead portfolio managers are responsible for the portfolio construction process, monitoring the strategy's adherence to the firm's investment and risk disciplines, and ensuring the research pipeline remains robust and diverse. They do not recommend stocks or put names in the portfolio.
- The rest of the investment team consists of five portfolio managers. All the PMs have between eight and eleven years of investment experience, and have been at the firm for at least eight years. The team has not had any turnover since 2012.
- Riverbridge does not believe in the specialist model. The PMs are all generalists. They are also analysts and do all the investment research. This group of five PMs are responsible for adding and removing stocks from the portfolio.
- Members of the Riverbridge investment team have a substantial portion of their wealth invested in Riverbridge strategies, Riverbridge portfolio stocks and in the equity of Riverbridge Partners.

Riverbridge Partners

Investment Philosophy

- Riverbridge is a high quality growth manager. They define high quality as companies that have the ability to sustain high returns on invested capital (ROIC). If a company is able to sustain a high ROIC, they believe it is indicative of a strong market position. Companies must be able to re-invest at high rates in order to maintain a high ROIC.
- In addition to a high ROIC, the team looks for strong management, high unit growth, dominant market position and conservative accounting practices. Excluded from consideration are companies that do not have the ability to finance their own growth.
- The team will only invest in companies that are profitable at the unit level.
- The investment team focuses on the long-term earnings power of a company. They believe investors often underestimate the magnitude of a company's earnings power and the sustainability of its growth.
- Riverbridge has a long-term investment horizon. They capture the market inefficiency of investor emotion, behavior, and time. Short-term market movements cause investors to make emotional and behavioral mistakes. Turnover in the Small Cap Growth portfolio has averaged 17% during the last five years. Most of the turnover comes from selling stocks because their market cap moves out of the small cap range. The average holding period of eight years reflects the team's belief in the power of compounding.
- The firm does not require that each company it invests in have a minimum growth rate. Portfolio holdings range from companies with 30% to 40% revenue growth to high single/low double digit top-line growers with margin expansion potential that can be levered to double digit earnings growth.

Riverbridge Partners

Investment Process

- Ideas are sourced in multiple ways. Many come from Riverbridge's "peer review process" which entails researching companies by talking to customers, suppliers, competitors, and employees. The investment team performs on-site company visits, and attends industry and user conferences where they can meet multiple layers of company management. In addition to developing a thorough understanding of the company, the peer review process is intended to avoid "becoming victims to a story told by senior management."
- Riverbridge assigns two members of the investment team to every holding, the “champion” and the “devil’s advocate”. The member of the team who leads the fundamental research, and ultimately decides whether to add the company to the portfolio, is the champion for that holding. He or she will discuss the company with the other members of the team throughout the research process, soliciting their input and addressing their concerns. The champion distributes "milestone" meeting notes throughout the research process to the entire team. The PM will also build a financial model on the company, including sensitivity analysis. Researching a new idea takes at least six months.
- After socializing the idea and addressing any concerns that arise, the champion may initiate up to a 1.5% position in the company. A formal presentation is not made to the group, but everyone on the investment team is aware of the merits of the idea.
- Only the five PMs who perform research can put an idea in the portfolio. CIO Mark Thompson has the authority to veto an idea, but he rarely exercises that power.

Riverbridge Partners

Investment Process (continued)

- After the idea goes into the portfolio, another member of the team is assigned as the devil's advocate. Very often, the champion will ask the person they worked with on the idea to take on this role. The devil's advocate then conducts his or her own research. The role of the devil's advocate is to develop an independent perspective, challenge the champion's assumptions, and add to the team's overall understanding of the company.
- In order for a position to increase above the initial 1.5% weighting, the devil's advocate must concur that the stock merits an increased weighting. The weighting can be increased to 3% if that person likes the idea.
- Conviction level and valuation determine position sizes. Riverbridge does not set price targets. The largest positions in the portfolio can be 3% to 4%+. The Small Cap Growth portfolio usually holds about 50 stocks.
- Positions are most often sold to fund a new, better opportunity. Stocks are also sold when a company's fundamentals deteriorate or the catalysts for their earnings power fail to materialize. Positions are trimmed when they reach 5% of the portfolio. When a company's market cap reaches $10 billion, it becomes a source of funds.

Lord Abbett

Organization

- Founded in 1929, Lord Abbett became an independent partnership in 1948 and transitioned to a limited liability company in July of 2002. The firm is 100% owned by approximately 50 partners, all of whom are in senior management, and retired employees or members of their family. Non-employees are limited partners.
- Lord Abbett's total AUM was $245.6 billion as of 6/30/21. The firm manages a wide range of fixed income and equity products. Approximately 83% of total assets were in taxable and tax-free fixed income strategies. The remaining 17% was in equity assets spread among 18 domestic value, domestic growth, and global/international equity strategies.
- At the end of 2020, the Innovation Growth Equity team managed four growth strategies with $15 billion in AUM. These products included micro, small, all cap and concentrated all cap. $5.2 billion was in the Small Cap Growth portfolio.
- Lord Abbett's employee base is 67% male and 33% female. The firm is 73% white, 4% black, 4% Hispanic, 19% Asian, and 2% multi-category.

Lord Abbett

Investment Team

- The 8-person Innovation Growth Equity team consists of three PMs, two PM/analysts and three analysts. Two portfolio managers who oversee the firm's convertible securities strategy are also part of this team.
- Tom O'Halloran and Matt DeCicco, both of whom are partners and portfolio managers, lead the team. Mr. O'Halloran joined Lord Abbett in 2001. He took over the Small Cap Growth portfolio in 2003.
- Matt DeCicco, who joined Lord Abbett in 2002 as a junior analyst, became a PM in 2017 and a partner in 2020. He was named Director of Equities in 2019 when the firm disbanded its central research group and moved to three product focused investment teams. The separate Innovation Growth Equity team has always existed. That model was replicated with the creation of three other equity teams. Mr. DeCicco oversees all the analysts on the Innovation team, as well as the PMs of the three teams.
- Mr. DeCicco and one other PM, Ben Ebel, also do analytical work. Mr. DeCicco has followed a number of sectors, most recently health care. In managing the portfolio, Mr. O'Halloran defers to Mr. DeCicco when it comes to health care stocks. For technology investments, the roles are reversed. Mr. Ebel covers the technology and telecomm sectors.
- The third PM is a Certified Market Technician (CMT). He provides a technical viewpoint on all stocks.
- The two PM/analysts and three analysts on the team specialize by sector. As part of the reorganization two years ago, two new analysts were added to the Innovation Growth team. These two analysts cover biotech, consumer staples, and health care.

Lord Abbett

Investment Philosophy

- The Lord Abbett Innovation team are aggressive growth investors. They believe that the market persistently underestimates the growth and return potential of highly transformative companies. Based on their experience, however, they recognize that superior growth companies do not always make great investments, and that successful growth investing requires the ability to make this critical distinction. They focus on identifying innovative companies whose growth prospects are underestimated by the market.
- The portfolio managers invest in four categories of growth. These include secular, cyclical, stable, and defensive growth.
- In addition to fundamental analysis, technical analysis is integral to their approach. The PMs want to see proof that there is "quantifiable operating momentum" combined with stock price momentum.
- Exceeding expectations in terms of growth drivers, and positive sales and earnings estimate revisions, are important factors that make stocks attractive.
- The PMs are not second derivative investors and will not necessarily sell a stock if the growth rate decelerates. A growth deceleration that is greater than expectations can sometimes be positive.
- Bottom-up fundamental research accounts for an estimated 80% of the investment process. 20% is a top down assessment of macro factors, industry conditions, and technical market behavior.

Lord Abbett

Investment Process

- From a fundamental perspective, the team looks for companies with "exceptional business models", "competent and credible management", "sustainable competitive advantages," and "favorable industry conditions".
- The group screens the universe of stocks with market capitalizations in the range of the Russell 2000 for high, sustainable revenue growth, conservative capital structures, and compelling gross margins. They also look for operating and price momentum.
- The analysts perform due diligence on attractive candidates. Due diligence entails determining the quality of the company's business model, sizing the company's market opportunity and identifying the economic forces that will shape its future direction, assessing the company's competitive position and evaluating management In addition to high revenue growth and strong margins, they look for growth drivers exceeding expectations, and positive sales and earnings estimate revisions. The team builds financial models for all investment candidates.
- The underlying stocks of these high growth companies must also have favorable absolute and relative price momentum. The PMs will evaluate shifts in momentum, moving averages, relative strength, and price/volume metrics. All stocks receive a technical rating. Every buy and sell decision is "informed" by technical analysis.

Lord Abbett

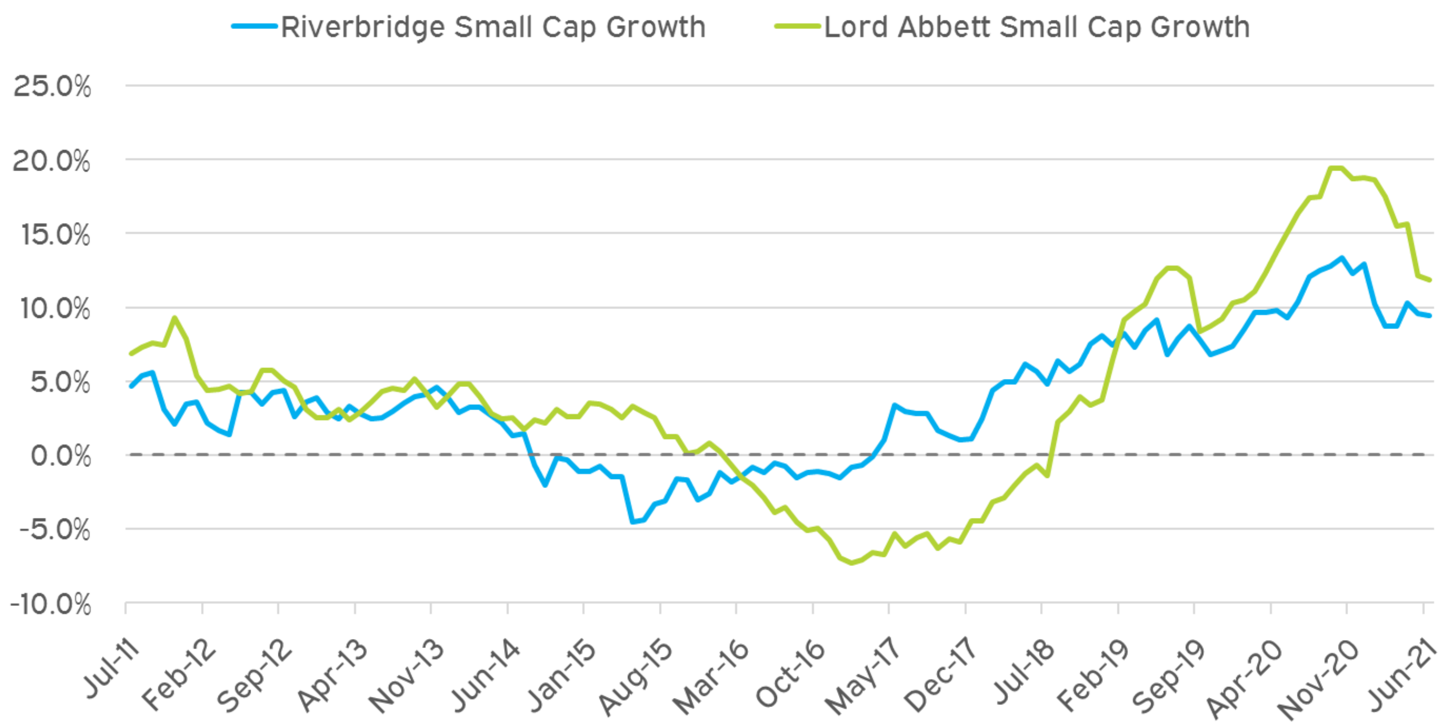
Investment Process (continued)

- The risk-reward profile of each stock influences the conviction level of the PM team, which in turn determines position sizes. The largest positions in the portfolio are generally around 2%. The portfolio consists of ~90 to 110 stocks.
- The investment team monitors short-term company developments. The PMs are quick to sell if fundamentals deviate from expectations or price momentum deteriorates. Stocks may also be sold to ensure adequate portfolio diversification. Annual portfolio turnover has historically been between 100% and 200%.

Historical Performance (gross of fees)
(As of June 30, 2021)

	Riverbridge (%)	Lord Abbett (%)	*Russell 2000 Growth (%)*
Trailing Period Returns (%):			
YTD	7.8	5.1	9.0
1 Year	47.7	56.1	51.4
3 Year	25.4	27.8	15.9
5 Year	25.9	29.3	18.8
7 Year	18.6	17.7	13.1
10 Year	17.8	17.5	13.5
Calendar Year Returns (%):			
2020	55.1	74.3	34.6
2019	28.3	33.1	28.5
2018	8.2	6.0	-9.3
2017	24.1	31.1	22.2
2016	14.2	-1.7	11.3
2015	-2.6	-8.0	-1.4
2014	-0.3	4.3	5.6
2013	43.5	58.8	43.3
2012	17.9	11.6	14.6
2011	4.1	-0.6	-2.9
2010	29.4	38.2	29.1
2009	36.2	48.7	34.5
2008	-34.0	-46.7	-38.5

Three-Year Rolling Excess Return (gross of fees)
(Trailing 10-Year Period as of June 30, 2021)



- Over the trailing 10-year period, Riverbridge and Lord Abbett have outperformed the Russell 2000 Growth index in 73% and 75% of rolling 3-year periods, respectively. The average small cap growth strategy[1] has outperformed the index in 71% of rolling three-year periods over that span.

[1] The peer group is the eVestment US Small Cap Growth Equity universe.

Portfolio Characteristics[1]
(As of March 31, 2021)

	Riverbridge		Lord Abbett		*Russell 2000 Growth*	
Price-Earnings Ratio	42.5		33.2		*29.1*	
Price-Book Value Ratio	5.9		6.7		*25.2*	
Dividend Yield	0.3%		0.1%		*0.4%*	
Return-On-Equity	4.5%		-4.3%		*-3.8%*	
Historical Earnings Growth	27.3%		30.6%		*21.3%*	
Projected Earnings Growth	20.5%		27.8%		*21.6%*	
Weighted Average Market	$5.5B		$5.7B		*$4.3B*	
Median Market Cap	$4.7B		$4.5B		*$1.3B*	
Market Cap > $5bn	50.2%		49.1%		*31.1%*	
Market Cap $2b - $5bn	34.5%		42.4%		*45.7%*	
Market Cap < $2b	10.8%		7.1%		*13.3%*	
Cash	4.5%		1.5%		---	
Number of Holdings	50		102		*1,147*	
Annual Expected Holdings Range	~50		90 - 110		---	
Active Share	93.7%		98.6%		---	
Top Sector Weightings	Technology	35%	Health Care	30%	*Health Care*	*33%*
	Health Care	24%	Technology	25%	*Technology*	*20%*
	Cons. Disc.	17%	Cons. Disc.	19%	*Industrials.*	*15%*
% of Portfolio in Top 10 Holdings:	32.7%		18.3%		*6.6%*	

[1] Source: FactSet.

Trailing 10-Year Returns and Risk Statistics (gross of fees)
As of June 30, 2021

	Riverbridge	Lord Abbett	Russell 2000 Growth
Performance:			
Performance (%)	17.8	17.5	13.5
% of Periods above Index (%)	0.53	0.57	---
Best 3 Months (%)	36.4	40.9	*34.8*
Worst 3 Months (%)	-17.0	-23.8	*-25.8*
Risk Measures[1]:			
Standard Deviation (%)	17.3	20.4	19.3
Tracking Error (%)	6.9	7.8	---
Beta	0.84	0.98	---
Correlation to Benchmark	0.94	0.92	---
Downside Deviation (%)	10.1	12.5	12.4
Upside Capture (%)	96.0	107.8	---
Downside Capture (%)	80.5	94.1	---
Risk-Adjusted Performance[3]:			
Jensen's Alpha (%)	5.7	4.1	---
Sharpe Ratio	0.99	0.83	*0.67*
Information Ratio	0.62	0.51	---

- Both managers have outperformed over the trailing 10-year period by 400bps or more on an annualized basis.
- Riverbridge has taken on less risk than the index as measured by standard deviation and beta. Lord Abbett's standard deviation has been greater than the index, but its beta has been lower.

[1] The benchmark used for all calculations is the Russell 2000 Growth index.

Fees and Terms[1]

	Riverbridge	Lord Abbett
Investment Vehicle Type	SMA	SMA
Fee	0.80%	0.61%
Peer Group Percentile Rank[2]	64	5

- Lord Abbett's proposed fee of 0.61% is very low and ranks in the 5th percentile of the peer group.
- Riverbridge's proposed fee is above average.

---

[1] Fees are based on a $169 million mandate.
[2] The peer group is the eVestment US Small Cap Growth Equity universe.

Appendix

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Tracking Error: This statistic measures the standard deviation of excess returns relative to a benchmark. Tracking error is calculated by multiplying the standard deviation of the monthly excess returns of a portfolio relative to a benchmark by the square root of twelve in order to annualize. The higher the tracking error, the greater the volatility of excess returns relative to a benchmark.

Sources: www.businessdictionary.com

http://www.naplia.com/employeedishonesty/Employee_Dishonesty_FAQ.shtml

Investment Terminology, International Foundation of Employee Benefit Plans, 1999.

Modern Investment Management, Litterman, Bob, 2003.

ARIEL
INVESTMENTS

Slow and steady wins the race.

Table of contents

STATE OF CONNECTICUT

September 8, 2021

A stable perspective in a changing world

Since our founding in 1983, much has changed in the investment world, but a clear mission has consistently defined who we are and what we do.

Our patient investment philosophy

- We use the market's short-term focus to uncover mispriced companies whose true value will be realized over time.

Our focus

- We began as a small- and mid-cap value manager, and evolved strategically to offer three approaches — all of which seek out attractive intrinsic value through relatively concentrated portfolios.

Our culture of learning

- Intensive fundamental research is essential to our proprietary investment processes. We also value the importance of learning in a broader context and are committed to promoting education and financial literacy.

Firm facts

As of 06/30/21

Founded:	1983 by John W. Rogers, Jr.
Location:	Headquarters: Chicago Offices: New York City, San Francisco, Sydney
Assets:	$16.8 billion
Approaches:	Value, focused value, global
Products:	9 separate account strategies, 5 mutual funds
Employees:	112 (includes Ariel and its affiliated entities)
Ownership:	95% owned by employees and board members

Our patient investment philosophy sets us apart

PATIENCE

We take the long-term view.

- Wait for the perfect pitch that provides a margin of safety
- Give prices time to reflect intrinsic value
- View short-term volatility opportunistically
- Low turnover

INDEPENDENCE

We invest to our convictions, not to benchmarks.

- Concentrated portfolios
- Contrarian point of view
- High active shares versus benchmarks

EXPERTISE

We specialize in bottom-up, fundamental research.

- Long-term experience in our asset classes
- Exceptionally strong company and industry knowledge
- Choose to go deep instead of broad

TEAMWORK

We work collaboratively with a shared commitment to excellence.

- Driven by dialogue, not by dictates
- Achieve better outcomes by leveraging individual expertise
- Reflected in employee ownership of our funds and our firm

One philosophy, three approaches

As of 06/30/21

Value

	SEPARATE ACCOUNTS				MUTUAL FUNDS	
	Ariel Small Cap Value	**Ariel Small Cap Value Concentrated**	**Ariel Small/Mid Cap Value**	**Ariel Mid Cap Value**	**Ariel Fund**	**Ariel Appreciation Fund**
Managers	John W. Rogers, Jr. Kenneth Kuhrt	John W. Rogers, Jr. Kenneth Kuhrt	John W. Rogers, Jr. John P. Miller	John W. Rogers, Jr. Timothy Fidler	John W. Rogers, Jr.* with John P. Miller & Kenneth Kuhrt	John W. Rogers, Jr. Timothy Fidler
Assets (M)	$1,850	$614	$786	$837	$3,192	$1,414
Benchmark	Russell 2000 Value	Russell 2000 Value	Russell 2500 Value	Russell Midcap Value	Russell 2500 Value	Russell Midcap Value
# of stocks	38	20	37	39	37	39
Inception	09/30/83	04/30/20	12/31/00	03/31/90	11/06/86	12/01/89

Global

	SEPARATE ACCOUNTS				MUTUAL FUNDS		PRIVATE FUND
	Ariel International (DM)	**Ariel International (DM/EM)**	**Ariel Global**	**Ariel Global Concentrated**	**Ariel International Fund**	**Ariel Global Fund**	**Ariel International (DM/EM)**
Managers	Rupal J. Bhansali	Rupal J. Bhansali	Rupal J. Bhansali	Rupal J. Bhansali Micky Jagirdar	Rupal J. Bhansali	Rupal J. Bhansali	Rupal J. Bhansali
Assets (M)	$1,959	$1,441	$2,685	$227	$874	$151	$543
Benchmark	MSCI EAFE	MSCI ACWI ex-US	MSCI ACWI	MSCI ACWI	MSCI EAFE	MSCI ACWI	MSCI ACWI ex-US
# of stocks	58	61	61	25	57	60	61
Inception	12/31/11	12/31/11	12/31/11	12/31/19	12/30/11	12/30/11	04/03/17

Focused Value

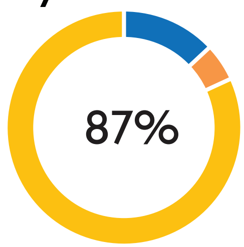
	SEPARATE ACCOUNT	MUTUAL FUND
	Ariel Focused Value	**Ariel Focus Fund**
Managers	Charles K. Bobrinskoy	Charles K. Bobrinskoy
Assets (M)	$163	$66
Benchmark	Russell 1000 Value	Russell 1000 Value
# of stocks	28	28
Inception	03/31/05	06/30/05

*Lead portfolio manager

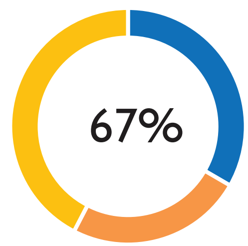
Living our values – at Ariel and beyond

Our diversity makes us better

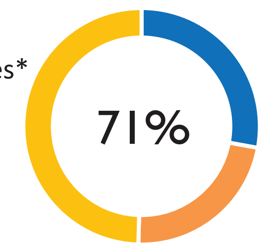
Minority Ownership



Minority and/or women leaders*



Diverse Employees*



- In 2002, Ariel co-founded the **Black Corporate Directors Conference** to ensure the civil rights agenda is not forgotten in public company boardrooms.
- In 2017, Ariel created the **John W. Rogers, Jr. Internship Program in Finance** to connect interns from underrepresented backgrounds with foundation and endowment investment offices across the country. Since the program's initial launch at the University of Chicago, it has expanded to over 20 foundation and endowment offices.
- In 2018, we implemented our own firm-wide **Diversity and Inclusion Mandate** underscoring our commitment to diversity in our employee ranks, purchasing relationships and philanthropic contributions.

A financially literate society is good for us all

- In 1996, we founded the **Ariel Community Academy (ACA)**, a K-8 public school located on the south side of Chicago, with an innovative financial literacy curriculum.
- In 1998, we launched the first-of-its-kind, **Black Investor Survey,** to compare and contrast the saving and investing behaviors of middle income black and white Americans.
- In 1999, Ariel Vice Chairman, Charles Bobrinskoy developed the **Big Shoulders Stock Market Program**, to teach the basics of stock picking to eighth grade students at 64 participating inner-city Chicago Catholic schools.
- In 2019, we released ***FUTURES: Financially Literate Kids for a Financially Literate Society***, a free resource that teaches personal finance, economics, entrepreneurship and investment concepts to elementary school students. The FUTURES program is available for download at www.arieleducationinitiative.org.

Minority   White female   White male

*Includes Ariel and its affiliated entities as of June 30, 2021

Executive leadership

John W. Rogers, Jr.
Chairman, Co-CEO & CIO

- Oversees Ariel's domestic and global investment research
- Has portfolio management responsibilities for flagship value products

Mellody Hobson
Co-CEO & president

- Oversees the business of Ariel outside of investing and research
- Provides firmwide strategic direction

Domestic research and trading

PORTFOLIO MANAGEMENT

established 1983

John W. Rogers, Jr. (1983)
Chairman, Co-CEO & CIO
industry generalist
Industry: 41 years

Charles K. Bobrinskoy (2004)
Vice chairman,
head of investment group
industry generalist
Industry: 37 years

Timothy Fidler, CFA (1999)
EVP, director of research
financial services
Industry: 29 years

Kenneth E. Kuhrt, CPA (2004)
EVP; *consumer services and industrials*
Industry: 23 years

John P. Miller, CFA (1989)
SVP; *asset management and media*
Industry: 34 years

RESEARCH

Sabrina Carollo, CFA (2001)
SVP, director of research operations
health care and office supplies
Industry: 28 years

John Oxtoby (2014)
SVP, director of ESG investing
Industry: 6 years

James Kenny, CFA (2010)
VP; *services and industrials*
Industry: 18 years

Danan Kirby, CFA (2021)
VP, client portfolio manager
Industry: 13 years

Jamil Soriano (2012)
VP; *consumer products & services and financial services*
Industry: 15 years

Aaron Bianco, CFA (2015)
Research analyst
infrastructure and technology
Industry: 15 years

Conner Chapman (2019)
ESG research associate
Industry: 2 years

TRADING

Cheryl Cargie (1994)
SVP, head trader
Industry: 34 years

Jill Gracia (2015)
VP, senior trader
Industry: 21 years

Value | Focused Value

See appendix for biographies.

Client-centered business model

INSTITUTIONAL MARKETING

Mellody Hobson (1991)
Co-CEO & president

Malik T. Murray (2004)
SVP, head of business development

Valerie King (2018)
SVP, institutional marketing

Ian M. Webber (2015)
SVP, institutional marketing, head of Asia Pacific & MENA

Taylor Goodridge (2017)
VP, institutional marketing

CONSULTANT RELATIONS

Bonnie E. Orlowski (2016)
SVP, head of consultant relations & financial intermediaries

Melissa Smith (2015)
SVP, consultant relations

INSTITUTIONAL CLIENT & INVESTOR RELATIONS

Jennifer DiGrazia (2019)
SVP, head of institutional client & investor relations

Camille El-Amin (2007)
VP, institutional client & investor relations

Patrice L. Scelzo (1999)
VP, institutional client & investor relations

COMMUNICATIONS

Arielle Patrick (2020)
Chief communications officer

LEGAL & COMPLIANCE

Mareilé B. Cusack (2007)
General counsel

Wendy D. Fox (2004)
Chief compliance officer

IT & OPERATIONS

Mary Cecola (2019)
Chief technology officer

Kenneth T. Slovin (2016)
SVP, director of global operations

James R. Rooney, CPA (2015)
SVP, fund administration

FINANCE

Carlos E. Calderon (2021)
Chief financial officer

HUMAN RESOURCES

Marlo J. Gaal (2020)
Chief talent officer

Our value investment philosophy

PATIENCE

We take the long-term view.

- Look past short-term noise: three- to five-year horizon enables us to be opportunistic when price dislocations arise
- Take our time to research a potential holding and patiently wait for the margin of safety we require
- Build expertise and accumulate deep knowledge; develop and cultivate independent sources to inform our stock picking

INDEPENDENCE

We invest to our convictions, not to benchmarks.

- Build truly active portfolios concentrated in a limited number of names and industries
- Buy out-of-favor, misunderstood and ignored stocks
- Buy when others are selling and sell when others are buying

EXPERTISE

We specialize in bottom-up, fundamental analysis.

- Draw on extensive reading, industry expertise, computer screening to identify overlooked opportunities
- Surround company to identify prospects — and problems — others don't recognize
- Ask questions to gain insight, not just information

TEAMWORK

We work collaboratively with a shared commitment to excellence.

- Leverage contacts and knowledge across portfolios
- Senior research team input informs final decisions made by lead or co-portfolio manager(s)

Why Ariel's value approach?

Ariel's flagship value approach is built on the basic principle of targeting undervalued companies that show a strong potential for growth. We take advantage of the market's short-term thinking to drive long-term results for our clients.

Our track record is one of the longest in the business

- As a pioneer in small- and small/mid-cap value investing, we have a 38-year uninterrupted track record attributable to one portfolio manager.

Clearly defined parameters enhance our screening outcomes

- We look for differentiated companies with robust, solid, enduring brands/franchises, strong cash flows, low debt, high-quality products or services, significant barriers to entry (moats) and low reinvestment requirements. We also consider environmental, social and governance (ESG) factors.

Concentrated yet diversified portfolios focus on our highest-conviction ideas

- We choose to go deep instead of broad, often taking a contrarian point of view.

In-depth sector and industry expertise informs each investment decision

- Our portfolio managers and research analysts evaluate companies within a well-established "circle of competence" — industries where we are truly experts.

Risk management is a top priority

- We define risk as a permanent loss of capital, controlled at the portfolio and stock level via allocation parameters, our focus is on private market value (PMV) and our in-depth understanding of the companies we choose.
- We also mitigate risk by investing with a margin of safety (40% discount to PMV), employing proprietary debt, ESG and moat ratings, as well as using a devil's advocate to challenge our own investment theses.

Our value process

Idea generation 1

Process	Risk management	Benefit
Generate ideas from deep industry knowledge, extensive reading and computer screening	Search for out-of-favor, misunderstood and ignored stocks whose low prices reduce the risk of owning them	In-depth industry knowledge helps uncover investment ideas others may have overlooked

Bottom-up research 2

Process	Risk management	Benefit
Extensive valuation work, ESG risk analysis and independent verification	Seek to invest in companies whose shares are trading at a 40% discount to PMV and/or 13x or less next year's earnings	Enables us to find quality companies in industries where our expertise adds value

Team validation 3

Process	Risk management	Benefit
Rigorous debate and discussion	A devil's advocate is assigned to challenge investment theses; proprietary ESG risk ratings are designated	Ideas vetted from multiple perspectives yield more informed final decisions by portfolio manager(s)

Portfolio construction 4

Process	Risk management	Benefit
Build concentrated portfolios weighted by conviction	Strict buy-and-sell criteria	Unique portfolio with benchmark-agnostic industry weightings drives high active share and thereby helps generate alpha

OUR VALUE PROCESS:

Looking through a long-term lens helps identify ideas others might not consider

Idea generation

1 2 3 4

We look for differentiated companies with enduring brands/franchises, strong cash flows, low debt, high-quality products or services, significant barriers to entry (moats), and low reinvestment requirements. We also consider environmental, social and governance factors.

The lead portfolio manager(s) generate(s) 50% of the new ideas, the research team comprised of industry specialists generates 40% and 10% can come from anywhere.

- Research team members track a comprehensive industry watch list across all market caps.

We read extensively, monitor computer-generated screens and meet with industry experts while also staying abreast of former holdings that can become candidates for repurchase.

OUR VALUE PROCESS:

Bottom-up research determines underlying value and identifies key issues

Bottom-up research

1 **2** 3 4

Proprietary valuation work uncovers discrepancies between a company's underlying value and its stock price.

- We target quality companies that trade at a 40% discount to our internally generated private market value (PMV), and/or sell for 13x or less forward cash earnings estimates.
- Our valuation process includes discounted cash flow analysis, as well as an extensive review of comparables and recent transactions. We also build full financial models and perform scenario analysis.

Rigorous ESG research strengthens our fundamental financial analysis.

- We assess financially material ESG risks and opportunities.
- Our analysis is informed by quantitative and qualitative insights from more than 80 data points derived from public, third-party, and proprietary sources.

Our extensive independent, third-party contacts are crucial to our analysis.

- Investment ideas are vetted with third-party contacts that include board members, shareholders, C-suite executives, private equity investors, industry experts, respected peers, as well as competitors, suppliers, customers and Wall Street analysts.
- Our strategic questioning of company management teams enables us to determine critical issues affecting companies.
- Our specialized interview training enables us to carefully read portfolio company managers' verbal and non-verbal responses.

OUR VALUE PROCESS:

Team review and debate test the validity of our convictions

Team validation

1 2 **3** 4

The industry specialist generates a research report that is initially reviewed by the director of research to ensure quality control and vetted by the entire research team.

- For new ideas a two-page report is initially written, followed by a full report if the idea appears to be compelling.

The dedicated ESG team prepares an analysis which considers qualitative and quantitative data, relevant events and ongoing management team engagement.

The senior research team then debates the full report, rigorously questioning the industry specialist, who conducts further research as necessary.

- A devil's advocate is assigned to challenge an investment thesis.

Ultimately, all senior research team members vote on the idea, with the final decision made by the lead or co-portfolio manager(s).

The entire validation process is completed in less than three weeks.

OUR VALUE PROCESS:

Concentrated portfolios drive better outcomes

Portfolio construction

1 2 3 **4**

Our low-turnover portfolios typically hold 40 stocks (20 in our small cap concentrated portfolio), with approximately six to eight new names purchased each year.

Purchases made up to 5% at market with appreciation to 6%, at which time we pare back (10% at market with appreciation to 12% in our small cap concentrated portfolio).

No more than 10% may be invested in companies that do the exact same thing (20% for our small cap concentrated portfolio).

We consider four proprietary risk metrics for every holding:

- Our proprietary debt ratings supplant those of Moody's and Standard & Poor's and augment our balance sheet work;
- Our proprietary ESG risk ratings assess the negative financial impact to a company's enterprise value arising from ESG risk related factors;
- Our internally generated "moat" rating requires us to quantify a company's competitive advantage;
- We formally track sell-side ratings to better understand conventional views.

We carefully monitor portfolio holdings over the long term, selling when:

- A stock trades at full value (0% discount to PMV and/or 20x next year's earnings);
- Competitive landscape shifts, company fundamentals deteriorate, and/or we lose faith in management.

ESG investing – traditional value

As part of our commitment to drive long-term results for our clients, we employ a rigorous approach when considering ESG risk factors across Ariel's flagship traditional value strategies.

Research and Analysis

- ESG team prepares report for every portfolio company, which considers qualitative/quantitative data, relevant events and ongoing engagement
- Analysis supported by proprietary platform, with insights from 80+ data points derived from public, third-party and proprietary sources
- Assign a proprietary ESG Risk Rating to each portfolio company and integrate into the discount rates used in financial valuations
- Produce dashboard to monitor ESG issues, and inform overall risk management, future research analysis, continued learning and engagement
- Ariel's traditional value and focused value strategies do not invest in companies whose primary source of revenue is derived from the production or sale of tobacco products, the manufacture of firearms or the operation of for profit prisons

Engagement

- In 2020, we tracked 130+ engagements with portfolio companies across financially material ESG issues
- In 2020, we engaged over 40 portfolio companies to sign the CEO Action Pledge on Diversity and Inclusion
- Our history of engagement on board diversity has resulted in more than 50 Ariel portfolio companies adding diverse directors to their boards

Reporting

- In partnership with lead analyst, ESG team systematically tracks and monitors environmental, social and governance outcomes
- Annual ESG report details our extensive engagement activities

Collaboration

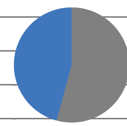
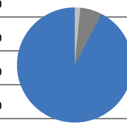
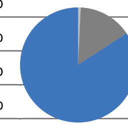
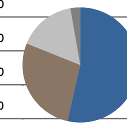
- Our industry memberships provide opportunities to learn and share best practices with the broader ESG community:
  - Ariel is a signatory of the UN-supported Principles for Responsible Investment (PRI), CEO Action for Diversity and Inclusion, and the CDP
  - We are members of the Sustainable Accounting Standards Board Alliance (SASB), Thirty Percent Coalition, Midwest Investors Diversity Initiative (MIDI), Ceres Investor Network and a board member of RFK Human Rights
  - Ariel supports the Task Force on Climate-Related Financial Disclosures (TCFD)

ARIEL SMALL CAP VALUE

Portfolio characteristics

As of 06/30/21

Market Cap in Billions	Ariel Small Cap Value	Russell 2000 Value Index	Russell 2000 Index	S&P 500 Index
Large Capitalization (167.01 & Above)	0.0 %	0.0 %	0.0 %	53.5 %
Medium/Large Capitalization (43.29 -- 167.01)	0.0 %	0.0 %	0.0 %	27.5 %
Medium Capitalization (15.52 -- 43.29)	0.0 %	1.6 %	0.8 %	16.2 %
Medium/Small Capitalization (5.24 -- 15.52)	54.2 %	6.1 %	15.0 %	2.7 %
Small Capitalization (5.24 & Below)	45.8 %	92.3 %	84.2 %	0.0 %
Dollar weighted average	5.99BIL	3.00BIL	3.40BIL	541.94BIL
Valuation metrics				
Forward price/earnings[1]	15.4	14.2	17.2	21.3
Trailing price/earning[1]	23.3	13.5	17.9	26.9
Discount to private market value	-20.2	n/a	n/a	n/a
Fundamentals				
5 Yr. estimated earnings growth	15.4	12.2	15.6	15.0
Debt Rating[2]	BB+	B+	B	A-
Interest coverage ratio[3]	4.3	1.7	1.6	6.9
Return on equity	13.5	11.2	14.0	26.9
Portfolio construction				
Number of Holdings	38	1384	1985	505
Turnover[4]	22.3	n/a	n/a	n/a
Benchmark sensitive statistics				
Active Share	98	n/a	n/a	n/a
Beta vs. S&P 500 (5-year)[5]	1.39	1.26	1.24	1.00
Current beta[6]	1.03	0.97	1.10	1.00

Note: Data is sourced from FactSet. Discount to private market value is calculated by Ariel.
[1]Price to earning calculations exclude negative earnings.
[2]Debt Rating is sourced from S&P Issuers long term credit ratings for common stocks.
[3]Interest coverage represents the ratio in earnings before interest and taxes relative to interest expense for the trailing twelve month period. The ratio excludes common stocks classified as Financials within the Russell ICB classification scheme.
[4]Turnover is for the trailing one-year period from Eagle.
[5]5-year beta is benchmarked against S&P 500. 5-year beta is calculated by Assette and sourced from portfolio returns in Eagle.
[6]Current beta is benchmarked against S&P 500. Current beta (1-year trailing) is based on daily security returns from FactSet.
Portfolio characteristics are for a representative portfolio. Client restrictions will cause a variance to the above.

ARIEL SMALL CAP VALUE

Sector weightings (%)

As of 06/30/21

Sector	Portfolio	Russell 2000 Value Index	Russell 2000 Index	S&P 500 Index
Industrials	33.76	14.86	14.53	13.83
Consumer Discretionary	33.15	13.92	15.26	16.07
Financials	13.48	24.89	14.63	10.77
Health Care	3.79	10.98	20.58	12.41
Energy	3.70	6.63	4.59	2.92
Utilities	3.08	4.63	2.73	2.67
Real Estate	2.89	11.36	6.98	2.58
Technology	2.76	4.27	12.10	28.46
Cash	2.24	0.00	0.00	0.00
Basic Materials	1.14	4.37	3.65	1.84
Consumer Staples	0.00	2.59	2.98	5.16
Telecommunications	0.00	1.50	1.95	3.29

Data shown above is for a representative portfolio. Client restrictions will cause variances in the above.

ARIEL SMALL CAP VALUE

Performance results

As of 07/31/21

	Month Ended 07/31/21	Year-to-Date 12/31/20 – 07/31/21	Last 1 Year 07/31/20 – 07/31/21	Last 3 Years 07/31/18 – 07/31/21
Gross of Fees	– 0.20%	+ 18.43%	+ 67.88%	+ 13.29%
Russell 2000 Value Index	– 3.58	+ 22.16	+ 63.70	+ 8.30
Russell 2000 Index	– 3.61	+ 13.29	+ 51.97	+ 11.49
S&P 500 Index	+ 2.38	+ 17.99	+ 36.45	+ 18.16

Dow Jones Industrial Average	34935.47
Standard & Poor's 500 Index	4395.26

Returns greater than one year are annualized.

Investing in small and mid cap stocks is more risky and more volatile than investing in large cap stocks. The intrinsic value of the stocks in which the portfolio invests may never be recognized by the broader market. The portfolio is often concentrated in fewer sectors than its benchmarks, and its performance may suffer if these sectors underperform the overall stock market. Investing in equity stocks is risky and subject to the volatility of the markets. Past performance does not guarantee future results. Results shown may be preliminary.

Results are shown gross of advisory fees, assume reinvestment of dividends and other earnings, and are net of transaction costs. Client return will be reduced by the advisory fees and any other expenses it may incur in the management of its investment advisory account. Fee information is available upon request and may also be found in Ariel Investments, LLC's Form ADV, Part 2. Advisory fees are deducted quarterly. The effect of advisory fees upon performance is illustrated by the following example: A 1.00% annual fee (.25% quarterly) deducted from an account with a 5-year annualized growth rate of 9.5% will produce a net result of 8.42%. Actual performance will vary from this example. Results are reported in U.S. dollars. Index returns reflect reinvested dividends and other earnings. The Composite differs from its benchmark with fewer holdings concentrated in fewer sectors.

The figures above for the Dow Jones Industrial Average and the Standard & Poor's 500 Index represent their respective closing values as of the effective date of this report.

ARIEL SMALL CAP VALUE

Performance results

As of 07/31/21

	Last 5 Years 07/31/16 – 07/31/21	Last 10 Years 07/31/11 – 07/31/21	Since Inception 09/30/83 – 07/31/21
Gross of Fees	+ 15.96%	+ 12.39%	+ 13.16%
Russell 2000 Value Index	+ 11.61	+ 10.82	+ 10.81
Russell 2000 Index	+ 14.28	+ 12.34	+ 9.75
S&P 500 Index	+ 17.35	+ 15.35	+ 11.66

Dow Jones Industrial Average	34935.47
Standard & Poor's 500 Index	4395.26

Returns greater than one year are annualized.

Investing in small and mid cap stocks is more risky and more volatile than investing in large cap stocks. The intrinsic value of the stocks in which the portfolio invests may never be recognized by the broader market. The portfolio is often concentrated in fewer sectors than its benchmarks, and its performance may suffer if these sectors underperform the overall stock market. Investing in equity stocks is risky and subject to the volatility of the markets. Past performance does not guarantee future results. Results shown may be preliminary.

Results are shown gross of advisory fees, assume reinvestment of dividends and other earnings, and are net of transaction costs. Client return will be reduced by the advisory fees and any other expenses it may incur in the management of its investment advisory account. Fee information is available upon request and may also be found in Ariel Investments, LLC's Form ADV, Part 2. Advisory fees are deducted quarterly. The effect of advisory fees upon performance is illustrated by the following example: A 1.00% annual fee (.25% quarterly) deducted from an account with a 5-year annualized growth rate of 9.5% will produce a net result of 8.42%. Actual performance will vary from this example. Results are reported in U.S. dollars. Index returns reflect reinvested dividends and other earnings. The Composite differs from its benchmark with fewer holdings concentrated in fewer sectors.

The figures above for the Dow Jones Industrial Average and the Standard & Poor's 500 Index represent their respective closing values as of the effective date of this report.

ARIEL SMALL CAP VALUE

Sector attribution analysis

For the time period from 06/30/21 - 07/31/21

Russell ICB Industry	Portfolio Weight	Bench Weight	Portfolio Return	Bench Return	Allocation Effect	Selection+ Interaction	Total Effect
BENCHMARK: Russell 2000 Value Index							
Consumer Discretionary	33.31	13.42	-1.84	-8.67	-1.02	2.32	1.31
Industrials	33.98	14.83	0.37	-1.64	0.39	0.69	1.07
Financials	13.76	24.95	4.85	-2.66	-0.11	1.03	0.93
Health Care	3.65	10.88	-0.30	-6.71	0.23	0.24	0.47
Energy	3.46	6.40	-13.64	-10.95	0.24	-0.11	0.12
Cash	1.95	0.00	0.00	0.00	0.09	0.00	0.09
Technology	2.69	4.26	-2.51	-3.29	-0.01	0.02	0.01
Consumer Staples	0.00	2.62	0.00	-3.43	-0.01	0.00	-0.01
Telecommunications	0.00	1.52	0.00	-2.40	-0.02	0.00	-0.02
Real Estate	2.99	11.85	13.87	1.64	-0.47	0.37	-0.10
Utilities	3.09	4.85	-1.40	1.92	-0.09	-0.10	-0.20
Basic Materials	1.12	4.42	-12.63	-0.34	-0.12	-0.14	-0.26
Total	**100.00**	**100.00**	**-0.17**	**-3.59**	**-0.88**	**4.30**	**3.42**

Total portfolio return shown does not represent the performance of the Ariel Small Cap Value Tax Exempt Composite for the period. The portfolio holdings composing the sectors shown are of the representative account of the Ariel Small Cap Value strategy and is not reflective of the portfolio holdings of the composite, of clients as a whole, or of the strategy. The representative account was selected because it has no client-imposed restrictions and it has minimal planned contributions and withdrawals. The portfolio holdings would differ from those of another client account if different client-imposed restrictions were applied, and also may vary from other differences such as cash flow. The portfolio return for each sector reflects the returns of the stocks in the sector before the deduction of transaction costs or advisory fees. A portion of the benchmark's holdings that are not assigned to a sector may be excluded from the analysis.

Source: FactSet

ARIEL SMALL CAP VALUE

Sector attribution analysis

For the time period from 12/31/20 - 07/31/21

Russell ICB Industry	Portfolio Weight	Bench Weight	Portfolio Return	Bench Return	Allocation Effect	Selection+ Interaction	Total Effect
BENCHMARK: Russell 2000 Value Index							
Health Care	5.33	6.82	33.53	13.26	0.37	0.71	1.07
Financials	13.29	26.00	23.35	18.71	0.39	0.44	0.83
Real Estate	2.78	9.21	50.01	22.17	0.01	0.63	0.63
Basic Materials	1.51	5.50	43.87	27.00	-0.15	0.58	0.42
Consumer Staples	0.00	3.13	0.00	11.32	0.33	0.00	0.33
Technology	2.55	5.31	25.97	16.25	0.21	0.10	0.31
Telecommunications	0.00	1.33	0.00	15.74	0.09	0.00	0.09
Utilities	3.11	4.25	1.76	5.26	0.18	-0.10	0.08
Cash	1.82	0.00	0.02	0.00	-0.43	0.00	-0.43
Energy	3.95	5.30	23.99	45.88	0.20	-0.77	-0.57
Industrials	33.13	15.93	18.70	20.51	-0.03	-0.58	-0.61
Consumer Discretionary	32.53	17.23	9.62	34.83	1.67	-7.51	-5.84
Total	**100.00**	**100.00**	**18.46**	**22.15**	**2.82**	**-6.51**	**-3.68**

Total portfolio return shown does not represent the performance of the Ariel Small Cap Value Tax Exempt Composite for the period. The portfolio holdings composing the sectors shown are of the representative account of the Ariel Small Cap Value strategy and is not reflective of the portfolio holdings of the composite, of clients as a whole, or of the strategy. The representative account was selected because it has no client-imposed restrictions and it has minimal planned contributions and withdrawals. The portfolio holdings would differ from those of another client account if different client-imposed restrictions were applied, and also may vary from other differences such as cash flow. The portfolio return for each sector reflects the returns of the stocks in the sector before the deduction of transaction costs or advisory fees. A portion of the benchmark's holdings that are not assigned to a sector may be excluded from the analysis.

Source: FactSet

ARIEL SMALL CAP VALUE

Representative portfolio

As of 06/30/21

Basic Materials

U.S. Silica Holdings, Inc.

Consumer Discretionary

Adtalem Global Education, Inc.
Interpublic Group of Cos., Inc.
Knowles Corp.
Madison Square Garden Entertainment Corp.
Madison Square Garden Sports Corp.
Mattel, Inc.
Matthews International Corp.
Meredith Corp.
Mohawk Industries, Inc.
MSG Networks, Inc.
Nielsen Holdings plc
Norwegian Cruise Line Holdings, Ltd.
OneSpaWorld Holdings, Ltd.
TEGNA, Inc.
Vail Resorts, Inc.

Energy

Core Laboratories N.V.

Energy *(cont.)*

MIND Technology, Inc.

Financials

BOK Financial Corp.
First American Financial Corp.
Horace Mann Educators Corp.
Janus Henderson Group plc
Lazard, Ltd.

Health Care

Charles River Laboratories International, Inc.
Envista Holdings Corp.

Industrials

ADT, Inc.
Brady Corp.
Brink's Co.
Kennametal, Inc.
Korn Ferry International
Littelfuse, Inc.
nVent Electric plc

Industrials *(cont.)*

Simpson Manufacturing Co., Inc.
Snap-on, Inc.
Team, Inc.
The Middleby Corp.

Real Estate

JLL

Technology

Methode Electronics, Inc.

Utilities

Stericycle, Inc.

Executive leadership

John W. Rogers, Jr.

Chairman, Co-CEO & CIO | Founded Ariel in 1983

LEAD PORTFOLIO MANAGER | Ariel Fund

CO-PORTFOLIO MANAGER | Ariel Small Cap Value, Ariel Small Cap Value Concentrated, Ariel Small/Mid Cap Value, Ariel Mid Cap Value and Ariel Appreciation Fund

John's passion for investing began at age 12 when his father began buying him stocks as Christmas and birthday gifts. His interest in equities grew at Princeton University, where he majored in economics, and over the two-plus years he worked as a stockbroker for William Blair & Company, LLC. In 1983, John founded Ariel to focus on patient, value investing within small- and medium-sized companies. While our research capabilities have expanded across the globe, patience is still the disciplined approach that drives the firm today. Early in his career, John's investment acumen brought him to the forefront of media attention and culminated in him being selected as Co-Mutual Fund Manager of the Year by *Sylvia Porter's Personal Finance* magazine as well as an All-Star Mutual Fund Manager by *USA TODAY.* Furthermore, John has been highlighted alongside legendary investors Warren Buffett, Sir John Templeton and Ben Graham in the distinguished book: *The World's 99 Greatest Investors* by Magnus Angenfelt. His professional accomplishments extend to the boardroom where he is a member of the board of directors of McDonald's, NIKE and The New York Times Company. John also serves as vice chair of the board of trustees of the University of Chicago. Additionally, he is a member of the American Academy of Arts and Sciences, and a director of the Robert F. Kennedy Center for Justice and Human Rights. In 2008, John was awarded Princeton University's highest honor, the Woodrow Wilson Award, presented each year to the alumnus or alumna whose career embodies a commitment to national service. Following the election of President Barack Obama, John served as co-chair for the Presidential Inaugural Committee 2009, and more recently, he joined the Barack Obama Foundation's Board of Directors. John received an AB in economics from Princeton University, where he was also captain of the varsity basketball team.

Mellody Hobson

Co-CEO & president | Joined Ariel in 1991

As Co-CEO, Mellody is responsible for management, strategic planning and growth for all areas of Ariel Investments outside of research and portfolio management. Additionally, she serves as Chairman of the Board of Trustees of the Ariel Investment Trust—the company's publicly traded mutual funds. Prior to being named Co-CEO, Mellody spent nearly two decades as the firm's President. Outside of Ariel, Mellody is a nationally recognized voice on financial literacy. Her leadership has also been invaluable to corporate boardrooms across the nation. She currently serves as Chair of the Board of Starbucks Corporation. She is also a director of JPMorgan Chase. She previously served as Chairman of the Board of DreamWorks Animation until the company's sale and was also a long-standing board member of the Estée Lauder Companies. Mellody's community outreach includes her role as Chairman of After School Matters, a Chicago non-profit that provides area teens with high-quality after school and summer programs. Additionally, she is vice chair of World Business Chicago; co-chair of the Lucas Museum of Narrative Art; and a board member of the George Lucas Education Foundation and Bloomberg Philanthropies. She also serves on the board of trustees of the Center for Strategic & International Studies, and of the Los Angeles County Museum of Art (LACMA). Mellody is a member of the American Academy of Arts and Sciences, The Rockefeller Foundation Board of Trustees, and serves on the executive committee of the Investment Company Institute. Mellody earned her AB from Princeton University's Woodrow Wilson School of International Relations and Public Policy. In 2019, she was awarded the University's highest honor, the Woodrow Wilson Award, presented annually to a Princeton graduate whose career embodies a commitment to national service. She has also received honorary doctorate degrees from Howard University, Johns Hopkins University, St. Mary's College, and the University of Southern California. In 2015, *Time Magazine* named her one of the "100 Most Influential People" in the world.

Domestic portfolio management

Charles K. Bobrinskoy
Vice chairman, head of investment group | Joined Ariel in 2004

PORTFOLIO MANAGER | Ariel Focused Value and Ariel Focus Fund

Charlie manages our focused value strategy—an all-cap, concentrated portfolio of U.S. stocks. He also spearheads Ariel's thought leadership efforts and takes an active role in representing Ariel's investment strategies with prospective investors, clients and major media. Prior to joining Ariel in 2004, Charlie spent 21 years as an investment banker at Salomon Brothers and its successor company Citigroup, where he rose to managing director and head of North American investment banking branch offices. Charlie actively serves the Chicago community, sitting on the corporate board of State Farm Mutual Automobile Insurance Company and ACI Worldwide as well as the boards of the Museum of Science and Industry, the Abraham Lincoln Presidential Library Foundation Board, the Big Shoulders Fund and the Chicago Club. He also teaches monthly investing classes at two Chicago inner-city schools. Charlie graduated with an AB in economics from Duke University and earned an MBA from the University of Chicago.

Kenneth E. Kuhrt, CPA
Executive vice president | Joined Ariel in 2004

CO-PORTFOLIO MANAGER | Ariel Small Cap Value and Ariel Small Cap Value Concentrated

PORTFOLIO MANAGER | Ariel Fund

Ken serves as co-portfolio manager of our small cap value and small cap value concentrated strategies. Additionally, his portfolio management responsibilities extend to our flagship Ariel Fund. In his research capacity, Ken covers consumer services and industrials. Prior to joining Ariel as a research analyst in 2004, he spent more than two years with William Blair & Company, LLC, most recently as a senior investment banking analyst. Ken also worked as a senior auditor at KPMG, LLP. He earned a BS in accounting from the University of Illinois at Urbana-Champaign and an MBA from the University of Chicago, and he is also a Certified Public Accountant.

Timothy Fidler, CFA®
Executive vice president, director of research | Joined Ariel in 1999

CO-PORTFOLIO MANAGER | Ariel Mid Cap Value and Ariel Appreciation Fund

Tim is responsible for overseeing all of our domestic equity team's research output, including chairing our investment committee meetings. He also serves as co-portfolio manager for our mid cap value strategy. As a research analyst, he currently specializes in financial services companies. Prior to joining Ariel in 1999, Tim was a research analyst and portfolio manager at Morgan Stanley asset management in U.S. value equity. In 2007, he graduated from the Fellowship Program of Leadership Greater Chicago, an initiative to educate and connect emerging leaders in Chicago. In 2008, Institutional Investor magazine recognized him as one of 20 rising stars in the industry. Tim graduated Phi Beta Kappa from Northwestern University with a BA with honors in Economics and earned his MBA with high honors from the University of Chicago.

John P. Miller, CFA®
Senior vice president | Joined Ariel in 1989

CO-PORTFOLIO MANAGER | Ariel Small/Mid Cap Value

PORTFOLIO MANAGER | Ariel Fund

John serves as co-portfolio manager for our small/mid cap value strategy as well as portfolio manager for Ariel Fund, our complementary mutual fund. He has been an integral part of Ariel's investment team for nearly 30 years and has conducted stock analysis for that entire period. John's current research focus is on the asset management and media segments of the market. Prior to joining Ariel in 1989, John worked for Cantor Fitzgerald & Co. in its institutional equity division. He earned a BB in management from Western Illinois University and an MBA from the University of Chicago. Additionally, John is a member of the CFA Institute and the CFA Society of Chicago.

Domestic research

Sabrina Carollo, CFA | Senior vice president, director of research operations
Sabrina oversees the department's broker relationships. As a research analyst she specializes in health care and office supply companies. Prior to joining Ariel in 2001, she spent seven years at William Blair & Company, LLC, mainly as a research associate. Sabrina is a member of the CFA Institute and the CFA Society of Chicago. She is also a member of Rush University Medical Center's Associates Board. Sabrina graduated from Ball State University with a BA in accounting and earned her MBA in healthcare management from Loyola University.

John Oxtoby | Senior vice president, director of ESG investing
John leads Ariel's efforts to integrate environmental, social, and governance research into our investment process. Under his direction and in concert with our core domestic ESG research analyst, he proactively works with portfolio companies to adopt and strengthen their social and environmental impacts, and improve governance practices to create shareholder value. Prior to joining Ariel, John worked in the White House with Senior Advisor Valerie Jarrett and Chairman of the Council of Economic Advisers Austan Goolsbee, on public-private partnerships, including the CEO-led President's Jobs Council. John is an FSA Credential holder, which is administered by the Sustainability Accounting Standards Board (SASB). He graduated with a BA in economics from Harvard College and earned an MBA from Harvard Business School.

James Kenny, CFA | Vice president, research
Jim focuses on services and industrials as a research analyst. He joined Ariel in 2008 as a summer intern and returned as a full-time research analyst in 2010. Previously, he served as a managing consultant for Navigant Consulting for three years. He is a member of the CFA Institute and the CFA Society of Chicago. Jim graduated *summa cum laude* with a BBA in finance from the University of Notre Dame and earned his MBA with honors distinction from the Wharton School at the University of Pennsylvania.

Danan Kirby, CFA | Vice president, client portfolio manager
Danan is a Client Portfolio Manager for the domestic equity research team. In this role, he serves as a liaison for the investment team and key investment decision-makers, communicating the process and results of the firm's domestic investment strategies. Prior to joining Ariel, Danan was a Client Portfolio Manager for Thornburg Investment Management, covering both equities and fixed income. Prior to that role, he was a portfolio manager for Strategic Growth Bancorp managing multi-asset strategies for institutional clients. Earlier in his career, he served as a federal banking regulator at the Federal Deposit Insurance Corporation during the financial crisis. Danan is also a combat veteran of the U.S. Army. He graduated summa cum laude from the University of New Mexico's Anderson School of Management with a BBA, concentrating in finance. He is a CFA charterholder.

Jamil Soriano | Vice president, research
Jamil focuses on consumer products & services and financial services as a research analyst. He joined Ariel full-time in July 2012 after participating in our summer internship program in 2011. Prior to Ariel, he worked in the investment banking and debt capital markets divisions at Credit Suisse Securities, and later as an investment analyst for Brown Bear Capital Management LLC. Before entering the financial services industry, he was a player for several teams in the National Football League, including a season with the 2003-04 Super Bowl winning New England Patriots. Jamil earned his AB in biological sciences from Harvard and his MBA with honors from the University of Chicago.

Aaron Bianco, CFA | Research analyst
Aaron focuses on the infrastructure and technology sectors as a research analyst. He joined Ariel in 2014 as a summer intern and returned as a full-time research analyst in 2015. Prior to joining the firm, he served as an investment banking analyst at Barclays and corporate attorney at Jones Day. Aaron graduated with a BA in politics from Princeton University. Additionally, he earned his MBA in analytic finance and accounting from the University of Chicago, and holds a JD from the University of California, Berkeley, School of Law. Aaron is also a member of American Mensa, Ltd.

Conner Chapman | ESG research associate
Conner works on all aspects of the Domestic Research Team's ESG process including engagement/meeting tracking, correspondence including diverse board recommendations, data management, ESG research, project management, and other strategic projects. Prior to joining Ariel in 2019, he was an intern with The University of Virginia Law Foundation, the CFA Society Chicago and The University of Chicago Office of Investments. Conner earned a BA in Economics from The University of Chicago.

Domestic trading

Cheryl Cargie | Senior vice president, head trader

With over 30 years of trading experience, Cheryl is Ariel's head domestic trader. Prior to joining the firm in 1994, she was vice president and head trader at Fiduciary Management Associates. In this capacity, she was the firm's principal trader of both equities and fixed income securities. Prior to her tenure at Fiduciary Management, Cheryl was an equity trader at Aon Corporation. She is an active member of NASDAQ's Institutional Traders Advisory Council and a member of the National Organization of Investment Professionals. In 2013, Cheryl was honored with The Lifetime Achievement Award from the Securities Traders' Association of Chicago (STAC), where she also served as a past president. Traders Magazine also recognized her industry experience and commitment to excellence in 2015 with The Lifetime Achievement Award. Outside of Ariel, Cheryl is involved in her community, where she is a Commissioner of the River Forest Park District Board. Cheryl graduated from Illinois State University with a BS in finance.

Jill Gracia | Vice president, senior trader

With more than 15 years of experience, Jill trades Ariel's institutional, mutual fund and wrap accounts. Jill began her career in the trading department at Ariel and then moved on to Allstate and Oak Ridge Investments, where she was vice president and senior trader, specializing in illiquid small-cap stocks along with mid- and large-cap equities. A member of the Security Traders Association of Chicago, Jill earned her BBA in finance from the University of Iowa.

Marketing and client services

NAME	TITLE	FOCUS	EXPERIENCE		EDUCATION
			Ariel	Prior	
Jennifer DiGrazia	Senior vice president, head of institutional client & investor relations	Client service & investor relations	2019	DreamWorks Animation, DIRECTV	University of Connecticut, BS
Valerie King	Senior vice president, institutional marketing	Institutional/advisor markets	2018	Holland Capital Management, T. Rowe Price	Clark Atlanta University, MBA Illinois Institute of Technology, BA
Malik T. Murray	Senior vice president, head of business development	Institutional/advisor markets	2004	Bank One Brokerage	DePaul University, MBA, BA
Bonnie E. Orlowski	Senior vice president, head of consultant relations & financial intermediaries	Consultant relations, financial intermediaries	2016	AllianceBernstein L.P.	Bucknell University, BA
Melissa Smith	Senior vice president, consultant relations	Consultant relations	2015	Deutsche Bank, Calamos Investments	Illinois State University, BA
Ian M. Webber	Senior vice president, institutional marketing, head of Asia Pacific & MENA	Institutional market/Asia Pacific & MENA	2015	Artio Global Investors, AXA Rosenberg Investment Management	University of Newcastle, BEc; Securities Institute of Australia, Graduate Diploma in Applied Finance and Investment
Camille El-Amin	Vice president, institutional client & investor relations	Client service	2007	JPMorgan Private Bank	Spelman College, BA
Taylor Goodridge	Vice president, institutional marketing	Institutional/advisor markets	2017	GE Capital	Smith College, BA
Patrice L. Scelzo	Vice president, institutional client & investor relations	Client service	1999	Northwest Airlines	University of St.Thomas, BA
Arielle Patrick	Chief communications officer	Communications	2020	Edelman, Weber Shandwick	Princeton University, AB

Business administration

NAME	TITLE	EXPERIENCE		EDUCATION
		Ariel	Prior	
Carlos E. Calderon	Chief financial officer	2021	Eaton Vance; State Street Global Advisors; BNY Mellon	University of Massachusetts, BA
Mary Cecola	Chief technology officer	2019	Antares Capital; FHLB Des Moines; Deutsche Bank	Northern Illinois University, MS, BS
Mareilé B. Cusack	General counsel	2007	Chicago Stock Exchange; Securities and Exchange Commission	University of Virginia School of Law, JD; University of Pennsylvania, BA
Wendy D. Fox	Chief compliance officer	2004	Securities and Exchange Commission	Washington University in St. Louis, JD; University of Michigan, BA
Marlo J. Gaal	Chief talent officer	2020	Groupon Inc., Hyatt Hotels Corporation; OfficeMax, Inc.	Northern Illinois University, BS
James R. Rooney, CPA®	Senior vice president, fund administration	2015	Fidelity; Wellington Management Company	Northeastern University, MS; Williams College, BA
Kenneth T. Slovin	Senior vice president, director of global operations	2016	BMO Global Asset Management, Batterymarch Financial Management, Inc.	University of Massachusetts, BS

ARIEL SMALL CAP VALUE TAX-EXEMPT COMPOSITE

GIPS Composite Report

For the period from 01/01/11 – 12/31/20

Year end	Gross Annual Return	Net Annual Return	Russell 2000 Value Index	3-Year Annualized Standard Deviation		Composite Dispersion	Number of Portfolios	Composite Assets ($ millions)	Total Firm Assets ($ millions)
				Composite	Benchmark				
2011	-10.61%	-11.49%	-5.50%	31.25%	26.05%	0.27	18	600.3	4,383.7
2012	21.62%	20.41%	18.05%	23.48%	19.89%	0.45	20	692.2	4,860.5
2013	37.57%	36.21%	34.52%	18.99%	15.82%	0.65	26	965.6	8,992.0
2014	7.29%	6.23%	4.22%	13.45%	12.79%	0.17	26	907.3	10,041.9
2015	-10.19%	-11.08%	-7.47%	15.29%	13.46%	0.26	26	798.3	10,133.2
2016	20.72%	19.53%	31.74%	16.61%	15.50%	0.27	20	690.3	10,967.5
2017	15.12%	13.98%	7.84%	15.43%	13.97%	0.27	24	538.5	13,132.2
2018	-13.44%	-14.29%	-12.86%	15.89%	15.76%	0.20	26	468.2	11,565.9
2019	27.52%	26.26%	22.39%	16.92%	15.68%	0.21	20	534.8	13,217.1
2020	19.74%	18.55%	4.63%	27.93%	26.12%	0.58	18	628.6	14,582.7

1. Ariel Investments claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Ariel Investments has been independently verified for the period from April 1, 1990 through December 31, 2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Ariel Small Cap Value Tax-Exempt Composite has had a performance examination for the periods October 1, 1983 through December 31, 2020. The verification and performance examination reports are available upon request. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. **Past performance is no guarantee of future results.**

2. Ariel Investments, LLC ("Ariel"), a Delaware limited liability company, is a federally registered investment adviser regulated by the U.S. Securities and Exchange Commission. Ariel is headquartered in Chicago, Illinois, and has offices in New York, New York, and Sydney, NSW, Australia. Ariel offers investment strategies that seek long-term capital appreciation by investing primarily in equity securities. Ariel utilizes a bottom-up, fundamental analysis to select quality company stocks. Taking a long-term view and applying independent thinking to investment decisions, Ariel spans the market cap spectrum from micro to large and covers the globe with international and global offerings.

ARIEL SMALL CAP VALUE TAX-EXEMPT COMPOSITE

GIPS Composite Report, continued

3. The Ariel Small Cap Value Tax-Exempt Composite includes all discretionary, fee-paying, commission-paying, non-wrap small cap tax-exempt portfolios that are invested in the small cap value strategy. This strategy seeks long-term capital appreciation by investing in small cap undervalued companies that show strong potential for growth. The portfolio invests primarily in equity securities of U.S. companies that, at the time of initial purchase for the strategy, have market capitalizations within the range of the companies in the Russell 2000® Index. As of December 31, 2020, the market capitalizations of the companies in the Russell 2000 Index ranged from $43 million to $13.40 billion. Over time, the market capitalizations for the strategy's portfolio companies will change. This means that the strategy could continue to invest in (hold and purchase) a company if its capitalization were to move outside the range. To maintain the strategy's small cap characteristic, Ariel has adopted procedures to eliminate companies, over time, that Ariel views as substantially outside the strategy's small cap range. Effective January 1, 2020, the Ariel Small Cap Value Tax-Exempt Composite was redefined to no longer exclude pooled funds in accordance with GIPS 2020. A list of composite and limited distribution pooled fund descriptions, a list of broad distribution pooled funds, and policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. The composite was created in January 1993. The composite's inception date is 09/30/1983.

4. The 3-year annualized ex-post standard deviation measures the variability of the composite's gross returns and the benchmark over the preceding 36-month period.

5. Performance results are net of transaction costs and reflect the reinvestment of dividends and other earnings. Net returns reflect the deduction of the maximum advisory fee in effect for the respective period, which is currently 1.00% per annum. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Results are reported in U.S. dollars.

6. The standard fee schedule currently in effect is as follows: 1.00% on the first $10 million; 0.75% on the next $10 million; and 0.50% above $20 million.

7. The dispersion of annual returns is measured by the standard deviation of asset-weighted gross portfolio returns represented within the composite for the full year. For those periods with one or fewer portfolios included for the entire year, dispersion is not presented.

8. The Russell 2000® Value Index measures the performance of the small-cap value segment of the U.S. equity universe. It includes those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values. The Ariel Small Cap Value Tax-Exempt Composite differs from its benchmark with fewer holdings concentrated in fewer sectors. The Russell 2000 Value Index returns reflect the reinvestment of income and other earnings, are provided to represent the investment environment during the time period shown, and are not covered by the report of independent verifiers.

Disclosures

Indexes are unmanaged. An investor cannot invest directly in an index.
MSCI ACWI (All Country World Index) Index is an unmanaged, market-weighted index of global developed and emerging markets.
MSCI EAFE Index is an unmanaged, market-weighted index of companies in developed markets, excluding the U.S. and Canada.
MSCI ACWI (All Country World Index) ex-US Index is an unmanaged, market-weighted index of global developed and emerging markets, excluding the United States.
MSCI Indices: The MSCI Indices' net returns reflect the reinvestment of income and other earnings, including the dividends net of the maximum withholding tax applicable to non-resident institutional investors that do not benefit from double taxation treaties. MSCI uses the maximum tax rate applicable to institutional investors, as determined by the companies' country of incorporation. Source: MSCI. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used to create indices or financial products. This report is not approved or produced by MSCI.
The Russell 1000® Index measures the performance of the large-cap segment of the U.S. equity universe.
The Russell 1000® Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower expected growth values.
The Russell 2000® Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index. It includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.
The Russell 2000® Value Index measures the performance of the small-cap value segment of the U.S. equity universe. It includes those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.
The Russell 2500™ Index measures the performance of the small to mid-cap segment of the U.S. equity universe, commonly referred to as "smid" cap. The Russell 2500 Index is a subset of the Russell 3000® Index. It includes approximately 2,500 of the smallest securities based on a combination of their market cap and current index membership.
The Russell 2500™ Value Index measures the performance of the small to mid-cap value segment of the U.S. equity universe. It includes those Russell 2500 companies with lower price-to-book ratios and lower forecasted growth values.
The Russell Midcap® Index measures the performance of the mid-cap segment of the U.S. equity universe. The Russell Midcap Index is a subset of the Russell 1000® Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership.
The Russell Midcap® Value Index measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.
Russell Indices: Frank Russell Company ("Russell") is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell® is a trademark of Frank Russell Company. Neither Russell nor its licensors accept any liability for any errors or omissions in the Russell Indexes or underlying data and no party may rely on any Russell Indexes and/or underlying data contained in this communication. No further distribution of Russell data is permitted without Russell's express written consent. Russell does not promote, sponsor or endorse the content of this communication.
The S&P 500® Index is the most widely accepted barometer of the market.
The sectors shown for the Global strategies are the Global Industry Classification Standard ("GICS") sector classifications. GICS was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's, a division of The McGraw-Hill Companies, Inc. ("S&P") and is licensed for use by Ariel Investments, LLC. Neither MSCI, S&P nor any third party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Channing Capital Management LLC
The Wisdom of Experienced Investing

Small-Cap Value Strategy Presentation to:

September 8, 2021

CCM Compliance Approved: 9/3/2021

10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Table of Contents

10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Channing Capital Profile

- Founded in 2003 and headquartered in Chicago, IL
- Boutique firm specializing in domestic equity investing
- 100% Employee-owned
- Fundamental, concentrated, bottom-up, “intrinsic value” investment philosophy

Senior Leadership

Rodney B. Herenton

Founder, Co-Chief Executive Officer,
Chief Business Development and
Strategy Officer

Wendell E. Mackey, CFA

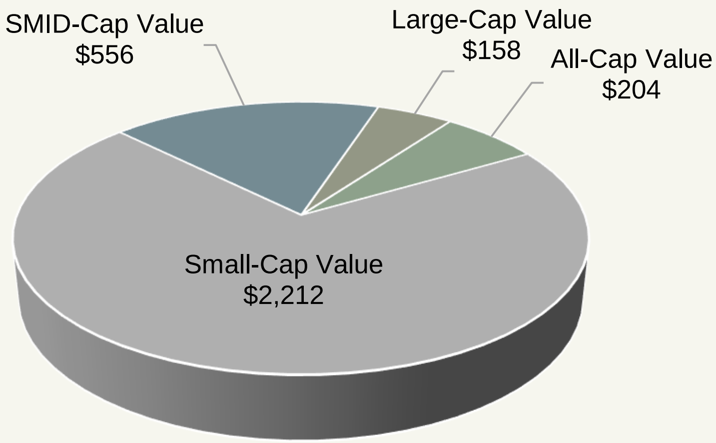
Founder, Co-Chief Executive Officer,
Chief Investment Officer

10 South LaSalle St., Suite 2401, Chicago, IL 60603 phone 312 223 0211 fax 312 223 0212

Channing Assets Under Management (AUM)

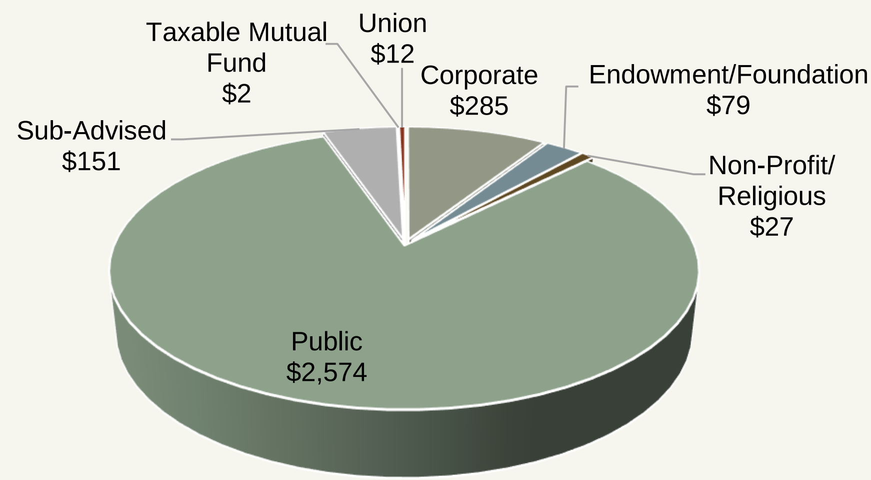
The firm’s total AUM was $3.1 billion as of July 31, 2021:

AUM by Strategy:
(in millions)



Strategy	AUM *(in millions)*	# of Accounts	% of Market Value
Small-Cap Value	**$2,212**	**35**	**70.7%**
SMID-Cap Value	**$556**	**15**	**17.8%**
Large-Cap Value	**$158**	**4**	**5.1%**
All-Cap Value	**$204**	**1**	**6.5%**
Total	**$3,130**	**55**	**100%**

AUM by Client Type:
(in millions)



Strategy	AUM *(in millions)*	# of Accounts	% of Market Value
Corporate	**$285**	**8**	**9.1%**
Endowment/Foundation	**$79**	**10**	**2.5%**
Non-Profit/Religious	**$27**	**2**	**0.9%**
Public	**$2,574**	**32**	**82.2%**
Sub-Advised	**$151**	**1**	**4.8%**
Taxable Mutual Fund	**$2**	**1**	**0.1%**
Union	**$12**	**1**	**0.4%**
Total	**$3,130**	**55**	**100%**

Channing Organizational Structure

MANAGEMENT TEAM

Rodney B. Herenton
Founder, Co-Chief Executive Officer
/
Wendell E. Mackey, CFA
Founder, Co-Chief Executive Officer

COMPLIANCE CONSULTANT

Foreside Compliance Consulting

PORTFOLIO MGMT & RESEARCH

Wendell E. Mackey, CFA
Chief Investment Officer

Deryck Lampe, CFA
Portfolio Manager

Timothy J. Kroll, CFA
Portfolio Manager, Senior Equity Analyst

Matthew Betourney, CFA
Portfolio Manager, Senior Equity Analyst

Kevin B. Reynolds CFA
Associate Portfolio Manager, Financial Services Specialist

Tony W. Hipple, CFA
Portfolio Manager, Senior Equity Analyst

Derik Coffey, CFA
Client Portfolio Manager

EQUITY TRADING & OPERATIONS

Scott Silver, CAIA, CMT
Head Trader

Alta Gorman
Equity Trader & Director, Investment Operations

Robin Anderson
Lead Performance & Operations Analyst

MARKETING & CLIENT SERVICE

Rodney B. Herenton
Chief Business Development & Strategy Officer

Richard Turnley, III
Director of Institutional Sales & Marketing

Anna Sprecher
Manager, Client Service

Elizabeth Willming
Client Service Associate

ADMINISTRATION SUPPORT

Alma Gomez
Executive Assistant

Tiffany Mosley
Administrative Assistant

Portfolio Management & Research

As of 7/31/2021

Investment Team	Biography	Sector Coverage
Wendell Mackey, CFA Founder, Co-CEO Chief Investment Officer	• Senior Managing Director of Valenzuela Capital Partners, LLC • Portfolio Manager with Barnett Capital Advisors • Portfolio Manager with NCM Capital Management Group (Calvert Social Investment Managed Growth Fund & Calvert CRI Balanced Fund) • BBA from Howard University; MM from J.L Kellogg School of Management, Northwestern University	Lead Portfolio Manager: Small and SMID-Cap Value Strategies
Timothy Kroll, CFA Portfolio Manager Senior Equity Analyst	• Director of InView Investment Management, LLC • Vice President at ABN AMRO Asset Management Holdings, Inc. • BS in Finance from Southern Illinois University; MM from the J.L Kellogg School of Management, Northwestern University	Communication Services, Consumer Discretionary, Consumer Staples
Matt Betourney, CFA Portfolio Manager Senior Equity Analyst	• Senior Research Analyst at Susquehanna Investment Group • Senior Research Analyst at Wintrust Capital Management • BBA in Finance from the University of Iowa; MBA from the Booth School of Business, University of Chicago	Industrials, Materials
Kevin Reynolds, CFA Associate Portfolio Manager Financial Services Specialist	• Senior Vice President at Wunderlich Securities, Inc. • Equity Analyst at Morgan Keegan & Co., Janney Montgomery Scott, and Stanford Group • BBA in Finance from Memphis State University (now University of Memphis); MBA from the Fogelman College of Business and Economics, University of Memphis	Financial Services, Real Estate, Utilities
Anthony Hipple, CFA Portfolio Manager Senior Equity Analyst	• Portfolio Manager and Senior Equity Analyst at Lord Abbett & Company • Senior Research Analyst at Piper Jaffray Investment,. and Thrivent Investment Management, Inc. • BA in Business from the University of Northern Iowa; MBA from the Tippie College of Business at the University of Iowa	Health Care, Information Technology
Derik Coffey, CFA Client Portfolio Manager	• Portfolio Specialist at Herndon Capital Management • Analyst at UBS Financial Services in the Manager Research Group • BA from Tuskegee University; Master of Science from Georgetown University	Energy

Investment Approach

Philosophy

» Channing's investment strategy is strongly influenced by notable value investing practitioners such as Warren Buffett

» Like Buffett, we look to find value opportunities in "good" businesses, but also look at the broad spectrum of sectors and industries

» Our portfolios are concentrated usually with investments in 40 – 50 companies in which we feel there is long-term unrecognized value – **Best Ideas**

» Portfolio companies are high-quality investments that have:

- strong market positions
- solid balance sheets / produce free cash flow
- capable management teams with records of past performance

» We utilize a sell discipline that includes a risk management overlay to help avoid value traps, and protect investor capital

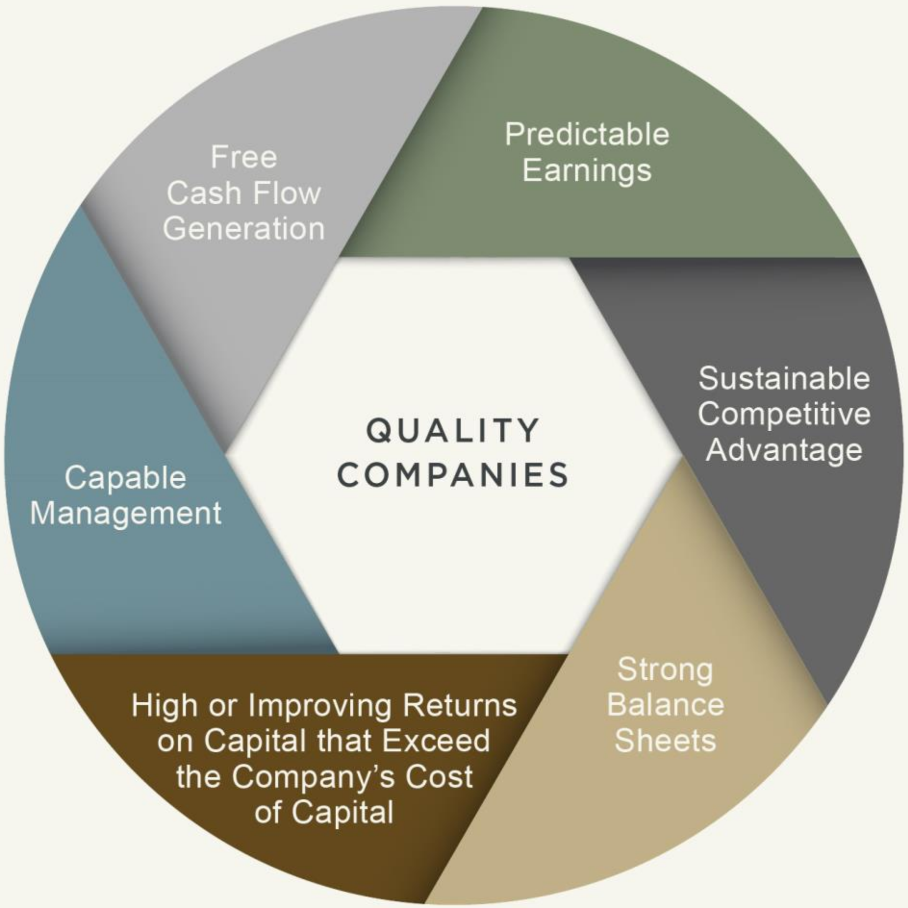
» Our strategy tends to perform best during the mid and late market cycles when high-quality investing usually shines as economic growth normalizes and matures

Channing Capital Management LLC

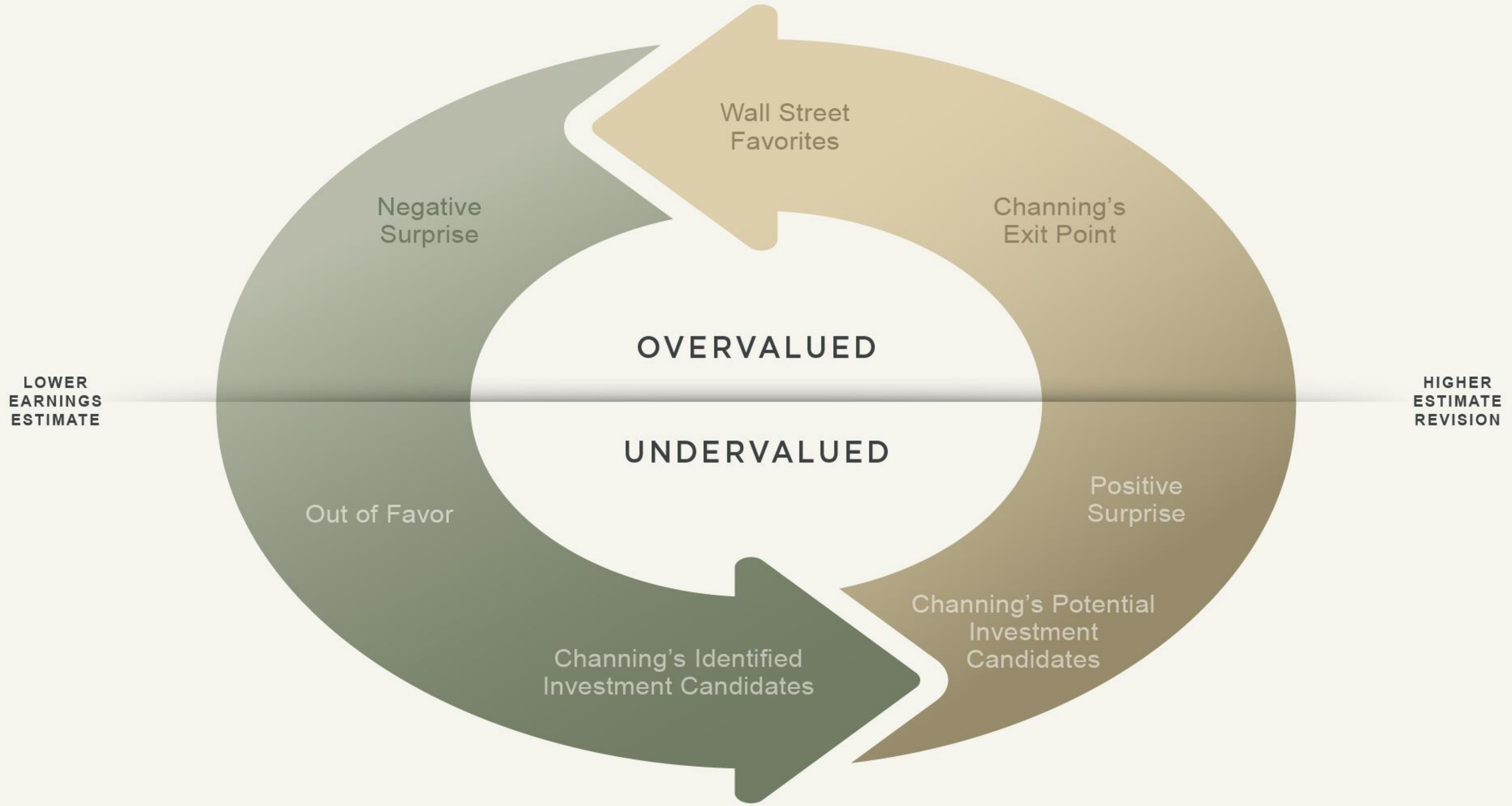
10 South LaSalle St., Suite 2401, Chicago, IL 60603 phone 312 223 0211 fax 312 223 0212

Quality Companies

Positioned for Earnings and Cash Flow Growth



Investment Strategy
Identify Misunderstood Companies

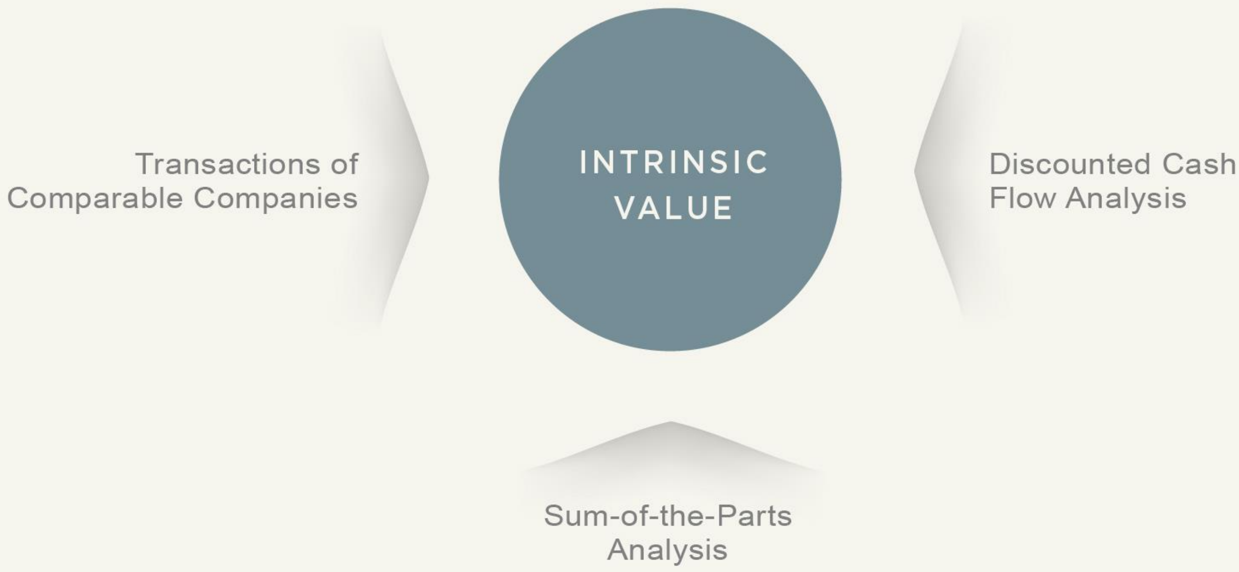


Channing Capital Management LLC
10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Investment Strategy

Intrinsic Value Approach

Channing's intrinsic value approach evaluates a prospective company by applying suitable valuation techniques, including:



CCM Process Overview

Fundamental Research-Driven

UNIVERSE*

OPPORTUNITY POOL
200 Stocks

FOCUS GROUP
50 Stocks

BEST OPPORTUNITY
5 Stocks

PORTFOLIO
35-50 Stocks

Quantitative Screening – Representative Criteria

- Forward P/E <15x
- Enterprise Value/EBITDA <10x
- Debt-to-Capital <40%

Three Disciplined Steps:

1. Rank stocks by P/E
2. Consider industry representation
3. Conduct fundamental analysis

Stock Characteristics:

- Strong management
- Solid ROE and business model
- Attractive price
- Recent underperformance
- Discount relative to intrinsic value

Purchase decisions based on:

- ≥30% discount to intrinsic value
- Profitability improvement plan
- Top-line growth initiatives
- Balance sheet management plan

*Universe includes the Russell 2000 Value Index and a proprietary database of companies Channing knows well.

ESG Integration

We view environmental, social and governance ("ESG") integration as a key consideration in our investment process as we evaluate the overall risk and return profile of our investments. Channing Capital is in the process of formally establishing an ESG framework for reviewing material risks and opportunities that is complementary to the team's overall fundamental analysis.

ESG Integration

» By evaluating both the ESG risks and opportunities across a company's operations, Channing can assess a company's ability to create long-term shareholder value.

» Channing will primarily rely upon its investment team to conduct proprietary ESG research in-house, weighing the material factors for a given company and industry, and engaging with C-suite executives to discuss these key risk factors to make more informed investment decisions.

» ESG risks and opportunities will be evaluated through the investment process and monitored across portfolios.

Effective Stewardship

» Active engagement with C-suite executives and the use of proxy voting are both important means for effective stewardship.

» Active engagement with the management teams for all owned portfolio companies is a core tenet to Channing's overall investment process, as the investment team engages in regular dialogue on all matters related to corporate strategy; financial performance; capital allocation; risk management; and environmental, social and governance conduct.

Diversity: The Underpinning of our Competitive Excellence

Diversity is at the core of our guiding principles at Channing Capital Management. We remain dedicated as a firm to providing opportunities to women and minorities and support diversity and inclusion at all levels.

» This is not only evident by Channing's diverse workforce mix but also by its consistent track record of recruiting a diverse pool of candidates.

» CCM also makes a good-faith effort to use third-party vendors who are businesses owned and / or managed by female founders or minorities.

Sell Discipline

Thoughtful, Careful Decisions

The following circumstances will trigger a stock sell:

STOCK REACHES PRICE TARGET

MATERIAL NEGATIVE CHANGE IN FUNDAMENTALS

INDUSTRY LONG-TERM PROSPECTS CHANGE

STOCK PRICE DECLINE GUIDELINE IS APPLIED

STOCK WEIGHTING >5%

10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Risk Controls

Strict, Diligent Measures

» Portfolios overseen by Management Committee

» Diversify to prevent industry, sector or theme concentration

» Employ strict valuation parameters through buy/sell discipline

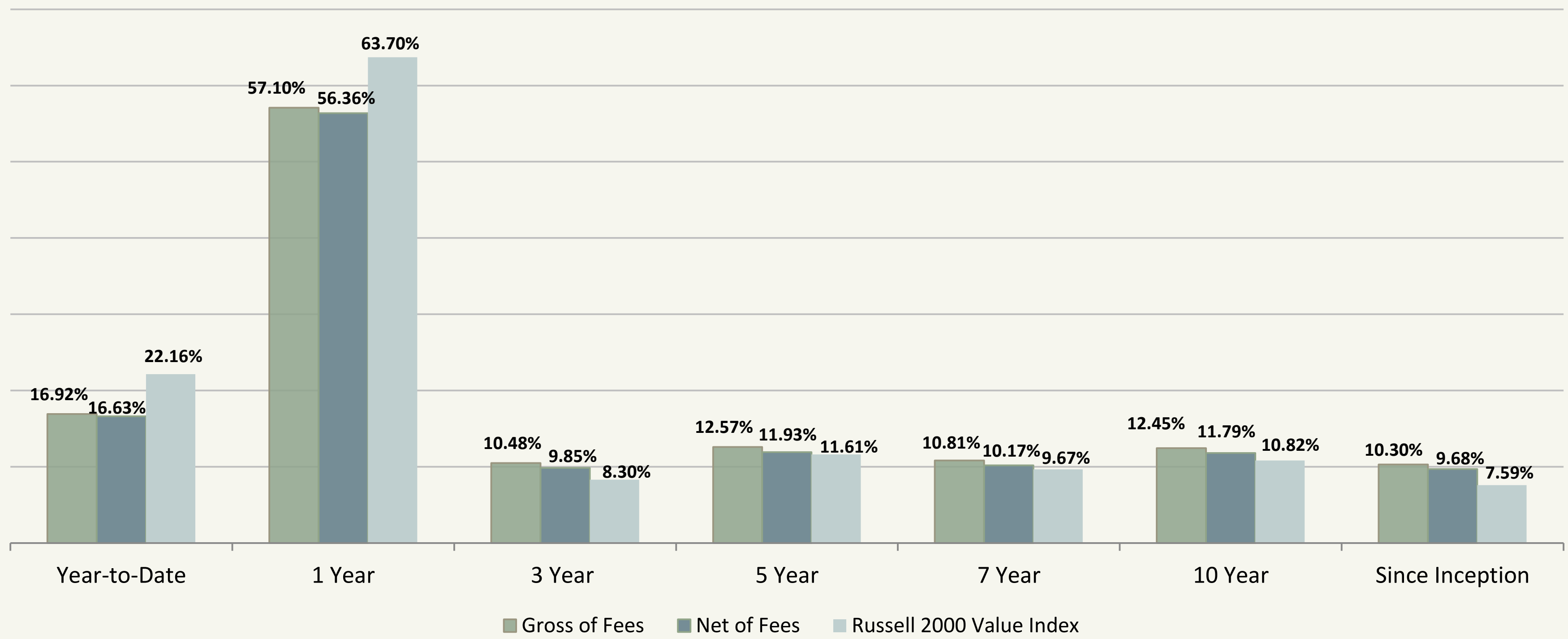
» Enforce maximum position sizes

10 South LaSalle St., Suite 2401, Chicago, IL 60603 phone 312 223 0211 fax 312 223 0212

Portfolio Overview

Small-Cap Value Composite [1, 2, 3, 4]

6/30/2006 – 7/31/2021



[1] Inception date for the Small-Cap Value composite account is 06/30/06. Channing claims compliance with the GIPS standards and has received a firm wide verification covering the period 7/1/04 – 12/31/20. Refer to page 21 through 22 for GIPS compliant presentation.

[2] Annualized.

[3] Preliminary through 7/31/2021

[4] Past performance is no guaranty of future returns

Channing Capital Management LLC

10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Characteristics

Representative Small-Cap Value Portfolio as of 7/31/2021

CHARACTERISTICS	CHANNING	RUSSELL 2000 VALUE INDEX
Weighted Average Market Capitalization	$3.9 B	$2.8 B
Number of Holdings	45	1376
Price/Book	2.4	1.9
Forward Price to Earnings[1]	15.7	19.3
Beta [2,3]	1.02	1.00
Dividend Yield (%)	1.46	2.69
Normalized ROE (%)	13.4	7.3

Source: *Bloomberg*

[1] REIT multiples are calculated using Price/FFO

[2] Channing's Small-Cap Value beta is relative to the Russell 2000 Value Index.

[3] 5-year Beta.

10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Sector Weightings

Representative Small-Cap Value Portfolio as of 7/31/2021

SECTOR	CHANNING	RUSSELL 2000 VALUE INDEX
Communication Services	3.6%	3.9%
Consumer Discretionary	14.4%	8.3%
Consumer Staples	4.4%	2.8%
Energy	4.5%	6.1%
Financials	18.3%	25.5%
Health Care	7.9%	11.0%
Industrials	27.2%	15.4%
Information Technology	11.4%	5.5%
Materials	6.2%	4.9%
Real Estate	2.1%	11.8%
Utilities	0.0%	4.9%

Source: *Bloomberg*

Channing Capital Management LLC
10 South LaSalle St., Suite 2401, Chicago, IL 60603 *phone* 312 223 0211 *fax* 312 223 0212

Channing SCV Composite Disclosure

June 30, 2006 – December 31, 2020*

	Gross of Fees Total Return***	Net of Fees Total Return***	Russell 2000 Value Index**	Number of Portfolios	Dispersion %**	Small-Cap Value 3-Year Ex-Post Standard Deviation (%)**	Russell 2000 Value Index 3-Year Ex-Post Standard Deviation (%)**	Total Composite Assets ($ in Millions)	Total Firm Assets ($ in Millions)
2006 (6 months)	16.59%	16.59%	11.81%	1	N/A	N/A	N/A	12	593
2007	4.20%	3.59%	-9.78%	1	N/A	N/A	N/A	14	652
2008	-32.74%	-33.08%	-28.92%	5	N/A	N/A	N/A	34	488
2009	23.22%	22.57%	20.58%	12	0.13%	N/A	N/A	149	666
2010	33.02%	32.29%	24.50%	13	0.11%	N/A	N/A	216	832
2011	-5.82%	-6.45%	-5.50%	13	0.13%	24.27%	26.04%	190	858
2012	22.95%	22.17%	18.05%	16	0.09%	21.21%	19.89%	366	973
2013	39.54%	38.77%	34.52%	26	0.02%	17.20%	15.82%	787	1,568
2014	5.46%	4.82%	4.22%	25	0.07%	13.16%	12.79%	828	1,982
2015	-4.44%	-4.95%	-7.47%	32	0.25%	14.62%	13.46%	1,143	2,294
2016	29.48%	28.71%	31.74%	34	0.07%	16.71%	15.50%	1,487	2,856
2017	7.61%	6.98%	7.84%	26	0.16%	15.25%	13.97%	1,557	3,047
2018	-16.59%	-17.10%	-12.86%	20	0.06%	16.87%	15.76%	1,012	2,038
2019	25.88%	25.14%	22.39%	24	0.11%	17.20%	15.68%	1,295	2,215
2020	17.57%	16.88%	4.63%	16	0.06%	27.32%	26.12%	1,098	2,497
Since Inception *(annualized)*	**9.54%**	**8.93%**	**6.43%**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Channing Capital Management, LLC ("Channing") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Channing has been independently verified for the periods July 1, 2004 through December 31, 2020. "A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Small-Cap Value Composite has had a performance examination for the periods July 1, 2006 though December 31, 2020. The verification and performance examination reports are available upon request".

Notes: *Composite Performance as of 12/31/20
**Benchmark, Dispersion and Standard Deviation Returns Gross of fees
***Fees are accounted for on a cash basis

Channing SCV Composite Disclosure

June 30, 2006 – December 31, 2020

1. Channing Capital Management, LLC ("CCM") is an institutional investment manager that invests solely in U.S. equities with a focus on value stocks across small-cap, smid, large-cap and all-cap portfolio strategies. CCM is an independent investment management firm that is not affiliated with any parent organization. "GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein."

2. This composite includes all fully discretionary, non-taxable Small-Cap Value portfolios and generally does not include taxable accounts or portfolios unless such accounts have no investment restrictions and no tax-related limitations or requirements. Accounts included are primarily comprised of all actively managed institutional equity accounts with assets of at least $2 million that are managed to the Russell 2000®Value (RUJ) Index and an investment mandate of Small-Capitalization Value. Client portfolios are included in the composite in their first full quarter under management after being qualified for composite inclusion. The inception date and creation date of the composite is June 30, 2006. A complete list and description of composites and pooled funds are available upon request. Policies for valuing investments, calculating performance, and preparing GIPS reports are available upon request. Pursuant to CCM's discretion under GIPS guidelines, since the creation of this composite, accounts that experience significant cash flows in excess of 10% of the account's market value or repeated outgoing or incoming cash flows may be temporarily removed from the composite. If removed, such accounts are added back to the composite when they are considered fully invested and are also subject to our new account inclusion criteria.

3. Composite results are time-weighted rates of return and are presented gross and net of investment advisory fees. Gross returns for the Small-Cap Value Composite are net of commission fees and transaction costs. Net-of-fees returns, where presented, are calculated net of actual advisory/management fees charged to each client account that is in the composite. Dividends are recorded on an accrual basis. Monthly composite returns are calculated using the aggregated method. Quarterly composite returns are calculated by linking the monthly composite returns geometrically through compounding. Composite dispersion is presented as the asset weighted standard deviation of accounts in the composite for the entire year, and, and dispersion is not presented for periods where there are 5 or fewer accounts in the composite for the entire year. Year 2013 annual dispersion has been updated and restated as 0.02% (from 0.04%) due to the removal or exclusion of a previously included account that had a material client restriction. Year 2012 annual dispersion has been restated as 0.09% due to an inadvertent typographical error. The performance results have been calculated without consideration of the effects of any income taxes thereon. Returns are calculated net of withholding taxes on dividends, interest or capital gains. Composite results reflect the reinvestment of dividends, capital gains, and other earnings when appropriate.

4. In one-on-one presentations, CCM may present performance returns gross of fees. Fees will reduce the returns of a client portfolio. Fees for the Small-Cap Value strategy are assigned using a tier system: $0 to $25 million at 100 bps; the next $25 million at 90 bps; over $50 million to $100 million at 85 bps; and above $100 million at 80 bps per annum. The fee schedule contained in CCM's Form ADV-Part 2 is available upon request. Actual investment advisory fees incurred by clients may vary based on portfolio size, length of mandate, mandate terms including investment guidelines and restrictions, other similar negotiable items, and performance returns.

5. Minimum Account Size: The minimum account size for inclusion in the composite is $2,000,000. CCM may, at its discretion, accept accounts below this minimum. It should be noted that some of the Small-Cap Value Composite client accounts are sub-advised relationships on behalf of other institutions. However, CCM does not engage any other firms as its sub-adviser for the management of client portfolios.

6. The Russell 2000 Value Index represents the Small-Cap Value segment of the U.S. equity universe as a subset to Russell's 2000 Value Index. The Russell 2000 Value Index measures the performance of those Russell 2000 Value companies with lower price-to-book ratios and lower forecasted growth values.

7. The performance shown in CCM's Small-Cap Value Composite represents historical performance. Historical performance is not indicative or a guarantee of future results. investing in mid and small-cap stocks is more risky and more volatile than investing in large-cap stocks..

8. U.S. dollars are used in the calculation of the presented returns and valuations.

9. 3-Year Ex-Post Standard Deviation (Gross) is included starting in 2011 as required. It measures the variability of the Composite and the Benchmark returns over the preceding 36-month (or 3-Year) period and has been annualized.

10. Benchmark returns are not covered by the report of independent verifier.

10 South LaSalle St., Suite 2401, Chicago, IL 60603 phone 312 223 0211 fax 312 223 0212

Competitive Edge

Why Channing?

Competitive Edge

- We are a firm that focuses exclusively on "Intrinsic Value" investing; this specialization has benefitted our clients throughout the history of our firm
- Accomplished investment professionals with over 100 years of combined investment experience
- We opportunistically capture alpha through disciplined stock selection and nimble trading inherent in boutiques
- The concentrated nature of our portfolios allows us to know more about the companies we invest in than our competitors

"We believe that a policy of portfolio concentration may well decrease risk if it raises, as it should, both the intensity with which an investor thinks about a business and the comfort-level he must feel with its economic characteristics before buying into it."

WARREN BUFFETT

Biographies

Biography

Wendell E. Mackey, CFA
Founder, Co-Chief Executive Officer & Chief Investment Officer

Wendell E. Mackey, CFA, is a Founder, Co-Chief Executive Officer & Chief Investment Officer for Channing Capital Management, LLC, where he launched the small-cap value product in 2006 and the SMID value product in 2011. Mr. Mackey has over 25 years of investment experience.

Formerly, he was Senior Managing Director of Valenzuela Capital Partners, LLC, a small and mid-cap equities boutique, where he shared responsibility for managing the firm’s assets, research staff and overall firm. He previously was a portfolio manager with Barnett Capital Advisors, responsible for mid/large cap institutional assets, and he held a senior role at NCM Capital Management Group, where he served as portfolio manager responsible for Calvert Social Investment Managed Growth Fund and Calvert CRI Balanced Fund. He also held analyst positions with PNC Bank in the Corporate Finance, and Investment Management and Research divisions of the Bank.

Mr. Mackey received a BBA from Howard University, and a MM from the J.L. Kellogg Graduate School of Management, Northwestern University. Mr. Mackey currently serves on the Board of Visitors for the Howard University School of Business. He previously served as a Board Member and Chair of the Audit Committee of the CFA Society of Chicago. He has earned the Chartered Financial Analyst designation.

Biography

Rodney B. Herenton

Founder, Co-Chief Executive Officer and Chief Business Development & Strategy Officer

Rodney B. Herenton is a Founder, Co-Chief Executive Officer and Chief Business Development & Strategy Officer for Channing Capital Management, LLC. Mr. Herenton has over 18 years of investment management experience. Formerly, he was First Vice-President of the Private Fund Group at Morgan Keegan & Company, Inc. He was also an Associate in the Investment Banking Department at Bear Stearns, where he was responsible for deal execution of mergers and acquisitions, equity and high-yield bond transactions, and he was an Associate in the Corporate Finance Department at Lehman Brothers.

Mr. Herenton received a BA in finance from Morehouse College, and a MBA from Harvard Business School.

Biography

Deryck Lampe, CFA
Portfolio Manager

Deryck Lampe is a Portfolio Manager for the Large-Cap and All-Cap Products at Channing Capital Management, LLC. Mr. Lampe has over 25 years of investment and portfolio management experience. Prior to joining Channing Capital, Mr. Lampe served as the Senior Portfolio Manager/Director of Research for all internal, actively managed, fundamental equity products for the Ohio Public Employees Retirement System (OPERS).
Previously, Mr. Lampe was the Senior Portfolio Manager for the equity long/short portion of the U. S. Event Driven Hedge Fund at Cheyne Capital Management, LLP and was Executive Director/Head of Fundamental Equities at FHS Investments, LLC where he had primary responsibility for the fundamental equity components of the firm’s arbitrage trading. Before that, Mr. Lampe served as a portfolio manager and senior analyst for Stein, Roe, and Farnham, and Conseco Capital Management, where he entered the investment field in 1994.

Mr. Lampe received a BS in Mathematics from Purdue University, and a Master of Science in Statistics/ Operations Research as well as an MBA in Corporate Finance from the University of Cincinnati. Also, Mr. Lampe earned the Chartered Financial Analyst designation in 1997.

Biography

Timothy Kroll, CFA

Portfolio Manager – Senior Equity Analyst

Timothy ("Tim") J. Kroll, CFA is a Portfolio Manager-Senior Equity Analyst of the Small and SMID Value Products at Channing Capital Management, LLC. Mr. Kroll has over 25 years of investment experience. Prior to joining the firm, Mr. Kroll was a Director of InView Investment Management, LLC. Previously Tim was a Vice President at ABN AMRO Asset Management Holdings Inc. where he researched equities for a 5-Star Morningstar-rated and Money Top 100 mutual fund with over $1 billion in assets at that time. He also held equity research positions at Lincoln Capital Management and at Mesirow Financial as a sell-side small value research analyst.

Mr. Kroll received a BS in finance from Southern Illinois University and a MM from the J.L. Kellogg Graduate School of Management, Northwestern University. He has earned the Chartered Financial Analyst designation.

Biography

Matthew Betourney, CFA

Portfolio Manager – Senior Equity Analyst

Matthew ("Matt") Betourney, CFA, is a Portfolio Manager and Senior Equity Analyst of the Small and SMID Value Products at Channing and has over 13 years of investment experience. Prior to joining the firm, Matt was a Senior Research Analyst at Susquehanna Investment Group based in Chicago. He researched event-driven situations focused in the industrial and materials sectors. Previously Matt was a Senior Research Analyst at Wintrust Capital Management where he researched small-cap equities in the industrial, material and consumer sectors. He also held an equity research position at Magnetar Financial LLC.

Mr. Betourney received his BBA in Finance with an emphasis in Accounting from the University of Iowa and his MBA at the University of Chicago Booth School of Business. He has earned the Chartered Financial Analyst designation.

Biography

Anthony ("Tony") W. Hipple, CFA

Portfolio Manager – Senior Equity Analyst

Anthony ("Tony") W. Hipple, CFA, has more than 22 years of investment experience and is a Portfolio Manager, Senior Equity Analyst for the Channing Small and SMID-Value Products. Prior to joining Channing Capital Management, LLC, Mr. Hipple served as a Portfolio Manager and Senior Equity Analyst covering Technology, and Consumer Discretionary for growth strategies at Lord Abbett & Company and was a portfolio manager for Micro-Cap Growth. Before that, Mr. Hipple served as a Senior Research Analyst at Piper Jaffray Asset Management and Thrivent Investment Management, Inc. covering Technology, Financials, and Consumer Discretionary sectors.

Mr. Hipple received a BA in Business from the University of Northern Iowa, and a MBA from Tippie College of Business at the University of Iowa. He has earned the Chartered Financial Analyst designation.

Biography

Kevin B. Reynolds, CFA

Associate Portfolio Manager – Financial Services Specialist

Kevin B. Reynolds, CFA, is an Associate Portfolio Manager – Financial Services Specialist of the Small and SMID Value Product at Channing Capital Management, LLC. Mr. Reynolds has 20 years of investment experience. Prior to joining the firm, Mr. Reynolds was a Senior Vice President at Wunderlich Securities, Inc., where he researched small and mid-cap Regional and Community Banks. He also held equity research positions at Morgan Keegan & Co., Janney Montgomery Scott and Stanford Group.

Mr. Reynolds received a BBA in finance from Memphis State University (now the University of Memphis) and an MBA from the Fogelman College of Business and Economics, University of Memphis. He has earned the Chartered Financial Analyst designation.

Biography

Derik Coffey, CFA
Client Portfolio Manager

Derik D. Coffey, CFA, is Client Portfolio Manager at Channing Capital Management. Mr. Coffey has over 13 years of investment experience. Prior to joining the firm, he was a Portfolio Specialist at Herndon Capital Management focused on value strategies. Prior to Herndon, Mr. Coffey was an analyst at UBS Financial Services in the Manager Research Group responsible for due diligence on managers primarily in the small and mid-cap space. Before that, he was an Assistant Vice President for M&A at New York Life Insurance, and an analyst in the Global M&A Group at Lehman Brothers.

Mr. Coffey earned a BA from Tuskegee University, and a Master of Science from Georgetown University. He has also earned the Chartered Financial Analyst designation.

Biography

Scott Silver, CAIA, CMT
Head Trader

Scott Silver, CAIA, CMT, brings more than 15 years of investment management experience and serves as Head Trader for Channing Capital Management. Previously, Mr. Silver was a Senior Equity Trader at Columbia Wanger Asset Management where he was responsible for execution of US, European, and Asian equities. Prior to Columbia Wanger, Mr. Silver was at Advisory Research and Segall Bryant & Hamill. In both roles he was an Equity Trader for institutional and separately managed accounts.

Mr. Silver received a BS in Finance from Northern Illinois University. He has earned the Chartered Alternative Analyst (CAIA) and Chartered Market Technician (CMT) designations.

Biography

Alta M. Gorman

Equity Trader & Director, Investment Operations

Alta M. Gorman has more than 23 years of experience in financial services. Prior to joining the firm, Ms. Gorman was Team Leader of Portfolio Accounting with Nuveen Investments where she was responsible for client reporting, trade settlement and reconciliation. Prior to Nuveen Investments, Ms. Gorman worked in commercial lending at Fifth Third Bank, as a funding specialist, helping to mitigate credit and administrative risk to the bank. She began her career in financial services with Brinson Partners.

Ms. Gorman received a Bachelor of Professional Studies in Business from Roosevelt University.

Biography

Richard Turnley

Director, Institutional Sales and Marketing

Richard Turnley, III is the Director of Institutional Sales and Marketing of Channing Capital Management, LLC. Mr. Turnley has over 25 years of investment management experience. Mr. Turnley was formerly President of Atlanta Wealth Advisors. Prior to Atlanta Wealth Advisors, Mr. Turnley was an investment management consultant for Bank of America and Smith Barney, where he was responsible for developing and managing client relationships with endowments, foundations, trusts and high net worth individuals. Prior to his work as an investment management consultant, Mr. Turnley was a corporate banking associate with Wachovia Bank. Mr. Turnley currently serves on the Board of Directors for the National Association of Securities Professionals.

Mr. Turnley received a BS in Business Administration and a MBA from Florida A&M University.

Biography

Anna M. Sprecher
Manager, Client Service

Anne "Anna" Sprecher is Manager of Client Service with Channing Capital Management, LLC. Ms. Sprecher has over 15 years of experience in the financial services industry. Ms. Sprecher was formerly Client Relationship Specialist at Robert W. Baird & Co., where she worked with the Private Asset Management Team focused on families with net worths of $10 million and higher. As a Client Relationship Specialist, Ms. Sprecher's primary responsibilities were client service, trading, reporting, and marketing support services on behalf of the wealth management team. Prior to Baird, Ms. Sprecher also worked in a client service capacity at Wunderlich Securities, and William Blair & Company. Ms. Sprecher began her career at a boutique, sell-side, institutional trading firm, Capital Management Group, LLC.

Ms. Sprecher received a BA from DePaul University and has obtained the Series 7, 24, 55, 63, and 66 licenses.

Biography

Curtis Flippen, CFA

Compliance Consultant - Interim Chief Compliance Officer

Curtis is a Senior Director on Foreside's Investment Adviser Compliance Services team and provides advice and guidance in all aspects of fiduciary and regulatory issues to investment advisers managing private and public funds (i.e., ETFs and mutual funds) and institutional clients including forming investment advisers, advising on issues concerning the need to register with the SEC, SEC registration investment management contracts, reviewing a private fund's term sheet, private placement memorandum, partnership agreement and operating agreement, private fund operations, SEC filings, disclosure requirements and documents, SEC audits, establishing compliance programs, drafting, implementation, and ongoing monitoring of firm's compliance policies, procedures and code of ethics, annual review of the firm's compliance program, and compliance training (annual and targeted). Mr. Flippen has more than 20 years of experience in investment and securities legal and regulatory matters. Prior to joining Foreside, he held various compliance and legal roles.

Curtis earned a JD from Rutgers Law School (NJ) and BS, Hampton University."

For more information, contact:

Richard Turnley, III

Channing Capital Management, LLC
Director of Institutional Sales & Marketing

(312) 223-0211 | channingcapital.com

Lord Abbett Innovation Growth Investing

For the Quarter Ended June 30, 2021

Brooke Fapohunda
Partner, Chief Sustainability Officer

Matthew R. DeCicco, CFA
Partner, Director of Equities & Portfolio Manager

Greg Balewicz
Institutional Director, U.S. Institutional

This presentation has been prepared exclusively for use in a one-on-one meeting with the State of Connecticut Retirement Plans and Trust Funds. It is not intended for, and should not be used with, any other third party or the public.

LORD ABBETT®

Our Firm

LORD ABBETT

A singular focus since 1929

INVESTMENT-LED

- Active management characterized by a deliberate process, teamwork and collaboration
- Rigorous research that challenges consensus and identifies opportunities
- Comprehensive risk management that enhances investment decisions

INVESTOR-FOCUSED

- Perspectives shaped and decisions sharpened by our independence
- Resources dedicated to the markets e serve
- Strategies intelligently designed to meet client needs

About Us

As of June 30, 2021

Independent
privately held firm

Assets under management: approximately

$246 billion*

164

investment professionals with an average of **18 years of industry experience**

What Guides Us

MISSION

Securing a sustainable future for our clients, our people, and our world

We Invest for Our Clients: Supporting values, making an impact, and seeking to provide financial security.

We Empower Our People: Building meaningful careers, enhancing well-being, and creating an equitable environment for all.

We Engage Our World: Advancing our local communities, taking a stand on global issues, and driving change to benefit our planet.

*Includes approximately $1.2 billion for which Lord Abbett provides investment models to managed account sponsors.

Our Investment Teams

Douglas B. Sieg
Managing Partner

Fixed Income

Robert A. Lee
Partner & Co-Head

Steven F. Rocco, CFA
Partner & Co-Head

Quantitative Research

Marc Pavese, Ph.D.
Partner & Director

Global Trading

Andrew M. Khatri
Partner & Director

ESG Investing

Emanuela Scura
Partner & Head
of ESG Investment

Global Credit Research

Gregory S. Parker, CFA
Partner & Director

Portfolio Management

Investment Stewardship Council

Tax-Free Income

Dan S. Solender, CFA
Partner &
Director

Portfolio Management

Municipal Research

Equity

Matthew R. DeCicco, CFA
Partner & Director of Equities

Darnell C. Azeez, CFA
Managing Director &
Portfolio Manager
Dividends & Value

Jeffrey Rabinowitz, CFA
Portfolio Manager
Durable Growth

Sue Kim
Director
Global

Portfolio Management

Equity Research

Innovation Equity

F. Thomas O'Halloran, J.D., CFA
Partner &
Portfolio Manager

Portfolio Management

164 Investment Professionals with an Average of 18 Years Industry Experience

As of 06/30/2021.

Our Assets and Investment Strategies

$246 BILLION IN ASSETS UNDER MANAGEMENT

Including over $752 million from current and former partners, employees, and their families

U.S. Equity

- Large Value
- Focused Large Value
- Mid Value
- Smid Value
- Small Value
- Focused Small Value
- Multi Value
- Small Core
- Large Growth
- Focused Growth
- Mid Growth
- Small Growth
- Micro Growth
- Convertible
- Equity Income
- Dividend Growth

Global and International Equity

- International Equity
- International Value
- International Small Core
- Global Equity
- Health Care

Tax-Free Fixed Income

- Short
- Short Duration High Yield
- Intermediate
- Long
- High Yield
- State Specific (CA, NY, NJ)

Taxable Fixed Income

- Ultra Short Bond
- Short Credit
- Intermediate Government/Credit
- Government
- Core
- Core Plus
- Climate Focused
- Inflation Focused
- Corporate Credit
- Bank Loan
- Multi-Sector
- Global Multi-Sector
- EM Corporate Debt
- EM Bond
- Long Duration
- Short Duration High Yield
- High Yield
- Global High Yield
- Credit Opportunities

Note: Assets under management data is as of 06/30/2021 unless noted and includes approximately $1.2 billion for which Lord Abbett provides investment models to managed account sponsors.

Lord Abbett's Innovation Growth Equity Franchise

$16.4 BILLION IN ASSETS UNDER MANAGEMENT

Have been managing growth equity portfolios since 1973

	3 Years	% Rank	5 Years	% Rank	10 Years	% Rank
Growth Equity Institutional Composite (Gross of Fees)	30.52%	**5**	28.14%	**7**	19.74%	**5**
Focused Growth Equity Institutional Composite (Gross of Fees)	33.24%	**2**	-	-	-	-
Small Cap Growth Equity Institutional Composite (Gross of Fees)	27.80%	**14**	29.30%	**13**	17.47%	**21**
Micro Cap Growth Equity Institutional Composite (Gross of Fees)	34.06%	**21**	36.15%	**15**	22.99%	**17**

Past performance is not a reliable indicator or guarantee of future results. The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of any applicable transaction costs. Please refer to the End Notes to Performance in the Appendix for additional performance information, including the effect of fees on performance. For the 3-, 5-, and 10 year periods: Large Cap Growth Universe consisting of 306, 286, and 256 managers, Small Cap Growth Universe consisting of 183, 175, and 156 managers, and Micro Cap Growth Universe consisting of 15, 14, and 13 managers. Source: eVestment. Assets under management and performance information as of 06/30/2020. Most recent data available.

Innovation Growth Equity Team and Investment Philosophy

Deep, Experienced Investment Platform and Resources

Portfolio Management – Small Cap Growth

F. Thomas O'Halloran, J.D., CFA
Partner & Portfolio Manager
34 Years

Matthew R. DeCicco, CFA
Partner, Director of Equities & Portfolio Manager
22 Years

Vernon Bice, CMT
Portfolio Manager
20 Years

Benjamin Ebel
Portfolio Manager
Technology, Telecomm
29 Years

Research

Steven Wortman
Consumer, Industrials, Financials
Portfolio Manager – Micro Cap
23 Years

Samantha Shevins
Health Care
21 Years

So Young Lee
Consumer Staples, Health Care
21 Years

Michael J. Glaccum, CFA
Consumer, Technology
13 Years

Convertibles

Alan R. Kurtz
Portfolio Manager
21 Years

Jeremy Lehmann, CFA
Portfolio Manager
9 Years

Equity Resources	Risk Management	Equity Trading	Investment Strategist
40 Additional Investment Professionals 21 Years Average	**Alec I. Crawford** Partner & Chief Investment Risk Officer 33 Years **4 Risk Management Professionals** 14 Years Average	**Andrew M. Khatri** Partner & Director of Global Trading 19 Years **6 Equity Traders** 29 Years Average	**Brian Foerster, CFA** Investment Strategist 26 Years

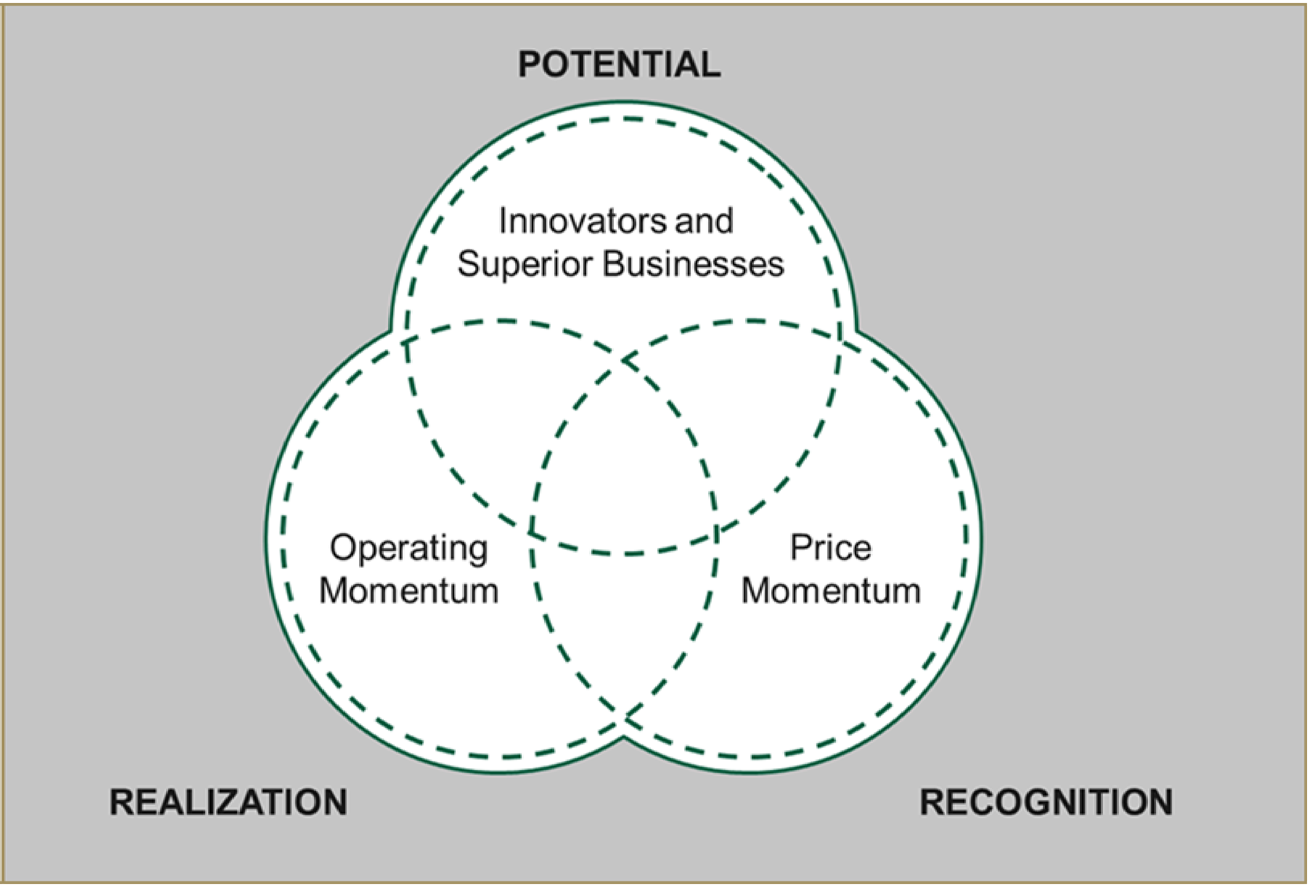
As of 07/01/2021. Years of industry experience is updated as of 01/01/2021.

A Differentiated Approach to Growth and Innovation

As investors focused on identifying powerful themes and innovative companies, we believe a highly active approach is critical to success

Our investment process requires a focus on:

- Companies with high **potential**: Innovators and superior businesses
- Proof that there is emerging **realization** of that potential, ie, quantifiable operating momentum
- **Recognition** of a company's execution through stock price momentum



1. Focus on identifying companies that will **take market share aggressively**
2. Identify companies with **significant investment in R&D and future growth potential**
3. Apply an **active approach** to capture upside and limit downside

Characteristics of Innovators and Superior Businesses

Exceptional Business Models

- Strong profit margins and improving profitability
- Scalable, ideally with a singular focus
- Sustainable businesses may be more valuable

Competent and Credible Management

- Possessing requisite expertise and skill
- Track record of meeting/beating expectations
- Visionary and passionate about the business

Sustainable Competitive Advantages

- Rapidly attaining and maintaining dominance
- Strong market share growth
- Agile business that can adapt to change

Favorable Industry Conditions

- Healthy industry conditions supportive of growth
- Improving economic, regulatory, or environmental conditions
- Open-ended growth potential

Operating Momentum

We seek companies realizing fundamental (operating) momentum, defining them as growth leaders in their industries

Operating Momentum is characterized by companies exhibiting:

High Revenue Growth

- Revenue growth persisting at a higher-than-forecasted rate
- Accelerating revenue, where possible

Margin Strength

- High gross margins
- Positive trend towards profitability, while still reinvesting in growth

Growth Drivers Exceeding Expectations

- Significant increase in total addressable market (TAM)
- Highest-growth business line responsible for an increasing percentage of total revenues

Positive Sales and Earnings Estimate Revisions

- Recent history of beating top-line revenue expectations
- A pattern of upside revisions following earnings data or fundamental news

Price Momentum

Our differentiated momentum analysis is based on quantitative analytics, and seeks to amplify returns and manage risk

We view momentum as multi-dimensional, and when evaluating investments consider both Absolute and Relative momentum at the market, sector, and stock level

- Absolute price momentum: how a given stock is behaving compared to its own history
- Relative price momentum: how a given stock is behaving compared to all other stocks

Our momentum/technical analysis is underpinned by the fundamental context provided by our research and incorporates

- Tools to identify “early warning” signs for price momentum shifts
- Moving average analytics, relative strength, and price/volume metrics
- An assessment of a stock’s reaction to fundamental news and changes in market expectations

Sell Discipline

Securities are continuously monitored and evaluated for sale when:

Operating Momentum Changes

- Business model worsens
- Management's execution falters
- Industry conditions turn hostile
- Competitive advantage deteriorates
- Growth decelerates too much

Price Momentum Changes

- Relative and/or absolute momentum becomes unattractive
- Technical breakdown through key moving averages
- Sentiment changes due to market conditions

Diversification

- Trim positions in names and/or sectors to maintain optimal active exposures and prudent diversification

Small Cap Growth Strategy

Portfolio Characteristics

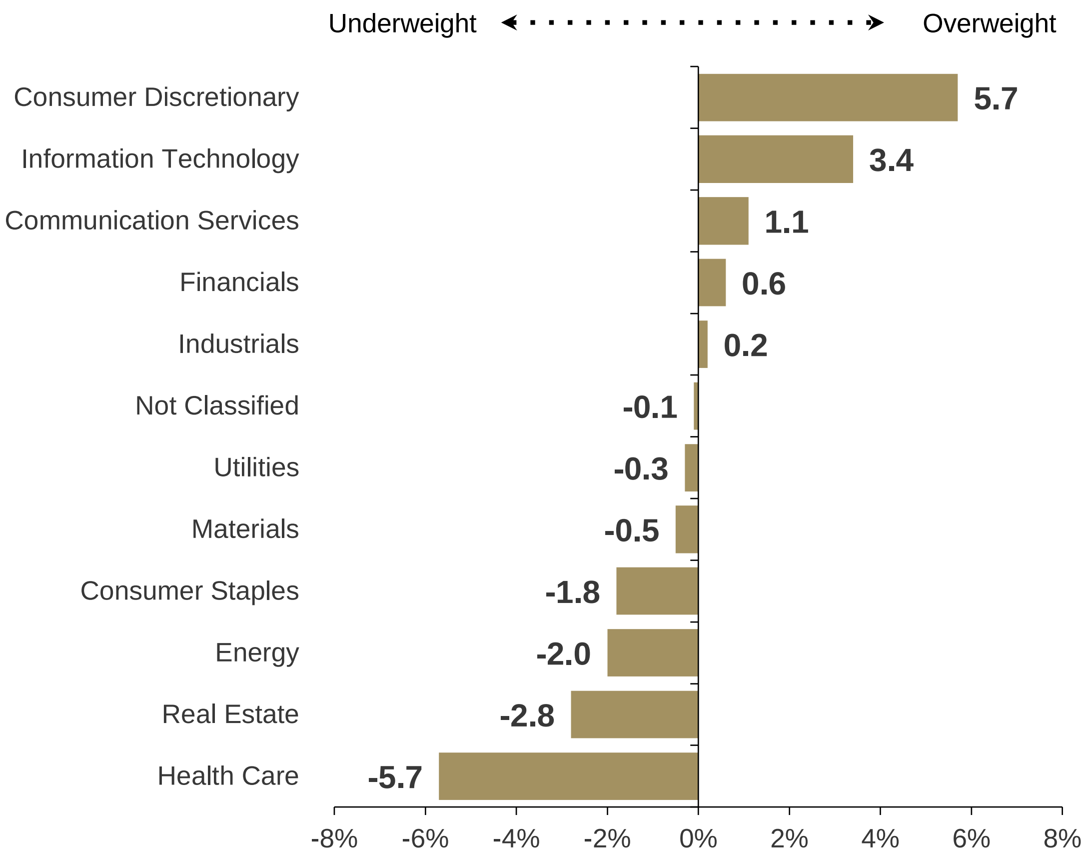
(AS OF 06/30/2021)

	Small Cap Growth Representative Portfolio	Russell 2000® Growth Index
Number of Holdings	100	1,175
Sales/Share Growth FY1	12.0%	2.3%
Long Term Growth *(IBES Median)*	21.2%	17.6%
Debt/Capital	34.0%	43.7%
Price/Earnings FY1	27.1x	22.7x
Median Market Capitalization *($M)*	$5,289	$1,523
Weighted Average Market Capitalization *($M)*	$6,305	$3,817
3 Year Tracking Error	11.2%	N/A
3 Year Information Ratio	1.0	N/A

The characteristics above, with the exception of Number of Holdings, are based upon a weighted average of the securities held in the representative portfolio. Source: The Bank of New York Mellon Corp. **Past performance is not a reliable indicator or guarantee of future results.** Current forecasts may not be achieved. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for investment.

Sector Allocation

(AS OF 06/30/2021)

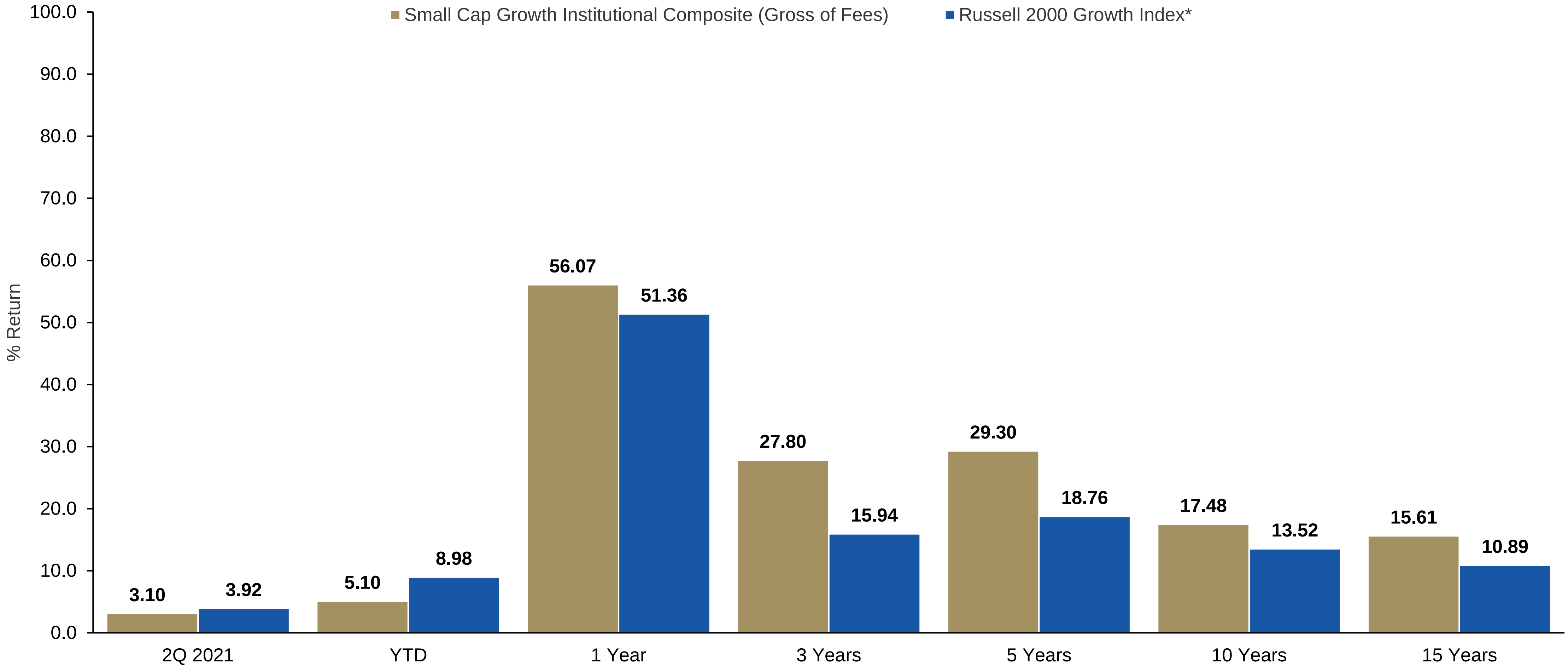


Small Cap Growth Representative Portfolio	Russell 2000® Growth Index
20.9%	15.2%
24.7%	21.3%
4.1%	3.0%
5.5%	4.9%
13.6%	13.4%
0.0%	0.1%
0.0%	0.3%
2.5%	3.0%
1.8%	3.6%
0.0%	2.0%
0.0%	2.8%
24.7%	30.4%

Source: Wilshire Atlas℠ ("Wilshire"). Please see Appendix for information "About Wilshire," including information about Not Classified securities. Sectors are based upon GICS classifications; sectors may include many industries. Sector allocations exclude cash and therefore total allocations may not equal 100%. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for investment.

Average Annual Rates of Return

(AS OF 06/30/2021)



Past performance is not a reliable indicator or guarantee of future results. The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of transaction costs. Please refer to the End Notes to Performance in the Appendix for additional performance information, including the effect of fees on performance. Returns for periods of less than one year are not annualized.*Source: Russell. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for investment.

Attribution Analysis: Five Year

(AS OF 06/30/2021)

	Small Cap Growth Representative Portfolio		Russell 2000® Growth Index		Variance		
Sectors*	**Average Weight %**	**Base Return %**	**Average Weight %**	**Base Return %**	**Stock Selection %**	**Group Weight %**	**Total %**
Information Technology	29.3	43.0	21.4	25.9	4.3	0.4	4.7
Health Care	26.0	40.0	27.4	21.8	3.9	-0.2	3.8
Consumer Discretionary	16.8	27.3	13.9	18.8	0.9	0.1	1.0
Real Estate	0.5	26.0	3.8	9.5	0.5	0.2	0.7
Consumer Staples	1.7	15.6	3.0	13.6	0.3	-0.1	0.2
Financials	6.3	20.1	5.9	14.2	0.0	0.1	0.1
Utilities	0.1	-2.1	1.0	10.2	0.0	0.1	0.1
Energy	1.1	2.2	1.0	-10.0	0.2	-0.1	0.1
Not Classified	0.0	40.0	0.0	-2.4	0.0	0.0	0.0
Industrials	13.1	17.5	16.9	17.6	0.1	-0.1	-0.1
Materials	1.3	3.7	3.8	10.8	-0.4	0.2	-0.1
Communication Services	1.1	-5.5	1.9	12.3	-0.3	0.1	-0.1
Cash	2.6	1.2	0.0	0.0	0.0	-0.6	-0.6
Total	**100.0**	**28.6**	**100.0**	**18.8**	**9.6**	**0.3**	**9.9**

Source: Wilshire Atlas℠ (“Wilshire”). Performance data shown above is historical. **Past performance is not a reliable indicator or guarantee of future results.** Current performance may be higher or lower than the performance data shown. Please see Appendix for information “About Wilshire” and the calculation of performance attribution information, including information about Not Classified securities. *GICS Sectors. Sectors may include many industries. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. Prior to August 2016, GICS included Real Estate holdings within the Financials sector. In September 2018 GICS changed the name of the Telecom sector to Communication Services. In addition to the name change, certain companies that were previously included in the Information Technology and Consumer Discretionary sectors are now included in the Communication Services sector.

Performance Highlights: Five Year

(AS OF 06/30/2021)

Largest Contributors	Ticker	% Stock Selection
Generac Holdings, Inc. Industrials	GNRC	8.37
Five9, Inc. Information Technology	FIVN	6.90
Chegg, Inc. Consumer Discretionary	CHGG	6.87
Immunomedics, Inc. Health Care	IMMU	5.85
Roku Inc Communications	ROKU	5.78

Largest Detractors	Ticker	% Stock Selection
Overstock.com Inc Consumer Discretionary	OSTK	-3.43
Stamps.com Inc Information Technology	STMP	-3.18
Stitch Fix Inc Consumer Discretionary	SFIX	-3.16
The Realreal Inc Consumer Discretionary	REAL	-3.02
Sunrun, Inc. Industrials	RUN	-2.94

Holdings are based on the strategy's representative portfolio. "Stock Selection %" reflects the effect of the individual stock's performance relative to its benchmark, the Russell 2000 Growth Index. **Past performance is not a reliable indicator or guarantee of future results.** The holdings identified above do not represent all of the securities purchased, sold, or recommended for advisory clients. The calculation methodology for determining the holdings that contributed most positively and negatively to the representative portfolio's performance relative to the benchmark for the period as well as a list of the relative contribution of each holding in the portfolio to the portfolio's performance are available upon request. Sector information for each holding is based upon GICS classifications.

Investing in Innovation

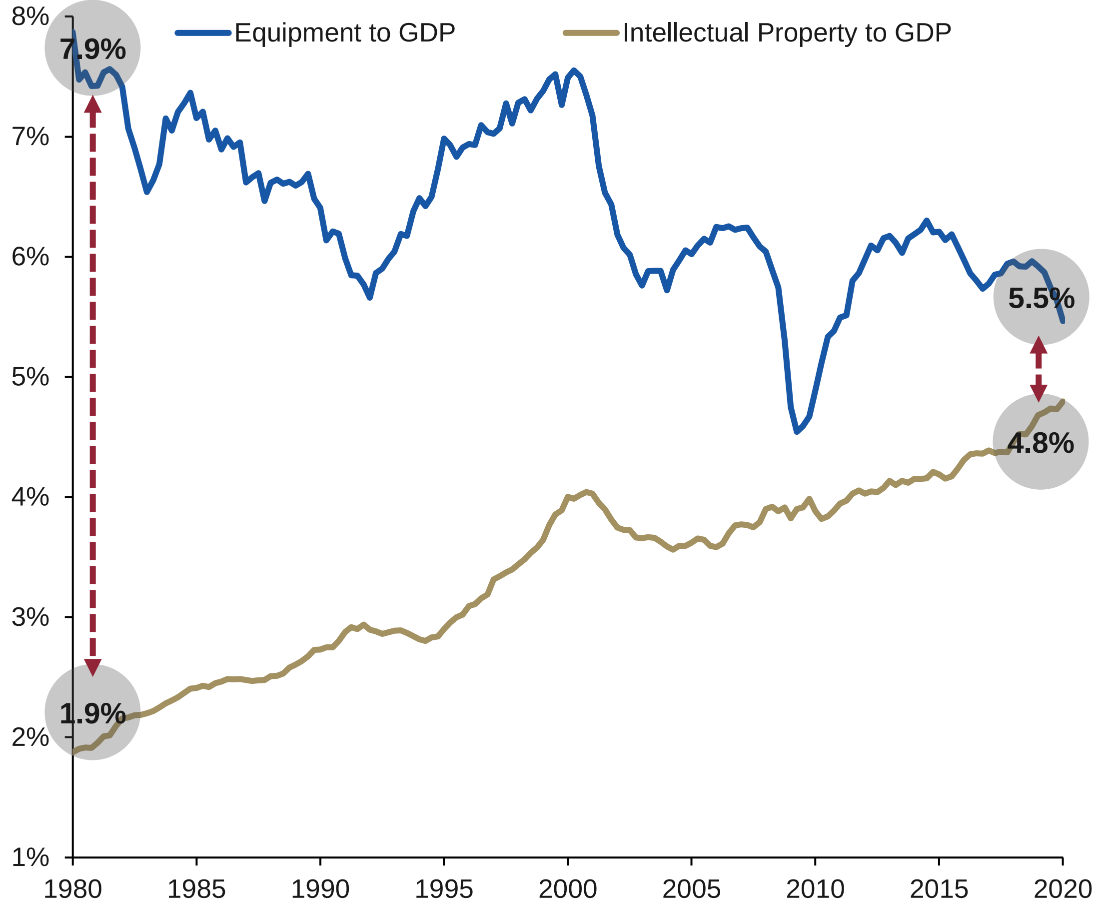
Equity Market Dynamics: Beyond Growth and Value

Classifying equities into three types

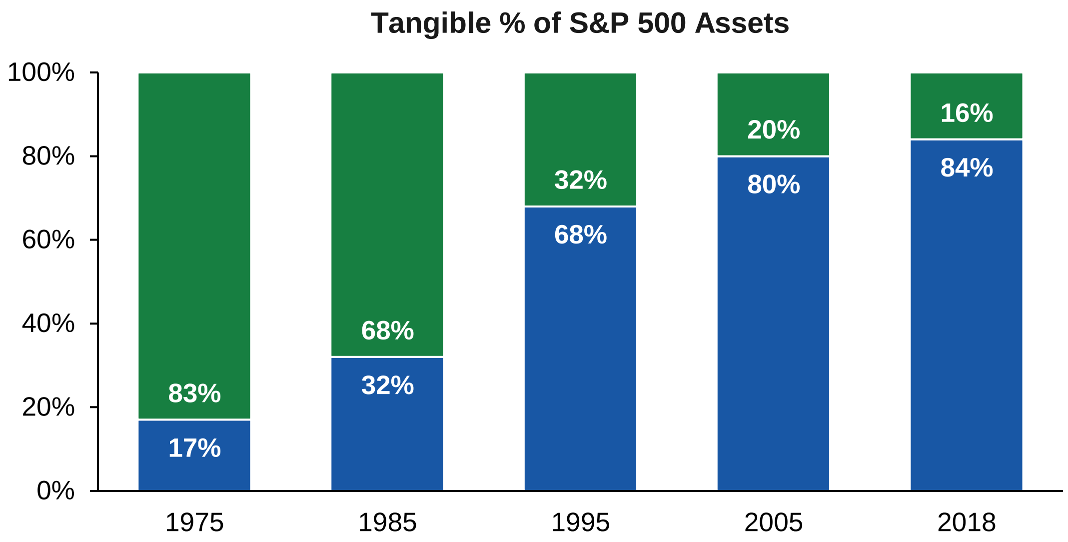
Innovation	Vulnerability	Durability
Companies pioneering and leveraging new technologies to grow market share	Companies poorly positioned to withstand the threat of innovation	Companies well positioned to adapt and protect their cash flows and market share

Transformation of Capital Intensity from Physical to Intellectual

PHYSICAL EQUIPMENT VS. INTELLECTUAL PROPERTY
40 YEAR TRANSFORMATION



ASSET INTENSITY HAS SHIFTED DRAMATICALLY TOWARDS INTANGIBLES

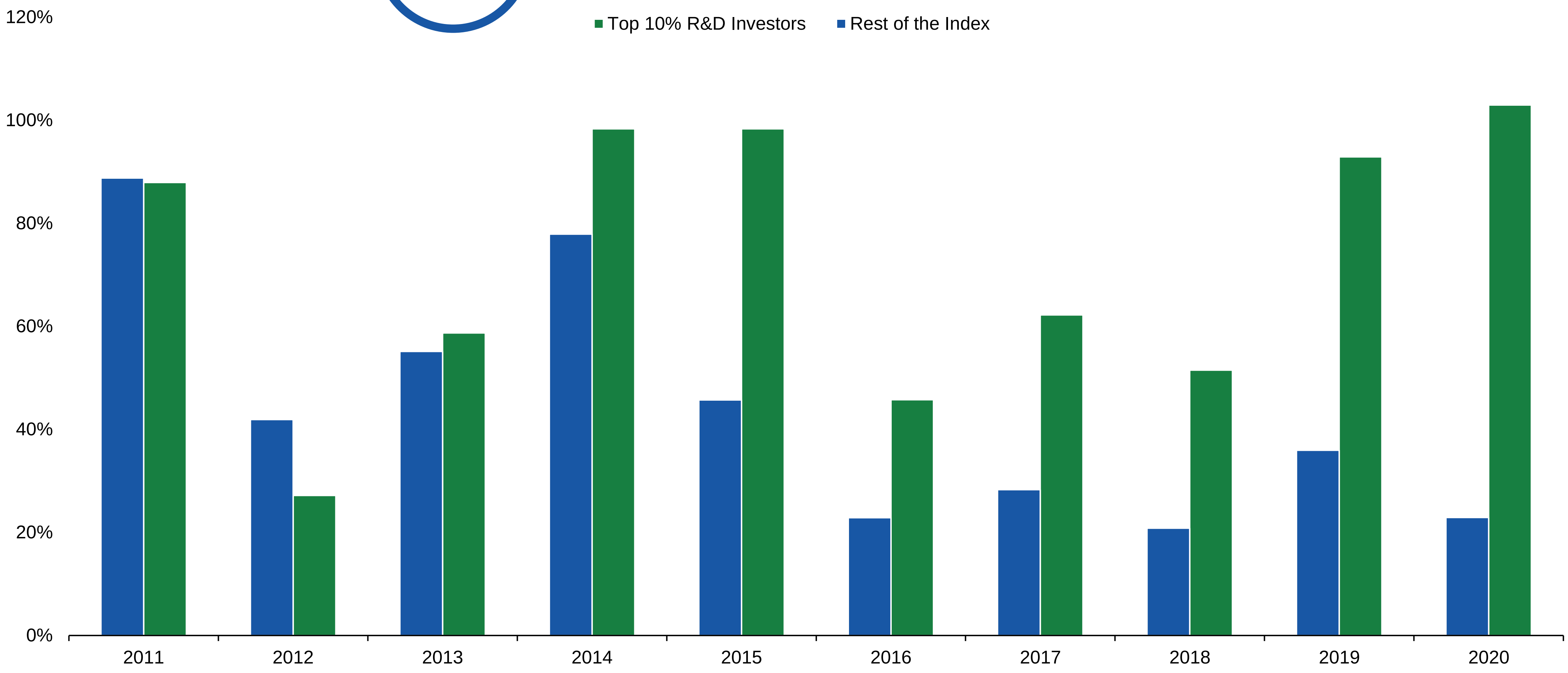


Intangible % of S&P 500 Assets

Sources: Left chart: Bloomberg. Data as of 03/31/2020. Right charts: BofA Research, The RIC Report, September 8, 2020, “The Secret Life of Value”

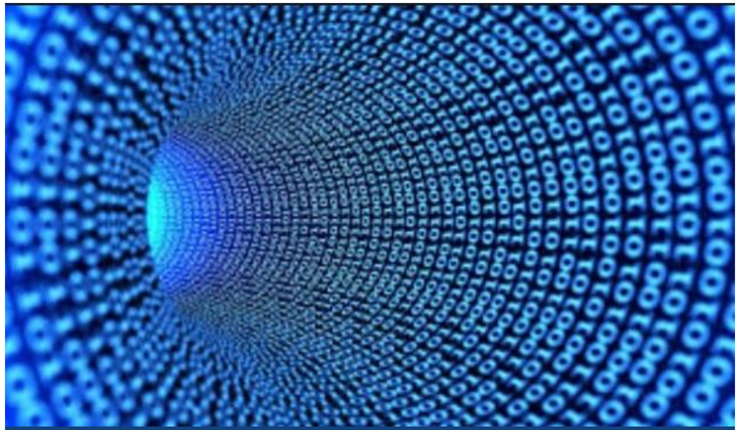
R&D Intensity: A Key Factor in Market Returns Over the Past 10 Years

Innovators outperformed by **29%** on average in the last 10 years



Source: FactSet. Data as of 12/31/2020, most recent available. Innovative companies are derived from the top-decile investor in R&D by intensity – defined as R&D investment per total revenues – and the subsequent next three years of investment returns (using the Russell 1000 Index). **Past performance is not a reliable indicator or guarantee of future results.** For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment. Indexes are unmanaged, do not reflect the deduction of fees and expenses, and are not available for direct investment.

Growth Investing in the Age of Innovation

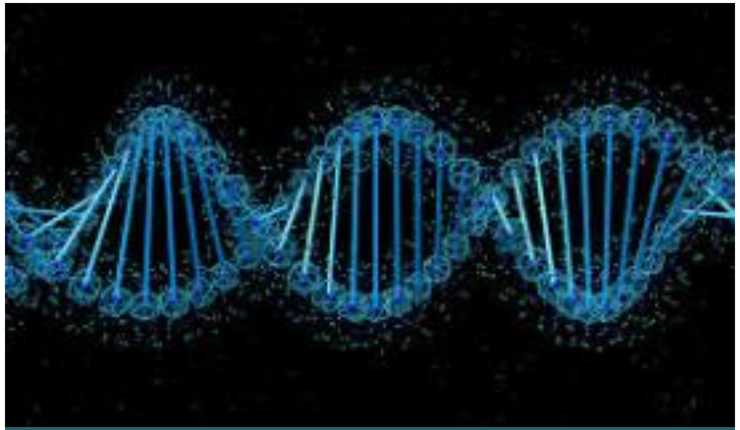


The Technological Revolution

- Cloud Technology
- Artificial Intelligence

EXAMPLES

- Cloud infrastructure
- Internet software
- Autonomous driving
- Digital advertising
- Intelligent robotics



The Genomics Revolution

- Biotechnology
- Devices and Diagnostics

EXAMPLES

- Gene therapy and editing
- Immunotherapy
- Diabetes monitoring
- Cancer diagnostics
- Targeted oncology therapies

Empowerment of the Consumer & Brands

- e-Commerce & Life Brands
- Virtual Empowerment

EXAMPLES

- e-Commerce dominant leaders
- Lifestyle-enhancing retailers
- Social networking
- Streaming content, delivery
- Remote learning, tutoring

For illustrative purposes only.

Appendix

Lord Abbett Small Cap Growth

(AS OF 06/30/2021)

Small Cap Growth Equity Institutional Composite	3 Years	5 Years	10 Years
Excess Return (Gross of Fees)	11.86%	10.54%	3.95%
Sharpe Ratio	0.97	1.27	0.83
Tracking Error	10.64	9.14	7.81
Batting Average	0.64	0.65	0.57
Up Capture	124%	122%	108%
Down Capture	93%	89%	94%

Small Cap Growth Equity Institutional Composite	3 Years	5 Years	10 Years
Annualized Return (Gross of Fees)	27.80%	29.30%	17.48%
eVestment Category Rank	15	14	22
Information Ratio	1.11	1.15	0.51
eVestment Category Rank	27	22	32

Past performance is not a reliable indicator or guarantee of future results. The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of any applicable transaction costs. Please refer to the End Notes to Performance in the Appendix for additional performance information, including the effect of fees on performance. Statistics are relative to the Russell 2000 Growth Index, where applicable. Number of managers in the eVestment universe for U.S. Small Cap Growth Equity for the 3-, 5-, and 10-year time periods is 171, 163, and 147, respectively.

Ten Largest Representative Portfolio Holdings

(AS OF 06/30/2021)

Company Name	Sector*	% of Portfolio
Crocs Inc	Consumer Discretionary	2.1
Axon Enterprise, Inc.	Industrials	2.0
LGI Homes Inc	Consumer Discretionary	2.0
RH	Consumer Discretionary	1.9
Shift4 Payments Inc	Information Technology	1.9
Bumble Inc	Communication Services	1.8
Axonics Inc	Health Care	1.8
Endava PLC	Information Technology	1.8
Natera Inc	Health Care	1.7
Sonos Inc	Consumer Discretionary	1.7
Total		**18.7%**

The securities identified and described do not represent all of the securities purchased, sold or recommended for client accounts. It should not be assumed that investments in the securities identified were or will be profitable or that recommendations made in the future will be profitable or equal the performance of the securities discussed herein. A complete list of all recommendations made by Lord Abbett over the past year can be furnished upon request. *GICS Sectors.

Attribution Analysis: One Year

(AS OF 06/30/2021)

	Small Cap Growth Representative Portfolio		Russell 2000® Growth Index		Variance		
Sectors*	**Average Weight %**	**Base Return %**	**Average Weight %**	**Base Return %**	**Stock Selection %**	**Group Weight %**	**Total %**
Health Care	30.7	53.7	33.5	38.6	4.9	0.3	5.2
Financials	3.5	112.3	4.1	40.8	1.9	0.4	2.3
Information Technology	26.2	59.5	20.6	53.2	1.6	0.2	1.8
Communication Services	1.8	84.2	2.3	36.7	0.9	0.3	1.2
Utilities	0.0	0.0	1.6	18.5	0.0	0.6	0.6
Real Estate	1.3	25.1	3.6	41.6	0.3	0.2	0.5
Consumer Staples	2.1	75.8	3.1	54.1	0.5	-0.4	0.1
Energy	0.0	0.0	0.2	126.2	0.0	-0.1	-0.1
Materials	0.9	0.9	2.6	53.2	-0.3	-0.2	-0.5
Industrials	11.8	61.1	14.1	67.3	-0.8	-0.5	-1.3
Consumer Discretionary	19.5	58.6	14.2	81.4	-4.3	1.4	-2.9
Cash	2.4	0.1	0.0	0.0	0.0	-1.3	-1.3
Total	**100.0**	**57.0**	**100.0**	**51.4**	**4.7**	**0.9**	**5.6**

Source: Wilshire Atlas℠ ("Wilshire"). Performance data shown above is historical. **Past performance is not a reliable indicator or guarantee of future results.** Current performance may be higher or lower than the performance data shown. Please see Appendix for information "About Wilshire" and the calculation of performance attribution information, including information about Not Classified securities. *GICS Sectors. Sectors may include many industries. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment.

Performance Highlights: One Year

(AS OF 06/30/2021)

Largest Contributors	Ticker	% Stock Selection
Immunomedics, Inc. Health Care	IMMU	2.40
Enphase Energy, Inc. Information Technology	ENPH	1.82
Appian Corp Information Technology	APPN	1.59
Myokardia Inc Health Care	MYOK	1.47
Crocs Inc Consumer Discretionary	CROX	1.47

Largest Detractors	Ticker	% Stock Selection
Sunrun, Inc. Industrials	RUN	-1.31
Overstock.com Inc Consumer Discretionary	OSTK	-1.27
Wingstop Inc Consumer Discretionary	WING	-1.17
Momentive Global Inc Information Technology	60878Y10	-1.14
Stamps.com Inc Consumer Discretionary	STMP	-1.10

Holdings are based on the strategy's representative portfolio. "Stock Selection %" reflects the effect of the individual stock's performance relative to its benchmark, the Russell 2000 Growth Index. **Past performance is not a reliable indicator or guarantee of future results.** The holdings identified above do not represent all of the securities purchased, sold, or recommended for advisory clients. The calculation methodology for determining the holdings that contributed most positively and negatively to the representative portfolio's performance relative to the benchmark for the period as well as a list of the relative contribution of each holding in the portfolio to the portfolio's performance are available upon request. Sector information for each holding is based upon GICS classifications.

Attribution Analysis: Three Year

(AS OF 06/30/2021)

	Small Cap Growth Representative Portfolio		Russell 2000® Growth Index		Variance		
Sectors*	**Average Weight %**	**Base Return %**	**Average Weight %**	**Base Return %**	**Stock Selection %**	**Group Weight %**	**Total %**
Information Technology	28.2	44.4	19.1	23.9	4.9	0.6	5.5
Health Care	29.1	29.4	30.1	16.6	3.6	0.0	3.6
Real Estate	0.7	36.9	3.7	10.8	0.7	0.1	0.8
Consumer Staples	2.5	37.0	3.1	14.7	0.6	-0.2	0.4
Financials	4.3	19.6	5.7	8.7	0.1	0.3	0.4
Energy	0.5	-5.4	0.9	-15.6	0.2	0.2	0.4
Materials	0.3	0.3	3.1	4.2	-0.1	0.3	0.2
Utilities	0.0	0.0	1.2	12.2	0.0	0.2	0.2
Consumer Discretionary	18.3	21.1	13.6	19.2	-0.1	0.2	0.1
Not Classified	0.0	25.0	0.0	0.0	0.0	0.0	0.0
Industrials	11.5	18.4	16.9	17.0	0.1	-0.1	0.0
Communication Services	1.7	-7.6	2.5	7.4	-0.4	0.2	-0.2
Cash	2.9	1.3	0.0	0.0	0.0	-0.7	-0.7
Total	**100.0**	**26.8**	**100.0**	**15.9**	**9.6**	**1.2**	**10.8**

Source: Wilshire Atlas℠ ("Wilshire"). Performance data shown above is historical. **Past performance is not a reliable indicator or guarantee of future results.** Current performance may be higher or lower than the performance data shown. Please see Appendix for information "About Wilshire" and the calculation of performance attribution information, including information about Not Classified securities. *GICS Sectors. Sectors may include many industries. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment.

Performance Highlights: Three Year

(AS OF 06/30/2021)

Largest Contributors	Ticker	% Stock Selection
Generac Holdings, Inc. Industrials	GNRC	4.79
Inphi Corp Information Technology	IPHI	3.25
Five9, Inc. Information Technology	FIVN	3.22
Immunomedics, Inc. Health Care	IMMU	3.16
Redfin Corp Real Estate	RDFN	3.03

Largest Detractors	Ticker	% Stock Selection
Stamps.com Inc Information Technology	STMP	-2.62
Stitch Fix Inc Consumer Discretionary	SFIX	-1.83
The Realreal Inc Consumer Discretionary	REAL	-1.75
Sunrun, Inc. Industrials	RUN	-1.70
Overstock.com Inc Consumer Discretionary	OSTK	-1.65

Holdings are based on the strategy's representative portfolio. "Stock Selection %" reflects the effect of the individual stock's performance relative to its benchmark, the Russell 2000 Growth Index. **Past performance is not a reliable indicator or guarantee of future results.** The holdings identified above do not represent all of the securities purchased, sold, or recommended for advisory clients. The calculation methodology for determining the holdings that contributed most positively and negatively to the representative portfolio's performance relative to the benchmark for the period as well as a list of the relative contribution of each holding in the portfolio to the portfolio's performance are available upon request. Sector information for each holding is based upon GICS classifications.

Attribution Analysis: Ten Year

(AS OF 06/30/2021)

	Small Cap Growth Representative Portfolio		Russell 2000® Growth Index		Variance		
Sectors*	**Average Weight %**	**Base Return %**	**Average Weight %**	**Base Return %**	**Stock Selection %**	**Group Weight %**	**Total %**
Health Care	23.6	27.2	24.9	17.2	2.1	-0.1	2.0
Information Technology	30.0	20.8	22.7	17.6	0.7	0.2	0.9
Financials	7.3	19.0	6.8	12.5	0.3	0.0	0.3
Real Estate	0.2	12.3	1.9	4.7	0.2	0.1	0.3
Energy	2.7	-5.8	2.8	-12.4	0.1	0.1	0.2
Materials	1.3	-16.3	4.2	5.9	-0.2	0.3	0.1
Utilities	0.1	1.9	0.6	7.6	0.0	0.0	0.1
Not Classified	0.0	75.3	0.0	-4.7	0.1	0.0	0.1
Consumer Staples	2.6	14.4	3.6	14.1	0.1	0.0	0.0
Consumer Discretionary	15.8	12.8	15.0	12.7	-0.1	0.1	0.0
Communication Services	0.6	-2.0	1.4	13.0	-0.1	0.0	-0.1
Industrials	13.1	10.8	16.1	13.0	-0.1	-0.1	-0.1
Cash	2.7	0.7	0.0	0.0	0.0	-0.4	-0.4
Total	**100.0**	**16.9**	**100.0**	**13.5**	**3.1**	**0.3**	**3.4**

Source: Wilshire Atlas[SM] ("Wilshire"). Performance data shown above is historical. **Past performance is not a reliable indicator or guarantee of future results.** Current performance may be higher or lower than the performance data shown. Please see Appendix for information "About Wilshire" and the calculation of performance attribution information, including information about Not Classified securities. *GICS Sectors. Sectors may include many industries. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. Prior to August 2016, GICS included Real Estate holdings within the Financials sector. In September 2018 GICS changed the name of the Telecom sector to Communication Services. In addition to the name change, certain companies that were previously included in the Information Technology and Consumer Discretionary sectors are now included in the Communication Services sector.

Performance Highlights: Ten Year

(AS OF 06/30/2021)

Largest Contributors	Ticker	% Stock Selection
Generac Holdings, Inc. Industrials	GNRC	10.26
Five9, Inc. Information Technology	FIVN	9.39
Chegg, Inc. Consumer Discretionary	CHGG	8.90
Immunomedics, Inc. Health Care	IMMU	7.92
Roku Inc Communications	ROKU	7.83

Largest Detractors	Ticker	% Stock Selection
Stamps.com Inc Information Technology	STMP	-5.11
Overstock.com Inc Consumer Discretionary	OSTK	-4.65
Stitch Fix Inc Consumer Discretionary	SFIX	-4.28
The Realreal Inc Consumer Discretionary	REAL	-4.08
Sunrun, Inc. Industrials	RUN	-3.98

Holdings are based on the strategy's representative portfolio. "Stock Selection %" reflects the effect of the individual stock's performance relative to its benchmark, the Russell 2000 Growth Index. **Past performance is not a reliable indicator or guarantee of future results.** The holdings identified above do not represent all of the securities purchased, sold, or recommended for advisory clients. The calculation methodology for determining the holdings that contributed most positively and negatively to the representative portfolio's performance relative to the benchmark for the period as well as a list of the relative contribution of each holding in the portfolio to the portfolio's performance are available upon request. Sector information for each holding is based upon GICS classifications.

Strengthening Our Commitment

We are making our firm more inclusive

ROBIN HOOD

NINETY TO ZERO

HUMAN RIGHTS CAMPAIGN FOUNDATION
BEST PLACES TO WORK
2021 for LGBTQ Equality
100% CORPORATE EQUALITY INDEX

INCREASING REPRESENTATION OF WOMEN AT SENIOR LEVELS

We have increased the representation of women at senior levels across the organization through hiring and promoting within the firm. Currently, the roles of Chief Financial Officer, Chief Impact Officer, Chief Risk Officer, and Chief Sustainability Officer are all held by women. They, along with other senior women leaders, hold approximately 40% of the seats on our five leadership and governance committees – including the Executive Committee, Global Corporate Citizenship Committee, Investment Committee, Leader Development Committee, and Partnership Committee. These critical committees provide strategic direction, enhance our agility, optimize our impact, and position us for the future.

GALVANIZING UNDERREPRESENTED TALENT COMMUNITIES

We have deepened sense of belonging, inspired allyship, and raised awareness of the experience of underrepresented talent by building underrepresented talent networks. These networks sponsor meaningful educational and philanthropic initiatives throughout the year, with a special focus on the relevant community during Black History Month, Women's History Month, Asian Pacific Heritage Month, LGBTQ+ Pride Month, Hispanic Heritage Month, and Disability Employment Awareness Month.

USING OUR VOICE TO DRIVE EQUALITY

In July 2019, Lord Abbett joined more than 200 businesses through the Human Rights Campaign in signing an amicus brief filed with the U.S. Supreme Court in support of workplace equality for LGBTQ+ workers and in June of 2020, signed onto the HRC's Business Coalition for Equality Act. In October 2020, Lord Abbett wrote a letter to the U.S. Securities and Exchange Commission in full support of the NASDAQ's recent stand for enhancing diversity among listed companies.

ELEVATING OUR FOCUS ON SOCIAL JUSTICE & RACIAL EQUITY

To provide a forum for addressing the issues of social justice that intensified in 2020, we established an insightful and inspiring series of leadership conversations on equity with a range of distinguished speakers. Guest speakers have included Wes Moore, former CEO of the Robin Hood Foundation, Julie Hill, member of the Board of Directors of the Lord Abbett Family of Funds, L. Song Richardson, Dean and Chancellor's Professor of the UC Irvine School of Law, Adena Friedman, President and CEO of Nasdaq; and Dr. Michael L. Lomax, President and CEO of UNCF.

EXPANDING OUR INCLUSION CURRICULUM

We sponsor a "Breaking Bias" training series firmwide to educate our people on bias in the workplace and ways to mitigate its potential impact across our core talent processes and in our culture. This important effort includes specialized sessions for people leaders and dedicated training on LGBTQ+ allyship via PFLAG's Straight for Equality in the Workplace training. These ongoing initiatives comprise an expanded inclusion curriculum that includes respectful workplace training.

PARTNERING TO CLOSE THE RACIAL WEALTH IN AMERICA

In April 2021, Lord Abbett announced a new partnership with the Robin Hood Foundation and nine other leading organizations from across business, nonprofit, philanthropy, and academia to launch NinetyToZero, an initiative formed to address the 90% racial wealth gap between White and Black Americans. NinetyToZero seeks to bring deliberate, collective action to ensure that all Americans have opportunities to thrive. As a founding partner of NinetyToZero, we have committed to move on a set of economic levers designed to grow our Black talent pipeline and direct capital and activity to Black-owned and Black-led businesses.

Enriching the Diversity of Our Talent Pipeline

We are ensuring that each generation is more diverse than the last

Achieving Diversity in Senior Leadership	Strengthening Diversity at All Levels	Increasing Generational Diversity
▪ Women and/or people of color represent 60% of the independent members of the Board of Directors/ Trustees of the Lord Abbett Funds ▪ Women hold 40% of the seats on our five governance committees ▪ Our five-year plan includes a goal to achieve 30% diversity among Partners and Managing Directors, and 28% of Partners and Managing Directors are diverse today	▪ Women represent 33% of the firm and 43% of all new hires since April 2018 ▪ Diverse talent represents 48% of the firm and 55% of all new hires since April 2018	▪ Millennials and Gen Z represent 50% of the firm ▪ Gen X represents 43% of the firm ▪ Baby Boomers represent 7% of the firm

Biographies

Brooke A. Fapohunda

Partner, Chief Sustainability Officer

Brooke Fapohunda is Lord Abbett's Chief Sustainability Officer. She leads the firm's efforts to drive sustainable and equitable growth for stakeholders worldwide. In this role, she collaborates with investment professionals on ESG investing, advances sustainability across all other aspects of the firm's business, and leads the firm's Community Relations and Inclusion & Diversity teams. She also is a member of the Executive Committee and Global Corporate Citizenship Committee and co-chairs the Leader Development Committee and Investment Stewardship Council.

Ms. Fapohunda joined Lord Abbett in 2006 and was named Partner in 2017. Prior to her current role, she served as Head of Human Capital Management and was responsible for aligning leadership, culture, and talent initiatives with the firm's strategy. Prior to that, she served as Deputy General Counsel for the firm's U.S. retail business. Her previous experience includes serving as Vice President and Counsel in the asset management division of Credit Suisse and Associate at law firms Willkie Farr & Gallagher LLP and K&L Gates LLP. She has worked in the financial services industry since 2002.

Ms. Fapohunda earned an AB from Princeton University and a JD from Columbia University.

Biographies

Matthew R. DeCicco, CFA

Partner & Director of Equities

Matthew DeCicco is responsible for directing Lord Abbett's equity investment activities, including portfolio management and equity research. He also is a portfolio manager on the Innovation Growth Equity team and is responsible for contributing to the management of the firm's micro cap growth, small cap growth, and large cap growth equity strategies. In addition, Mr. DeCicco serves on the Investment Committee, which is responsible for leading Lord Abbett's investment organization. He also is a member of the Investment Stewardship Council.

Mr. DeCicco joined Lord Abbett in 1999 and was named Partner in 2020. Prior to his current role, he served as Associate Analyst and was promoted to Research Analyst for the small cap growth team. He has worked in the financial services industry since 1999.

He earned a BS in business administration and economics from the University of Richmond's Robins School of Business and an MS in biotechnology from Johns Hopkins University. He also is a holder of the Chartered Financial Analyst® (CFA) designation.

Biographies

Gregory Balewicz

Institutional Director

Gregory Balewicz is responsible for working with institutional investors across a range of segments, including corporate, public, insurance, health care, endowments and foundations. In this role, he provides the professional investor with market perspectives, new investment ideas, in-depth portfolio reviews, and access to the full breadth of Lord Abbett's resources.

Mr. Balewicz joined Lord Abbett in 2017. His prior experience includes serving in various roles at State Street; most recently he was a Vice President in the Institutional Client Group. Earlier in his career, he worked in the Defined Contribution Group at Putnam Investments. He began his career in the financial services industry in 1996.

He earned a BA from Framingham State University.

Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
F. Thomas O'Halloran, J.D., CFA*	Portfolio Manager	34	20	Dillon, Read, & Co.; Trial Attorney	AB, Bowdoin College; JD, Boston College; MBA, Columbia University
Matthew R. DeCicco, CFA*	Portfolio Manager & Director of Equities	22	22	N/A	BS, University of Richmond; MS, Johns Hopkins University
Vernon Bice, CMT	Portfolio Manager	20	10	UBS; BNY Institutional Asset Management; Bank of America	BS, The Ohio State University
Benjamin Ebel	Portfolio Manager	29	16	Dreyfus; Invesco; Armen Partners, LP	BA, Brandeis University; MS, University of North Carolina
Steven Wortman	Portfolio Manager	23	15**	Greenhouse Funds; Babson Capital Management; Wynnefield Capital	BS, University of Florida
So Young Lee	Research Analyst	21	8	SunTrust Robinson Humphrey; AllianceBernstein; Credit Suisse First Boston; Ernst & Young LLP	MBA, University of Chicago; BA, Wellesley

As of 04/12/2021. *Partner of Lord Abbett. **Years at Lord Abbett includes 2005– 2014 and 2016-present. Years of industry experience is updated as of 01/01/2021.

Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
Samantha Shevins	Research Analyst	21	4	Visium Asset Management; Trellus Capital Management; Lehman Brothers	BS, University of Pennsylvania
Michael J. Glaccum, CFA	Research Analyst	13	6***	Fiera Capital Inc.	BS, Georgetown University
Alan R. Kurtz	Portfolio Manager	21	21	N/A	BA, Hartwick College; MBA, New York University
Jeremy Lehmann, CFA	Portfolio Manager	9	9	N/A	BA, Columbia University
Alec I. Crawford*	Chief Investment Risk Officer	33	9	Ziff Brothers Investments; RBS Greenwich Capital; Deutsche Bank Securities	AB, Harvard College
Andrew M. Khatri*	Director of Global Trading	19	10	MarketAxess; Citigroup Global Markets Inc.; Wellington Management Company, LLP	BS, Boston College
Brian Foerster, CFA	Investment Strategist	26	9	Invesco; ING Investment Management	BA, Boston College

As of 04/12/2021. *Partner of Lord Abbett. ***Years at Lord Abbett includes 2008– 2011 and 2018-present. Years of industry experience is updated as of 01/01/2021.

End Notes to Performance

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) **Small Cap Growth Equity Institutional Composite**. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in small-capitalization equity securities that Lord Abbett deems to have long-term growth potential. Effective January 2018, accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Prior to January 2018, other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th day of the month were included in the Composite effective the first day of the second following month and accounts opened/funded after 15th of the month were included effective on the first day of the third following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with the applicable objectives, guidelines and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created in 1999 and incepted in 1987. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC ("Lord Abbett"). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts ("Wrap Fee/SMA Portfolios") managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total "firm" assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

Calendar Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
# of Portfolios	11	13	13	14	17	19	19	19	17	17
Total Assets ($M)	$5,115	$2,498	$2,139	$2,574	$2,929	$4,022	$4,785	$4,567	$2,872	$2,645
Percentage of Firm Assets	2.30%	1.22%	1.33%	1.65%	2.18%	3.24%	3.52%	3.36%	2.20%	2.50%
Total Firm Assets ($M)	$222,535	$204,031	$161,055	$156,110	$134,565	$124,007	$135,945	$135,786	$127,753	$107,449
Dispersion	0.33	0.27	0.53	0.26	0.19	0.13	0.21	0.29	0.10	0.15
Lord Abbett Small Cap Growth Equity Institutional Composite Gross (Annual)	74.30%	33.06%	6.04%	31.13%	-1.72%	-8.00%	4.33%	58.82%	11.60%	-0.62%
Lord Abbett Small Cap Growth Equity Institutional Composite Gross (3 year Annualized Return)	34.98%	22.76%	10.97%	5.84%	-1.93%	15.10%	22.74%	20.76%	15.30%	26.90%
Lord Abbett Small Cap Growth Equity Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation)	26.64%	20.19%	18.79%	15.78%	18.06%	16.94%	15.19%	17.01%	19.83%	22.82%
Lord Abbett Small Cap Growth Equity Institutional Composite Net (Annual)	72.75%	31.91%	5.12%	29.95%	-2.60%	-8.83%	3.32%	57.17%	10.45%	-1.64%
Lord Abbett Small Cap Growth Equity Institutional Composite Net (3 year Annualized Return)	33.80%	21.69%	9.99%	4.89%	-2.83%	13.98%	21.49%	19.52%	14.14%	25.65%
Russell 2000® Growth Index (Annual)	34.63%	28.48%	-9.31%	22.17%	11.32%	-1.38%	5.60%	43.30%	14.59%	-2.91%
Russell 2000® Growth Index (3 year Annualized Return)	16.20%	12.49%	7.24%	10.28%	5.05%	14.28%	20.14%	16.82%	12.82%	19.00%
Russell 2000® Growth Index (3 year Annualized Ex-Post Standard Deviation)	25.46%	16.60%	16.69%	14.80%	16.91%	15.16%	14.02%	17.52%	21.01%	24.65%

End Notes to Performance

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. For all periods through December 31, 2010, net performance of the Composite as presented in the table on the previous page reflects the deduction of a “model” advisory fee, calculated as the highest advisory fee, borne by any account (without giving effect to any performance fee that may be applicable) in the Composite (an annual rate of 1.00% of assets) and other expenses. For all periods beginning January 1, 2011, the table on the previous page includes net performance for the Composite and reflects the deduction of the actual advisory fee borne by each account in the Composite and other trading expenses and performance incentive fees. Portfolio incentive fees are applied on a cash basis in the period in which they are paid. The effect of fees and expenses on performance will vary with the relative size of the fee and account performance. **For example, if $10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be $25,937,425. If an advisory fee of 1.00% of average net assets per year for the 10-year period were deducted, the annual total return would be 8.91% and the ending dollar value would be $23,673,637. The management fee schedule is as follows: 1.00% on the first $10 million, 0.75% on the next $40 million, 0.625% on the next $50 million and 0.50% on all assets over $100 million.** Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm’s valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles.

Lord Abbett claims compliance with the Global investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord Abbett has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Small Cap Growth Equity Institutional composite has had a performance examination for the periods 1993-2020. The verification and performance examination reports are available upon request.

The Russell 2000® Index measures the performance of the small-cap segment of the U.S. equity universe. The index consists of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 10% of the total market capitalization of the Russell 3000® Index. The Russell 2000® Growth Index measures the performance of those Russell 2000® companies with higher price-to-book ratios and higher forecasted growth values. The benchmarks have not been examined by Deloitte & Touche LLP.

Past performance is not a reliable indicator or a guarantee of future results. Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

End Notes to Performance

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) **Micro Cap Growth Equity Institutional Composite**. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in micro-cap equity securities that Lord Abbett deems to have long-term growth potential. Effective January 2018, accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Prior to January 2018, other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th day of the month were included in the Composite effective the first day of the second following month and accounts opened/funded after 15th of the month were included effective on the first day of the third following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with the applicable objectives, guidelines and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created and incepted in 1999. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC ("Lord Abbett"). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts ("Wrap Fee/SMA Portfolios") managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total "firm" assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

Calendar Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
# of Portfolios	8	9	7	7	7	7	5	5	5	5
Total Assets ($M)	$727	$759	$642	$638	$531	$526	$542	$569	$372	$372
Percentage of Firm Assets	0.33%	0.37%	0.40%	0.41%	0.39%	0.42%	0.40%	0.42%	0.30%	0.30%
Total Firm Assets ($M)	$222,535	$204,031	$161,055	$156,110	$134,565	$124,007	$135,945	$135,786	$127,753	$107,449
Dispersion	0.98	N/A	0.32	0.14	NA	NA	N/A	N/A	N/A	N/A
Lord Abbett Micro Cap Growth Equity Institutional Composite Gross (Annual)	83.10%	36.90%	4.41%	40.48%	4.01%	-4.90%	12.59%	81.16%	4.35%	-3.99%
Lord Abbett Micro Cap Growth Equity Institutional Composite Gross (3 year Annualized Return)	37.81%	26.16%	15.12%	11.59%	3.65%	24.73%	28.63%	21.97%	11.07%	26.81%
Lord Abbett Micro Cap Growth Equity Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation)	31.51%	21.65%	22.07%	19.01%	21.82%	20.01%	19.44%	19.82%	21.18%	23.77%
Lord Abbett Micro Cap Growth Equity Institutional Composite Net (Annual)	81.44%	35.56%	3.31%	38.87%	2.74%	-6.03%	11.22%	79.07%	3.09%	-5.20%
Lord Abbett Micro Cap Growth Equity Institutional Composite Net (3 year Annualized Return)	36.46%	24.82%	13.80%	10.27%	2.40%	23.25%	27.09%	20.50%	9.62%	25.05%
Russell Microcap® Growth Index (Annual)	40.13%	23.33%	-14.18%	16.65%	6.86%	-3.85%	4.30%	52.84%	15.17%	-8.42%
Russell Microcap® Growth Index (3 year Annualized Return)	14.04%	7.28%	2.27%	6.22%	2.33%	15.30%	22.45%	17.25%	10.95%	18.18%
Russell Microcap® Growth Index (3 year Annualized Ex-Post Standard Deviation)	28.35%	18.01%	18.73%	17.22%	19.68%	17.80%	16.71%	18.75%	21.89%	25.59%

End Notes to Performance

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. For all periods through December 31, 2010, net performance of the Composite as presented in the table on the previous page reflects the deduction of a “model” advisory fee, calculated as the highest advisory fee, borne by any account (without giving effect to any performance fee that may be applicable) in the Composite (an annual rate of 1.50% of assets) and other expenses. For all periods beginning January 1, 2011, the table on the previous page includes net performance for the Composite and reflects the deduction of the actual advisory fee borne by each account in the Composite and other trading expenses and performance incentive fees. Portfolio incentive fees are applied on a cash basis in the period in which they are paid. The effect of fees and expenses on performance will vary with the relative size of the fee and account performance. **For example, if $10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be $25,937,425. If an advisory fee of 1.25% of average net assets per year for the 10-year period were deducted, the annual total return would be 8.64% and the ending dollar value would be $23,136,233. The Institutional Portfolio management fee schedule is as follows: 1.25% on the first $25 million, and 1.00% on all assets over $25 million.** Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm’s valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles.

Lord Abbett claims compliance with the Global investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord Abbett has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Micro Cap Growth Equity Institutional composite has had a performance examination for the periods 1999-2020. The verification and performance examination reports are available upon request.

The Russell Microcap® Index measures performance of the micro cap segment of the U.S. equity universe, representing less than 3% of the U.S. equity market. The Russell Microcap® Index includes the smallest 1,000 securities in the Russell 2000® Index plus the next smaller 1,000 securities. The Russell Microcap® Growth Index measures the performance of those Russell Microcap® companies with higher price-to-book ratios and higher forecasted growth values. The benchmarks have not been examined by Deloitte & Touche LLP.

Past performance is not a reliable indicator or a guarantee of future results. Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

End Notes to Performance

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) **Growth Equity Institutional Composite**. Prior to September 30, 2013, the composite was named Multi Cap Growth Equity Institutional Composite. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in a combination of large-, mid- and small-capitalization equity securities that Lord Abbett deems to have long-term growth potential. Effective January 2018, accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Prior to January 2018, other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th day of the month were included in the Composite effective the first day of the second following month and accounts opened/funded after 15th of the month were included effective on the first day of the third following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with the applicable objectives, guidelines and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created and incepted in 2011. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC ("Lord Abbett"). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts ("Wrap Fee/SMA Portfolios") managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total "firm" assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

Calendar Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	7/11 - 12/11
# of Portfolios	2	2	2	2	2	1	1	1	1	1
Total Assets ($M)	$8,721	$4,010	$3,210	$3,207	$2,104	$2,284	$1,406	$582	$24	$13
Percentage of Firm Assets	3.92%	1.97%	1.99%	2.05%	1.56%	1.84%	1.03%	0.43%	0.02%	0.01%
Total Firm Assets ($M)	$222,535	$204,031	$161,055	$156,110	$134,565	$124,007	$135,945	$135,786	$127,753	$107,449
Dispersion	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lord Abbett Growth Equity Institutional Composite Gross (Annual)	78.63%	35.98%	-0.01%	32.42%	1.44%	7.60%	11.06%	48.00%	10.92%	-7.94%
Lord Abbett Growth Equity Institutional Composite Gross (3 year Annualized Return*)	34.42%	21.65%	10.33%	13.06%	6.63%	20.95%	22.16%	N/A	N/A	N/A
Lord Abbett Growth Equity Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation*)	22.59%	16.49%	14.75%	11.62%	12.24%	12.07%	11.17%	N/A	N/A	N/A
Lord Abbett Growth Equity Institutional Composite Net (Annual)	77.65%	35.23%	-0.58%	31.63%	0.83%	6.96%	10.41%	47.15%	10.26%	-8.22%
Lord Abbett Growth Equity Institutional Composite Net (3 year Annualized Return*)	33.67%	20.96%	9.68%	12.39%	5.99%	20.22%	21.45%	N/A	N/A	N/A
Russell 1000® Growth Index (Annual)	38.49%	36.39%	-1.51%	30.21%	7.08%	5.67%	13.05%	33.48%	15.26%	-3.92%
Russell 1000® Growth Index (3 year Annualized Return*)	22.99%	20.49%	11.15%	13.79%	8.55%	16.83%	20.26%	N/A	N/A	N/A
Russell 1000® Growth Index (3 year Annualized Ex-Post Standard Deviation*)	19.92%	13.26%	12.30%	10.69%	11.31%	10.85%	9.73%	N/A	N/A	N/A

*N/A for periods with less than 3 years of data based on the composite inception date.

End Notes to Performance

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. Net performance of the Composite as presented in the table on the previous page reflects the deduction of a “model” advisory fee, calculated as the highest advisory fee, borne by any account (without giving effect to any performance fee that may be applicable) in the Composite (an annual rate of 0.55% of assets) and other expenses (including trade execution expenses). **For example, if $10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be $25,937,425. If an advisory fee of 0.55% of average net assets per year for the 10-year period were deducted, the annual total return would be 9.40% and the ending dollar value would be $24,669,347. The management fee schedule is as follows: 0.55% on the first $25 million, 0.45% on the next $75 million, 0.38% on the next $150 million, 0.35% on the next $250 million, and negotiable on all assets over $500 million.** Prior to 2018 a 0.60% fee was applied. Net-of-fee performance reflects the deduction of the highest applicable institutional advisory fee that would be charged to a new institutional client account based on the current fee schedule for this strategy. The composite includes one or more registered investment companies sponsored by Lord Abbett (“Lord Abbett Funds”) that are subject to fees and expenses that would be inapplicable to an institutional client account. Therefore, the actual performance of Lord Abbett Fund accounts included in the composite may be lower than the net-of-fee composite performance presented. Fees and expenses applicable to the Lord Abbett Funds are disclosed in each Fund’s Prospectus, which is available upon request. Past performance does not guarantee future results. Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm’s valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles.

Lord Abbett claims compliance with the Global investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord Abbett has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Growth Equity Institutional composite has had a performance examination for the periods 07/01/11-2020. The verification and performance examination reports are available upon request.

The Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000® Index, which represents approximately 90% of the total market capitalization of the Russell 3000® Index. The Russell 1000® Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. Prior to April 2014, the primary benchmark for the composite was the Russell 3000® Growth Index. Lord Abbett believes the Russell 1000® Growth Index is more representative of the investment strategy given its minimum 50% allocation to large cap stocks. The benchmark has not been examined by Deloitte & Touche LLP.

Past performance is not a reliable indicator or a guarantee of future results. Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

End Notes to Performance

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) **Focused Growth Institutional Composite**. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in a combination of large-, mid- and small-capitalization equity securities of companies that Lord Abbett deems to have exceptional growth potential. Portfolios included in this composite will under normal conditions generally invest in 40 or fewer equity securities. Accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with the applicable objectives, guidelines and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created and incepted in 2018. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC ("Lord Abbett"). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts ("Wrap Fee/SMA Portfolios") managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total "firm" assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

Calendar Year Ended	2020	2019	07/2018-12/2018
# of Portfolios	1	1	1
Total Assets ($M)	$39	$11	$2
Percentage of Firm Assets	0.02%	0.01%	0.00%
Total Firm Assets ($M)	$222,535	$204,031	$161,055
Dispersion	N/A	N/A	N/A
Lord Abbett Focused Growth Institutional Composite Gross (Annual)	88.06%	28.36%	-9.49%
Lord Abbett Focused Growth Institutional Composite Gross (3 year Annualized Return*)	N/A	N/A	N/A
Lord Abbett Focused Growth Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation*)	N/A	N/A	N/A
Lord Abbett Focused Growth Institutional Composite Net (Annual)	86.10%	27.18%	-9.76%
Lord Abbett Focused Growth Institutional Composite Net (3 year Annualized Return*)	N/A	N/A	N/A
Russell 1000® Growth Index (Annual)	38.49%	36.39%	-8.17%
Russell 1000® Growth Index (3 year Annualized Return*)	N/A	N/A	N/A
Russell 1000® Growth Index (3 year Annualized Ex-Post Standard Deviation*)	N/A	N/A	N/A

*N/A for periods with less than 3 years of data based on the composite inception date.

End Notes to Performance

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. The table on the previous page includes net performance for the Composite and reflects the of the deduction of the actual advisory fee borne by each account in the Composite and other trading expenses and performance incentive fees. Portfolio incentive fees are applied on a cash basis in the period in which they are paid. The effect of fees and expenses on performance will vary with the relative size of the fee and account performance. **For example, if $10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be $25,937,425. If an advisory fee of 0.55% of average net assets per year for the 10-year period were deducted, the annual total return would be 9.40% and the ending dollar value would be $24,669,347. The management fee schedule is as follows: 0.55% on the first $25 million, 0.45% on the next $75 million, 0.38% on the next $150 million, 0.35% on the next $250 million, and negotiable on all assets over $500 million.** Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm's valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles.

Lord Abbett claims compliance with the Global investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord Abbett has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The verification reports are available upon request.

The Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000® Index, which represents approximately 90% of the total market capitalization of the Russell 3000® Index. The Russell 1000® Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. The benchmark has not been examined by Deloitte & Touche LLP.

Past performance is not a reliable indicator or a guarantee of future results. Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

About Wilshire

The Wilshire Atlas Variance Analysis tool provides a methodology for explaining the difference in performance between a portfolio and its benchmark, based on the decomposition of returns. The user specifies the portfolio, index, link frequency, sector and weighting. The weighting can be shown as beginning, average or end weights and is used for display purposes only.

Portfolio Weight	Portfolio Base Return	Benchmark Weight	Benchmark Base Return	Stock Selection	Group Weight	Total

Weight (Portfolio): This is the average weight of each group in the portfolio. Alternatively, the weight at the end of the reporting period, or on average across the reporting period, may be selected.

Base Return (Portfolio): This is the weighted average holding period return for the securities in each group. This weighted average is calculated for each link period using beginning weights and then the resulting values are linked together to calculate the displayed value.

Weight (Benchmark): This is the average weight of each group in the benchmark. Alternatively, the weight at the end of the reporting period, or on average across the reporting period, may be selected.

Base Return (Benchmark): This is the weighted average holding period return for the benchmark securities in each group. This weighted average is calculated for each link period using beginning weights, then the resulting values are linked together to calculate the displayed value.

Stock Selection Variance: This is the success of selection decisions within each group vs. the benchmark. It is calculated for each link period using the following equation: Stock Selection Variance = $W_{P,G}$ * ($R_{P,G}$ - $R_{B,G}$), where $W_{P,G}$ = Weight of the group in the portfolio, $R_{P,G}$ = Return of the group in the portfolio, $R_{B,G}$ = Return of the group in the benchmark.

Group Weighting Variance: This is the result of weighting decisions in each group vs. the benchmark. It is calculated for each link period using the following equation: Group Weighting Variance = ($W_{P,G}$ – $W_{B,G}$) * ($R_{B,G}$ – $R_{B,T}$), where $W_{P,G}$ = Weight of the group in the portfolio, $W_{B,G}$ = Weight of the group in the benchmark, $R_{B,G}$ = Return of the group in the benchmark, $R_{B,T}$ = Overall return of the benchmark.

Total Variance: This is the sum of group weighting and stock selection variances. This represents the amount of total variance that is explained by the selection and allocation decisions for each group.

Hedging Cost: This is the contribution due to the difference in the risk-free rates between currencies and is a function of the time left to maturity. It can be positive or negative, depending on the interest rate differentials between the long and short currencies. The hedge cost for each contract is calculated individually by multiplying its exposure by its hedge cost; then these contributions are summed to give the total contribution shown on the report.

Hedging Effect: This is the contribution due to hedging. It is calculated by multiplying the exposure associated with each currency forward by the portion of the forward's return due to currency fluctuations; then, each of the forward's contributions are summed together to give the total that appears in the Contribution Summary table. The return that is used in the calculation excludes the hedge cost.

Portfolio Return: This is the sum of each of the contributions displayed in the Contribution Summary table.

Wilshire generated returns are calculated gross of fees based on end of day prices and do not capture intraday cash flow, price changes or trading activity, and therefore are subject to some variance from Lord Abbett returns. In addition, Wilshire and Lord Abbett may use different pricing sources and methodologies.

Not Classified securities represent those securities which have not been assigned an official GICS Direct classification. GICS Direct, a joint product of Standard & Poor's and MSCI, provides industry classifications for more than 40,000 companies and over 45,000 securities. Not Classified securities may include, but are not limited to: Exchange-Traded Funds (ETFs), pink sheet-listed issues, pre-IPO placements, private placements, secondary issues, open-end funds, closed-end funds, and non-operating establishments.

Under certain circumstances, Lord Abbett may elect to have Wilshire map an ETF holding to the relevant characteristics represented by that ETF's underlying index in order to reflect the exposure and performance contributed by the ETF to the overall portfolio. When this option is selected, Wilshire will remove the ETF from the Not Classified category and instead allocate the ETF's exposures across the relevant attributes based on the composition of the ETF's underlying index.

Important Information

The information contained herein is provided by Lord, Abbett & Co. LLC ("Lord Abbett"). Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without the prior consent of Lord Abbett, is prohibited. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. Lord Abbett has no obligation to update any or all of such information. All amounts, market value information, and estimates included herein have been obtained from outside sources where indicated or represent the good faith judgment of Lord Abbett. Where such information has been obtained from outside sources, Lord Abbett cannot guarantee the accuracy or completeness of such information. **These materials are not intended to be an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services. These materials do not constitute investment advice and should not be used as the basis for any investment decision.**

These materials do not take into account individual client circumstances, objectives, or needs. No determination has been made regarding the suitability of any securities, financial instruments, or strategies for particular clients or prospects.

The information contained herein is provided on the basis and subject to the explanations, caveats, and warnings set out in this notice and elsewhere herein. Any discussion of risk management is intended to describe Lord Abbett's efforts to monitor and manage risk but does not imply low risk.

These materials do not purport to provide any legal, tax, or accounting advice.

Any performance targets contained herein are subject to revision, and there can be no assurance that any product or strategy described herein will meet any such performance targets. An investor could lose some or all of its investment in such product or strategy. Past performance is not a guarantee or reliable indicator of future results. Investments are not guaranteed by Lord Abbett, its affiliates, or any governmental agency.

The financial indices referenced herein as benchmarks are provided for information purposes only. Portfolio holdings and characteristics will differ from those of the benchmark(s), and such differences may be material. Factors affecting portfolio performance that do not affect benchmark performance may include portfolio rebalancing, the timing of cash flows, credit quality, diversification, and differences in volatility. In addition, financial indices do not reflect the impact of fees, applicable taxes, or trading costs, which reduce returns. Unless otherwise noted, financial indices assume reinvestment of dividends. You cannot make a direct investment in an index.

References to specific securities and issuers are for illustrative purposes only and are not intended and should not be interpreted as recommendations to purchase or sell such securities. The securities referenced may or may not be held in portfolios managed by Lord Abbett and, if such securities are held, no representation is being made that such securities will continue to be held.

The information provided is not directed at any investor or category of investors and is provided solely as general information about Lord Abbett's products and services and to otherwise provide general investment education. None of the information provided should be regarded as a suggestion to engage in or refrain from any investment-related course of action as neither Lord Abbett nor its affiliates are undertaking to provide impartial investment advice, act as an impartial adviser, or give advice in a fiduciary capacity. If you are an individual retirement investor, contact your financial advisor or other fiduciary about whether any given investment idea, strategy, product or service may be appropriate for your circumstances.

LORD ABBETT®

INVEST WITH ENDURANCE™

Riverbridge

September 2021

State of Connecticut Treasurer's Office

PRESENTED BY:

Annie Paul
Relationship Manager

Rick Moulton, CFA
Lead Portfolio Manager

Riverbridge

The Connecticut State Treasurer's Office's mission is to perform in the highest professional and ethical manner to safeguard the state's public resources. Our office policy, investment, and borrowing decisions encourage greater financial literacy, education, job and economic growth, and equal opportunity for all who call Connecticut home, a place to do business, and invest.

STATE OF CONNECTICUT, OFFICE OF THE TREASURER

- Principal fiduciary of each of the Connecticut Retirement Plans and Trust Funds ("CRPTF")
    - Serving six state pension funds that cover 296k state and municipal employees, teachers, retirees and survivorships as well as nine state trust funds that support academic programs, grants, and initiatives throughout the state
- Prudent Investment Management & Long-Term Orientation
    - Primary among the Treasurer's considerations for the investment of the pension plans and trusts is the prudent investment of the assets of the CRPTF for the long-term economic benefit of plan participants and beneficiaries
    - Proper safeguarding of the CRPTF assets is necessary to ensure the retirement security of the beneficiaries and to support the spending policies of the trust funds

Connecticut Retirement Plans and Trust Funds

Plans

1. State Employees' Retirement Fund
2. Teachers' Retirement Fund
3. Connecticut Municipal Employees' Retirement Fund
4. Probate Judges and Employees Retirement Fund
5. State Judge's Retirement Fund
6. State's Attorneys' Retirement Fund

Trusts

1. Soldiers', Sailors' and Marines' Fund
2. Arts Endowment Fund
3. Agricultural College Fund
4. Ida Eaton Cotton Fund
5. Andrew C. Clark Fund
6. School Fund
7. Hopemead State Park Fund
8. Police and Firemen Survivors' Benefit Fund
9. Other Post-Employment Benefits Trust Fund

Riverbridge®

We Seek to Further Human Flourishing by Investing with Endurance

RIVERBRIDGE

- At Riverbridge, our work each day is to serve the long-term good of our clients. We seek to help our clients experience superior investment outcomes–equipping them to pursue their goals
- We believe in the power of long-term investment to build a stronger future for our communities. Our approach is to identify and invest in the leaders and businesses that are creating true value over time
- Responsible investing is core to our fundamental approach because we believe that enduring performance and responsible impact go hand in hand
- We are focused on developing our employees, both personally and professionally, and we are committed to being good stewards of our resources and of our communities

REPRESENTATIVE CLIENTS

Pension Reserves Investment Management Board

North Dakota Retirement & Investment Office

City of Clearwater, Florida

City of Kansas City, Missouri

PERS of Mississippi

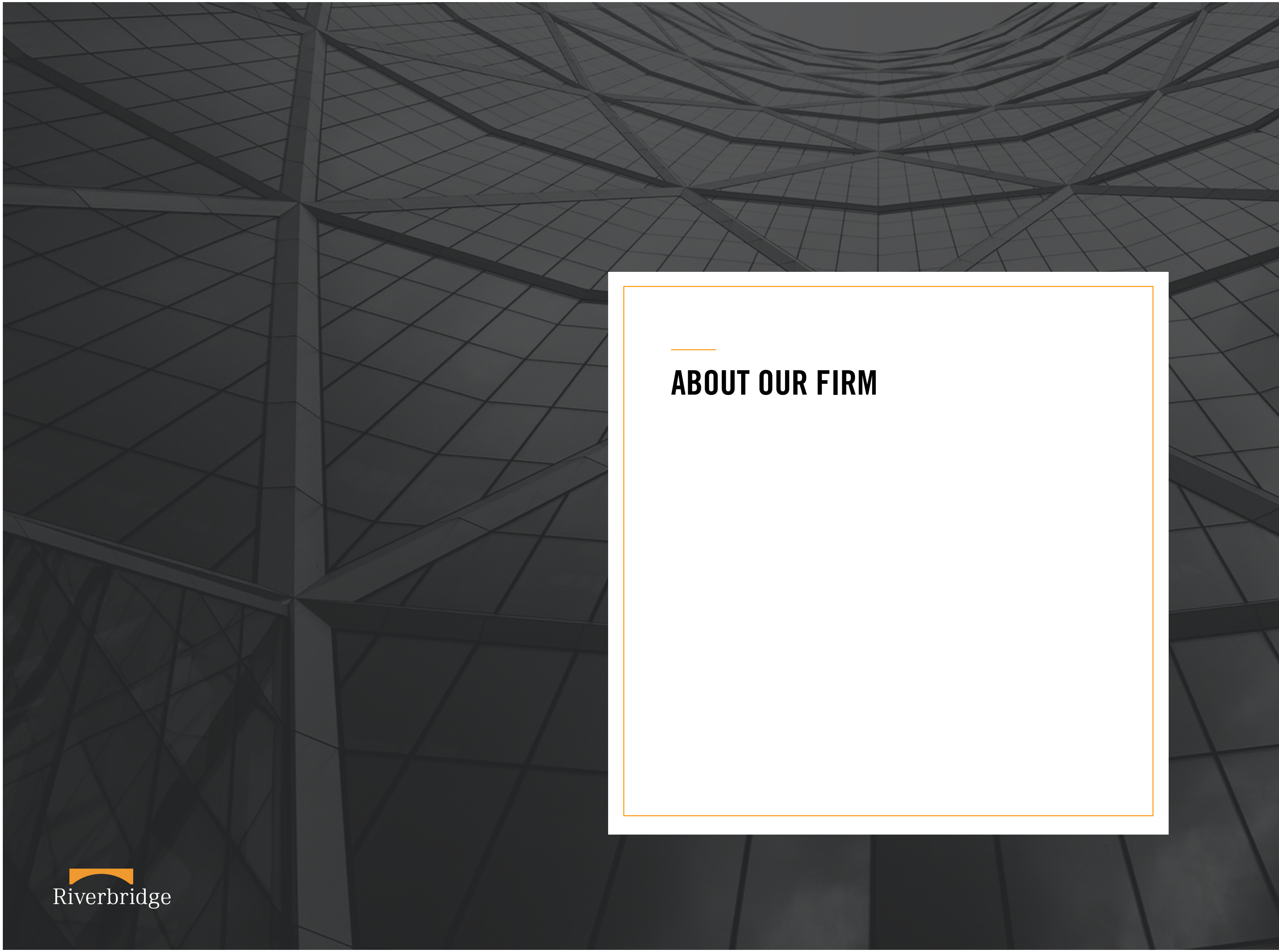
Georgia Municipal Association

Weymouth Retirement System

$1.5B+ *Firm-wide Assets Under Management for Public Entities*

State of Connecticut, Office of the Treasurer and Riverbridge are in strategic alignment.

- COMPELLING RISK-ADJUSTED RETURNS
- STRONG DOWNSIDE PROTECTION WITH LOW RISK
- CONSISTENT AND PREDICTABLE
- LONG-TERM ORIENTATION



ABOUT OUR FIRM

Riverbridge

WHO WE ARE

Our mission is to invest with endurance in ways that build true value over time.

At Riverbridge, we believe what is true endures–in investments, people, and companies. Since 1987, we've served clients with an investment strategy that bridges human insight with data analysis to identify the building blocks of endurance. We invest in companies with the fundamentals and leadership to grow their intrinsic value over long periods of time. We're on a mission to create enduring value for our clients.

AT A GLANCE

- HEADQUARTERED IN MINNEAPOLIS, MN
- 30+ YEAR TRACK RECORD
- TIME-TESTED INVESTMENT APPROACH
- 17 YR AVERAGE INVESTMENT TEAM FIRM TENURE
- MAJORITY OF FIRM EMPLOYEES ARE SHAREHOLDERS
- INVESTMENT CENTRIC CULTURE

INVESTMENT PHILOSOPHY

We believe earnings power determines the value of a franchise.

We focus on companies that are building their earnings power and intrinsic value over long periods of time. We invest in high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

OUR INVESTMENT STRATEGY

We look to identify and invest only in companies that meet all aspects of our investment criteria.

We build portfolios by identifying and buying well-managed companies that are diversified in their sources of earnings and have a sustainable competitive differentiation, which will earn them a high return on invested capital and superior growth in business value. We analyze each company's unit growth, market position, accounting practices, and ability to finance growth. We spend significant face-to-face time meeting with management and employees, and because we are committed to forming a holistic perspective on the effectiveness of management, we also spend time with industry peers, customers, suppliers, and others who may offer an experienced perspective on the company and its management.

HUMAN INSIGHT + DATA ANALYSIS

Our investment strategy bridges human insight with data analysis to identify enduring businesses that demonstrate the ability to produce a sustainable high return on invested capital. We seek to invest in companies that possess all five building blocks of our philosophy:

- ✓ SOUND CULTURE & MANAGEMENT
- ✓ STRONG UNIT GROWTH
- ✓ STRATEGIC MARKET POSITION
- ✓ INTERNALLY FINANCED GROWTH
- ✓ CONSERVATIVE ACCOUNTING

INVESTMENT PROCESS

The Riverbridge Investment Team collectively manages all our strategies and each company in the strategies has a Champion and a Devil's Advocate. The member of the Investment Team who ultimately adds a particular stock to the strategy is considered the Champion for that holding, while another member of the team is assigned to play the role of Devil's Advocate for that stock after it has been added to the strategy, conducting his or her own research. This process prevents the Champion from developing an unfounded positive bias that could cloud judgment.

Prior to making an investment, the Riverbridge Investment Team meets with the company's management team, conducts a peer review, reviews the company's strategic planning policies, analyzes their past performance, and conducts research of the investment candidate's financials to determine that it meets our investment criteria. Once a company has been added to our strategies we continually evaluate the business for its ability to sustain a high return on invested capital and superior growth in business value.

SELL DISCIPLINES

Our intention is to remain fully invested at all times. We prune our portfolios to remain invested in the highest-quality companies. The Riverbridge Investment Team could decide to sell for one of three reasons:

- Portfolio diversification
- To fund new/better opportunities
- Deterioration in the fundamentals

1

DISCOVERY

- ☑ DOES THE COMPANY STAND OUT IN THE MARKET?

2

DUE DILIGENCE

- ☑ DOES THE COMPANY DEMONSTRATE THAT ALL 5 BUILDING BLOCKS ARE PRESENT AND WILL ENDURE?
- ☑ IS THE COMPANY'S STOCK VALUED AT OR BELOW ITS INTRINSIC VALUE?

3

CONTINUAL REVIEW
(held stock)

- ☑ HAS THE DEVIL'S ADVOCATE CHALLENGED THE CHAMPION FOR UNFOUNDED POSITIVE BIAS?
- ☑ DO FUNDAMENTAL BUILDING BLOCKS REMAIN SOUND?

The Riverbridge Small Cap Growth portfolio demonstrates an enduring track record of robust returns with historically lower risk compared to the benchmark.

AS OF 06/30/2021	ENDURING TRACK RECORD RIVERBRIDGE ANNUALIZED RETURNS* (GROSS OF FEES)	HISTORICALLY LOWER RISK RIVERBRIDGE ANNUALIZED STANDARD DEVIATIONS*
Riverbridge Small Cap Growth Since Strategy Inception 06/30/1988	14.41%	18.92
Russell 2000® Growth	*9.13%*	*21.65*
+ / – Benchmark	**5.28%**	**-2.73**

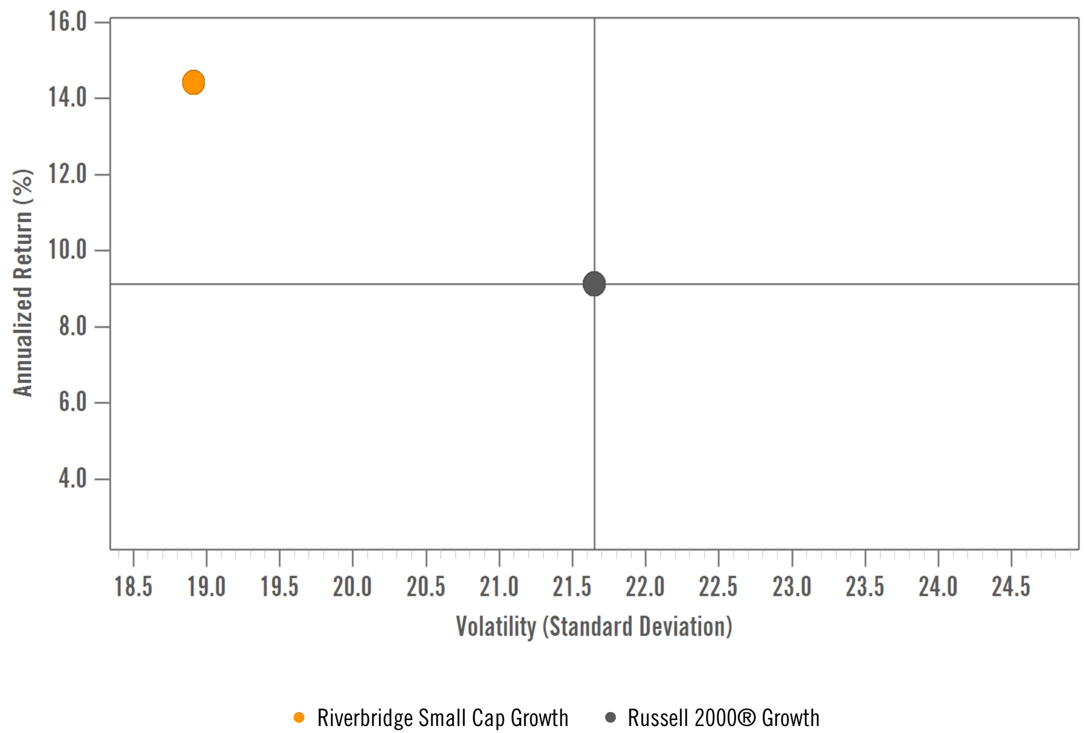
Performance related information, including but not limited to market capitalization information, portfolio risk measures, sector weightings, and representative holdings provided in this document, is presented as supplemental information to the compliant presentation found in the Disclosure section.

RISK REWARD COMPARISON (06/30/1988 - 6/30/2021)

Periods greater than one year are annualized. Gross of fees.

The Riverbridge Small Cap strategy offers historically strong performance with lower risk.

RISK REWARD COMPARISON (06/30/1988 - 06/30/2021)



Performance information is presented as supplemental information to the compliant presentation found in the Disclosure section.

SMALL CAP GROWTH STRATEGY

The Riverbridge Small Cap Growth strategy was established in 1988. It is a diversified growth stock portfolio invested in 45-60 companies of small market capitalization sizes. Due to our long-term investment approach, turnover is low - averaging less than 20% annually. The portfolio is managed by the Riverbridge Investment Team utilizing our time-tested investment philosophy and disciplines.

PORTFOLIO FACTS (AS OF 06/30/2021)

Inception Year	1988
Number of Holdings	54
Benchmark	Russell 2000® Growth
Wgt. Avg. Market Cap	$5.5 billion
Median Market Cap	$4.6 billion
Dividend Yield	0.2%
5-Year Turnover	18.7%

PERFORMANCE HISTORY (AS OF 06/30/2021)

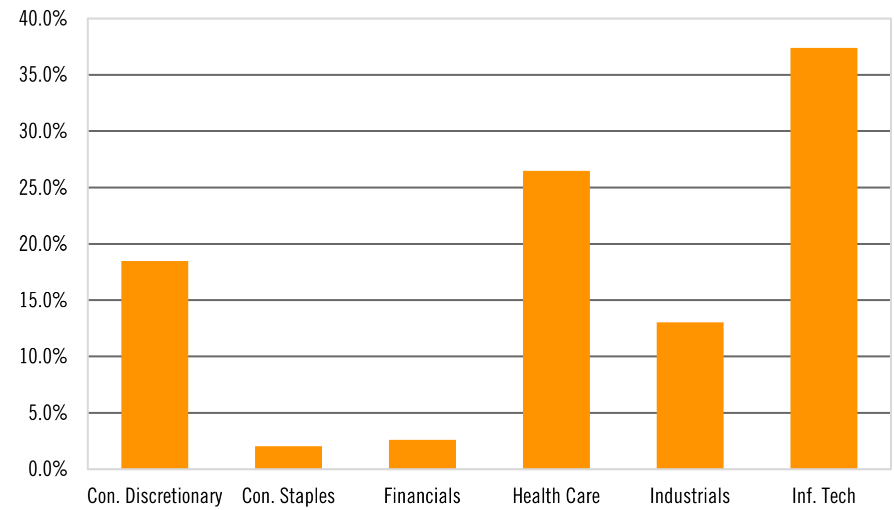
	2Q 2021	YTD	1 Year	3 Year	5 Year	10 Year	Inception
Riverbridge Small Cap Growth	6.79%	7.79%	47.70%	25.37%	25.86%	17.77%	14.41%
Russell 2000® Growth	3.92%	8.98%	51.36%	15.94%	18.76%	13.52%	9.13%

Periods greater than one year are annualized; Performance is gross of fees; Inception Date: 06/30/1988.

TOP TEN HOLDINGS

Globant S.A.	3.58%	Five Below, Inc.	3.09%
Workiva, Inc. Class A	3.42%	Ritchie Bros. Auctioneers, Inc.	3.04%
Pegasystems, Inc.	3.33%	SPS Commerce, Inc.	3.02%
Paylocity Holding Corp.	3.31%	Alarm.com Holdings, Inc.	2.95%
BlackLine, Inc.	3.23%	Kornit Digital Ltd.	2.92%

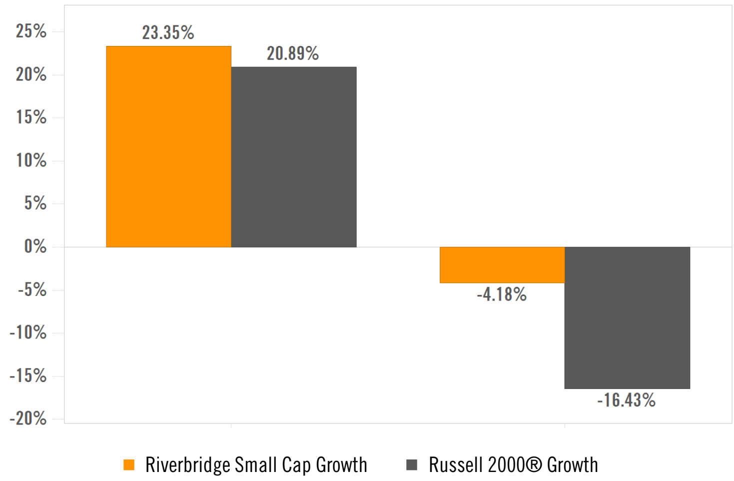
SECTOR WEIGHTINGS



APPENDIX

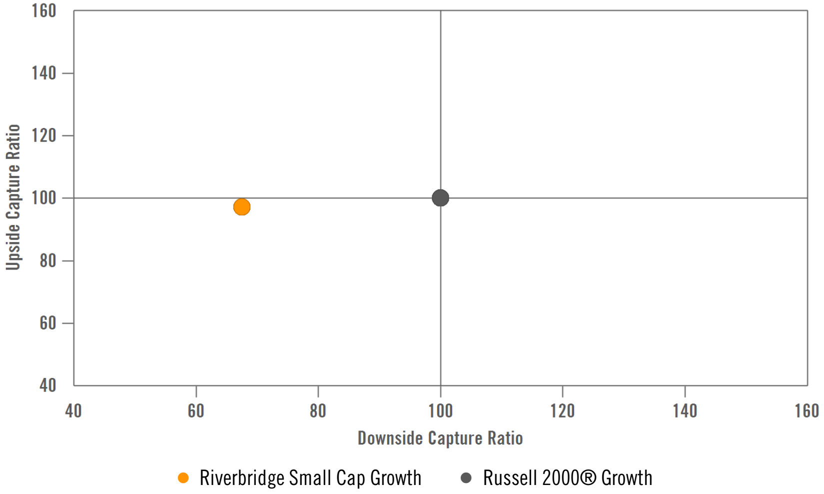
RANGE OF ANNUAL RETURNS

Market Cycle Performance Compared to Russell 2000® Growth
Based on Quarterly Rolling 1 Year Periods (06/30/1988 - 06/30/2021)



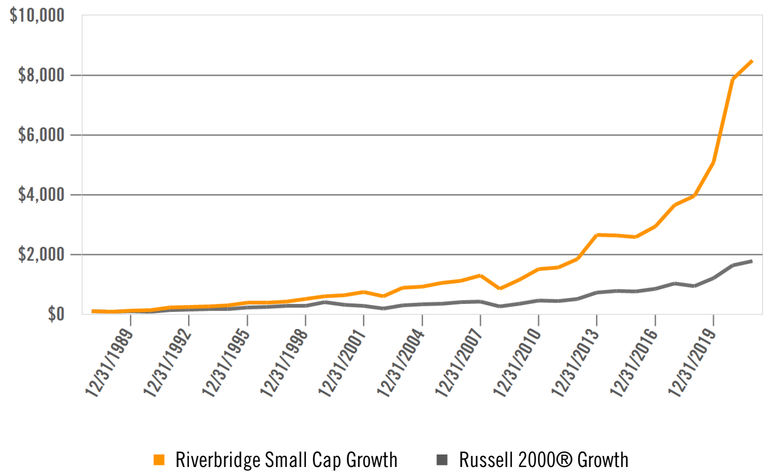
MARKET CAPTURE (06/30/1988 - 06/30/2021)

All Ratios Calculated vs. Russell 2000® Growth, Gross of fees.



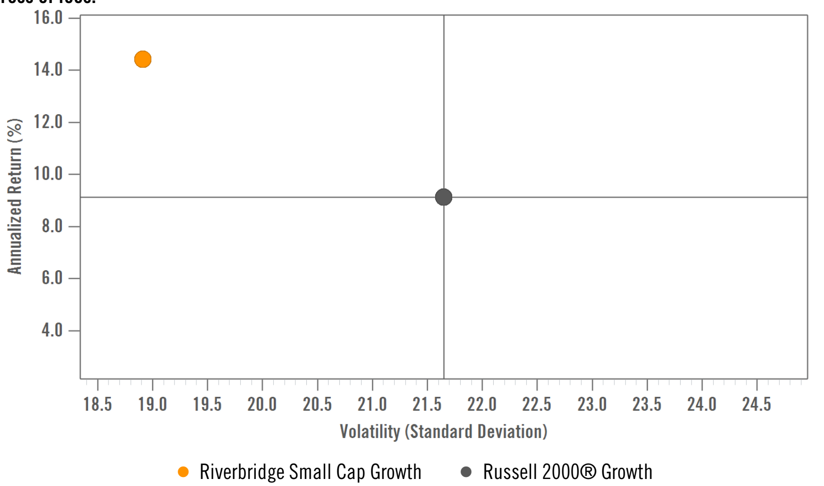
CUMULATIVE PERFORMANCE COMPARISON

Small Cap Growth Portfolio vs. Russell 2000® Growth (06/30/1988 - 06/30/2021)



RISK REWARD COMPARISON (06/30/1988 - 06/30/2021)

Gross of fees.



ANNUAL RETURNS (06/30/1988 - 06/30/2021)

Periods greater than one year are annualized. Gross of fees.

	Small Cap Growth	Russell 2000® Growth
1988 (since inception: 06/30/1988)	-7.21%	-3.60%
1989	38.41%	20.17%
1990	6.68%	-17.41%
1991	67.61%	51.19%
1992	11.10%	7.77%
1993	5.90%	13.37%
1994	11.72%	-2.43%
1995	32.78%	31.04%
1996	-2.56%	11.26%
1997	8.04%	12.95%
1998	20.92%	1.23%
1999	17.68%	43.09%
2000	6.52%	-22.43%
2001	18.18%	-9.23%
2002	-20.53%	-30.26%
2003	47.24%	48.54%
2004	5.08%	14.31%
2005	13.55%	4.15%

	Small Cap Growth	Russell 2000® Growth
2006	6.31%	13.35%
2007	15.76%	7.05%
2008	-34.03%	-38.54%
2009	36.19%	34.47%
2010	29.41%	29.09%
2011	4.14%	-2.91%
2012	17.93%	14.59%
2013	43.47%	43.30%
2014	-0.34%	5.60%
2015	-2.56%	-1.38%
2016	14.23%	11.32%
2017	24.09%	22.17%
2018	8.14%	-9.31%
2019	28.32%	28.48%
2020	55.10%	34.63%
2021 (through 06/30)	7.79%	8.98%

DISCLOSURES

PERFORMANCE DISCLOSURES

- Returns presented within this document are presented for gross-of-fee performance figures, which do not reflect the deduction of investment advisory fees. A client's returns will be reduced by the advisory fees and other expenses incurred in the management of its account. For example, the deduction of a 1% advisory fee over a 10 year period would reduce a 10% gross return to an 8.9% net return. A description of Riverbridge's advisory fees are disclosed on Part 2 of its Form ADV, a copy of which is available upon request.
- Past performance does not guarantee future results.
- Performance results do not reflect the impact of taxes.
- It should not be assumed that account holdings will correspond directly to any such comparative benchmark index.
- Comparative indices may be more or less volatile than Riverbridge portfolios.
- Riverbridge performance results reflect the reinvestment of dividends and other account earnings, and are net of applicable account transaction charges.
- Information in this document is not intended to be used as investment advice.
- Mention of companies/stocks herein is for illustrative purposes only and should not be interpreted as investment advice.
- The holdings included in this document are for illustrative purposes only and should not be considered a recommendation to purchase or sell any particular security. There is no guarantee that the same or similar holdings will be purchased or held in accounts in the future.

SMALL CAP GROWTH COMPOSITE

Year	Gross-of-Fee Return (%)	Net-of-Fee Return (%)	Russell 2000® Growth Return (%)	Portfolios	Dispersion (%)	Composite 3-Year Ex-Post Std. Dev.	Russell 2000® Growth 3-Year Ex-Post Std. Dev.	Composite Assets ($ Millions)	TTL Firm Assets ($ Millions)	Advisory Only ($Millions)	Ttl Firm Assets & Advisory Only ($Millions)
2020	55.10	53.89	34.63	97	0.84	22.70	25.10	2,402.9	8,478.1	4,896.5	13,374.6
2019	28.32	27.32	28.48	97	0.27	15.31	16.37	1,396.4	5,378.3	2,633.2	8,011.5
2018	8.14	7.32	-9.31	104	0.47	15.47	16.46	1,372.9	4,737.1	1,842.0	6,579.1
2017	24.09	23.18	22.17	107	0.60	12.99	14.59	1,408.0	5,047.9	1,791.1	6,839.0
2016	14.23	13.37	11.32	111	0.75	15.29	16.67	1,566.9	4,686.7	1,546.6	6,233.3
2015	-2.56	-3.22	-1.38	133	0.43	14.19	14.95	1,633.3	5,030.8	1,202.4	6,233.2
2014	-0.34	-1.03	5.60	155	0.50	13.28	13.82	1,938.4	5,523.2	1,215.6	6,738.8
2013	43.47	42.57	43.30	163	0.87	13.76	17.27	2,257.3	5,718.3	1,085.7	6,804.0
2012	17.93	17.26	14.59	143	0.59	16.75	20.72	1,288.4	3,225.7	650.8	3,876.5
2011	4.14	3.37	-2.91	157	1.03	21.10	24.31	1,323.7	2,558.0	576.6	3,134.6

Firm Information: Riverbridge Partners, LLC is a Minnesota based investment advisor registered with the Securities and Exchange Commission under the Investment Advisors Act of 1940. The firm provides investment management services to institutional and individual investors. The company offers growth-oriented investment services by investing in growth equity securities, which it believes will provide high returns over the long term. The firm's standard fee schedule is an annual 1%.

Composite Characteristics: The Small Cap Growth Composite was created in July 1988 and its inception date was 06/30/1988. It is a growth stock portfolio invested in small to medium sized growth companies. Effective 8/1/2019, this strategy generally invests in companies with market capitalizations of less than $7 billion. Prior to that the general guideline was less than $5 billion. The general market cap guideline was redefined in 2019 due to market appreciation. A complete list and description of all firm composites, including broad and limited distribution pooled funds, is available upon request. The composite benchmark is the Russell 2000® Growth Index. The Russell 2000® Growth Index includes the segment of securities within the Russell 2000® Index with higher price-to-book ratios and higher forecasted growth values. The Russell 2000® Index is an unmanaged index measuring the performance of the small-cap U.S. equity universe. The benchmark returns are gross of all fees and taxes. The composite minimum value is $100,000.

Material risks of the strategy include stock market, business and economic development, liquidity, and foreign security risk. Leverage, derivatives, short positions and illiquid investments are not used in the strategy. As with any investment, an investor may lose money, and the strategy can underperform its benchmark. Investment in strategies is not insured by the FDIC or any other government agency.

Calculation Methodology: Individual portfolios are revalued daily starting 1/1/2009. Prior to that, individual portfolios were revalued monthly and intra-month when large cash flows (defined at 10%) occurred. Gross-of-fee returns are calculated net of transaction costs and gross of management fees. Until 12/31/2007, net performance was calculated by applying the maximum annual management fee of 1% to gross performance on a monthly basis. Starting 1/1/2008, net-of-fee returns are calculated net of actual investment management fees. Both gross-of-fee and net-of-fee returns are calculated gross of all withholding taxes on foreign dividends. Accruals are included in calculations. The dispersion measure is the equal-weighted standard deviation of accounts in the composite for the entire year. Dispersion and Ex-Post standard deviation is calculated using gross-of-fees returns. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

Other Disclosures: Riverbridge claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Riverbridge has been independently verified for the period 12/31/1989 – 12/31/2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Small Cap Growth Composite has had a performance examination for the periods 07/01/1988 – 12/31/2020. The verification and performance examination reports are available upon request.

The benchmark returns are not covered by the report of the independent verifiers. Past performance does not guarantee future results. This performance report should not be construed as a recommendation to purchase or sell any particular securities held in composite accounts. Market conditions can vary widely over time and can result in a loss of portfolio value.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

State of Connecticut
Retirement & Trust Funds

WELLINGTON
MANAGEMENT®

Emerging Companies

For institutional use only. Not intended for reproduction or use with the public. Any views expressed herein are those of the author(s), are based on available information, and are subject to change without notice. Individual portfolio management teams may hold different views and may make different investment decisions for different clients. The material and/or its contents are current as of the most recent quarter end, unless otherwise noted. Certain data provided is that of a third party. While data is believed to be reliable, no assurance is being provided as to its accuracy or completeness.

Agenda

Section One	Wellington Management Company LLP overview
Section Two	Emerging Companies
Section Three	Appendix

S0000020772
P0000046325
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Wellington Management today

A trusted advisor and strategic partner to clients worldwide

BY THE NUMBERS

Business

USD 1,388 billion of client assets under management

3,271 clients

65 countries in which clients are based

People and portfolios

883 investment professionals

17 years of experience, on average

175 partners all active at the firm

Heritage: key dates

1928	Wellington Fund – the first US balanced fund
1979	Establishment of our private partnership
1994	Our first long – short strategy
2014	Our first dedicated private equity strategy
2015	Global Impact: Our first diversified impact investing strategy in public equities

As of 30 June 2021

OWNERSHIP MODEL

Long-term perspective of a private partnership structure

Attract and retain investment talent

Independent: No public shareholders, no outside capital

Interests aligned with clients

BUSINESS MODEL

Singular focus on investment management

Diversification by asset class, geography, and client type

Research for client benefit only

Commitment to bringing the right resources to each client

INVESTMENT MODEL

Comprehensive capabilities

Rigorous proprietary research

Career analysts

Global resources

Empowered portfolio teams

CULTURE

Open, collaborative

Performance driven

Professional/collegial

High standards, ethics, and integrity

Global diversity and inclusion

CURRENT LEADERSHIP INITIATIVES

Globalization

Sustainable investing and ESG research

Investment science and research-data analytics

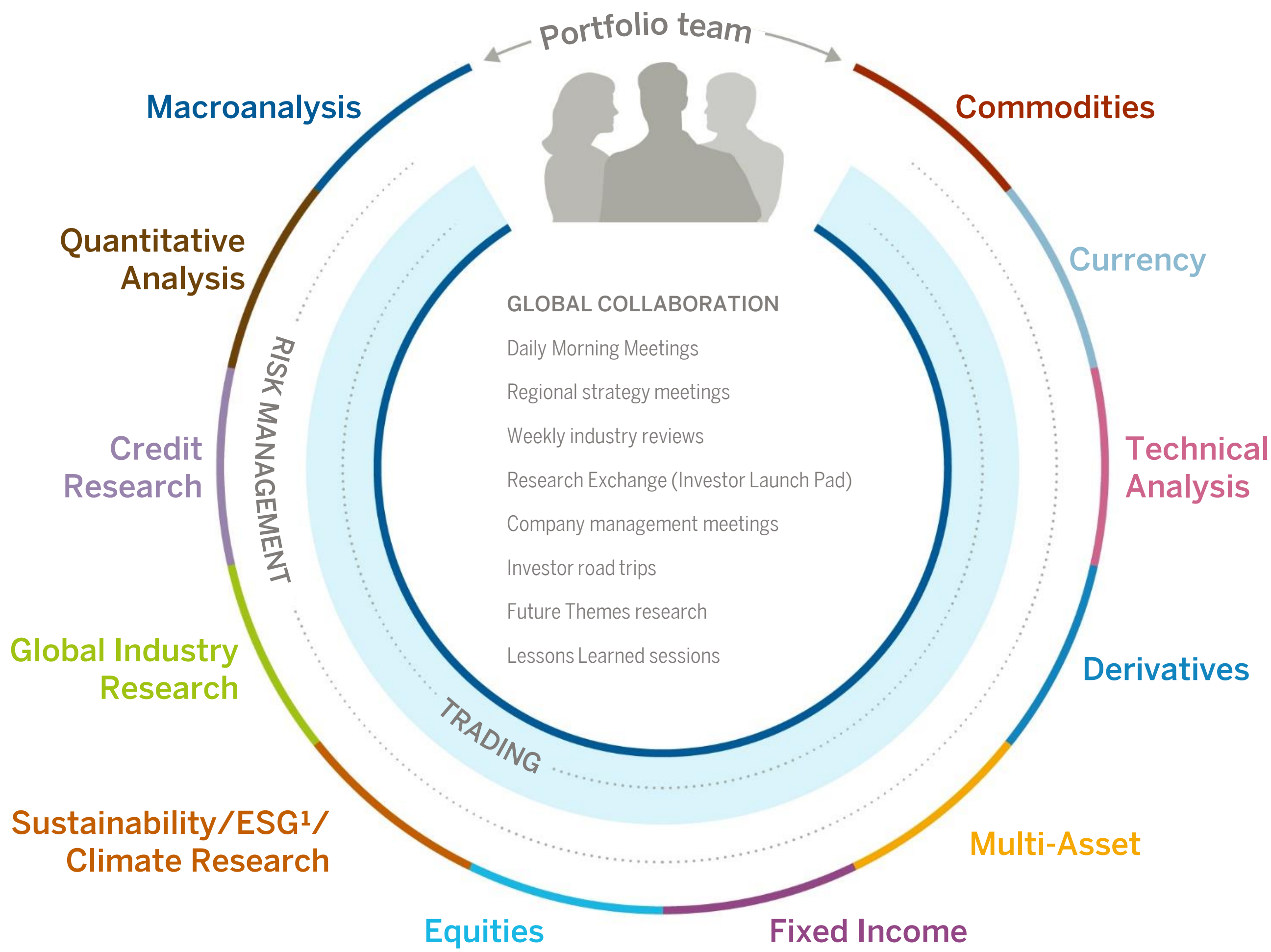
Investment risk management

S0000021977
P0000026005
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

Investors draw on our marketplace of ideas to build portfolios

WELLINGTON MANAGEMENT®

We believe the best investment thinking is forged by the free exchange of ideas among a broadly diverse group of professionals



[1]Environmental, social, and corporate governance

S0000021978
P0000021381
MIX/ Tmpl 1.6

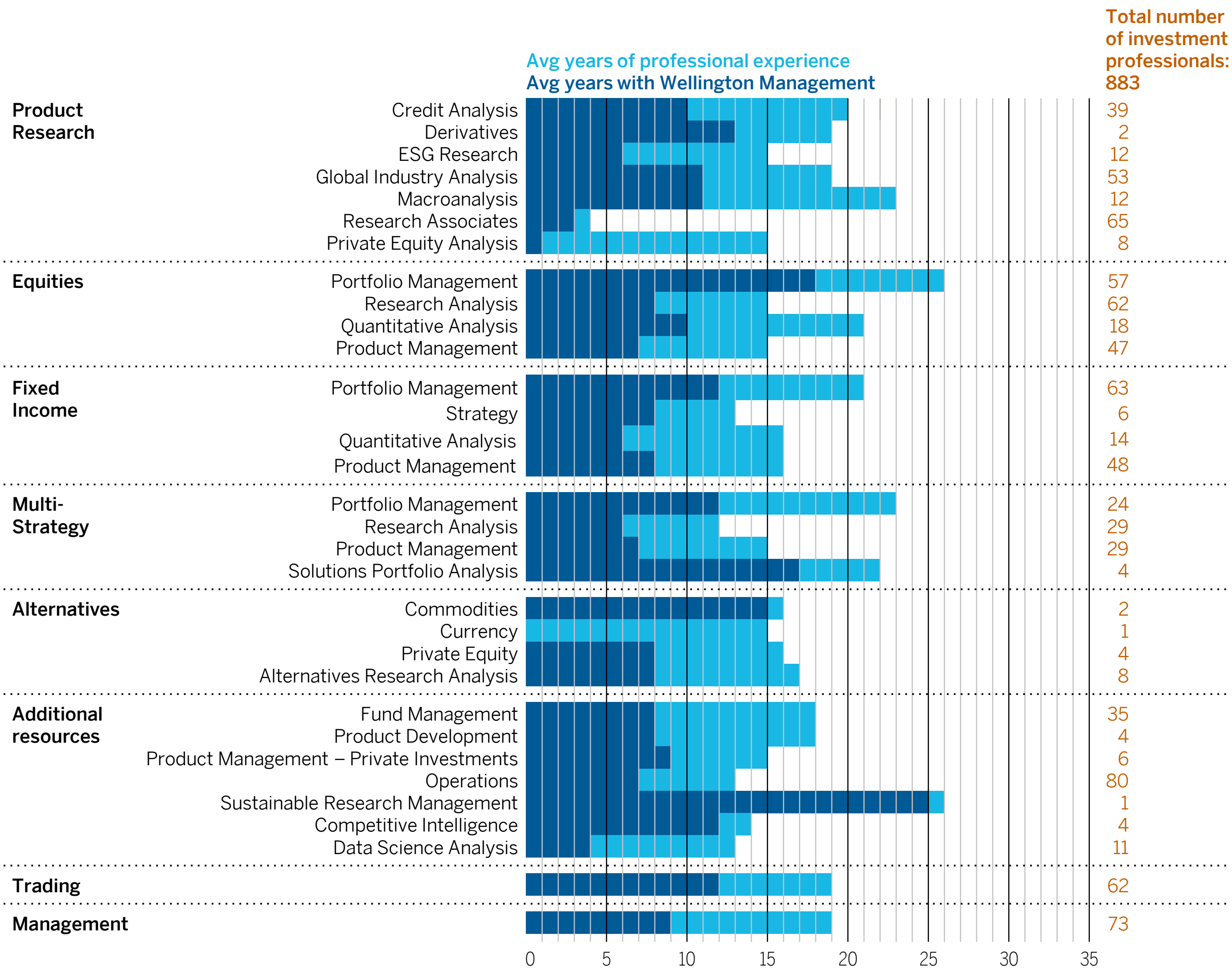
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Depth, experience, and continuity create interpretation advantage

Investors draw on rigorous, proprietary research

We conduct research through fundamental; environmental, social, and corporate governance (ESG); quantitative; macro; and technical lenses



As of 30 June 2021

S0000021981
P0000064045
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies
Investment philosophy

We believe

A quality orientation can lead to better downside mitigation, particularly in micro cap markets, which are laden with companies that are early stage, capital hungry, and speculative

Micro cap companies often carry an illiquidity discount that offers patient buyers attractive valuations and a larger universe of potential investments

Micro cap companies are often neglected by institutional investors, giving specialist managers an information advantage

S0000012761/S0000003194
P0000013750
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies
Investment objective and approach

Objective

Seeks to provide superior long-term returns in excess of the Russell Microcap Index by investing in neglected small and micro capitalization companies

Competitive edge

Deep and experienced team
- Four-member team with coverage by area of expertise
- Over 80+ years of aggregate experience investing in micro cap companies

Proprietary fundamental research
- Long-term familiarity with companies, management teams, and fundamentals
- Over 750 company meetings per year

Trading
- Expertise in trading stocks with lower liquidity
- Dedicated syndicate desk

Emphasis on the long-term investment merits of companies

S0000012761/S0000012750
P0000029352
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies
Investment team

David B. DuBard, CFA
Senior Managing Director

Equity Portfolio Manager
University of Pennsylvania (Wharton)
1992, MBA
30 years of professional experience
28 years with Wellington Management

Kevin M. Barry, CFA
Managing Director

Equity Research Analyst
Dartmouth College (Tuck)
1994, MBA
36 years of professional experience
26 years with Wellington Management

Peter W. Carpi, CFA
Managing Director

Equity Research Analyst
Stanford University
2005, MBA
19 years of professional experience
18 years with Wellington Management

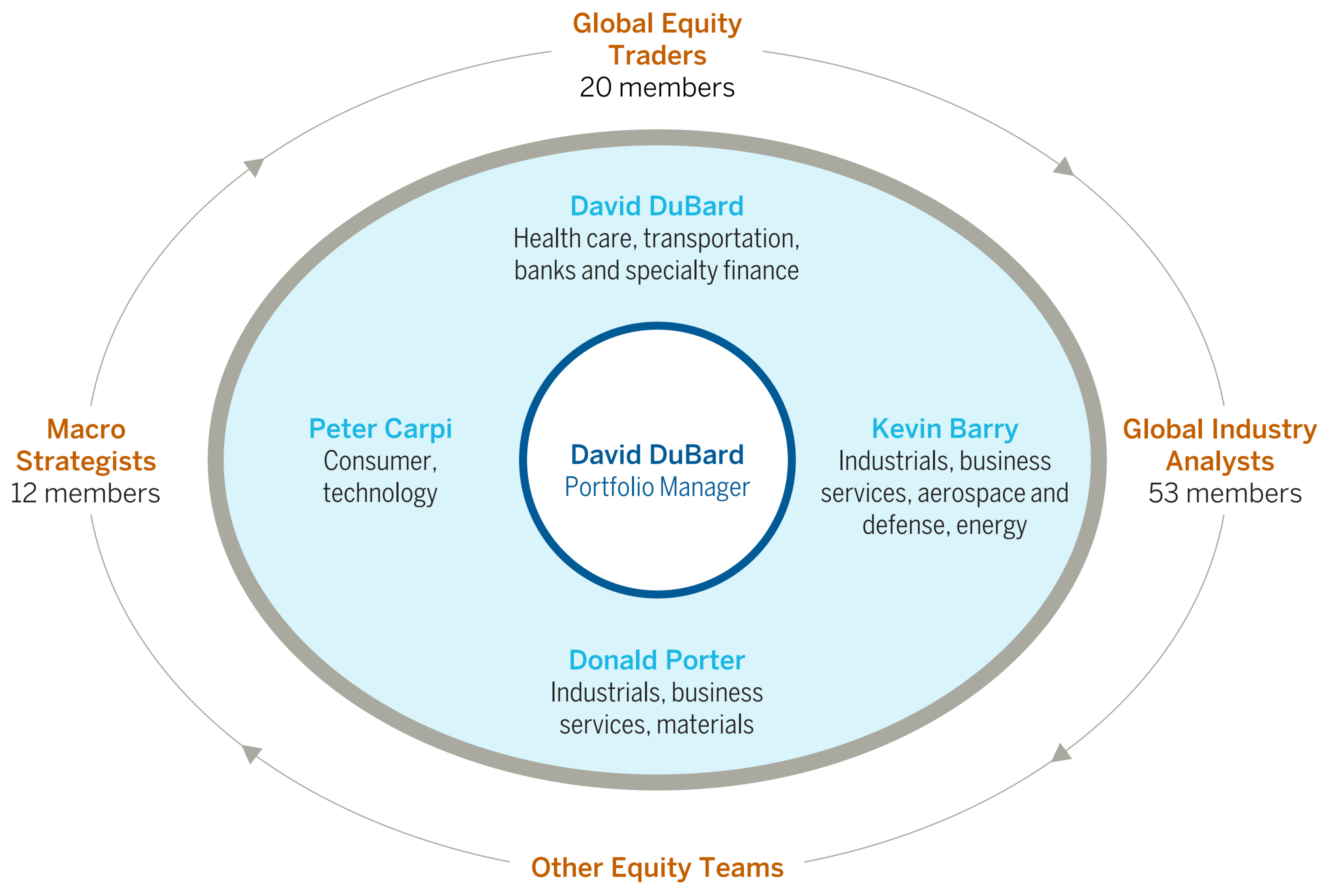
Donald S. Porter, CFA
Vice President

Equity Research Analyst
Bucknell University
2002, BA
18 years of professional experience
1 year with Wellington Management

S0000012761/S0000003170
P0000029731
MIX/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

Emerging Companies
Team resources



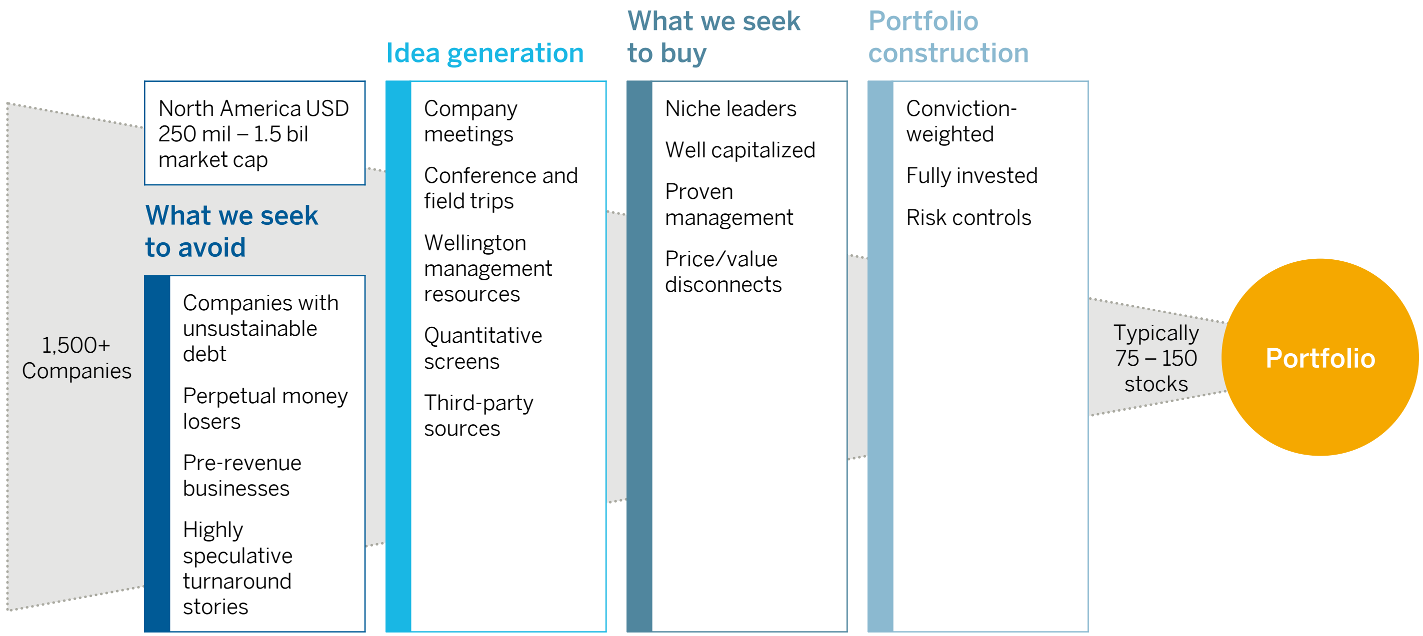
As of 30 June 2021

Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies

Investment process



The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges.

S0000012761/S0000012751
P0000029353
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

US market cap spectrum profile

Decile profile

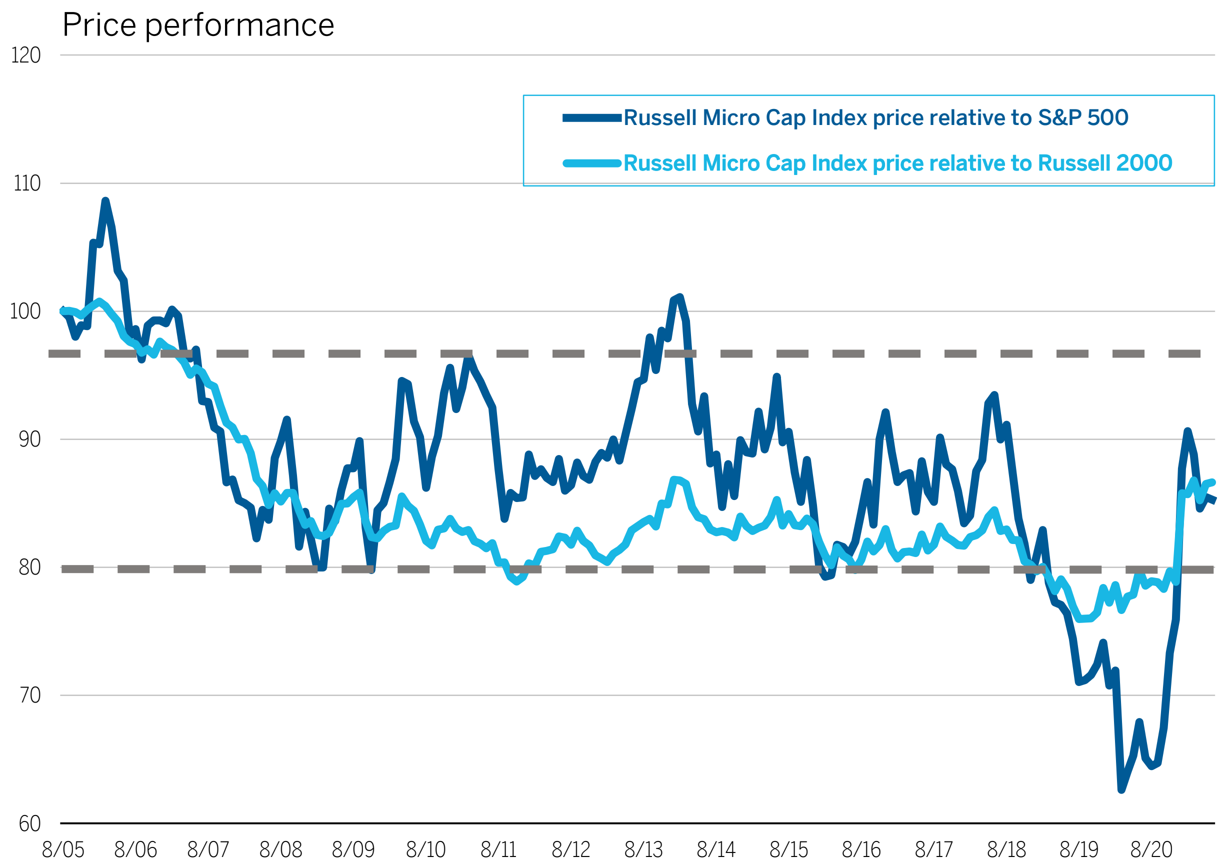
	Decile	Average (USD mil)	Number of companies	Max cap (USD mil)	% of total by cap[1]
Large	1	92,503	372	2,148,406	81.4
Mid	2	10,929	382	18,934	9.9
Small	3	4,537	378	6,321	4.1
	4	2,491	375	3,210	2.2
Micro	5	1,340	380	1,857	1.2
	6	710	380	936	0.6
	7	382	378	516	0.3
Nano	8	192	377	267	0.2
	9	93	380	135	0.1
	10	31	379	57	0.0

[1]May not total 100% due to rounding | Source: Dow Jones Total Market Index | Micro cap and Nano cap ranges are defined based on the investment team's view. | As of 30 June 2021

S0000012761/S0000012752
P0000029354
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

Relative strength of the Russell Micro Cap Index

WELLINGTON
MANAGEMENT®



Source: FactSet | Gray lines represent typical price performance range | For illustrative purposes only.
PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE. | Chart data: 31 August 2005 – 30 June 2021

S0000012761/S0000003198
P0000013754
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

Emerging Companies
The big theme: Quality

Characteristics we seek	Example
High profitability	Non-destructive excavation services company Management consulting firm Business optimization and industry solutions
Proven management	Financial technology company Innovative thermal management technologies developer Diagnostic medical imaging agents and products
Defendable niche	Technical products and services supplier Aviation landing gear systems and components manufacturer Global defense technology company
Free cash flow yield	Agricultural equipment manufacturer Transportation finance and logistics company Technology-enabled transportation and supply chain management services
Digital transformation	Hospitality software and solutions company Electronic payment services company Digital media and promotions tech company
Social impact	Supplies rare metal-based materials used in technology Provides acute care telemedicine services Commercial flooring company

As of 31 March 2021 | Views expressed herein are those of the investment team, are based on available information, and are subject to change without notice. Individual portfolio management teams may hold different views and may make different investment decisions for different clients. For illustrative purposes only.

S0000012761/S0000012754
P0000029356
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

Emerging Companies
Portfolio construction and risk oversight

Portfolio construction

Position size
Size at purchase: typically 0.75 – 2.00%

Maximum exposure at market: typically < 3%

Top ten positions: typically < 20%

Non-US companies
Maximum exposure at market: typically < 20%

Number of holdings
75 – 150

Market cap
Cap at purchase: typically USD 250 million – USD 1.5 billion

Cash
Less than 10%

IPOs
Allowed

Risk oversight

Portfolio management
Understand the risks to the investment thesis in individual stocks

Balance risk and reward expectations when setting position sizes

ESG review

Ensure adequate diversification across sectors and stocks

Understand liquidity expectations for each investment

Product management
Independent portfolio analysis

Style consistency/factor risks/stress testing

Capacity/business risks

Investments and risk management
Research and insights on risk and market trends

Risk Advisory Council

Develop new analytics/tools

Line management and senior management review groups
Philosophy/process/performance/characteristics

Resource assessment

Compliance
Active pre- and post-trade compliance monitoring

The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges.

S0000012761/S0000012755
P0000029357
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies
Representative account top ten holdings

As of 31 July 2021

Company	Industry Group	% of equities
Lantheus	Health care equip & svcs	2.6
Regional Management	Divers financials	2.4
Neo Performance Mate	Materials	2.4
Surmodics	Health care equip & svcs	2.2
Intl Money Exp	Software & svcs	2.0
Apria	Health care equip & svcs	1.9
Enova International	Divers financials	1.9
Faro Technologies	Tech hardware & equip	1.9
StoneX Group	Divers financials	1.9
ePlus	Tech hardware & equip	1.9
Total		**20.9**

Number of equity names: 123

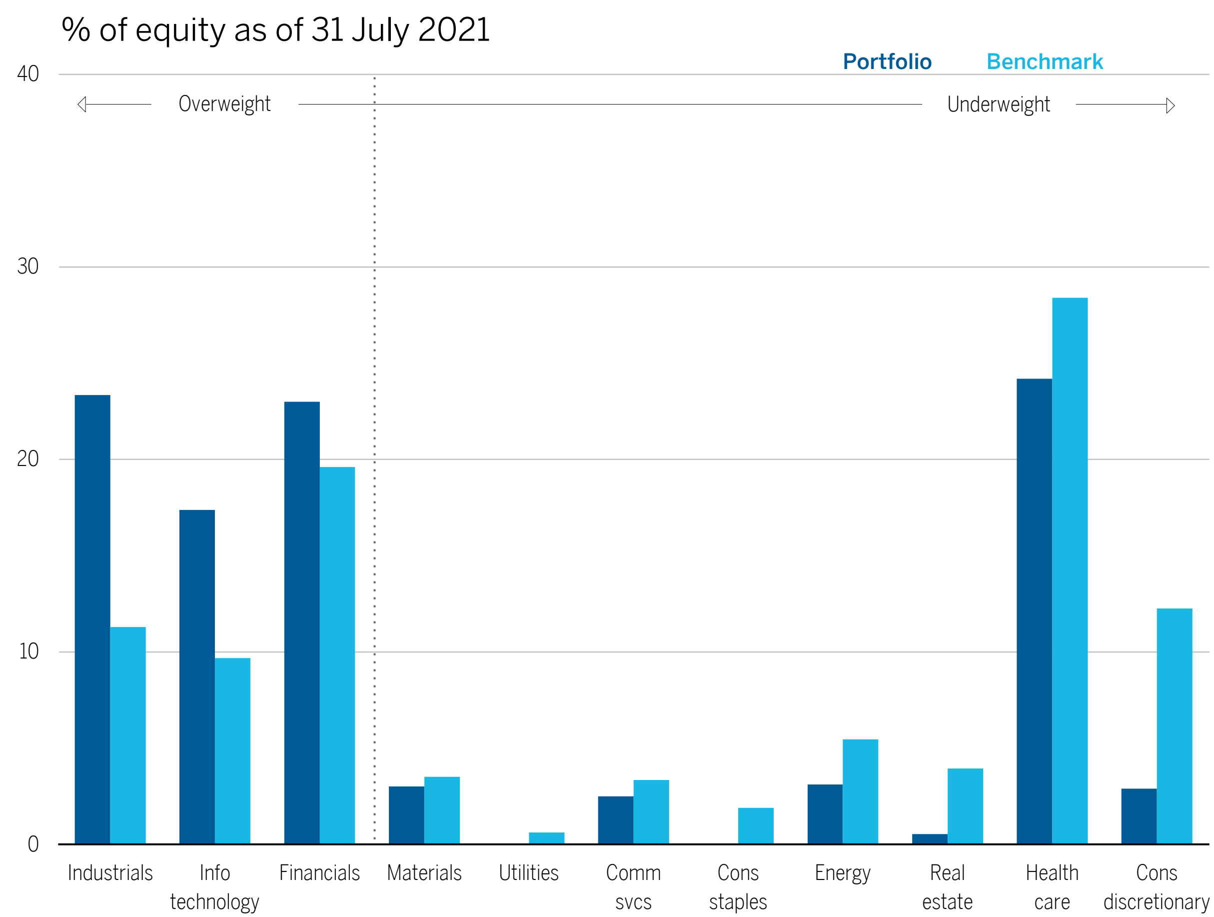
Sums may not total due to rounding. | The specific securities identified are not representative of all of the securities purchased, sold, or recommended for clients. It should not be assumed that an investment in the securities identified has been or will be profitable. Actual holdings will vary for each client and there is no guarantee that a particular client's account will hold any or all of the securities listed. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

S0000012761/S0000002306
P0000011739
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies

Representative account sector weights



Benchmark: Russell Microcap. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

S0000012761/S0000000230
P0000006110
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Emerging Companies
Representative account characteristics

As of 31 July 2021

	Portfolio	Benchmark
Size		
Asset-weighted market cap (USD, mil)	969.8	740.0
Median market cap (USD, mil)	843.6	270.0
Over USD 1 bil (%)	44	23
USD 500 mil – 1 bil (%)	41	41
USD 250 – 500 mil (%)	13	21
Under USD 250 mil (%)	1	14
Financial metrics		
Projected P/E (x)	23.8	89.0
Price/sales (x)	1.5	1.2
Price/book (x)	2.3	2.2
Yield (%)	0.7	1.1
Risk (holdings based)		
Asset turnover (1-yr, %)	100	
Risk (returns based)		
Historical beta (3-yr, USD)	0.85	
Historical R^2 (3-yr, USD)	0.87	
Historical tracking risk (3-yr, USD, %)	10.02	

Benchmark: Russell Microcap | Historical returns based risk characteristics are calculated versus the benchmark(s) used for performance comparison purposes, which may be different than the benchmark(s) displayed on this page. Please see the investment returns page for additional information. | Sums may not total due to rounding. | If access products are held by the portfolio they may not be included in the calculation of characteristic data. Access products are instruments used to gain access to equity markets not otherwise available and may include (but are not limited to) instruments such as warrants, total return swaps, p-notes, or zero strike options. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Portfolio characteristics are based on the underlying holdings of the representative account and are subject to change. This data may be sourced internally or externally depending on the specific approach, availability of internal data, underlying holdings characteristics, and other factors. Projected or forward looking characteristics are based on a number of assumptions and the use of alternative assumptions could yield significantly different results. Additional information on this data is available upon request. | Historical performance based risk characteristics are based upon composite data rather than representative account. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

S0000012761/S0000012830
P0000029501
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

Emerging Companies
Investment returns

As of 31 July 2021 (%, USD)

	1 yr	3 yrs	5 yrs	10 yrs
Emerging Companies Composite (gross)	**50.1**	**14.1**	**16.5**	**13.3**
Custom benchmark	64.3	12.4	15.6	12.5
Active return (gross vs benchmark)	-14.2	1.8	0.9	0.8

	YTD	2020	2019	2018	2017	2016
Emerging Companies Composite (gross)	**15.0**	**23.7**	**28.2**	**-14.0**	**19.2**	**23.7**
Custom benchmark	21.9	21.0	22.4	-13.1	13.2	20.4
Active return (gross vs benchmark)	-6.9	2.7	5.8	-0.9	6.0	3.4

	2015	2014	2013	2012	2011
Emerging Companies Composite (gross)	**-3.7**	**7.2**	**41.9**	**13.1**	**-8.4**
Custom benchmark	-4.3	4.9	38.8	16.3	-4.2
Active return (gross vs benchmark)	0.5	2.3	3.1	-3.3	-4.3

Custom benchmark: The custom benchmark consists of Russell 2000 from index inception through 30 September 2015; Russell Microcap from 01 October 2015 to present. | Sums may not total due to rounding. | Performance returns for periods one year or less are not annualized. | **PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE.** Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, the performance shown would be lower. Actual fees will vary depending on, among other things, the applicable fee schedule and account size. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. For use in one-on-one presentations only. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

S0000012761/S0000009370
P0000024065
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Our diversity and inclusion strategy

Global Diversity Committee

Upstanders

Director, Global Diversity and Inclusion

13 Diversity Business Networks with regional chapters and one EMEA Business Network Council

12 External Diversity Associations

Partnered with more than 100 US-based diverse suppliers

Grants with 193 organizations in 11 geographies since 1992

TALENT

Strengthen our ability to adapt and innovate

Engage differences to achieve higher performance

- Student pipelines
- Diversity Internships
- Targeted Search Firms
- Diversity dashboards

CULTURE

Sustain an environment based on shared values and excellence

Involve new perspectives to eliminate groupthink

- Senior leadership driven
- Inclusive Leader and Manager Programs
- D&I education for all employees

COMMUNITY

Leverage external expertise to generate solutions

Understand global markets and businesses

- Diversity Partnerships
- Emerging Brokerage Forums
- Supplier Diversity Program
- Education and Philanthropy

Updated in June 2019

2001012510/501973_3/G3197/G3197
Copyright © 2019 All Rights Reserved

WELLINGTON MANAGEMENT®

Sustainable investing at Wellington Management

Long history of research, client solutions, and industry partnerships

Wellington Management Future Themes

Firmwide research initiatives to identify complex set of challenges for the world, focusing on structural themes over the next 5+ years

Theme examples
- Breakthroughs in biotechnology
- The search for clean energy
- Strains on water and food supply
- Labor-augmenting technologies
- Personalized medicine

Since 1970s

1995
- Launch a Shari'ah – compliant global equity strategy, collaborating with Harvard University scholars and the Islamic Development Bank

2006
- Sub-advise equity fund for Domini

2007
- Launch Climate Strategy

2010
- Sign UK Stewardship Code

2011
- Establish ESG Research Team

2012
- Sign UN Principles for Responsible Investment (PRI)

2014
- Sign Japan Stewardship Code

2015
- Launch Global Impact
- Launch Emerging Market Development
- Sub-advise bond fund for Domini

2016
- Harvard Business School professors begin case study on Global Impact
- Approved as a member of the Global Impact Investing Network (GIIN)
- Sign Hong Kong Principles of Responsible Ownership

2017
- Sign Statement of Support for Task Force on Climate-related Financial Disclosures (TCFD)
- Launch low-carbon emerging markets systematic approach
- Launch Global Impact Bond

2018
- Wendy Cromwell elected to join the PRI Board
- Establish climate science initiative with Woodwell Climate Research Center
- The California Public Employees' Retirement System (CalPERS) joins climate science initiative
- Incubate Advancement of Women
- Incubate Broader Perspectives

2019
- Chris Goolgasian joins CFTC Climate Risk Subcommittee
- Incubate European Stewards
- Launch Global Stewards
- Incubate US Sustainable Companies

2020
- Ontario Teachers' Pension Plan (OTPP) joins climate science initiative
- Marjorie Winfrey joins EU Taxonomy Practitioners Group
- Commit to Net Zero by 2050
- Incubate US Stewards
- Incubate GRE Low Carbon
- Launch Responsible Values Multi-Sector Credit
- Launch Climate Adaptation

Wellington Management and Domini Impact Investments are independent and unaffiliated entities, each of which offers independent investment approaches and products. Currently, Wellington Management serves as sub-adviser to the Domini Impact International Equity Fund and the Domini Impact Bond Fund.

2002161082/530041_10/G3460/G3460
Copyright © 2020 All Rights Reserved

WELLINGTON
MANAGEMENT

What is ESG and why is it important?

Our philosophy

We believe

Material ESG issues are strategic business issues that can impact performance, so understanding them enables more informed investment decisions

Through informed and active ownership, we can support actions that benefit our clients

Environmental

Water efficiency ▶ Production costs

Carbon emissions

Water usage

Waste management

Climate change adaptation

Social

Labor conflicts ▶ Net margins

Labor union relations

Health and safety

Supply chain risks

Cybersecurity

Governance

CEO compensation ▶ Share price

Ownership structure and control

Board composition

CEO compensation

Shareholder rights

These examples are not intended to be representative of all ESG factors considered.

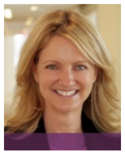
S0000020882/S0000022030
P0000046697
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT

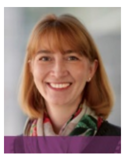
Sustainable Investment Research Team

Leading our investors, companies, and clients on sustainability research

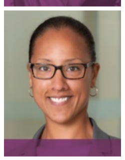
Research and strategy



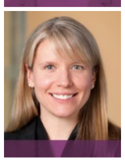
Wendy Cromwell, CFA
Director, Sustainable Investment
Senior Managing Director
Vice Chair



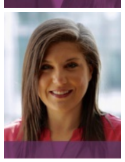
Andria Weil
SI Policy Manager
Managing Director



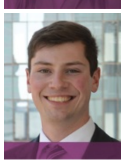
Marjorie Winfrey
SI Research Analyst
Vice President



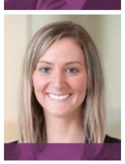
Beth Piskorowski
COO, Sustainable Investment
Managing Director



Samantha Lax
Business Manager, Sustainable Investment

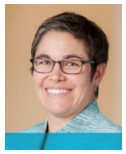


Andrew Montalti
Business Analyst, Sustainable Investment



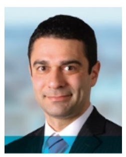
Meredith Joly
Chair, SI Global Network
Managing Director

ESG sector research



Carolina San Martin, CFA
Director, ESG Research
Managing Director

Energy



Jeff Barbieri
ESG Analyst
Vice President

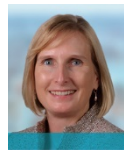
Financials, Information technology

Lindsay Blitstein, CFA
ESG Analyst
Assistant Vice President

Healthcare

Sean Caplice, CFA
ESG Analyst
Vice President

Consumer

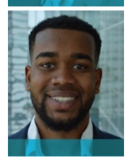


Jennifer Rynne, CFA
ESG Analyst
Managing Director

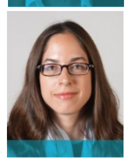
Utilities, Property, Transport

Michael Shavel, CFA
ESG Analyst
Vice President

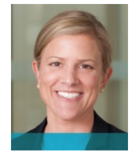
Materials, Industrials



Blake Broadnax
Research Associate



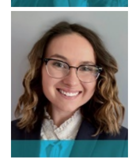
Gioia Domenido
Quant Analyst
Managing Director



Hillary Flynn
Director, ESG, Private Investments
Managing Director

Celi Khanyile-Lynch
Sustainability Analyst, Private Investments

Megan Galligan
Business Associate



Lauren White
Business Associate

Broader sustainable investment research community

- Equity (52) and credit (32) analysts across sectors and geographies
- Investment teams for the 10+ strategies on the sustainable investment platform

Resources to be hired

- ESG Sovereign Debt Analyst
- ESG Analysts (Industry-focused) Boston/London/Asia
- ESG Property/Structured Finance Analyst
- IMM Practice Leader

Climate research

Chris Goolgasian, CFA, CPA, CAIA
Director, Climate Research
Senior Managing Director

Julie Delongchamp, CFA
Climate Transition Risk Analyst
Assistant Vice President

Volkan Ozdurmus
Climate Transition Risk Analyst
Vice President

Jenny Xie
Research Associate

Martin Sankale
Research Associate

Jeromy Wendrick
Senior Software Engineer

Woodwell Climate Research Center primary research team of scientists and fellows

S0000020882/S0000020895
P0000046699
MIX/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON MANAGEMENT®

Emerging Companies
Investment risks

PRINCIPAL RISKS

Common Stock Risk – Common stock are subject to many factors, including economic conditions, government regulations, market sentiment, local and international political events, and environmental and technological issues as well as the profitability and viability of the individual company. Equity security prices may decline as a result of adverse changes in these factors, and there is no assurance that a portfolio manager will be able to predict these changes. Some equity markets are more volatile than others and may present higher risks of loss. Common stock represents an equity or ownership interest in an issuer.

Smaller Capitalization Stock Risk – The share prices of small and mid-cap companies may exhibit greater volatility than the share prices of larger capitalization companies. In addition, shares of small and mid-cap companies are often less liquid than larger capitalization companies.

ADDITIONAL RISKS

Commingled Fund Risk – Investments in funds or other pooled vehicles generally will indirectly incur a portion of that fund's operating expenses and/or fees and will inherit a proportion of the fund's investment risks. Funds may have different liquidity profiles based on their dealing terms, and the types of instruments in the fund. In the event a fund holds illiquid instruments, it is possible that a full redemption from the fund could result in taking custody of illiquid instruments that could not be sold in the market.

Liquidity Risk – Investments with low liquidity may experience market value volatility because they are thinly traded (such as small cap and private equity or private placement bonds). Since there is no guarantee that these securities could be sold at fair value, sales may occur at a discount. In the event of a full liquidation, these securities may need to be held after liquidation date.

S0000012761/S0000003641
P0000014871
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

WELLINGTON
MANAGEMENT®

Important disclosures

Additional performance information

PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. There can be no assurance nor should it be assumed that future investment performance of any strategy will conform to any performance examples set forth in this material or that the portfolio's underlying investments will be able to avoid losses. The investment results and any portfolio compositions set forth in this material are provided for illustrative purposes only and may not be indicative of the future investment results or future portfolio composition. The composition, size of, and risks associated with an investment in the strategy may differ substantially from the examples set forth in this material. An investment can lose value.

Impact of fees

Illustration of impact of fees: If USD100,000 was invested and experienced a 10% annual return compounded monthly for ten years, its ending value, without giving effect to the deduction of advisory fees, would be USD270,704 with an annualized compounded return of 10.47%. If an advisory fee of 0.95% of average net assets per year were deducted monthly for the ten-year period, the annualized compounded return would be 9.43% and the ending USD value would be USD246,355. Information regarding the firm's advisory fees is available upon request.

Selection of representative account

The current representative account became effective on 1 January 1985 because it was the least restrictive account at the time of selection. For data shown prior to the current representative account effective date, data of the representative account(s) deemed appropriate for the time period was used. Further information regarding former representative accounts can be provided upon request. Each client account is individually managed; individual holdings will vary for each account and there is no guarantee that a particular account will have the same characteristics as described. Actual results may vary for each client due to specific client guidelines, holdings, and other factors. In limited circumstances, the designated representative account may have changed over time, for reasons including, but not limited to, account termination, imposition of significant investment restrictions, or material asset size fluctuations.

Access products

If access products are held by the portfolio they may not be included in the calculation of characteristic data. Access products are instruments used to gain access to equity markets not otherwise available and may include (but are not limited to) instruments such as warrants, total return swaps, p-notes, or zero strike options.

Global Industry Classification Standard (GICS) changes

S&P Dow Jones Indices and MSCI have broadened and renamed the Telecommunication Services Sector as Communication Services to include companies that facilitate communication and offer related content and information through various media. These changes to Global Industry Classification Standard (GICS) are effective as of 1 October 2018 in the data shown. The new sector name applies retroactively and therefore Communication Services will replace Telecommunications Services for all periods. Wellington Management data reflects changes in line with the official GICS update; however, MSCI and S&P have elected to update their official index structures with different timing. Therefore, index data shown may differ from data obtained directly from the index vendors.

Additional disclosures

Securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly into an index.

Benchmark definition

Russell Microcap:The Index measures the performance of the microcap segment of the U.S. equity market.

S0000012761/S0000000329
P0000022759
AUT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

Wellington Management
Composite: Emerging Companies
Schedule of Performance Returns from 01 January 2011 to 31 December 2020

Period	*Gross Return (%)*	*Net Return (%)*	*Benchmark Return (%)*	*Number of Portfolios*	*Internal Dispersion (%)*	*Composite Mkt.Value (USD Mil)*	*Total Firm Assets (USD Mil)*
2011	-8.45	-9.32	-4.18	7	0.6	1,123	651,496
2012	13.06	12.00	16.35	< 6	N/M	976	757,903
2013	41.94	40.63	38.82	< 6	N/M	1,381	834,441
2014	7.17	6.16	4.90	< 6	N/M	1,434	914,109
2015	-3.75	-4.66	-4.28	< 6	N/M	1,375	926,949
2016	23.73	22.58	20.37	< 6	N/M	1,575	979,210
2017	19.18	18.07	13.17	< 6	N/M	1,691	1,080,307
2018	-14.01	-14.84	-13.08	< 6	N/M	972	1,003,389
2019	28.25	27.06	22.43	< 6	N/M	1,069	1,154,735
2020	23.69	22.54	20.96	< 6	N/M	1,045	1,291,419

Benchmark: Emerging Companies Custom Performance Splice

N/M: For years where there are less than six portfolios throughout the performance period, Internal Dispersion is not meaningful.

Composite Description: Portfolios included in the Emerging Companies Composite seek to outperform the Russell Microcap Index by investing primarily in stocks of neglected small and micro capitalization companies with a focus on high quality orientation. Companies in which we invest typically have one or more of the following attributes: unique niche leadership, a strong balance sheet, proven management team, and/or price/value disconnects.

Composite Inception Date: The composite inception date is 31 December 1984.

Composite Creation Date: The composite creation date is May 1996.

Composite Membership: All fully discretionary, fee paying portfolios are eligible for inclusion in the composite.

Fee Schedule: The institutional separate account fee schedule for this product is:

Market Value	Annual Fee
On the first US$50 million	0.95%
Over US$50 million	0.85

Benchmark Description: The Emerging Companies Custom Performance Splice consists of the Russell 2000 from inception through 30 September 2015 and the Russell Microcap from 01 October 2015 to present.

Benchmark Definition: Russell Microcap measures the performance of the microcap segment of the U.S. equity market.

Firm: For purposes of GIPS® compliance, the Firm is defined as all portfolios managed by Wellington Management Company LLP, an independently owned, SEC-registered investment adviser, as well as its affiliates (collectively, Wellington Management). Wellington Management provides investment advisory services to institutions around the world.

GIPS®: Wellington Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Wellington Management has been independently verified for the periods 1 January 1993 to 31 December 2019. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

Performance Calculation: Gross performance results are net of trading expenses. Returns are gross of withholding taxes on dividends, interest and capital gains and include reinvestment of any earnings. Returns, market values, and assets are reported in USD except when otherwise noted. Returns, market values and assets reported in currencies other than USD are calculated by converting the USD monthly return and assets using the appropriate exchange rate (official 4:00 p.m. London closing spot rates). Policies for valuing portfolios, calculating performance, and preparing GIPS composite reports are available upon request.

Net of fees performance reflects the deduction of the highest tier investment management fee ("model fee") that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints and is calculated by subtracting 1/12th of the model fee from monthly gross composite returns. In certain instances Wellington Management may charge certain clients a fee in excess of the standard model fee, such as to legacy clients or clients receiving additional investment services. Performance net of model fees is intended to provide the most appropriate example of the impact management fees would have for you.

Pool investors will experience costs in excess of investment management fees, such as operating expenses and custodial fees. These indirect costs are not reflected in the model fee, or net of fees performance.

Internal Dispersion: The dispersion measure presented is the asset-weighted standard deviation. The asset-weighted standard deviation measures the dispersion of individual portfolio gross returns relative to the asset-weighted composite return. Only portfolios that have been included in the composite for the full period are included in the standard deviation calculation. Limitations imposed by client guidelines or by law on a portfolio's ability to invest in certain securities or instruments, such as IPO securities, and/or implementation of the firm's Trade Allocation Policies and Procedures, may cause the portfolio's performance to differ from that of the composite.

©2021 Wellington Management Company LLP. All rights reserved.
Generated on: 19 February 2021

Wellington Management
Composite: Emerging Companies
Schedule of Performance Returns from 01 January 2011 to 31 December 2020

External Dispersion: The dispersion measure presented is the three-year annualized ex-post standard deviation. It measures the variability of the composite gross returns and the benchmark(s) over the preceding 36-month period. For periods prior to 1 January 2011, the Firm was not required to present the three-year annualized ex-post standard deviation.

	3-Year Standard Deviation (%)									
Year	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Composite	24.37	19.80	16.64	14.10	15.33	16.64	14.76	16.05	16.40	25.26
Benchmark	24.99	20.20	16.45	13.12	13.99	16.42	15.11	17.02	16.42	26.66

Composite Listing: Wellington Management's list of composite descriptions is available upon request.

Pooled Fund Listing: Wellington Management's list of pooled fund descriptions is available upon request.

Other Matters: This material contains summary information regarding the investment approach described herein and is not a complete description of the investment objectives, policies, guidelines, or portfolio management and research that supports this investment approach. Any decision to engage Wellington Management should be based upon a review of the terms of the investment management agreement and the specific investment objectives, policies, and guidelines that apply under the terms of such agreement.

Past Performance: Past results are not necessarily indicative of future results and an investment can lose value.

©2021 Wellington Management Company LLP. All rights reserved.

Important Notice

WELLINGTON MANAGEMENT®

Wellington Management Company LLP (WMC) is an independently owned investment adviser registered with the US Securities and Exchange Commission (SEC). WMC is also registered with the US Commodity Futures Trading Commission (CFTC) as a commodity trading advisor (CTA) and serves as a CTA to certain clients including commodity pools operated by registered commodity pool operators. WMC provides commodity trading advice to all other clients in reliance on exemptions from CTA registration. WMC, along with its affiliates (collectively, Wellington Management), provides investment management and investment advisory services to institutions around the world. Located in Boston, Massachusetts, Wellington Management also has offices in Chicago, Illinois; Radnor, Pennsylvania; San Francisco, California; Frankfurt; Hong Kong; London; Luxembourg; Milan; Shanghai; Singapore; Sydney; Tokyo; Toronto; and Zurich. ■ This material is prepared for, and authorized for internal use by, designated institutional and professional investors and their consultants or for such other use as may be authorized by Wellington Management. This material and/or its contents are current at the time of writing and may not be reproduced or distributed in whole or in part, for any purpose, without the express written consent of Wellington Management. This material is not intended to constitute investment advice or an offer to sell, or the solicitation of an offer to purchase shares or other securities. Investors should always obtain and read an up-to-date investment services description or prospectus before deciding whether to appoint an investment manager or to invest in a fund. Any views expressed herein are those of the author(s), are based on available information, and are subject to change without notice. Individual portfolio management teams may hold different views and may make different investment decisions for different clients.

In Canada, this material is provided by Wellington Management Canada ULC, British Columbia unlimited liability company registered in the provinces of Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan in the categories of Portfolio Manager and Exempt Market Dealer. ■ In Europe (excluding the United Kingdom and Switzerland), this material is provided by Wellington Management Europe GmbH (WME) which is authorized and regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht - BaFin). This material may only be used in countries where WME is duly authorized to operate and is only directed at eligible counterparties or professional clients as defined under the German Securities Trading Act. This material does not constitute investment advice, a solicitation to invest in financial instruments or information recommending or suggesting an investment strategy within the meaning of Section 85 of the German Securities Trading Act (Wertpapierhandelsgesetz). ■ In the United Kingdom, this material is provided by Wellington Management International Limited (WMIL), a firm authorized and regulated by the Financial Conduct Authority (FCA) in the UK (Reference number: 208573). This material is directed only at eligible counterparties or professional clients as defined under the rules of the FCA. ■ In Switzerland, this material is provided by Wellington Management Switzerland GmbH, a firm registered at the commercial register of the canton of Zurich with number CH-020.4.050.857-7. This material is directed only at Qualified Investors as defined in the Swiss Collective Investment Schemes Act and its implementing ordinance. ■ In Hong Kong, this material is provided to you by Wellington Management Hong Kong Limited (WM Hong Kong), a corporation licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities), Type 2 (dealing in futures contracts), Type 4 (advising on securities), and Type 9 (asset management) regulated activities, on the basis that you are a Professional Investor as defined in the Securities and Futures Ordinance. By accepting this material you acknowledge and agree that this material is provided for your use only and that you will not distribute or otherwise make this material available to any person. Wellington Investment Management (Shanghai) Limited is a wholly-owned entity and subsidiary of WM Hong Kong. ■ In Singapore, this material is provided for your use only by Wellington Management Singapore Pte Ltd (WM Singapore) (Registration Number 201415544E). WM Singapore is regulated by the Monetary Authority of Singapore under a Capital Markets Services Licence to conduct fund management activities and is an exempt financial adviser. By accepting this material you represent that you are a non-retail investor and that you will not copy, distribute or otherwise make this material available to any person. ■ In Australia, Wellington Management Australia Pty Ltd (WM Australia) (ABN19 167 091 090) has authorized the issue of this material for use solely by wholesale clients (as defined in the Corporations Act 2001). By accepting this material, you acknowledge and agree that this material is provided for your use only and that you will not distribute or otherwise make this material available to any person. Wellington Management Company LLP is exempt from the requirement to hold an Australian financial services licence (AFSL) under the Corporations Act 2001 in respect of financial services provided to wholesale clients in Australia, subject to certain conditions. Financial services provided by Wellington Management Company LLP are regulated by the SEC under the laws and regulatory requirements of the United States, which are different from the laws applying in Australia. ■ In Japan, Wellington Management Japan Pte Ltd (WM Japan) (Registration Number 199504987R) has been registered as a Financial Instruments Firm with registered number: Director General of Kanto Local Finance Bureau (Kin-Sho) Number 428. WM Japan is a member of the Japan Investment Advisers Association (JIAA), the Investment Trusts Association, Japan (ITA) and the Type II Financial Instruments Firms Association (T2FIFA). ■ WMIL, WM Hong Kong, WM Japan, and WM Singapore are also registered as investment advisers with the SEC; however, they will comply with the substantive provisions of the US Investment Advisers Act only with respect to their US clients.

©2021 Wellington Management. All rights reserved. | As of January 2021

S0000006515
P0000001665
PPT/ Tmpl 1.6
Copyright © 2021 All Rights Reserved

SHAWN T. WOODEN
TREASURER

State of Connecticut
Office of the Treasurer

DARRELL V. HILL
DEPUTY TREASURER

September 3, 2021

Members of the Investment Advisory Council

Re: HarbourVest CRPTF Co-Investment Partnership

Dear Fellow IAC Member:

At the September 8, 2021 meeting of the Investment Advisory Council, I will present for your consideration investment opportunities for both the Private Investment Fund ("PIF") and the Private Credit Fund ("PCF") of the Connecticut Retirement Plans and Trust Funds: HarbourVest CRPTF Co-Investment Partnership (the "Partnership"). The Partnership will allow the CRPTF to co-invest in private equity and private credit transactions and will be managed by HarbourVest Partners ("HarbourVest"), a leading private markets investment management firm with more than $80 billion of assets under management.

The Partnership will be comprised of HarbourVest CT Co-Investment Fund LP ("CT Co-Investment Fund") and HarbourVest CT Private Debt Fund LP ("CT Private Debt Fund"). I am considering annual commitments of $150 million to each of the CT Co-Investment Fund and the CT Private Debt Fund over an initial three-year commitment period. The CT Co-Investment Fund will allow the CRPTF to participate in co-investment opportunities generated from private equity managers in the PIF portfolio as well as those accessed through HarbourVest's deep network of leading general partners. Through the CT Private Debt Fund, the CRPTF will be able to capitalize on co-investment opportunities generated from its PCF managers as well as co-investments alongside HarbourVest's private credit platform. HarbourVest has established a leading position in the co-investment market, with a deep and experienced team that has led more than $13 billion of co-investments since 2004 while developing expertise in managing customized co-investment programs for several large public plans.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Hamilton Lane. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden
State Treasurer

OFFICE OF THE STATE TREASURER

MEMORANDUM

DECISION

TO:	**Shawn T. Wooden, Treasurer**
FROM:	**Ted Wright, Chief Investment Officer**
CC:	**Darrell V. Hill, Deputy Treasurer** **Raynald D. Leveque, Deputy Chief Investment Officer** **Kevin Cullinan, Chief Risk Officer** **Mark E. Evans, Principal Investment Officer**
DATE:	**September 1, 2021**
SUBJECT:	**HarbourVest CRPTF Co-Investment Partnership – Final Due Diligence**

Summary

The purpose of this memorandum is to recommend that the Connecticut Retirement Plans and Trust Funds ("CRPTF") consider commitments to (1) HarbourVest CT Co-Investment Fund LP ("CT Co-Investment Fund") that will focus on private equity co-investments and (2) HarbourVest CT Private Debt Fund LP ("CT Private Debt Fund") that will focus on private credit co-investments. The recommended HarbourVest CRPTF Co-Investment Partnership is structured to include annual commitments $150 million per year for three years to each of the CT Co-Investment Fund and the CT Private Debt Fund.

The funds will be structured as customized, separately managed accounts ("SMA") that will be managed by affiliates of HarbourVest Partners L.P. ("HarbourVest" or the "Firm") and provide the CRPTF the opportunity to harvest private equity and private credit co-investment opportunities generated from managers in the CRPTF's portfolios as well as those managers accessed through the HarbourVest platform.

Headquartered in Boston, MA, HarbourVest is a leading private markets investment management firm that has more than $80 billion of assets under management.

Strategic Allocations within the Private Investment Fund and Private Credit Fund

Private Investment Fund

The CT Co-Investment Fund would fall under the Corporate Finance allocation of the Private Investment Fund ("PIF"). The Investment Policy Statement ("IPS") establishes target allocation ranges of 70% to 100% to Corporate Finance investments within the PIF portfolio as measured by a percentage of total exposure, defined as market value plus unfunded commitments. The PIF's total exposure to Corporate Finance strategies was approximately 84% as of June 30, 2021.

The CT Co-Investment Fund will focus specifically on co-investment opportunities in growth equity and buyout strategies, which currently represent an estimated 2% and 56% of the PIF's total exposure, respectively. The PIF's strategic pacing plan establishes long-term targeted exposures of 10% to 20% to growth equity and 55% to 75% to buyouts.

Private Credit Fund
The CT Private Debt Fund will focus on senior and mezzanine credit strategies identified in the IPS. As of June 30, 2021, the PCF's estimated total exposure to senior and mezzanine credit strategies was 39% and 6%, respectively, while the PCF's strategic pacing plan currently targets long-term exposures of 40% to 50% in senior debt and 10% to 20% to junior debt.

The recommended CT Co-Investment Fund and CT Private Debt Fund commitments will allow the CRPTF to develop customized co-investment programs with HarbourVest to achieve the following objectives.

- Enhanced returns through investment selection and more favorable fee and carry structures.
- Supporting the goals of the PIF and PCF strategic plans to have co-investments represent 10% to 20% of each portfolio's exposure over the long-term.
- Increased ability to control capital pacing as well as manager and sector diversification.
- Strengthened relationships with the CPRTF's private equity and credit managers while gaining insights into existing and prospective managers.
- Additional staff development through information sharing and knowledge transfer opportunities.

Pension Funds Management ("PFM") investment professionals believe the CRPTF's private equity and credit portfolios will benefit from partnering with HarbourVest, a leading private capital co-investment manager. HarbourVest has invested more than $13.5 billion of direct co-investment capital since 2004 and has extensive experience partnering with larger institutional investors to develop customized co-investment programs.

The CRPTF has existing commitments to HarbourVest's most recent flagship private equity secondary investment fund, Dover Street X, as well as a companion vehicle that invests alongside Dover X in certain secondary transactions. PFM investment professionals note that while both funds are performing very well to date, the vehicles' early net internal rates of return ("IRR") are expected to moderate as the funds continue to draw capital.

(US$ in millions, as of March 31, 2021)

Fund	Vintage Year	Status	Connecticut Commitment	Unfunded Commitment	NAV	Net IRR	Net TVM	Net DPI
Dover Street X L.P.	2019	Investing	$100	$78	$29	76%	1.4x	0.2x
Secondary Overflow Fund IV L.P.	2019	Investing	$100	$91	$13	102%	1.6x	0.2x
Total HarbourVest			**$200**	**$168**	**$42**	**85%**	**1.5x**	**0.2x**

Source: Connecticut returns from Burgiss Private i.

Firm and Management Team

HarbourVest is a global private equity investment management firm that spun out of John Hancock Insurance in 1997. The Firm's founders began investing together at Hancock Venture Partners in the late 1970s and expanded the Firm's investment strategies to include buyout funds, secondary and direct investments over time. HarbourVest, headquartered in Boston, MA, now has offices in Beijing, Bogota, Dublin, Frankfurt, Hong Kong, London, Seoul, Singapore, Tel Aviv, Tokyo, and Toronto.

The Firm is managed by an Executive Management Committee consisting of John Toomey and Peter Wilson, Managing Directors who joined the Firm in 1997 and 1996, respectively. The Firm has more than 700 employees globally, including more than 150 investment professionals that have committed over $100 billion of primary, secondary and co-investment capital since inception. HarbourVest is an employee-owned firm with the equity ownership broadly dispersed among a group of current and former Managing Directors while another group of Managing Directors and Principals participate in a profit-sharing plan.

HarbourVest supports its global approach through investment teams in all locations participating in sourcing and evaluating investment opportunities across venture capital, buyout, credit, and infrastructure. While the Firm's investment professionals may focus on primary, secondary, or direct investments, all professionals are incentivized to support the sourcing and diligence efforts across the platform based on HarbourVest's shared economics structure.

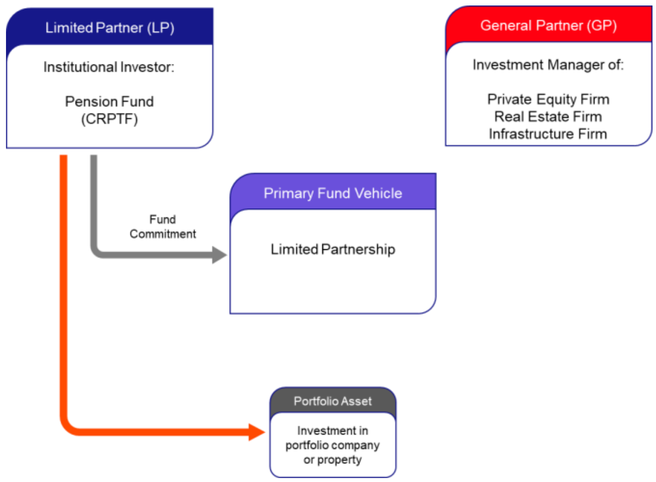
Beginning in 2019, HarbourVest moved from having one global investment committee responsible for all investments to strategy specific investment committees. All investments approved by the strategy specific investment committees go to the Firm's Portfolio Construction Committee that is responsible for allocating the approved opportunity fairly and equitably in accordance with the Firm's Allocation Policy, which contemplates contractual obligations and fiduciary duties. There is an exception to the general Allocation Policy for customized SMAs such as the recommended CT Co-Investment Fund and CT Private Debt Fund. Specifically, Connecticut would receive the full allocation of any co-investment opportunity that a general partner identifies for Connecticut, subject to portfolio construction and concentration management practices.

HarbourVest's primary, secondary, direct co-investment and private credit investment professionals are supported by shared resources including research and risk management, investor relations, operations, and fund administration. For example, HarbourVest Quantitative Research and Investment Risk team utilizes a set of proprietary quantitative models and tools to support the optimal portfolio diversification objectives intended to maximize each portfolio's risk adjusted returns. The Quantitative Research and Investment Risk team regularly monitors a variety of portfolio risk metrics, which are reviewed frequently with the primary, secondary, and direct co-investment teams to help support portfolio construction decisions.

More detailed information on the direct co-investment and private credit investment teams and committees is provided in the CT Co-investment Fund and CT Private Debt Fund sections of this memorandum.

Co-Investment Overview

Co-investments are direct investments in a portfolio company or asset alongside the general partner or investment manager of a commingled fund leading the portfolio company investment as depicted below.



While co-investments can provide benefits to both general and limited partners, the coordination and execution of co-investment opportunities can be time and resource intensive for all parties. Co-investment can be broadly categorized into two types: syndicated and co-underwritten/co-sponsored. With a syndicated transaction, a fund general partner will close an investment first and then proceed to sell down, or syndicate, a portion of the investment to fund limited partners or other co-investors. In a co-underwritten or co-sponsored transaction, the lead general partner will seek out co-investment partners early in the process often with the requirement that the co-investment partner(s) be willing to make an equity commitment to the proposed transaction simultaneous with the general partner. Syndicated co-investments may allow the general partner to optimize a fund's investment hold size but generally present limited risk to the general partner or fund if all, or some portion, of the targeted co-investment is not syndicated. However, the general partner's potential risk with a co-underwriter/co-sponsor partner are heightened. Specifically, the general partner's ability to execute an acquisition agreement may be dependent on the co-investment partner's decision to sign an equity commitment letter and execute the transaction alongside the lead sponsor.

General partners often utilize co-investment capital to manage portfolio construction and concentration risks while also providing the fund with increased flexibility to pursue larger transactions when needed. For most transactions, a fund manager would prefer to raise co-investment capital from the fund's limited partners or a third-party manager of co-investment capital rather than partnering with another lead equity or credit sponsor that may be a direct competitor. In addition to benefitting the general partner's investment practice, access to co-investment opportunities can allow the fund manager the opportunity to build stronger relationships with existing and prospective limited partners.

Private equity and private credit managers have generally offered co-investment opportunities to a fund's limited partners on a no fee, no carry basis. A limited partner may benefit from a well-run co-investment program through enhanced return potential, more active management of capital deployment and portfolio exposures, staff development opportunities, and the formation of stronger general partner relationships and insights into a manager's capabilities.

Hamilton Lane identifies several critical factors and challenges for implementation of a successful co-investment program, all of which are contemplated in the recommended HarbourVest CRPTF Co-Investment Partnership.

- Focus on performance as a primary objective.
- Leverage scale as best as possible, including:
  - Generating deal flow from GP relationships;
  - Accessing deep and broad deal flow, particularly from top-tier GPs, to create well-constructed, diversified portfolios that augment primary fund commitments; and,
  - Achieving economies of scale to effectively manage individual investment costs.
- The ability to evaluate and select attractive investments, including having access to various diligence information channels.
- Having appropriate staff resources to manage investment, legal, reporting, and monitoring requirements.

<u>HarbourVest Key Differentiators</u>

The scale and breadth of HarbourVest's platform as well as the experience and expertise of its dedicated co-investment and private credit teams has allowed the Firm to develop several key differentiators critical to the success of a co-investment strategy. HarbourVest's direct co-investment and lending platforms benefit from the Firm's extensive relationships with more than 700 general partners globally developed through the Firm's substantial primary and secondary fund investing practices. Since inception, HarbourVest has made more than $48 billion of primary fund commitments and nearly $30 billion of secondary commitments in addition to more than $23 billion of direct equity and credit investments. The more than $100 billion of total commitments has been made globally with the largest allocations to the Americas (62% of total commitments) followed by EMEA (28%), and Asia (10%).

These Firm's long-standing relationship with leading general partners, often across multiple HarbourVest strategies, provides the direct co-investment and private credit teams with differentiated and advantaged deal flow. HarbourVest holds advisory boards seats for more than 77% of the funds in which it makes primary fund commitments and is frequently one of the largest investors in a fund. As a result of HarbourVest's meaningful and close working relationships with its general partners, the Firm's investment professionals are often able to uncover potential co-investment and credit investment opportunities through direct discussions with a general partner. This advantaged access not only creates significant deal flow but often best positions HarbourVest to create proprietary co-investment opportunities as well as advantaged allocations relative to other potential capital partners. HarbourVest's ability to provide a transaction sponsor with both credit and equity investment capital is another competitive differentiator for the Firm. The HarbourVest direct co-investment team also maintains a dedicated outbound sourcing effort to expand the Firm's co-investment opportunity set.

HarbourVest's ability to generate strong deal flow from leading general partners allows the direct co-investment and private credit teams to be highly selective and maintain disciplined underwriting and portfolio construction practices. During 2020, the direct co-investment team sourced 730 transactions and closed on commitments to just over 10% of those opportunities. The Firm's direct private credit team sourced more than 980 transactions in 2020 and closed on fewer than 5% of the total deals sourced.

The HarbourVest direct co-investment and private credit investment professionals utilize the Firm's information advantage to screen and perform due diligence on potential investment opportunities. The Firm's close, collaborative working relationships with general partners allows its investment professionals to gain direct, real-time access to the transaction sponsor, due diligence materials, and management teams. This information is augmented by the Firm's proprietary database that includes detailed manager track record and portfolio company information for every fund in which the Firm has invested. With information on more than 900 sponsors, the database allows the Firm's investment teams to gain deep insights into a general partner's track record by sector and individual partner, which helps to identify the manager's particular strengths and core competencies. In addition, HarbourVest's repository of detailed historical portfolio company information provides its investment teams with the ability to track performance by sector and sub-sector as well as valuation and return trends.

HarbourVest CT Co-Investment Fund LP

Management Team

The HarbourVest direct co-investment platform is one of the largest and most established in the private equity industry. HarbourVest's direct co-investment and credit team is currently comprised of 56 investment professionals dedicated to direct investments. The private equity direct co-investment team is led by six Managing Directors with an average HarbourVest tenure of 18 years. The Firm's direct co-investment professionals are located in Boston, Dublin, Hong Kong, London, and Toronto but also leverage resources across HarbourVest's other global offices.

HarbourVest began making direct company investments in 1983 and has participated in more than 750 direct co-investments since that time. Initially, HarbourVest made direct investments out of multi-strategy private equity and credit vehicles but raised its first commingled fund dedicated to co-investments in 2004. Since that time, the direct co-investment team has invested more than $13.5 billion in over 375 co-investments, including through multiple market cycles. The team has gained valuable insights and pattern recognition skills that resulted in constant refinements and improvements to best practices across due diligence, investment selection and structuring, portfolio construction, and monitoring.

The HarbourVest co-investment team has developed a particular expertise in solutions-oriented co-investments, which allows the Firm to generate proprietary deal flow and serves as a competitive advantage relative to managers focused on syndicated co-investment opportunities. HarbourVest utilizes the team's ability to independently assess a co-investment to engage early with the sponsor and create a potential co-investment opportunity for the Firm, often through a customized solution not readily available from other co-investment managers. In addition to co-underwriting investments, HarbourVest also provides several other forms of solutions-oriented co-investments, including providing growth or recapitalization capital for individual portfolio companies and transaction warehousing. While the HarbourVest direct co-investment team seeks to build the strongest pipeline across all transaction types, solutions-oriented investments have represented more than 65% of all transactions and capital deployed over the most recent HarbourVest commingled co-investment funds.

In addition to managing a series of commingled co-investment funds, the HarbourVest direct co-investment team began managing co-investment separately managed accounts for institutional investors in 2011. Since that time, the direct co-investment team has invested more than $9.5 billion in over 345 co-investments completed on behalf of SMA clients. HarbourVest manages co-investment SMAs on behalf of several large public pension plans, including the State of Michigan Retirement System, the Virginia Retirement System, and the New York State Teachers' Retirement System. Through this significant experience with several large institutions, HarbourVest has developed expertise in providing customized solutions to achieve each client's desired co-investment objectives.

HarbourVest's Direct Strategy Committee ("Direct IC") approves all direct co-investments and is comprised of six senior Managing Directors of the Firm. Five of the Direct IC members vote on each transaction. Ian Lane, Peter Lipson, Alex Rogers, and Greg Stento vote on all transactions presented to the Direct IC. The fifth voting member is Kelvin Yap if the direct co-investment opportunity involves an Asian investment, or Corentin du Roy Kelvin for opportunities outside of Asia. Lane, Lipson, Rogers, Yap, and du Roy are all senior members of the direct investment team, while Stento is the Firm's Head of Investments. Two-thirds of the voting Direct IC members must support an investment for it to be approved and no member of the Direct IC has a veto right.

Investment Strategy and Market Opportunity

The CT Co-Investment Fund's strategy will be focused on making private equity co-investments alongside buyout and growth equity managers. The primary objectives of the CT Co-Investment Fund include generating improved net returns, providing access to a higher volume and more diverse set of co-investment opportunities, and allowing the CRPTF a complementary means to efficiently scale its deployment of private equity capital.

The fund will be managed by HarbourVest's direct co-investment team, which will be responsible for sourcing, selecting, structuring, and monitoring investments in the fund subject to the CRPTF's customized investment guidelines. The CT Co-Investment Fund will create the capacity for the CRPTF to benefit from co-investment opportunities generated from existing private equity managers in the PIF portfolio. HarbourVest will work with PFM staff to develop a communication and sourcing effort to ensure that Connecticut receives an opportunity to review all appropriate co-investments generated by managers in the PIF portfolio.

HarbourVest will complement the CRPTF's deal flow with co-investment opportunities sourced through HarbourVest's deep roster of manager relationships. While HarbourVest invests globally with managers across a range of firm and fund sizes, the Firm's direct co-investment activities are weighted toward lower and middle market transactions, particularly those with significant sector expertise. The table below summarizes the composition of HarbourVest's co-investment activity by enterprise value, sector, and geography across its most recent commingled co-investment funds.

HarbourVest Co-Investment Fund III through V					
Enterprise Value		Sector		Geography	
<$1.5B	51%	Technology	25%	North America	60%
$1.5B to $3B	31%	Industrials	21%	Europe	25%
>$3B	18%	Healthcare	18%	Asia	13%
		Financials	18%	Emerging Markets	2%
		Consumer	18%		

Source: HarbourVest; % based on invested capital as of March 31, 2021.

The CT Co-Investment Fund will target co-investment commitments of $150 million per year over an initial three-year commitment period. The CRPTF and HarbourVest would work to extend the investment period should the initial capital commitment not be deployed as expected. In addition, the fund will be structured as an evergreen vehicle, which would allow the CRPTF to continue to allocate capital for private equity co-investments beyond the fund's initial three-year commitment period.

HarbourVest will seek to build a portfolio of buyout and growth equity co-investments diversified across managers, sectors, size, and geographies. The Firm anticipates that the CT Co-Investment Fund will make approximately 15 co-investments per year, weighted 70%-90% to buyouts and 10%-30% to growth equity. Based on HarbourVest's experience and expertise in managing customized co-investment programs for several large institutional, HarbourVest expects the fund's co-investments to be sourced equally from PIF managers and HarbourVest managers.

Co-investment opportunities sourced from managers in the PIF portfolio will undergo the same thorough screening and diligence process that the direct co-investment team utilizes for its commingled funds and other SMAs. The direct co-investment team has developed a standard due diligence process that begins with an initial screening and involves an iterative process through which senior members of the investment team and the Direct IC can provide feedback and identify focus areas for further diligence. A full due diligence review includes a thorough assessment of the lead sponsor, a comprehensive industry review, company analysis, and an evaluation of both the sponsor's and target company's ESG practices. HarbourVest complements its internal due diligence work with the retained services of a leading global strategy consulting firm, which provides HarbourVest with a dedicated team to conduct targeted commercial due diligence on a no notice basis.

HarbourVest proactively manages its co-investment portfolios through frequent interactions with both company management and the lead transaction sponsor. While a minority investor, HarbourVest seeks to add value to its portfolio companies and sponsor partners through assistance with manager recruitment, customer introductions, strategy formulation, operational improvements, capital raising, and exit alternatives. sale negotiations. Deal teams are responsible for reviewing quarterly financial statements, assisting with valuations, and providing internal updates on each investment's progress. Direct co-investment team members perform regular bottom-up and top-down portfolio analyses to help monitor portfolio pacing, diversification, and performance. Twice a year the co-investment team produces an analysis of each portfolio company, which allows the team to track portfolio progress during the prior six months. The semiannual reviews provide insights on projected performance and outcomes as well as the identification of any broader patterns or trends across portfolios.

HarbourVest's active portfolio company monitoring practices provides the Firm the opportunity to identify underperforming investments early and engage with the lead sponsor to address the company's challenges. When HarbourVest holds a board or board observer seat, its investment professionals may contribute to discussions involving work-out plans, changes to a company's management team or capital structure, etc.

HarbourVest CT Private Debt Fund LP

Management Team

HarbourVest established its dedicated private credit team in 2018 and recruited two senior credit investment professionals to complement the experience of the existing team members that had been investing in credit at HarbourVest prior to 2018. The HarbourVest private credit team is currently comprised of three Managing Directors, each with more than 20 years of investment experience. Additionally, one Principal and four Vice Presidents are dedicated to the private credit platform while junior investment associates are a shared resource of the private credit and direct co-investment teams. The senior investment professionals on HarbourVest's credit team have an average of over 15 years of experience originating, underwriting, structuring, and restructuring senior debt investments across multiple market cycles. The private credit investment professionals are all located in the Firm's Boston headquarters.

The HarbourVest team began making private credit investments in 2003 and had committed $1.2 billion to 75 private credit direct investments as of March 31, 2021. Through 2015, the Firm's private credit activity was focused primarily on junior credit or mezzanine investments. HarbourVest expanded its private credit direct investment strategy into senior credit in 2015 when it added experienced senior credit investment professionals to the direct investment team. Between 2015 and March 2021, HarbourVest had invested more than $670 million in over 50 direct senior credit investments.

Prior to raising its first dedicated credit fund, HarbourVest Credit Opportunities Fund I ("COF I"), HarbourVest made private credit investments out of other HarbourVest managed vehicles. COF I was invested between 2015 and 2020 and was followed by HarbourVest Credit Opportunities Fund II ("COF II"), which began investing in 2019. The Credit Opportunities funds are focused on junior credit investments that are most often accompanied with equity co-investments. The Firm launched its first commingled fund dedicated to direct senior credit investments, HarbourVest Direct Lending Fund, in 2019. Additionally, HarbourVest now manages $400 million of private credit focused SMAs.

Similar to the HarbourVest direct co-investment team, the private credit platform benefits from the network effect of the Firm's more 150 investment professionals that are engaging frequently with private equity and private credit firms. The HarbourVest credit team utilizes a systematic process to source opportunities from the Firm's vast relationships with private markets managers as well as through professional networks developed over decades of direct debt investing. In addition, the Firm's direct co-investment pipeline is monitored closely for private credit investment opportunities that may be available as part of the same equity co-investment transaction under review by the direct co-investment team.

HarbourVest's Credit Strategy Investment Committee ("Credit IC") is responsible for approving all credit investments and is comprised of five Managing Directors of the Firm: Peter Lipson, Jamie Athanasoulas, John Morris, Karen Simeone, Greg Stento. Lipson, Athanasoulas, and Simeone are the Managing Directors with primary responsibility for the private credit platform, while Morris and Stento are senior members of the HarbourVest organization with tenures of more than 20 years at the Firm. Two-thirds of the voting Credit IC members must support an investment for it to be approved and no Credit IC member has a veto right.

Investment Strategy and Market Opportunity

The CT Private Debt Fund's strategy will be focused on making senior and junior credit investments in companies that are generally owned by private equity sponsors. Consistent with HarbourVest's flagship private credit strategies, the CT Private Debt Fund is expected to be primarily invested in middle market companies based in the United States with opportunistic exposure to other geographies.

The CT Private Debt Fund portfolio will be primarily focused on senior credit opportunities, which are expected to comprise 70% of the fund's exposure. HarbourVest will seek to build a diversified portfolio of senior credit investments across first lien, unitranche and second lien securities to provide current income, capital preservation, and strong downside protection. The balance of the fund's exposure is expected to be consist of higher yielding junior credit investments, which may include second lien, holdco notes, and PIK preferred instruments. The CT Private Debt Fund investment guidelines will limit the fund's total equity exposure but provide the opportunity for capital appreciation when available.

The objectives of the CT Private Debt Fund are to deliver returns consistent with the PCF's risk profile and return benchmark while also providing the CRPTF with the opportunity to build out the PCF's market value through a fee efficient strategy. HarbourVest will target net unlevered returns of 7% to 8% for senior credit investments and in the low teens for junior capital investments made on behalf of the CT Private Debt Fund.

The CT Private Debt Fund will enable the CRPTF to capture co-investment opportunities generated from private credit managers in the PCF portfolio. Based on the current composition of the PCF portfolio, HarbourVest expects approximately 30% of the CT Private Debt Fund's investments will be sourced from Connecticut's private credit managers and the balance from HarbourVest's direct credit origination efforts. HarbourVest will work with PFM staff to develop a communication and sourcing effort to ensure that Connecticut receives an opportunity to review all appropriate co-investments generated by managers in the PCF portfolio.

The fund will be managed by HarbourVest's private credit investment team, which will be responsible for sourcing, selecting, structuring, and monitoring investments in the fund subject to the CRPTF's investment guidelines. HarbourVest will seek to build a portfolio of senior and junior credit investments diversified by vintage year, size, and sector. The CT Private Debt Fund will co-invest with HarbourVest's direct lending strategies, which are primarily focused on U.S. based middle market companies with $10 million to $100 million of EBITDA at the time of investment.

The CT Private Debt Fund will target commitments of $150 million per year over an initial three-year commitment period. HarbourVest anticipates that the fund will make 16 to 18 co-investments per year. The CRPTF and HarbourVest would work to extend the investment period should the initial capital commitment not be deployed as expected. In addition, the fund will be structured as an evergreen vehicle, which would allow the CRPTF to continue to allocate capital for private credit co-investments beyond the fund's initial three-year commitment period.

HarbourVest's private credit team will utilize the Firm's rigorous due diligence and underwriting practices for CT Private Debt Fund opportunities. The Firm's standardized due diligence process involves a comprehensive analysis of the target company and its management team, credit and structural risks, and the transaction sponsor. The private credit team's due diligence includes both qualitative and quantitative assessments, including development of robust financial models that incorporates company and comparable company data as well as free cash flow and downside analyses. The deal team is also able to leverage HarbourVest's insights into the lead sponsor as well as the Firm's proprietary database to assesses the strengths and weaknesses of the lead sponsor and its track record with comparable companies. The private credit team also has access to the retained global strategy consulting firm utilized by the direct co-investment team.

The private credit team's active portfolio monitoring practices are similar to those utilized by the direct co-investment team. With a focus on directly originated middle-market credit transactions, which tend to have fewer credit providers than larger, broadly syndicated loans, HarbourVest is well-positioned to actively monitor its investment portfolio. This dynamic combined with the Firm's close working relationships with transaction sponsors, allows HarbourVest's private credit team to more proactively address challenges and opportunities that may develop with its portfolio companies.

Investment opportunities that under consideration by a deal team are reviewed by the private credit investment team through weekly Credit IC meetings, which allows the deal team to provide frequent updates to the Credit IC and broader investment team as the diligence process continues. If a credit investment opportunity is brought to the Credit IC for a final decision, it has been typically reviewed at least three times by the entire investment team and Credit IC.

Track Record

The HarbourVest team has invested more than $20 billion in over 800 direct co-investments since 1982, including during its affiliation with Hancock Venture Partners before 1998. PFM investment professionals have focused the track record assessment herein on HarbourVest's direct co-investment track record since 2004, which is when HarbourVest raised its first commingled fund dedicated to direct co-investments.

Between 2004 and March 2021, HarbourVest had invested $13.5 billion in 399 companies across all HarbourVest managed vehicles targeting direct co-investments. These co-investments generated a gross IRR and total value multiple ("TVM") of 19%% and 1.8x, respectively, as of March 31, 2021. As shown in the table below, HarbourVest had realized co-investments in 158 companies, which generated a 2.1x gross multiple on $3.9 billion of invested capital.

(US$ in millions, as of March 31, 2021)

HarbourVest - Direct Co-Investments 2004 to Present
Investment Performance Summary

Strategy	# Companies[1]	Invested Capital	Realized Value	Unrealized Value	Total Value	Gross TVM	Gross IRR	Gross RPI[2]
				All Investments				
Buyout	239	$10,338	$7,389	$10,379	$17,768	1.7x	17%	0.7x
Growth Equity	108	$2,332	$2,019	$3,818	$5,837	2.5x	22%	0.9x
Credit/Other	52	$863	$558	$752	$1,309	1.5x	23%	0.6x
All Investments	**399**	**$13,533**	**$9,966**	**$14,948**	**$24,914**	**1.8x**	**19%**	**0.7x**
				Realized Investments				
Buyout	101	$3,045	$6,104	$32	$6,136	2.0x	16%	2.0x
Growth Equity	40	$664	$1,528	$0	$1,528	2.3x	19%	2.3x
Credit/Other	17	$144	$400	$0	$400	2.8x	27%	2.8x
Realized Investments	**158**	**$3,854**	**$8,032**	**$32**	**$8,065**	**2.1x**	**17%**	**2.1x**

Source: HarbourVest.
1. Company counts be impacted by more than one investment in the same company.
2. RPI is realized to paid in capital.

The track record for HarbourVest's five commingled funds focused on direct co-investments is summarized in the following table.

(US$ in millions, as of March 31, 2021)

HarbourVest - Commingled Co-Investment Funds Investment Performance Summary													
	Vintage	Fund		Invested	Realized	Unrealized	Total	Gross / Net			Quartile Rank		
Fund	Year	Size	# Deals	Capital	Value	Value	Value	TVM	IRR	DPI	TVM	IRR	DPI
2004 Direct Fund	2004	$350	25	$368	$699	$36	$735	2.0x / 1.9x	13% / 11%	1.9x / 1.8x	1st	2nd	1st
2007 Direct Fund	2007	$734	35	$750	1,330	27	$1,357	1.8x / 1.7x	12% / 10%	1.8x / 1.7x	2nd	3rd	2nd
2013 Direct Fund	2013	$1,010	30	$1,026	1,569	684	$2,253	1.8x / 1.6x	23% / 19%	1.5x / 1.4x	1st	2nd	1st
Co-Invest Fund IV	2016	$1,768	40	$1,742	778	2,652	$3,430	1.8x / 1.6x	26% / 24%	0.4x / 0.3x	1st	1st	2nd
Co-Invest Fund V	2018	$3,030	43	$2,398	229	3,818	$4,047	1.7x / 1.6x	53% / 71%	0.1x / 0.0x	1st	1st	4th
Total All Funds		**$6,892**	**173**	**$6,284**	**$4,605**	**$7,216**	**$11,822**	**1.9x / 1.8x**	**19% / 17%**	**0.7 x / 0.6x**			

Source: HarbourVest, Hamilton Lane Buyout Benchmark. Quartile Rank based on net returns.

The performance of HarbourVest's direct co-investment commingled funds has generally improved as the Firm has continued to scale its co-investment platform, refine the investment strategy, and broadened its opportunity set. Other than the 2007 Direct Fund, the HarbourVest commingled co-investment funds were all ranked as first or second quartile funds on an IRR and TVM basis as of March 31, 2021. PFM staff notes that the 2007 Direct Fund's net IRR fell less than 20 basis points outside of the second quartile of the Hamilton Lane Buyout Benchmark for the 2007 vintage year. HarbourVest's more mature commingled co-investment funds also ranked as first or second quartile funds based on distribution ratios. All of HarbourVest's commingled co-investment funds had outperformed the Russell 3000 on a public market equivalent basis as of March 31, 2021.

As previously noted, HarbourVest began managing customized co-investment SMAs in 2011. HarbourVest invested more than $9.5 billion in more than 340 co-investments on behalf of its SMA clients, which generated a gross IRR and TVM of 25.4% and 1.7x, respectively, as of December 31, 2020. The realized co-investments made on behalf of HarbourVest's SMA clients generated a gross IRR and TVM of 32.8% and 2.5x as of the same date.

Private Credit

From 2003 through March 31, 2021, HarbourVest had invested $1.2 billion in 75 companies in direct credit across all HarbourVest managed vehicles. As shown in the table below, the Firm's direct credit investments generated a gross IRR and TVM of 20% and 1.4x, respectively, as of March 31, 2021. HarbourVest had realized 23 credit investments as of March 31, 2021, which generated a gross IRR of 22% and TVM of 1.9x on $0.3 billion of invested capital.

(US$ in millions, as of March 31, 2021)

HarbourVest - Direct Private Credit Investment Performance Summary													
	Vintage	Fund		Invested	Realized	Unrealized	Total	Gross / Net			Quartile Rank		
Fund	Year	Size	# Deals	Capital	Value	Value	Value	TVM	IRR	DPI	TVM	IRR	DPI
Model Portfolio 1	2003	n/a	4	$27	$84	$0	$84	3.1x	30%	3.1x	n/a	n/a	n/a
Model Portfolio 2	2008	n/a	9	$163	$259	$0	$259	1.6x	15%	1.6x	n/a	n/a	n/a
Model Portfolio 3	2011	n/a	5	$44	$98	$5	$103	2.3x	32%	2.2x	n/a	n/a	n/a
COF I	2015	$379	18	$385	$294	$298	$593	1.5x / 1.5x	19% / 19%	1.5x / 1.5x	1st	1st	1st
COF II	2019	$833	16	$365	$11	$391	$402	1.1x / 1.1x	19% / 16%	0.0x / 0.0x	n/m	n/m	n/m
Direct Lending I	2020	$580	23	$207	$19	$199	$218	1.1x / 1.1x	11% / 12%	0.1x / 0.0x	n/m	n/m	n/m
Total		**$1,792**	**75**	**$1,191**	**$765**	**$893**	**$1,658**	**1.4x**	**20%**	**0.6x**			

Source: HarbourVest, Hamilton Lane Credit Benchmark. Quartile Rank based on net returns.

*Model Portfolios and Total performance reported gross of fees.

The model portfolios shown in the performance summary table represent the private credit direct investments made by HarbourVest before 2015 that are consistent with HarbourVest's core private credit direct investment strategy. The model portfolios were from various HarbourVest managed vehicles and not dedicated credit funds; therefore, only the gross return profile of these investments is available.

HarbourVest's first dedicated commingled credit fund, Credit Opportunities Fund I, performed well through March 31, 2021 resulting in the fund being ranked in the first quartile across all relevant Hamilton Lane Credit Benchmarks. The return profile of COF I is reflective of the HarbourVest's junior credit strategy, which generally includes co-investing equity alongside the Firm's junior debt instruments. COF I's invested capital was comprised of 59% debt securities and 41% equity interests.

Credit Opportunities Fund II began investing in 2019 and Direct Lending Fund I's first investment was made in 2020. While both funds are performing to expectations and in line with HarbourVest's targeted returns for these strategies, it is too early to draw meaningful conclusions on the funds' long-term performance.

Key Strengths

1. **Size and Experience of Direct Investment Team.** The HarbourVest direct investment platform is managed by one of the largest teams of professionals dedicated to co-investments and direct investments. Since inception, the Firm has committed more than $23 billion direct private equity and credit investments, including co-investing more than $13.5 billion in over 370 companies since raising its first direct co-investment focused fund in 2004. The HarbourVest direct investment team is currently comprised of 56 professionals located in five offices globally, which provides the platform with differentiated capabilities to source and execute locally. The HarbourVest direct investment team is led by a tenured group of Managing Directors, with an average of 20 years of experience. The team and Firm's experience investing through various economic and capital market environments has led to strategy and execution refinements as well as the development of institutional knowledge and pattern recognition capabilities that are expected to benefit the HarbourVest CRPTF Co-Investment Partnership.

2. **Strategic Positioning with Transaction Sponsors.** HarbourVest's ability to provide general partners with solutions-oriented co-investments as well as direct investments of debt and equity capital is a competitive advantage over co-investment and direct managers that do not have the capabilities or flexibility to provide such a broad range of solutions. Moreover, the HarbourVest direct investment platform benefits from the Firm's long-term relationships with leading private equity and credit managers globally through HarbourVest's significant primary fund and secondary investment platforms. HarbourVest's institutional knowledge of managers, funds, and portfolio companies helps to create sourcing and information advantages for the HarbourVest direct investment platform.

3. **Significant Experience with Customized Co-Investment Programs.** HarbourVest has long offered customized solutions to institutional investors seeking to access private markets. The Firm has gained significant experience managing customized co-investment SMAs since 2011. Specifically, HarbourVest has developed expertise in managing customized co-investment programs for several large public pension plans for states such as Michigan and Virginia and more recently for New York City. The success and effectiveness of HarbourVest's customized co-investment programs is demonstrated by the longevity and size of several individual SMAs that have grown to exceed more than $1 billion in assets under management through successive commitments.

4. **PIF & PCF Strategic Plan Objectives.** The recommended HarbourVest CRPTF Co-Investment Partnership would allow the CRPT to achieve several objectives of the PIF and PCF strategic plans, including deploying capital at scale through fee efficient strategies. The CRPTF's ability to access HarbourVest's substantial private equity and credit deal flow would allow the CRPTF to gain access to managers, strategies, and geographies that are expected to be complementary to the CRPTF's exposures to managers in the PIF and PCF portfolios. Lastly, PFM investment professionals should gain additional insights into existing and prospective managers through information sharing with the HarbourVest direct investment team.

Major Risks and Mitigants

1. **Team Capacity and Discipline.** The HarbourVest direct investment platform has continued to grow as measured by both assets under management and transaction volume. The direct co-investment team deployed $1.5 billion of co-investment capital in 2020, which represented a

41% increase over 2018 investment levels. The Firm's private credit team increased its transaction count from seven in 2019 to 20 in 2020. The increase in assets under management and investment activity raises concerns that the Firm's ability to effectively deploy larger pools may be adversely affected. This risk is mitigated by several factors. HarbourVest has continued to invest in the growth of its investment teams to properly support the expansion of its direct investment platform. The co-investment market opportunity continues to grow in line with overall private market transaction levels, and the increased scale of HarbourVest's direct investment platform strengthens its strategic positioning within the private equity and credit sponsor community. As a result, HarbourVest is better positioned to generate strong and advantaged deal flow, which are critical factors to executing a successful co-investment strategy. PFM investment professionals also gained comfort that HarbourVest has continued to exercise investment discipline as the Firm's ratio of deals closed to deals sourced has been consistent as transaction volumes has grown.

2. **Less Proven Senior Credit Strategy.** While HarbourVest has invested in private credit for close to two decades, the Firm began investing in senior credit in 2015. The lack of a long-term track record and experience set in senior credit may raise concerns with the team's ability to effectively manage this portion of the CT Private Debt Fund. PFM investment professionals believe HarbourVest has addressed this concern through the recruitment of several experienced senior credit investment professionals to the team since 2015. Notably, Jamie Athanasoulas and Karen Simeone were recruited to HarbourVest in 2018 with significant senior credit experience at Bain Capital Credit and TCW, respectively. Athanasoulas and Simeone led the private credit team along with Managing Director Peter Lipson, who has been with HarbourVest since 1997, and all have significant credit experience. HarbourVest has also added several mid-level investment professionals with senior direct lending experience to its team as the Firm's private credit platform has grown.

Fees and Terms – Please see Appendix I

Legal and Regulatory Disclosure (provided by Legal)

Through its disclosure, HarbourVest Partners, LLC ("HarbourVest"), discloses one legal related matter. In April 2020, HarbourVest filed a proof of claim related to a bankruptcy filing by Highland Capital Management. HarbourVest settled its claims with Highland Capital, pursuant to which HarbourVest agreed to drop its claims against Highland Capital and transfer its interest in the relevant Highland managed fund to the Highland estate, in exchange for a $45 million general unsecured creditor claim plus a $35 million junior class creditor claim in the bankruptcy process.

HarbourVest does not disclose any material claims under its fidelity, fiduciary or E&O insurance policies, and has no ongoing internal investigations to report. HarbourVest states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

Compliance Review

HarbourVest's Workforce Diversity & Corporate Citizenship review is attached.

Environment, Social & Governance Analysis ("ESG")

The Assistant Treasurer for Corporate Governance & Sustainable Investment's Evaluation and Implementation of Sustainable Principles review is attached.

Appendix I

HarbourVest CT Co-Investment Fund	
Management Fee on Invested Capital	
During Years 1 through 5	0.47%
Thereafter	Reduced by 20% per year
Carried Interest/Waterfall*	
Option One	
GP's Carried Interest Rate	6.25%
LP's Preferred Return	8.00%
Option Two	
GP's Carried Interest Rate	5.00%
LP's Preferred Return	0.00%

*European, or whole fund, waterfall.

HarbourVest CT Private Debt Fund	
Management Fee on Invested Capital	
During Years 1 through 5	0.30%
Thereafter	Reduced by 20% per year
Carried Interest/Waterfall*	
GP's Carried Interest Rate	5.00%
LP's Preferred Return	5.00%

*European, or whole fund, waterfall.

COMPLIANCE REVIEW FOR HARBOURVEST PARTNERS
SUMMARY OF LEGAL AND POLICY[1] ATTACHMENTS
SUBMITTED BY
HARBOURVEST PARTNERS L.P.

I. Review of Required Legal and Policy Attachments

HARBOURVEST PARTNERS L.P. ("HarbourVest") completed all necessary attachments. It disclosed no impermissible third party fees, campaign contributions, known conflicts, or gifts. The firm's disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

II. Workforce Diversity (See Also 3-year Workforce Diversity Snapshot Page Attached)

As of June 2021, HarbourVest, a Boston Massachusetts-based firm, employed 722, 159 more than the 563 employed as of August 12, 2019. The firm identified 98 women and/or minorities as Executive/Senior Level Officials and Managers. Over the 3-year period reported (2021 - 2019), the firm promoted 125 women and 75 minorities[2] within the ranks of professionals or managers. Women and minorities (the highest percentage being Asians) are well represented at all levels of the firm.

Workforce Statistics[3]

For Executive/Senior Level Officials and Managers:

- Women held 34% of these positions in June 2021 (69 of 204), up from 30% in June 2020 (54 of 180), slightly up from 29% (47 of 162) in August 2019.
- Minorities held 24% (49 of 204) of these positions both in June 2021 (2% Black, 2% Hispanic, 14% Asian, 5% Do Not Wish to Answer, and 0.98% Two or More Races), and in June 2020 (47 of 162) (2% Black, 2% Hispanic, 15% Asian, 4% Do Not Wish to Answer, 1.1% Two or More Races), slightly down from 25% (41 of 162) (2.5% Black, 2% Hispanic, 15% Asian, and 6.2% Do Not Wish to Answer) in August 2019.

At the Management Level overall:

- Women held 38% (103 of 271) of these positions in June 2021, up from 35% both in June 2020 (85 of 242), and in August 2019 (76 of 216).
- Minorities held 26% (70 of 271) of these positions in June 2021 (2% Black, 4% Hispanic, 15% Asian, 4% Do Not Wish to Answer, 0.74% Two or More Races) slightly up from 25% (61 of 242) (2.5% Black, 3% Hispanic, 15% Asian, 3% Do Not Wish to Answer, 1.2% Two or More Races) in June 2020, and 27% (58 of 216) (3% Black, 3% Hispanic, 15% Asian, 5% Do Not Wish to Answer, and 0.46% Two or More Races) in August 2019.

[1] The Treasury's Policy Unit will prepare a separate Summary with respect to HarbourVest's ESG submission.
[2] The total number of women promoted includes minority women and white women; and the total number of minorities promoted represent the number of minority women and minority male.
[3] HarbourVest included a new category "Do Not Wish to Answer" in the Employer Information Report as some employees chose not to answer ethnicity questions.

At the Professional Level:

- Women held 46.2% (170 of 368) of these positions both in June 2021, and in June 2020 (135 of 293), up from 44% (110 of 248) in August 2019.

- Minorities held 36% (133 of 368) (4% Black, 6% Hispanic, 19% Asian, 6% Do Not Wish to Answer, 1.4% Two or More Races) of these positions in June 2021, up from 35% (102 of 293) (2% Black, 5% Hispanic, 23% Asian, 4% Do Not Wish to Answer, 1% Two or More Races) in June 2020, and 35% (87 of 248) (0.81% Black, 5% Hispanic, 23% Asian, 5% Do Not Wish to Answer, 1.2% Two or More Races) in August 2019.

Firm-wide:

- Women held 46% (331 of 722) of these positions in June 2021, slightly up from 45% (287 of 642) both in June 2020, and in August 2019 (252 of 563).

- Minorities held 32% (233 of 722) (3% Black, 6% Hispanic, 17% Asian, 4% Do Not Wish to Answer, 1.1% Two or More Races) of these positions in both June 2021, and in June 2020 (206 of 642) (3% Black, 5% Hispanic, 19% Asian, 4% Do Not Wish to Answer, 1.2% Two or More Races), and 33% (188 of 563) (3% Black, 5% Hispanic, 19% Asian, 6% Do Not Wish to Answer, 0.89% Two or More Races) in August 2019.

III. Corporate Citizenship

Charitable Giving:
HarbourVest and its more than 600 staff members (from senior management down) support numerous community organizations where they live and work. Causes supported include: youth mentoring, child/adult special education, gender diversity, poverty and homelessness, health causes, women's leadership, and the arts. The firm holds two Global Volunteer Weeks each year, allowing staff to donate time to local causes during business hours. HarbourVest also has a matching gift program, whereby the firm matches up to $1,000 of donations to the causes that matter the most to its employees. In 2020 employees donated over $130,000 ($91,000 matched by HarbourVest) to over 600 unique causes worldwide. In May 2020, HarbourVest gave each employee $250 in Rewards dollars, in response to the ongoing pandemic, to donate to organizations resulting in over $140,000 in additional donations. Several Connecticut-based organizations, such as the Smithsonian Institution, Connecticut College, Foodshare, Inc., and Ready to Power, qualify for this dollar-for-dollar matching program. Furthermore, in June 2020, HarbourVest announced its employees will be given two paid volunteer days a year to dedicate to causes that address social inequality known as the Employee Services Days Program which launched globally in 2021.

Internships/Scholarships:
HarbourVest is participating in #blackinterns, an initiative to offer 100 internships to Black students and recent graduates across the United Kingdom to help kick start careers in investment management.

Procurement:
HarbourVest does not have a formal procurement policy or program regarding women-owned, minority-owned, and/or emerging businesses. However, the firm has long provided capital support to smaller funds particularly those that are early in their life cycle or led by diverse managers. In all, the firm has closed on approximately $1.5 billion in commitments to 69 private

equity funds focused on the US lower middle market, including more than $1 billion into funds managed by female or minority partners. Within the firm's emerging and diverse portfolio, 80% of the funds have at least one female or minority partner, and 46% have more than one female or minority partner. In addition, HarbourVest is currently in the process of changing its diversity data gathering technique, including the ILPA Diversity Template.

Evaluation and Implementation of Sustainable Principles (provided by Assistant Treasurer of Corporate Governance and Sustainable Investing Policy)

	Criteria	Responses
1	Firm has an ESG policy	Yes
1a	If yes, firm described its ESG policy	Yes
2	If yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
3	Designated staff responsible for sustainability policies and research	Yes
4	Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
5	Signatory/member of sustainability-related initiatives or groups	Yes
6	Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No
7	Policy that requires safe and responsible use, ownership or production of guns	No
8	Enhanced screening of manufacturers or retailers of civilian firearms	Yes
9	Enhanced screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impacts	Yes
10	Merchant credit relationships with retailers of civilian firearms and accessories	No
10a	If yes, firm confirms compliance with laws governing firearms sales	N/A
11	Overall assessment of responses (e.g., depth of approach to ESG and integration)	HarbourVest has been a signatory of the UN PRI since 2013, and employs a climate change strategy that aligns with standards promulgated by the Taskforce on Climate-related Financial Disclosures (TCFD). The firm has an ESG council that oversees ESG policies and its Executive Management Committee is charged with implementing said policies. The firm provides periodic ESG training sessions to staff and relies on tools from the Sustainability Accounting Standards Board (SASB) and RepRisk to support the evaluation of materiality. The firm does not have a policy regarding relationships with manufacturers or retailers of civilian firearms. Overall, HarbourVest's disclosure suggests thorough integration of ESG factors in its investment process.
	SCORE: Excellent - 1 Detailed description of ESG philosophy and integration; ongoing ESG assessment; established framework; member of sustainability-oriented organizations; enhanced screening of firearms and/or higher-risk sectors Very Good - 2 Detailed description of ESG philosophy and integration; ongoing ESG assessment; established framework; member of sustainability-oriented+B3 organizations Satisfactory - 3 General description of ESG philosophy and integration; some evidence of framework for ongoing ESG assessment; member of sustainability-oriented organizations Needs Improvement - 4 Generic and/or vague description of ESG philosophy and integration; no ongoing ESG assessment; no dedicated ESG staff or resources Poor - 5 Incomplete or non-responsive	2

HarbourVest/State of Connecticut Private Credit Mandate

Meeting Memorandum

Meeting Details	
Meeting Date:	7/30/21
GP Attendees:	Peter Lipson, Craig MacDonald, Karen Simeone, Jackie Peradotto, Lee Incandela and Fran Peters
HL Attendees:	Katie Moore, Sean Barber and Jesten Jacob

Meeting Conclusions

- HarbourVest is well positioned to execute on the mandate due to its sizable investment team led by a deep bench of tenured and experienced deal leads. The General Partner continues to expand its dedicated Private Credit co-investment team and its footprint across geographies, ensuring broad coverage of investment opportunities and enhancing deal execution.
- The General Partner targets a diversified portfolio of senior and junior credit investments across companies, industries and geographies. HarbourVest expects the majority of deal flow to be sourced from its platform and allocated to the State of Connecticut private credit mandate. While the General Partner's historical track record has a heavy equity component, it is expected that the CRPTF's private credit co-investment mandate will be focused on senior and junior credit securities with limited material equity exposure.
- HarbourVest has generated attractive gross performance and the General Partner has stepped up its deployment pace from 2015 upon the establishment of dedicated credit vehicles.

Fund Information	
General Partner:	HarbourVest Partners, LLC ("General Partner"), ("HarbourVest")
Fund:	State of Connecticut Private Credit Separate Account ("Fund")
Target Size:	$450 million
Investment Period:	3 years
Fund Term:	8 years
GP Commitment:	1.0%

- The Fund is a separately managed account for State of Connecticut's private credit program.
- The management fees and carried interested negotiated are competitive in the market.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Strategy	
Asset Class:	Private debt
Strategy:	Direct lending
Substrategy:	Senior/1st lien and junior debt
# of Investments:	16 to 18 per year
Enterprise Values:	Not provided
Inv. Size Range:	Approximately $9 million
Geography:	Primarily North America with Western Europe
Industries:	Diversified
Target Returns:	High single-digit gross IRR

- HarbourVest targets a broad, globally diversified portfolio of senior and junior credit investments.
  - The General Partner expects to deploy 70% of capital in senior securities and 30% in junior securities.
  - HarbourVest primarily targets middle-market companies generating less than $150 million of EBITDA.
  - The General Partner intends to incorporate 1st lien, unitranche, 2nd lien and hybrid securities and will seek to limit exposure to equity securities to 15%.
- The General Partner expects 70% of deal flow to be sourced by HarbourVest and 30% through managers in the Private Credit Fund of the Connecticut Retirement Plans and Trust Funds (“CRPTF”).
- HarbourVest plans to leverage its Portfolio Construction Committee, allocation policies and internal software to determine the allocation of investments across funds and separately managed accounts; allocation is expected to be done in a formulaic, consistent and fair approach.
  - Co-investment opportunities specifically directed to State of Connecticut will be 100% allocated to State of Connecticut, subject to portfolio construction parameters.
- Post-investment, the General Partner continues to maintain a dialogue with the sponsors and monitors the investments through a quarterly monitoring process.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Organization

Firm Inception:	1978
Locations:	Boston (headquarters), Beijing, Bogota, Dublin, Frankfurt, Hong Kong, London, Seoul, Singapore, Tel Aviv, Tokyo and Toronto
Formal ESG Policy:	Yes
PRI Signatory:	Yes
Investment Team:	61 investment professionals; 9 Managing Directors, 10 Principals, 14 Vice Presidents, 7 Senior Associates and 21 Associates
Additional Resources:	The broader HarbourVest platform

Direct Private Credit Team

Experience of Investment Professionals							
Name	Title	Business Focus	Location	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience	Educational Background
Peter Lipson	Managing Director	Direct Co-Investments/ Private Credit	Boston	25	24	• Salomon Brothers, Analyst	• Harvard Business School (MBA) • University of Virginia (MS) • University of California, San Diego (BA)
Alex Rogers	Managing Director	Direct Co-Investments	Boston	23	23	• McKinsey & Company	• Harvard Business School (MBA) • Duke University (BA)
Ian Lane	Managing Director	Direct Co-Investments	Boston	21	18	• JP Morgan, Analyst	• Harvard Business School (MBA) • University of Florida (BS) (MS)
Corentin du Roy	Managing Director	Direct Co-Investments	London	21	18	• AXA Investment Managers, Analyst	• Paris IX Dauphine University (BS)
Craig MacDonald	Managing Director	Direct Co-Investments	Dublin	19	16	• Morgan Stanley, Analyst • Citigroup, Analyst	• University of North Carolina, Chapel Hill (BA)
Kelvin Yap	Managing Director	Direct Co-Investments/ Fund Investment	Hong Kong/ Singapore	19	15	• Deloitte, Manager • PwC, Senior Associate	• Monash University (BC)
Karen Simeone	Managing Director	Private Credit	Boston	21	3	• TCW, Managing Director • Stairway Capital, Principal • HVB Group, Associate • JP Morgan, Analyst	• London School of Economics • Georgetown University (BS)
James Athanasoulas	Managing Director	Private Credit	Boston	16	3	• Bain Capital Credit, Managing Director • Bain & Company	• Dartmouth College (MBA) • Georgetown University (BA)
Seth Palmer	Managing Director	Direct Co-Investments	Boston	16	3	• BlackRock, Director • Weston Presidio, Associate • Banc of Amerca Securities	• Harvard Business School (MBA) • University of Michigan (BA)

- As of 3/31/21, the General Partner had $76.2 billion of assets under management across the various HarbourVest strategies.
- HarbourVest has built on-the-ground relationships to facilitate deal flow and enhance deal execution.
  - The General Partner has gradually expanded its presence globally, having recently opened a Singapore office in May 2021 and a Frankfurt office in July 2021.
- The General Partner expects to add four credit investment professionals by December 2021.
- The investment committee for private credit is comprised of Messrs. Lipson, Simeone, Athanasoulas, Stento and Morris; decisions are made on a consensus approach.
  - Greg Stento and John Morris are Managing Directors in the Primary Partnerships team.
  - Once the direct investment committee approves an investment, the opportunity will subsequently go to the Portfolio Construction Committee to determine ultimate position sizing and portfolio fit.
    - The Portfolio Construction Committee is comprised of two Managing Directors and the CCO Bill Royer as a non-voting, adjunct member and advisor.
- The General Partner is committed to responsible investing with a dedicated ESG Council and Diversity and Inclusion Council.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Track Record

Net Returns

HarbourVest Partners Prior Investment Performance[1] As of 3/31/21									HL Benchmark Credit As of 3/31/21			PME Benchmark S&P Global Leveraged Loan Index + 150bps As of 3/31/21
									Top-Quartile			
($mm) Fund	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR	DPI	TVPI	Net IRR	PME IRR
Credit Opportunities Fund I	2015	$379	$313.8	$202.6	$270.7	0.6x	1.5x	19.2%	0.9x	1.3x	9.0%	5.6%
Credit Opportunities Fund II	2019	833	229.9	0.0	250.2	0.0x	1.1x	16.3%	0.3x	1.3x	29.7%	1.5%
Direct Lending Fund I[2]	2020	580	63.3	0.0	70.7	0.0x	1.1x	12.2%	0.1x	1.1x	36.6%	4.5%
Total			**$607.0**	**$202.6**	**$591.6**	**0.3x**	**1.3x**	**20.3%**				**5.7%**

[1] Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee paying limited partners and excludes any cash flows from the General Partner's commitment
[2] Fund size for Direct Lending Fund I is $580 million as of 6/30/21; final close expected in August 2021

Gross Returns

HarbourVest Partners Prior Investment Performance[1] As of 3/31/21									
($mm) Fund	Vintage	# of Inv. Total	# of Inv. Real.	Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Model Portfolio 1	2003	4	4	n/a	$26.9	$83.8	$0.0	3.1x	29.6%
Model Portfolio 2	2008	9	9	n/a	162.6	258.6	0.0	1.6x	15.1%
Model Portfolio 3	2011	5	4	n/a	44.3	97.5	5.0	2.3x	32.0%
Credit Opportunities Fund I	2015	18	5	379	385.0	294.4	298.1	1.5x	19.2%
Credit Opportunities Fund II	2019	16	0	833	365.0	11.2	391.1	1.1x	19.0%
Direct Lending Fund I[2]	2020	23	1	580	207.0	19.3	199.0	1.1x	10.7%
Total		**75**	**23**		**$1,190.9**	**$764.8**	**$893.1**	**1.4x**	**20.2%**

[1] Model Portfolios refer to all private credit direct investments made by a HarbourVest fund or account since 1/1/03, grouped into model portfolios based on initial date of investment
[2] Fund size for Direct Lending Fund I is $580 million as of 6/30/21; final close expected in August 2021

HarbourVest Partners Realized Investment Performance As of 3/31/21					
($mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Model Portfolio 1	$26.9	$83.8	$0.0	3.1x	29.6%
Model Portfolio 2	162.6	258.6	0.0	1.6x	15.1%
Model Portfolio 3	39.0	94.6	2.9	2.5x	33.6%
Credit Opportunities Fund I	94.2	192.8	2.9	2.1x	33.6%
Credit Opportunities Fund II	0.0	0.0	0.0	n/a	n/a
Direct Lending Fund I	9.6	10.5	0.0	1.1x	9.6%
Total	**$332.3**	**$640.2**	**$5.8**	**1.9x**	**22.0%**

HarbourVest Partners Unrealized Investment Performance As of 3/31/21					
($mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Model Portfolio 1	$0.0	$0.0	$0.0	n/a	n/a
Model Portfolio 2	0.0	0.0	0.0	n/a	n/a
Model Portfolio 3	5.3	2.9	2.1	0.9x	-1.3%
Credit Opportunities Fund I	290.8	101.7	295.2	1.4x	12.6%
Credit Opportunities Fund II	365.0	11.2	391.1	1.1x	19.0%
Direct Lending Fund I	197.4	8.8	199.0	1.1x	10.5%
Total	**$858.5**	**$124.6**	**$887.3**	**1.2x**	**13.1%**

- HarbourVest has generated strong gross returns across prior investments.
  - Model Portfolio represents all private credit direct investments before 2015, grouped by initial investment dates.
  - Credit Opportunities Fund I has generated attractive returns due to its sizable exposure to equity securities.
- Credit Opportunities Fund II and Direct Lending Fund I remain early in their fund life with average holding periods of 0.7 years and 0.5 years, respectively.
  - As of 6/30/21, Credit Opportunities Fund II was 35% called and 58% committed.
  - As of 6/30/21, Direct Lending Fund I was 25% drawn (based on a $580.3 million fund size) and 64% committed.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

- The General Partner has generated a 24% loss ratio on a realized basis; taking into account unrealized deals, the aggregate loss ratio was 12% as of 3/31/21.
    - Realized losses were from Model Portfolio 2 and there have been no realized losses since 2010.
- Direct Lending Fund I has one realized deal to date; the investment is a senior credit deal in the software sector in the United States.
- HarbourVest has increased its investment pacing since 2015 which reflect the establishment of its dedicated credit funds.
- The General Partner has deployed an average of over $200 million per year from 2018 to 2020.
- In 2020, HarbourVest deployed a significant amount of capital primarily from newly-raised vehicles Credit Opportunities Fund II and Direct Lending Fund I.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Recommendation
Approved

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Appendix

Management Fee:	0.3% of invested capital stepping down by 20% annually after year 5
Carried Interest:	5%
Preferred Return:	5%

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Important Disclosures

All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including 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 and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the "Confidential Information"), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. ("Hamilton Lane"), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Definitions	
Benchmark Analysis:	An analysis which compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Hamilton Lane database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return ("IRR") of investments at the 'fund level', excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment, in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-Curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane's database at each quarter, which are simulated as investing at the same point of time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return ("IRR") of investments at the 'LP level', inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner's prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner, using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain 'outlier' transactions are excluded. Outliers are defined as transactions which generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based off of these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as 'realized' if it has i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)
Time-zero IRR:	Represents the gross IRR calculated as if every investment was initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Contact Information

Philadelphia (Headquarters)
Seven Tower Bridge
110 Washington Street
Suite 1300
Conshohocken, PA 19428
USA
+1 610 934 2222

London
8-10 Great George Street
London SW1P 3AE
United Kingdom
+44 (0) 207 340 0100

San Francisco
201 California Street,
Suite 550
San Francisco, CA 94111
USA
+1 415 365 1056

Tel Aviv
6 Hahoshlim Street
Building C 7th Floor
Hertzelia Pituach,
4672201
P.O. Box 12279
Israel
+00 972-73-2716610

Denver
4600 South Syracuse
Street
Denver, CO 80327
+1 866 361 1720

Miami
999 Brickell Avenue
Suite 720
Miami, Florida 33131
USA
+1 954 745 2780

Scranton
32 Scranton Office Park
Suite 101
Moosic, PA 18507
USA
+570 247 3739

Tokyo
13F, Marunouchi Bldg
2-4-1, Marunouchi
Chiyoda-ku
Tokyo 100-6313, Japan
+81 (0) 3 5860 3940

Frankfurt
Schillerstr. 12
60313 Frankfurt am Main
Germany
+49 89 954 537901

New York
610 Fifth Avenue, Suite
401
New York, NY 10020
USA
+1 212 752 7667

Seoul
12F, Gangnam Finance
Center
152 Teheran-ro,
Gangnam-gu
Seoul 06236
Republic of Korea
+82 2 6191 3200

Toronto
150 King St. West
Suite 200
Toronto, Ontario
Canada
M5H 1J9
+1 647 715 9457

Hong Kong
Room 1001-3, 10th Floor
St. George’s Building
2 Ice House Street
Central Hong Kong, China
+852 3987 7191

Portland
15350 SW Sequoia Pkwy
Suite 260
Portland, OR 97224
USA
+1 503 624 9910

Singapore
12 Marina View
Asia Square Tower 2,
Suite 26-04
Singapore, 018961
+65 6856 0920

Las Vegas
3753 Howard Hughes
Parkway
Suite 200
Las Vegas, NV 89169
USA
+1 702 784 7690

San Diego
7817 Ivanhoe Avenue
Suite 310
La Jolla, CA 92037
USA
+1 858 410 9967

Sydney
Level 33, Aurora Place
88 Philip Street
Sydney, NSW 2000
Australia
+61 2 9293 7950

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Meeting Details

Meeting Date:	7/30/21
GP Attendees:	Peter Lipson, Craig MacDonald, Karen Simeone, Jackie Peradotto, Lee Incandela and Fran Peters
HL Attendees:	Katie Moore, Sean Barber and Jesten Jacob

Meeting Conclusions

- HarbourVest is well-positioned to execute on the mandate due to its significant private equity investment capabilities and deal flow from its established co-investment operations. The General Partner maintains the relevant experience of managing customized co-investment programs for large institutions, including public pension plans. The senior investment team is sizable and tenured, ensuring a thorough diligence process and consistent strategy execution. HarbourVest has expanded its global footprint through the opening of Singapore and Frankfurt offices, which help to facilitate deal flow.
- The General Partner intends to deploy a flexible approach to construct a diversified co-investment portfolio across lead managers, strategies, industries and geographies. HarbourVest estimates that 50% of the co-investment transactions will be generated via deal flow directed to Connecticut Retirement Plans and Trust Funds ("CRPTF") from managers within its Private Investment Fund portfolio; the remaining 50% of deal flow is expected to be sourced through the HarbourVest platform and allocated to the co-investment mandate through the General Partner's detailed allocation process.
- HarbourVest has generated attractive gross and net returns across recent co-investment funds, driven by select value drivers in each vintage.

Fund Information

General Partner:	HarbourVest Partners, LLC ("General Partner"), ("HarbourVest")
Fund:	State of Connecticut Private Equity Co-Investment Separate Account ("Fund")
Target Size:	$450 million
Investment Period:	3 years
Fund Term:	10 years
GP Commitment:	1.0%

- The Fund is a separately managed account for State of Connecticut's Private Equity co-investment program.
- The management fees and carried interested negotiated are competitive in the market.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Strategy	
Asset Class:	Private equity
Strategy:	Co-investment
Substrategy:	Buyout; growth equity
# of Investments:	Approximately 15 per year
Enterprise Values:	Varied
Inv. Size Range:	$5 million to $15 million
Geography:	North America, Europe and Asia
Industries:	Diversified

- HarbourVest expects to construct a co-investment portfolio diversified by lead managers, strategies, industries and geographies.
    - The General Partner has developed deep relationships with distinguished sponsors, enabling extensive coverage of potential investment opportunities.
    - HarbourVest remains industry agnostic and will limit exposure to a single industry to 20% to 30%.
    - The General Partner seeks to invest over 50% of capital in North America and the remaining in Europe and Asia.
- While HarbourVest has full discretion over the mandate, the General Partner intends to work with the CRPTF in a transparent manner and in terms of deal sourcing.
    - The General Partner expects 50% of deal flow to be sourced by HarbourVest and 50% by the managers in the CRPTF's Private Investment Fund portfolio.
- The General Partner plans to leverage its Portfolio Construction Committee and internal software to determine the allocation of investments across funds and separately managed accounts; allocation is expected to be done in a formulaic, consistent and fair approach.
    - Co-investment opportunities specifically directed to State of Connecticut will be 100% allocated to State of Connecticut, subject to portfolio construction parameters.
- Post-investment, HarbourVest remains active in company monitoring and management, despite being selective in taking board seats in portfolio companies.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Organization

Firm Inception:	1978
Locations:	Boston (headquarters), Beijing, Bogota, Dublin, Frankfurt, Hong Kong, London, Seoul, Singapore, Tel Aviv, Tokyo and Toronto
Formal ESG Policy:	Yes
PRI Signatory:	Yes
Investment Team:	61 investment professionals; 9 Managing Directors, 10 Principals, 14 Vice Presidents, 7 Senior Associates and 21 Associates
Additional Resources:	The broader HarbourVest platform

Direct Co-Investments Team

Experience of Investment Professionals							
Name	Title	Business Focus	Location	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience	Educational Background
Peter Lipson	Managing Director	Direct Co-Investments/ Private Credit	Boston	25	24	• Salomon Brothers, Analyst	• Harvard Business School (MBA) • University of Virginia (MS) • University of California, San Diego (BA)
Alex Rogers	Managing Director	Direct Co-Investments	Boston	23	23	• McKinsey & Company	• Harvard Business School (MBA) • Duke University (BA)
Ian Lane	Managing Director	Direct Co-Investments	Boston	21	18	• JP Morgan, Analyst	• Harvard Business School (MBA) • University of Florida (BS) (MS)
Corentin du Roy	Managing Director	Direct Co-Investments	London	21	18	• AXA Investment Managers, Analyst	• Paris IX Dauphine University (BS)
Craig MacDonald	Managing Director	Direct Co-Investments	Dublin	19	16	• Morgan Stanley, Analyst • Citigroup, Analyst	• University of North Carolina, Chapel Hill (BA)
Kelvin Yap	Managing Director	Direct Co-Investments/ Fund Investment	Hong Kong/ Singapore	19	15	• Deloitte, Manager • PwC, Senior Associate	• Monash University (BC)
Seth Palmer	Managing Director	Direct Co-Investments	Boston	16	3	• BlackRock, Director • Weston Presidio, Associate • Banc of Amerca Securities	• Harvard Business School (MBA) • University of Michigan (BA)

- As of 3/31/21, the General Partner had $76.2 billion of assets under management across the various HarbourVest strategies.
- HarbourVest has built on-the-ground relationships to facilitate deal flow and enhance deal execution.
    - The General Partner has gradually expanded its presence globally, having recently opened a Singapore office in May 2021 and a Frankfurt office in July 2021.
- The direct investment committee is comprised of Messrs. Lipson, Rogers, Lane, du Roy, Stento and Yap; decisions are made on a consensus approach.
    - Greg Stento is a Managing Director in the Primary Partnerships team.
    - Once the direct investment committee approves an investment, the opportunity will subsequently go to the Portfolio Construction Committee to determine ultimate position sizing and portfolio fit.
        - The Portfolio Construction Committee is comprised of two Managing Directors and the CCO Bill Royer as a non-voting, adjunct member and advisor.
- The General Partner is committed to responsible investing with a dedicated ESG Council and Diversity and Inclusion Council.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Track Record

Net Returns

($mm) Fund	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR	HL Benchmark Buyout As of 3/31/21 Top-Quartile DPI	TVPI	Net IRR	PME Benchmark Russell 3000 TR As of 3/31/21 PME IRR
HarbourVest Partners Prior Investment Performance[1] As of 3/31/21												
2004 Direct Fund	2004	$350	$346.5	$615.2	$33.0	1.8x	1.9x	10.8%	1.8x	1.8x	16.8%	5.1%
2007 Direct Fund	2007	734	710.3	1,174.9	32.0	1.7x	1.7x	10.2%	1.9x	2.0x	15.7%	11.0%
2013 Direct Fund	2013	1,010	967.7	1,353.4	620.4	1.4x	2.0x	19.2%	1.1x	2.0x	22.1%	13.3%
Co-Investment Fund IV	2016	1,768	1,467.3	483.9	2,404.9	0.3x	2.0x	23.7%	0.5x	1.7x	21.8%	16.1%
Co-Investment Fund V	2018	3,030	2,159.9	0.0	3,507.6	0.0x	1.6x	70.5%	0.2x	1.5x	31.8%	32.1%
Total			**$5,651.8**	**$3,627.5**	**$6,597.9**	**0.6x**	**1.8x**	**16.5%**				**12.2%**

[1] Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee paying limited partners and excludes any cash flows from the General Partner's commitment

Gross Returns

HarbourVest Partners
Prior Investment Performance
As of 3/31/21

($mm) Fund	Vintage	# of Inv. Total	# of Inv. Real.	Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
2004 Direct Fund	2004	25	24	$350	$368.1	$699.2	$36.0	2.0x	13.1%
2007 Direct Fund	2007	35	32	734	749.5	1,330.4	26.5	1.8x	12.4%
2013 Direct Fund	2013	30	17	1,010	1,026.3	1,569.1	684.2	2.2x	22.6%
Co-Investment Fund IV	2016	40	5	1,768	1,742.1	777.9	2,651.7	2.0x	25.6%
Co-Investment Fund V	2018	43	1	3,030	2,398.2	228.6	3,817.9	1.7x	53.3%
Total		**173**	**79**		**$6,284.1**	**$4,605.1**	**$7,216.2**	**1.9x**	**18.6%**

HarbourVest Partners
Realized Investment Performance
As of 3/31/21

($mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
2004 Direct Fund	$343.2	$699.0	$0.1	2.0x	14.2%
2007 Direct Fund	700.8	1,320.4	2.3	1.9x	13.4%
2013 Direct Fund	559.8	1,302.4	17.5	2.4x	28.9%
Co-Investment Fund IV	242.9	467.2	1.8	1.9x	30.1%
Co-Investment Fund V	9.9	9.8	0.0	1.0x	-0.6%
Total	**$1,856.5**	**$3,798.9**	**$21.7**	**2.1x**	**16.3%**

HarbourVest Partners
Unrealized Investment Performance
As of 3/31/21

($mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
2004 Direct Fund	$25.0	$0.1	$35.9	1.4x	2.7%
2007 Direct Fund	48.7	10.0	24.2	0.7x	-3.9%
2013 Direct Fund	466.5	266.7	666.7	2.0x	15.6%
Co-Investment Fund IV	1,499.2	310.7	2,649.9	2.0x	24.9%
Co-Investment Fund V	2,388.3	218.7	3,817.9	1.7x	53.4%
Total	**$4,427.7**	**$806.2**	**$7,194.5**	**1.8x**	**23.2%**

- Recent vintages (Co-Investment Funds IV and V) have performed well with top-quartile performance on a net IRR basis, while more mature vintages (2004, 2007 and 2013 Direct Funds) have lagged top-quartile peers.
- Early outperformance in Co-Investment Funds IV and V has been driven by two transactions.
    - As of 6/30/21, Co-Investment Fund IV was 84% called and 101% committed.
    - As of 6/30/21, Co-Investment Fund V was 72% called and 98% committed.
- HarbourVest began managing co-investment separately managed accounts in 2011 and has deployed $9.5 billion in co-investment SMA capital across 347 investments.
    - In aggregate, as of 12/31/20, the SMAs have generated a gross realized IRR of 32.8% and a gross realized multiple of 2.5x.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

- The General Partner has generated a dispersion of returns profile in line with buyout peers.
- Only one deal in Co-Investment Fund V has been realized; the investment is a North American growth equity deal in the communication services sector.
- HarbourVest has gradually increased its deployment pace across vintages, reflecting the increase in transaction sizes and fund sizes.
- The General Partner has deployed an average of $1.1 billion per year from 2018 to 2020.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Recommendation

Approved

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Appendix

Option A

Management Fee:	0.47% of invested capital stepping down by 20% annually after year 5
Carried Interest:	6.25%
Preferred Return:	8%

Option B

Management Fee:	0.47% of invested capital stepping down by 20% annually after year 5
Carried Interest:	5.00%
Preferred Return:	No preferred return

- Hamilton Lane completed a scenario analysis using an internal model to determine estimated carry savings assuming:
    - CRPTF's selection of Option A or Option B.
    - The Hamilton Lane model assumes a 20% gross return, with a 15-year life.
    - The model assumed $150 million invested into co-investments annually for three years; total allocation of $450 million.
- Conclusions:
    - While Option B starts to pay carried interest earlier, the total estimated amount paid in carried interest is less than Option A.
    - For CT to pay more in carried interest by selection Option B, it would mean that HarbourVest would have to generate a return not in line with those assumed when investing in private equity co-investments.
    - Over a 15-year assumed life, carried interest paid when selecting Option A is estimated to be over $7.0 million higher than carried interest paid in Option B.
- Disclosure: Hamilton Lane is not projecting performance for the HarbourVest co-investment program. HarbourVest's deployment of the SMA and ultimately the performance that HarbourVest generates as General Partner will affect the outcome in terms of total dollars paid in carried interest versus the estimates provided above.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Important Disclosures

All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including 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 and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the “Confidential Information”), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. (“Hamilton Lane”), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Definitions	
Benchmark Analysis:	An analysis which compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Hamilton Lane database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return ("IRR") of investments at the 'fund level', excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment, in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-Curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane's database at each quarter, which are simulated as investing at the same point of time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return ("IRR") of investments at the 'LP level', inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner's prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner, using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain 'outlier' transactions are excluded. Outliers are defined as transactions which generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based off of these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as 'realized' if it has i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)
Time-zero IRR:	Represents the gross IRR calculated as if every investment was initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

Contact Information

Philadelphia (Headquarters)
Seven Tower Bridge
110 Washington Street
Suite 1300
Conshohocken, PA 19428
USA
+1 610 934 2222

London
8-10 Great George Street
London SW1P 3AE
United Kingdom
+44 (0) 207 340 0100

San Francisco
201 California Street,
Suite 550
San Francisco, CA 94111
USA
+1 415 365 1056

Tel Aviv
6 Hahoshlim Street
Building C 7th Floor
Hertzelia Pituach,
4672201
P.O. Box 12279
Israel
+00 972-73-2716610

Denver
4600 South Syracuse
Street
Denver, CO 80327
+1 866 361 1720

Miami
999 Brickell Avenue
Suite 720
Miami, Florida 33131
USA
+1 954 745 2780

Scranton
32 Scranton Office Park
Suite 101
Moosic, PA 18507
USA
+570 247 3739

Tokyo
13F, Marunouchi Bldg
2-4-1, Marunouchi
Chiyoda-ku
Tokyo 100-6313, Japan
+81 (0) 3 5860 3940

Frankfurt
Schillerstr. 12
60313 Frankfurt am Main
Germany
+49 89 954 537901

New York
610 Fifth Avenue, Suite
401
New York, NY 10020
USA
+1 212 752 7667

Seoul
12F, Gangnam Finance
Center
152 Teheran-ro,
Gangnam-gu
Seoul 06236
Republic of Korea
+82 2 6191 3200

Toronto
150 King St. West
Suite 200
Toronto, Ontario
Canada
M5H 1J9
+1 647 715 9457

Hong Kong
Room 1001-3, 10th Floor
St. George's Building
2 Ice House Street
Central Hong Kong, China
+852 3987 7191

Portland
15350 SW Sequoia Pkwy
Suite 260
Portland, OR 97224
USA
+1 503 624 9910

Singapore
12 Marina View
Asia Square Tower 2,
Suite 26-04
Singapore, 018961
+65 6856 0920

Las Vegas
3753 Howard Hughes
Parkway
Suite 200
Las Vegas, NV 89169
USA
+1 702 784 7690

San Diego
7817 Ivanhoe Avenue
Suite 310
La Jolla, CA 92037
USA
+1 858 410 9967

Sydney
Level 33, Aurora Place
88 Philip Street
Sydney, NSW 2000
Australia
+61 2 9293 7950

This report is intended solely for the clients and employees of Hamilton Lane. It contains confidential and proprietary Hamilton Lane information. This presentation is not an offer to sell, or a solicitation of any offer to buy, any security or to enter into any agreement with Hamilton Lane or any of its affiliates.

HarbourVest

Connecticut Retirement Plans & Trust Funds

September I 2021

access OPPORTUNITY

HarbourVest representatives

IAN LANE, Managing Director, HarbourVest Partners, LLC (Boston)
Ian Lane joined HarbourVest in 2003 and focuses on direct co-investments in venture, buyout, and mezzanine transactions and serves as the Chair of the Firm's Direct Investment Committee. He led several of the Firm's investments, including Acclaris, Advanced Health, Datatel, Digital Insight, eTapestry, Lightower, M-Qube, National Cardiovascular Partners, Nexidia, Planview, Secure-24, Wayfair (NYSE: W), and Zayo (NYSE: ZAYO). Additionally, Ian serves on the Board of Overseers at Beth Israel Deaconess Medical Center, a teaching and research affiliate of Harvard Medical School. Ian's previous experience includes two years with J.P. Morgan where he was an investment banking analyst in the mergers and acquisitions group. While earning his undergraduate degree, Ian founded and managed a chain of martial arts schools in Florida. Ian received a dual BS/MS (with honors) in Accounting from the University of Florida in 2001 and an MBA from Harvard Business School, where he graduated with distinction in 2008

JACKIE PERADOTTO, Principal, HarbourVest Partners, LLC (Boston)
Jackie Peradotto joined HarbourVest in 2009. She left the Firm to attend business school and rejoined HarbourVest's direct investment team in 2014 after completing her MBA. Jackie focuses on sourcing, reviewing, executing, and monitoring direct co-investments, primarily in the healthcare industry. She serves as a board member at Comprehensive Pharmacy Services (CPS) and Dentistry for Children (D4C), and formerly served as a board member of Five Star Food Service. Jackie has played a key role on several deals including Advance Health, Aldevron, Cambrex, CareCentrix, MedOptions, MultiPlan, Press Ganey, and Vetsource. Jackie's previous experience includes three years with Morgan Stanley, where she was an investment banking analyst in the Global Power & Utility Group in New York and the Corporate Finance Group in San Francisco. Her prior experience also includes a position at McKesson Corporation. She received an AB in Molecular Biology from Princeton University in 2006 and an MBA in Health Care Management (with honors) from the Wharton School at the University of Pennsylvania in 2014.

FRAN PETERS, CFA, CAIA, Principal, Investor Relations, HarbourVest Partners, LLC (Boston)
Fran Peters joined HarbourVest's investor relations team in 2015. He focuses on coordinating, monitoring, and enhancing relationships with new and existing investors and consultants. Fran joined the Firm from Meketa Investment Group, where he served as the lead consultant on defined benefit, health and welfare, endowment and insurance funds, with public, Taft-Hartley, and not-for-profit plan sponsors. He was also a member of the firm's Investment Policy Committee, as well as the firm's ESG and Marketing Committees. Prior to Meketa, he was a client account manager at ING Financial Advisers, where he worked with Massachusetts public employees. Fran received a BS in Business Administration from the University of New Hampshire in 1999 and an MBA in Finance from the University of Massachusetts, Boston in 2005. He holds the Chartered Financial Analyst (CFA) and the Chartered Alternative Investment Analyst (CAIA) designations and is a member of the CFA Institute, the Boston Security Analysts Society, and the CAIA Association.

Table of contents

Intended for use with institutional and qualified investors only. This document contains confidential and proprietary information and should not be disseminated without express written consent from HarbourVest.
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 further legal and regulatory disclosures see 'Additional Important Information' at the end of these materials.

Executive summary

HARBOURVEST

CRPTF IS SEEKING A PARTNER WHO CAN…

- > Build a collaborative direct co-investment partnership that will allow the CRPTF to achieve its goals
- > Execute direct equity and credit co-investments generated by CRPTF and HarbourVest GP relationships
- > Deliver transparent and robust execution, providing a compelling experience to GPs
- > Enable CRPTF to set key portfolio construction parameters and ensure the program is consistent with the broader private equity and private credit portfolios and strategy
- > Generate accretive returns to support the mission and beneficiaries of CRPTF

TODAY'S MEETING OBJECTIVES

- > Provide an overview and update of our platform, partnership philosophy, global capabilities, and experience
- > Discuss how we will integrate with CRPTF to support and achieve your objectives

WHAT WE WANT YOU TO LEAVE WITH

- > HarbourVest has a proven track record of successfully executing custom mandates
- > We are dedicated to the success of this partnership, being an extension of your team, and supporting your mission
- > Together CRPTF and HarbourVest will create scale of capital, breadth and depth of resources, and an unparalleled co-investment experience to deliver superior returns

HARBOURVEST SOLUTIONS

Experienced	35+ years of experience building comprehensive private markets solutions
Collaborative	Constructing and adapting portfolios in partnership with our clients
Flexible	Diversified global platform allows for program adjustments as client objectives evolve
Analytical	Leveraging data to improve investment results and enhance the client experience

As of August 26, 2021. This information has been prepared for discussion purposes only specifically for Connecticut Retirement Plans and Trust Funds (August 2021) and is based on our understanding of the client's objectives.

HARBOURVEST FIRM OVERVIEW

HarbourVest at-a-glance

HARBOURVEST

$80.9 billion
total AUM across all strategies*

Private markets
specialists in equity, credit, and real assets

Expertise
in primary, secondary, direct co-investments, credit, and real assets

700+
colleagues
150+
investment professionals

25 years
average industry experience of managing directors

900+
advisory board seats

Strong track record
35+ years

950+
Managers tracked

As of June 30, 2021
*Reflects committed capital from LPs for all active funds/accounts, excludes any funds / accounts that are in extension, liquidation, or fully liquidated.

Global Scale – Our market coverage is broad and deep

HARBOURVEST

Americas		EMEA		Asia Pacific	
117 Investment Professionals	**$62.9** Billion Committed	**32** Investment Professionals	**$29.0** Billion Committed	**22** Investment Professionals	**$9.9** Billion Committed

Expertise Across Capital Structure (Equity and Debt) and Investment Types

PRIMARY INVESTMENTS	SECONDARY & REAL ASSETS	DIRECT – EQUITY & CREDIT
$48.4 billion committed	**$29.9 billion committed**	**$23.5 billion committed**

As of June 30, 2021. Based on primary, secondary, and direct commitments made by HarbourVest since inception. ○ Indicates HarbourVest team location. *Singapore office opened May 2021. Frankfurt office opened July 2021.

ESG focus is embedded across the organization

Core Program pillars

- Integrate ESG factors into investment processes
- Foster GP adoption and support
- Reflect values in policies and products
- Govern efforts through senior leadership
- Provide transparency to stakeholders

HarbourVest PRI Ratings

ESG Category	2020 Score*
Strategy & Governance	A+
Indirect Investments (Primary & Secondary)	A+
Direct Investments	A

ESG Council

- 12 members; multidisciplinary
- Provides firmwide support on ESG strategy and policy implementation

CarbonNeutral® Company

We achieved certification in 2020 in accordance with *The CarbonNeutral Protocol*, the leading global framework for carbon neutrality

The public version of HarbourVest's 2020 PRI Transparency Report can be accessed at https://www.harbourvest.com/why-harbourvest/corporate-responsibility. To access the firm's annual Private Transparency Report and Assessment Report, please log on to HarbourVest's secure investor log-in site at https://investor.harbourvest.com using your email address and password. Once logged in, go to the "News and Update" tab and select "Market Updates."

Committed to diversity and inclusion in all we do

HarbourVest

Industry Collaboration

Proud to support and participate in initiatives that are changing the face of our industry

aaaim | Association of Asian American Investment Managers

ilpa INSTITUTIONAL LIMITED PARTNERS ASSOCIATION

LEVEL 20

naic National Association of Investment Companies

OUT INVESTORS LGBT+ NETWORK

Targeted Investment Solutions

Focus on diverse and emerging managers
Dedicated investment team with wide network and established sourcing process

150+ Opportunities reviewed annually in this market segment

$3.3 Billion Capital managed or previously advised on focused in this market segment*

Diversity & Inclusion Council

Adopting an intentional approach to diversity

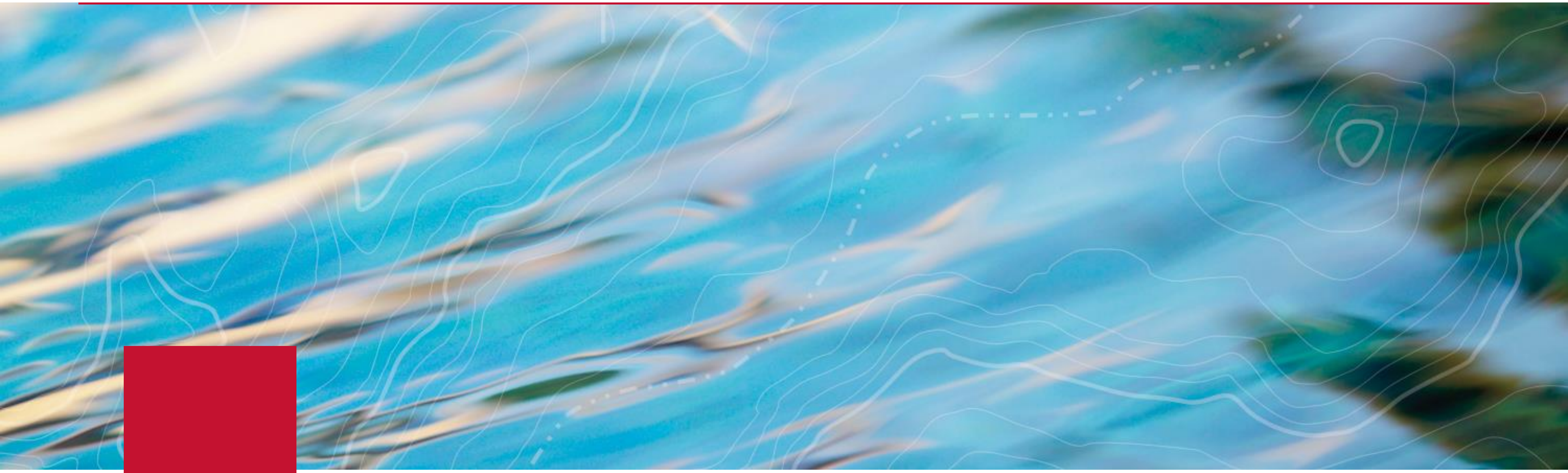
- Established in 2019
- Group of senior leaders focused on developing our D&I strategy
- Drives decisions, measures progress, implements related policies and practices

Diverse Workforce

% of female and/or ethnically diverse staff**

57% Global Team	**39%** Executive Management
40% Senior Leadership	**38%** Investment Professionals

*As of March 31, 2021. This figure represents $1.4B in emerging and diverse targeted SMA capital raised since joining Harbour Vest, and $1.9B in capital committed to similar vehicles managed by the team at BAML before joining HarbourVest in February 2016. Commitment amounts reflect the aggregate commitments to primary, secondary, and direct co-investments since inception, and are presented net of leverage.
**As of December 31, 2020. Gender diversity is accounted for globally. Ethnic diversity data includes US employees only.



CO-INVEST PLATFORM

Leader in building co-investment portfolios

HARBOURVEST

HARBOURVEST STRENGTHS

Strong, demonstrated model track record*

19.1%
gross model 10-year IRR

$12.2 billion
proceeds generated since inception

Active deal-sourcing platform**

730
deals sourced in LTM

68%
small/mid-market deals reviewed in LTM

Focus on creating solutions for GPs

1983
first co-investment made

700+
active GP relationships§

Large, experienced global team

56
investment professionals globally††

20
average years of MD experience

As of March 31, 2021, unless otherwise noted.

* 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 co-investments made by the HarbourVest team in the last 10 years across all HarbourVest-managed funds and accounts. The gross model IRR since inception (1983) is 17.5%. No investor received the gross model IRR. Actual performance may differ substantially from the gross model IRR presented. Proceeds generated reflect gross realized proceeds from all partially and realized 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, and does not reflect the management fees, carried interest, and other expenses borne by investors, which would reduce returns. There can be no assurance that the actual investment activity of the Fund will be consistent with these assumptions.

** As of December 31, 2020. Small/mid-market deals statistic represents percentage of deals reviewed in depth that has an enterprise value of $1.5 billion or less at the time of our review.

§ Reflects all active general partner relationships across the HarbourVest platform as of June 30, 2021

†† As of June 30, 2021.

Proven deal sourcing platform

HarbourVest

HarbourVest Platform

Relationships with 700+ GPs built by our primary and secondary investment teams

Proactive Sourcing

Systematic sourcing approach with dedicated internal resources

Industry Network

Access to the GP networks of our global, diversified LP base

730 Deals sourced in LTM*

Broad global platform, resulting in meaningful deal flow

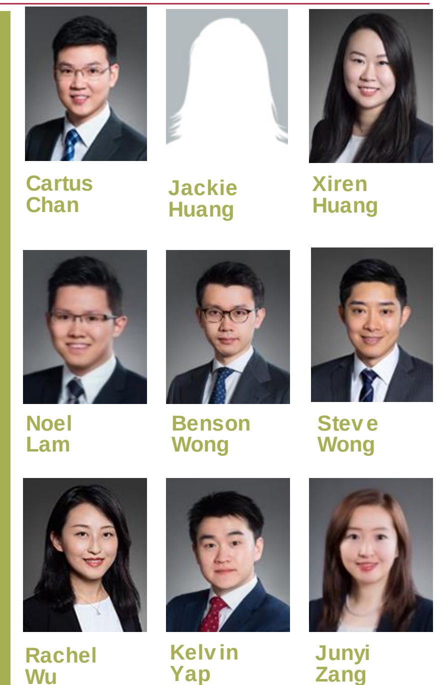
* Last twelve months ("LTM") data represents all equity co-investment deals sourced from January 1, 2020 to December 31, 2020. Past performance is not a reliable indicator of future results.

Experienced direct co-investment team

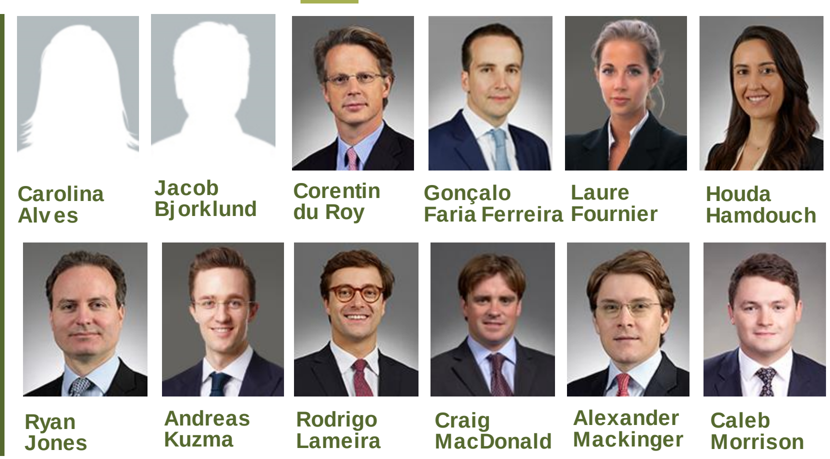
HarbourVest

NORTH AMERICA

ASIA

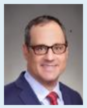
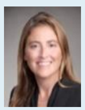
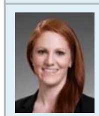
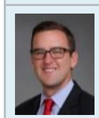
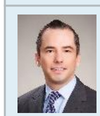


EUROPE



As of June 30, 2021. * These individuals are focused on direct co-investments, as well as primary partnership investments, credit investments, and/or investor relations.

Experienced credit team

Team Member		Prior Firms
	**Jamie Athanasoulas** Managing Director *25 years experience*	BainCapital Credit; Bain & Company
	**Peter Lipson** Managing Director *23 years experience*	Salomon Brothers
	**Karen Simeone** Managing Director *21 years experience*	TCW; Stairway Capital; J.P.Morgan
	**Lee Incandela** Principal *14 years experience*	THL Credit; Jefferies; BMO
	**Megan Beecher** Vice President *10 years experience*	Hamilton Lane; Standard Life Investments
	**Sean Gillespie** Vice President *8 years experience*	Citizens Financial Group, Inc.; cg/
	**Will Hasten** Vice President *11 years experience*	Monroe Capital; usbank
	**Greg Mazur** Vice President *15 years experience*	PennantPark; BlackRock

HarbourVest's private credit strategies are led by seasoned professionals with broad market expertise

Private Credit Experience Across Cycles

- Pattern-recognition skills honed by actively investing throughout multiple cycles
- Deep familiarity with all parts of managing debt investments from sourcing and underwriting to restructuring and exit

Extensive Industry Networks

- Strong relationships with sponsors, lenders, and intermediaries that has the potential to drive differentiated deal flow, enhancing HarbourVest's private markets platform

Complementary Investment Capabilities

- Combined expertise across the entire capital structure
  - Senior debt
  - Junior debt
  - Equity direct investments and co-investment
  - Turnaround / restructuring

As of June 30, 2021

Global direct co-investment performance by stage

HarbourVest

As of March 31, 2021

USD in Millions	Buyout	Growth Equity	Credit / Other
All Investments			
Number of Companies	239	108	52
Total Cost	$10,337.5	$2,332.0	$863.2
Realized Value	$7,388.7	$2,019.2	$557.6
Total Value	$17,767.6	$5,837.1	$1,309.2
Realized Value / Total Cost	0.7x	0.9x	0.6x
Total Value / Total Cost	1.7x	2.5x	1.5x
Gross Portfolio IRR	**17.3%**	**22.4%**	**22.8%**
Realized Investments			
Number of Companies	101	40	17
Total Cost	$3,045.4	$663.9	$144.2
Realized Value	$6,104.1	$1,527.8	$400.4
Total Value	$6,136.4	$1,527.8	$400.4
Realized Value / Total Cost	2.0x	2.3x	2.8x
Total Value / Total Cost	2.0x	2.3x	2.8x
Gross Portfolio IRR	**16.3%**	**19.1%**	**26.6%**

Prepared for the exclusive use of State of Connecticut Retirement Plans and Trust Funds (August 2021). Not for distribution to third parties

For illustrative purposes only. As of March 31, 2021. Reflects all investments in HarbourVest's Global Direct Co-Investment Track Record from January 1, 2004 (the year in which HarbourVest first launched its global direct-co-investment commingled fund) through March 31, 2021 by stage of investment. This information is presented on a gross basis unless otherwise noted. Gross returns do not reflect the management fees, carried interest, and other expenses borne by investors in the HarbourVest-managed funds/accounts, which will reduce returns. See 'Additional Important Information' at the end of the presentation, including important disclosures related to Gross Performance Returns, Vintage Year, Model Portfolios, and Fees and Expenses. Past performance is not a reliable indicator of future results.

CUSTOM SOLUTIONS

A trusted partner for customized co-investment solutions

HARBOURVEST STRENGTHS

Flexible selection of service offerings

> Program design
> Knowledge transfer / information sharing
> Sourcing
> Various levels of discretion
> Execution
> Monitoring & reporting

Proprietary deal flow

> Proactive sourcing from GP network
> Internal diligence resources
> Portfolio company assistance

Utilize HarbourVest co-investment professionals as extension of your team

56
investment professionals globally

6
offices globally with co-investment team presence

Leverage the HarbourVest platform

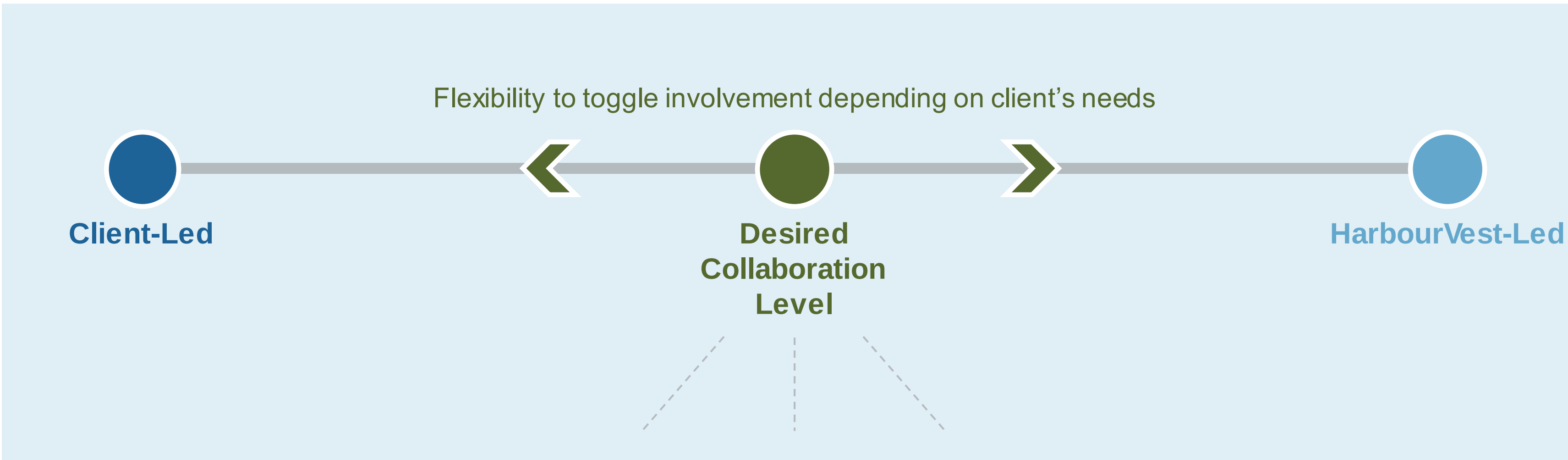
$4.4 billion
co-investment capital committed in 2020*

800+
co-investments completed since inception

As of June 30, 2021 unless otherwise noted.
* Investment activity reflects all direct equity co-investment activity related to a HarbourVest fund and/or account from January 1, 2020 to December 31, 2020. Excludes credit and real assets direct co-investments. Past performance is not a reliable indicator of future results.

Flexibility in service options based on client needs

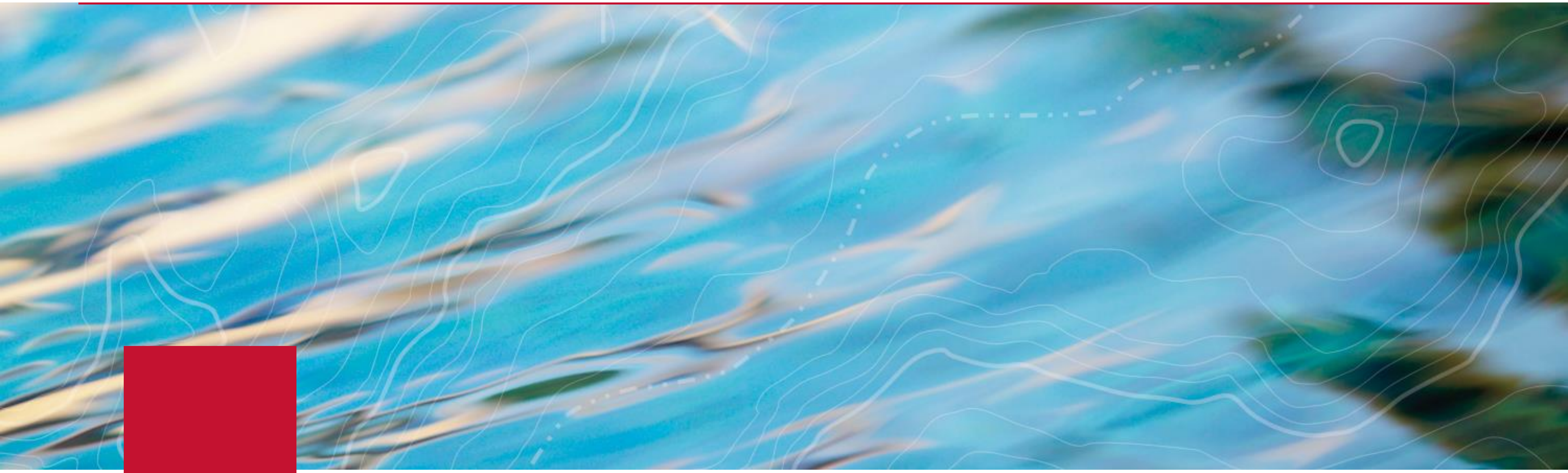
HARBOURVEST



SERVICE OFFERINGS

Sourcing & GP Access	Information Sharing & Knowledge Transfer	Discretion & Decision-Making	Post-Investment Monitoring
Coordinated sourcing from client's relationships and, if desired, HarbourVest's managers	Ability for client to review diligence materials and participate in review process	HarbourVest discretion, client discretion, or blend of both on deal decisions	HarbourVest can perform monitoring services or the responsibility can be turned over to client post-investment

For illustrative purposes only.



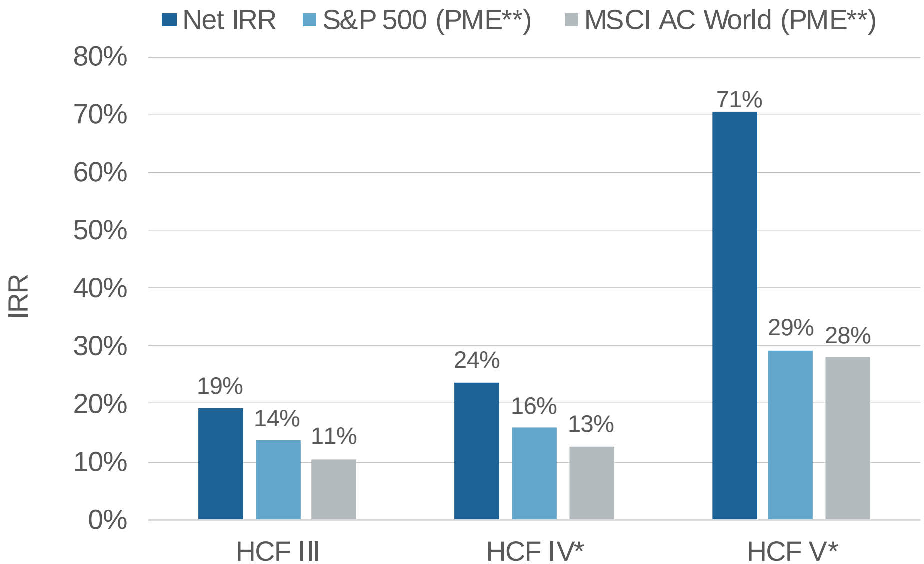
ADDITIONAL INFORMATION: CO-INVESTMENTS

HarbourVest has outperformed public and private benchmarks

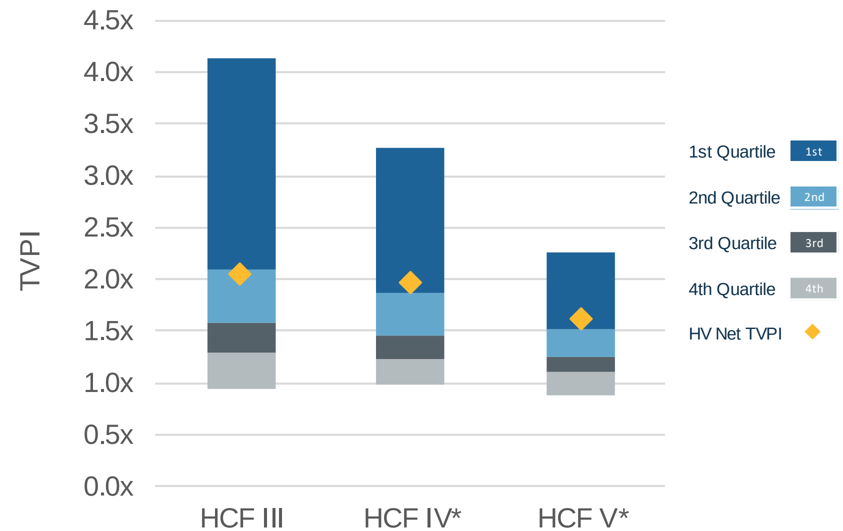
HARBOURVEST

	Commitment Period	Fund Size (Millions)	% Called	Net DPI	Net TVPI	Net IRR	S&P 500 (PME**)	MSCI AC World (PME**)
HCF III	2013-2016	$1,010.1	97%	1.4x	2.0x	19.2%	13.6%	10.6%
HCF IV*	2016-2019	$1,767.7	84%	0.3x	2.0x	23.7%	15.8%	12.6%
HCF V*	2018-2021	$3,030.3	72%	0.0x	1.6x	70.5%	29.3%	27.9%

Performance (Since Inception) vs. Public Benchmarks



Performance (Since Inception) vs. Burgiss Global All Private Equity Benchmark***



* HCF IV and HCF V performance also includes the performance of any AIF-related funds.

** Adjusted index returns to reflect a comparable public market equivalent ("PME").

*** As of March 31, 2021. Source: Burgiss, Global All Private Equity benchmarks for the respective fund vintage years (2013, 2016, and 2018 respectively). There are 254 funds in the benchmark for the 2013 vintage, 355 funds in the benchmark for the 2016 vintage, and 502 funds in the 2018 vintage. The quartiles are determined based on the net TVPI return of each fund in the benchmark. The funds comprising the Global All Private Equity benchmark may have substantially different characteristics than the respective HarbourVest funds, and the comparison is provided for illustrative purposes only.

Performance provided as of March 31, 2021. HCF III refers to 2013 Direct Fund, HCF IV refers to Co-Investment Fund IV, and HCF V refers to Co-Investment Fund V. Past performance is not a reliable indicator of future results. For EEA prospective investors, this performance information 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 related to Net Performance Returns, Public Market Comparison, Private Equity Index Data, and Fees and Expenses.

APPENDIX

Strong global team

HARBOURVEST

PRIMARY PARTNERSHIPS

MANAGING DIRECTOR
Till Burges, John Morris, Carolina Espinal, Amanda Outerbridge, Mac Grayson, Senia Rapisarda, Ryan Gunther, Greg Stento, Lydia Hao, Scott Voss, Hemal Mirani

PRINCIPAL
Alex Barker, Stephen Tamburelli, Joseph Li, Chris Walker, Eric Simas, Alex Wolf

VICE PRESIDENT
Amanda Chen, Danielle Dobson, Stephanie Daul, Lindsey Macleod

SENIOR ASSOCIATE
Michael Ferrante, John Powers, Zachary Knowlton, Luke von Maur, Daryl Ng, Chloe Webster

ASSOCIATE
Michael Choi, Robin McNamara, Travis Chou, Justin Padilla, Thomas Dils, Julien Van den Rul, John Fazzini, Julie Zhu, Garren Hong

EMERGING AND DIVERSE INVESTMENTS

MANAGING DIRECTOR
Craig Fowler, Sanjiv Shah, Edward Powers

ENTERPRISE INVESTMENT OFFICE

SENIOR VICE PRESIDENT
Nick Fleischhacker

VICE PRESIDENT
Jecca Auchterlonie, Dean Poulos, Todd DeAngelo

SENIOR ASSOCIATE
James Tsavaris

ASSOCIATE
Anthony Grassa, Nicholas Potter, Silas Hill

EXECUTIVE MANAGEMENT COMMITTEE

MANAGING DIRECTOR
John Toomey, Peter Wilson

SECONDARY INVESTMENTS

MANAGING DIRECTOR
David Atterbury, Edward Holdsworth, Greg Ciesielski, Jeff Keay, Tim Flower, Mike Pugatch, Brett Gordon, Rajesh Senapati, Valérie Handal, Dustin Willard

PRINCIPAL
Abuzar Anaswala, Blake Holman, John Fiato, Matt Souza, Dominic Goh, Martin Yung

VICE PRESIDENT
Nick Bellisario, Yassin Knocke, Chad Bounds, Emily Ren, Kyle Dowd, William Thompson

SENIOR ASSOCIATE
Julie Catton, Andrea Pompili, Matthew Dezenzo, Patrick Qian, Jack Donovan, Michael Venditti, Tony Law

ASSOCIATE
Benjamin Gerber, Taylor Percy, Freddie Grimwade, Christoph Schwarz, Ryan Kim, Kaitlyn Shao, Kelly Lau, Jordan van Wezel, Mary Maccabee, Christopher West, Parthiv Patel, Olivia Xu

REAL ASSETS

MANAGING DIRECTOR
Michael Dean, Kevin Warn-Schindel

PRINCIPAL
Dan Buffery, Justin Lane, Diego Jimenez, Benjamin Wu

VICE PRESIDENT
Holland Davis, Ian Jeffrey

ASSOCIATE
Anthony Crawford, Colin Mooney, Kate-Lynn Gordey, Andrew Tye, Dhruv Goyal

HVPE
Richard Hickman, Principal, Portfolio Mgmt.
Bill Macaulay, Director of Finance

DIRECT CO-INVESTMENTS & PRIVATE CREDIT

MANAGING DIRECTOR
Jamie Athanasoulas, Seth Palmer, Corentin du Roy, Alex Rogers, Ian Lane, Karen Simeone, Peter Lipson, Kelvin Yap, Craig MacDonald

PRINCIPAL
Cartus Chan, Ryan Jones, Matthew Cheng, Lenny Li, Goncalo Faria Ferreira, Jacqueline Peradotto, Joel Hwang, Steve Wong, Lee Incandela, David Zug

VICE PRESIDENT
Megan Beecher, William Hasten, Brendan Butler, Alexander Mackinger, Elliott Campbell, Sophia Maizel, Karen Chung, Gregory Mazur, Sean Gillespie, Thorne Michaels, Michael Guiness, Jonathan Sanford, Houda Hamdouch, Junyi Zang

SENIOR ASSOCIATE
Sean Carolan, William Morelli, Manusha Chereddy, Tikeren Quinn, Noel Lam, Tyler Smith, Ruyin Liao

ASSOCIATE
Carolina Alves, Joseph Mitrani, Jacob Bjorklund, Caleb Morrison, Julia Burke, Shan Patel, Abigail Cough, Leor Radbil, Zachary Eagle, John Schwartz, Laure Fournier, Marie Smith, Erik Garrigo, Richard Sterndale, Jackie Huang, Ryan Wolfson, Xiren Huang, Benson Wong, Andreas Kuzma, Rachel Wu, Rodrigo Lameira

QUANTITATIVE INVESTMENT SCIENCE

MANAGING DIRECTOR
Sofia Gertsberg

OPERATIONS
Monique Austin, Managing Director
Richard Campbell, Managing Director
Paula Drake, Managing Director
Julie Eiermann, Managing Director, CDO
Karin Lagerlund, Managing Director, CFO
Rob MacGoey, Managing Director, CFO
Tricia Mackechnie, Managing Director, CTO
Mark Reale, Managing Director
Bill Royer, Managing Director, CCO
Mary Traer, Managing Director / CAO
Jennifer Blatt, SVP, Head of Perf. & Rewards
Tony Cobuzzi, SVP, Fund Controller
Cory Cook, SVP, Fund Controller
Matthew Dowgert, SVP, Counsel
Aliza Firestone Goren, SVP, Counsel
Jason Frigiani, SVP, Corporate Controller
Ian Jack, SVP, Head of Compliance, EMEA
David Morris, SVP, Tax Structuring
Michael Pekkarinen, SVP, Business Resilience
Bruce Pixler, SVP, Director of Tax
David Rule, SVP, Global Infrastructure
Kim Schawbel, SVP, Admin. Operations
Jonathan Sidi, SVP, Counsel
Dave Stepanis, SVP, Portfolio Analytics
Amy Unckless, SVP, Org. Effectiveness
Jack Wagner, SVP, Treasurer
Jean Walsh, SVP, Assistant Treasurer

INVESTOR RELATIONS

MANAGING DIRECTOR
Nate Bishop, Simon Lund, Minjun Chung, Tadasu Matsuo, Matt HoganBruen, Vinay Mendiratta, Simon Jennings, Nhora Otalora, Jamie Kase, Ilan Rosen, Olav König, Sally Shan, Tatsuya Kubo, Laura Thaxter

PRINCIPAL & SENIOR VICE PRESIDENT
Emily Archer, Teri Noble, Mohit Bhatia, Fran Peters, Jay Brasseur, Vai Rajan, John Brescia, Abigail Rayner, Daniel Conti, Christopher Row, John Cooney, Jonathan Seidman, Ashleigh Dorsett, Drew Snow, Shumin Gong, Alicia Sweeney, Michael Joseph, Audrey The-Dumas, Yasunobu Kawahara, Taehyun Yum, David Krauser, Sarah Zilzer, Warwick Mancini

As of June 30, 2021. 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, HarbourVest Partners (Israel) Ltd, HarbourVest Partners (Ireland) Limited, and HarbourVest Partners (Singapore) Pte. Limited.

Contacts – We are accessible across the globe

HarbourVest

Americas	EMEA	APAC
BOGOTÁ HarbourVest Partners, LLC Oficina de Representación +57 1 552 1400	**DUBLIN** HarbourVest Partners (Ireland) Limited +353 1 566 4410	**BEIJING** HarbourVest Investment Consulting (Beijing) Company Limited +86 10 5706 8600
BOSTON HarbourVest Partners, LLC +1 617 348 3707	**FRANKFURT** HarbourVest Partners (Ireland) Limited, Zweigniederlassung Deutschland +49 69 589964040	**HONG KONG** HarbourVest Partners (Asia) Limited +852 2525 2214
TORONTO HarbourVest Partners (Canada) Limited +1 647 484 3022	**LONDON** HarbourVest Partners (U.K.) Limited +44 20 7399 9820	**SEOUL** HarbourVest Partners Korea Limited +82 2 6410 8020
	TEL AVIV HarbourVest Partners (Israel) Limited +972 3 3720123	**SINGAPORE** HarbourVest Partners (Singapore) Pte. Limited +65 6978 9613
		TOKYO HarbourVest Partners (Japan) Limited +81 3 3284 4320

harbourvest.com

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.

HarbourVest's founders began making venture capital investments for John Hancock Financial Services in late 1970s. In 1982 they formed Hancock Venture Partners, Inc, which was fully owned by John Hancock Mutual Life Insurance Company, to independently develop and manage third-party private equity capital. In January 1997, the Hancock Venture Partners management team formed a new independent management company, HarbourVest Partners, LLC. All then-employees of Hancock Venture Partners became owners and/or employees of HarbourVest Partners, LLC. As of January 1, 2021 all employees of HarbourVest Partners, LLC hired prior to 1997 are still afiliated with HarbourVest and serve either as a Managing Director or in a Senior Advisor capacity. HarbourVest Partners, LLC has no affiliation with John Hancock Financial Services.

The source of the performance information is HarbourVest. In considering the 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 funds that made these investments may have had different terms and investment objectives than those proposed or modeled herein.

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 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 HarbourVest fund or account, 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 fund a portion of an investment and may also be used to facilitate transactions involving the recapitalization of portfolio investments. 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 after all management fees, commissions, fund 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 HarbourVest fund or account 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.

Notes continued on next page.

Additional important information

HarbourVest

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 daily cash flows from the Fund(s) to and from the various partnerships or companies, either directly or through a special purpose vehicle in which the Fund(s) invested during the period specified. These returns reflect the fees, expenses, and carried interest of the underlying fund investments (where applicable), certain expenses of any special purpose vehicle that held an interest in the underlying fund, 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.

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. The indices used assume reinvestment of all dividends. 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 gross actual index returns, but adjusted model returns. See note 6 for additional disclosures related to model performance.

   The MSCI AC Asia Pacific® Index captures large and mid cap representation across 5 Developed Markets countries (Australia, Hong Kong, Japan, New Zealand and Singapore) and 9 Emerging Markets countries (China, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Taiwan and Thailand) in the Asia Pacific region. With 1,573 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

   The MSCI AC World® Index (ACWI) is designed to measure the performance of publicly-traded large and mid-capitalization 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 large and mid-capitalization 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, Israel 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 eligible U.S. exchanges. 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.

Notes continued on next page.

Additional important information

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 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.

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 are inherently limited and should not be relied upon as indicators of future performance. Individual fund and strategy performance can be better or worse than the model. **No investor received the indicated model performance.** Certain assumptions have been made for modeling purposes. No representation or warrant is made as to the reasonableness of the assumptions made. Changes in the assumptions may have a material impact on the hypothetical returns presented.

   Different model scenarios will provide different results. While the model portfolio may consist of investments made by HarbourVest during the relevant period(s), it does not reflect an actual portfolio managed by HarbourVest during the relevant period(s) and does 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).

Notes continued on next page.

In addition, the HarbourVest fund(s) had investment results materially different from the results portrayed in the model portfolio during the relevant period(s). The fund(s)' actual investments may have substantially different terms than those reflected in the model portfolio. No representation is made that any Fund will or is likely to achieve returns similar to those presented, and there can be no assurance that the fund(s) or HarbourVest will achieve profits or avoid incurring substantial losses. Other periods selected for the model portfolios may have different results, including losses. Current model performance may differ from that shown.

Model may assume each portfolio participates in every investment opportunity on a pro rata basis based on actual aggregate HarbourVest commitments for each vintage year. Actual investment opportunities may be limited due to scarcity and desired portfolio construction; creating a more concentrated portfolio in comparison to the model. The incremental benefit of portfolio diversification may become limited at the higher range of underlying partnerships / investments.

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 fund(s) 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 fund(s) 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 fund(s) 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). Direct co-investments are generally 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, generally defined as those companies with revenues less than $7.5 million at the time of initial investment, which are outside 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.

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 an average of 0.1% to 1.25% per year of committed, called, or invested capital over the expected life of the 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.

Notes continued on next page.

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.

Epidemics, Pandemics and Other Health Risks

Many countries have experienced infectious illnesses in recent decades, including swine flu, avian influenza, SARS and 2019-nCoV (the "Coronavirus"). In December 2019, an initial outbreak of the Coronavirus was reported in Hubei, China. Since then, a large and growing number of cases have been confirmed around the world. The Coronavirus outbreak has resulted in numerous deaths and the imposition of both local and more widespread "work from home" and other quarantine measures, border closures and other travel restrictions causing social unrest and commercial disruption on a global scale. The World Health Organization has declared the Coronavirus outbreak a pandemic. The ongoing spread of the Coronavirus has had and will continue to have a material adverse impact on local economies in the affected jurisdictions and also on the global economy as cross-border commercial activity and market sentiment are increasingly impacted by the outbreak and government and other measures seeking to contain its spread. In addition to these developments having potentially adverse consequences for underlying portfolio investments of the Fund and the value of the Fund's investments therein, the operations of HarbourVest and the Fund have been, and could continue to be, adversely impacted, including through quarantine measures and travel restrictions imposed on HarbourVest personnel or service providers based around the world, and any related health issues of such personnel or service providers. Any of the foregoing events could materially and adversely affect the Fund's ability to source, manage and divest its investments and its ability to fulfill its investment objectives. Similar consequences could arise with respect to other comparable infectious diseases.

Notes continued on next page.

Additional important information

HARBOURVEST

The information contained herein is highly confidential and is being provided to you at your request for informational purposes only and is not, and may not be relied on in any manner as, legal, tax, or investment advice or as an offer to sell or a solicitation of an offer to buy an interest in any fund or any other investment product sponsored by HarbourVest (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 (the “Memorandum”) 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. The information contained herein will be superseded by, and is qualified in its entirety by reference to, the Memorandum, which will contain information about the investment objective, terms, and conditions of an investment in the Fund and will also contain tax information and risk disclosures that are important to any investment decision regarding the Fund. No person has been authorized to make any statement concerning the Fund other than as will be set forth in the Memorandum and any such statements, if made, may not be relied upon. 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. The information contained herein must be kept strictly confidential and may not be reproduced or redistributed in any format without the express written approval of HarbourVest.

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.

AGENDA ITEM #6

SHAWN T. WOODEN
TREASURER

State of Connecticut
Office of the Treasurer

DARRELL V. HILL
DEPUTY TREASURER

September 3, 2021

Members of the Investment Advisory Council

Re: Morgan Stanley CRPTF Real Assets Co-Investment Strategic Partnership

Dear Fellow IAC Member:

At the September 8, 2021 meeting of the Investment Advisory Council, I will present for your consideration an investment opportunity in the Real Asset Fund ("RAF") of the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Morgan Stanley Investment Management CRPTF Co-Investment Strategic Partnership ("MSIM-CT"). The MSIM-CT partnership will allow the CRPTF to co-invest in private real assets transactions managed by the Morgan Stanley Investment Management ("MSIM") Solutions Team operating within a publicly traded global financial services and asset management firm, with more than $1.4 trillion of assets under management.

I am considering a commitment of up to $125 million per year over a three-year commitment period in MSIM-CT to participate in co-investments transactions in real estate, infrastructure, natural resources. The MSIM-CT mandate will allow the CRPTF to pursue co-investment opportunities from our own General Partner ("GP") relationships as well as the extensive network of GPs working with MSIM. Additionally, this strategic partnership will bring MSIM resources to the CRPTF providing direct access for close collaboration, knowledge transfer with Morgan Stanley experts, training, and professional development. The MSIM Real Assets Solution team has established a robust global co-investment platform, having invested over $2 billion in real assets opportunities, with over $800 million in real assets co-investments since 2009.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Meketa. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden
State Treasurer

OFFICE OF THE STATE TREASURER

MEMORANDUM

DECISION

TO:	**Shawn T. Wooden, Treasurer**
FROM:	**Ted Wright, Chief Investment Officer**
CC:	**Darrell V. Hill, Deputy Treasurer** **Raynald D. Leveque, Deputy Chief Investment Officer** **Mark Evans, Principal Investment Officer** **Kevin J. Cullinan, Chief Risk Officer** **Kan Zuo, Private Markets Investment Officer**
DATE:	**September 2, 2021**
SUBJECT:	**Morgan Stanley Investment Management CRPTF Real Assets Co-Investment Strategic Partnership**

Summary

The purpose of this memorandum is to recommend that the Connecticut Retirement Plans and Trust Funds (the "CRPTF") consider an annual commitment of up to $125 million each year over a three-year period to the Morgan Stanley Investment Management ("MSIM") CRPTF Real Assets Co-Investment L.P. ("MSIM-CT") in the Real Assets Fund ("RAF"). The target capital commitment will comprise up to a $75 million allocation to the Real Estate investments and up to a $50 million allocation to the Infrastructure and Natural Resources investments.

MSIM-CT is an RAF co-investment strategic partnership. This partnership will provide the CRPTF the opportunity to co-invest in favorable transactions of existing general partners ("GPs") that the CRPTF has made fund commitments to and with GPs in the Morgan Stanley network that the CRTPF does not have a fund relationship. MSIM-CT would be structured as a separately managed account ("SMA") vehicle with a three-year commitment period to source and underwrite real assets opportunities in the real estate, infrastructure, and natural resources asset classes.

This strategic partnership with Morgan Stanley, in addition to the execution of a robust co-investment real assets portfolio, offers a broad range of services to the Pension Fund Management ("PFM") investment professionals. Investment services include custom training, investment due diligence, knowledge transfer, access to investment tools and analytics, and professional development, leveraging the resources of a global asset management organization.

Meketa believes the MSIM-CT partnership is an attractive structure for PFM, enabling our organization to engage in investment opportunities relative to the CRTPF's internal constraints. Meketa identifies a few factors and opportunities for successfully implementing our private markets co-investment program addressed in this memorandum.

PFM investment professionals believe that the MSIM-CT strategic partnership will be accretive to our existing private markets portfolio, achieving attractive risk-adjusted returns over the long term and benefits of a strategic alliance for staff professional development.

Strategic Allocation within the Real Assets Portfolio

The MSIM-CT strategy is to implement a high-quality co-investment program that complements the existing and future commitments to the RAF portfolio, generating superior risk-adjusted returns. This co-investment program will harvest opportunities from the list of high conviction GPs in the RAF, further augmented by adding GP relationships sourced through the Morgan Stanley platform.

The MSIM partnership will source transactions to underwrite value-add and opportunistic investments to build out the target exposure in real estate and accelerate our exposure in renewables, sustainable infrastructure, and natural resources investments. The MSIM-CT mandate will focus on smaller and mid-market GP co-invest opportunities that can create outsized returns.

The MSIM-CT co-investment mandate will be discretionary. All transactions will be approved, acquired, managed, and monitored by the MSIM Real Assets Solutions Team ("MSIM Solutions Team").

As of June 30, 2021, the real estate allocation total net asset value is $2.81 billion or 6.38% of the CRPTF. The net asset value of the infrastructure & natural resources allocation is $204.5 million or 0.46% of the total plan. Real estate, infrastructure, & natural resources are underweight relative to the policy target allocation of 10% and 4.2%, respectively. The CRPTF will target approximately 10% of the RAF portfolio for co-investments over the long term.

MSIM Solutions Team Overview

Morgan Stanley Investment Management is a global asset manager with $1.4 trillion in assets under management, operating in 22 countries, with 1,184 investment professionals across 52 offices.

The Morgan Stanley real assets co-investment practice was established in 2009 and operated within the Solutions and Multi-Asset Group. The MSIM Solutions Team is a group of 26 investment, administration, and research professionals responsible for implementing the real assets co-investment platform. The MSIM Solution Team is led by the six-member Investment Committee ("IC") comprised of Rui De Figueiredo, Ph.D., Co-Head and Chief Investment Officer, and Managing Directors, Ted Eliopoulos, Ryan Meredith, Catherine Hong, Steve Turner, and Damon Wu.

The IC members have over 116 years of experience in the real assets sector, each with a strong network of GP and industry contacts. The IC will be responsible for sourcing, underwriting, portfolio management, and overseeing the MSIM-CT co-investment opportunities. Four of the six IC members have worked together as portfolio managers at Morgan Stanley for over 13 years. The two recent additions, Ted Eliopoulos and Steve Turner, bring specific experience in infrastructure and natural resources investments on the public and private sides, respectively.

The IC is supported by 13 dedicated global investment research professionals and seven investment administration and data management professionals. The investment research team is comprised of both quantitative and qualitative analysts who are focused on underwriting and monitoring investment deals. The investment administration team is responsible for various aspects of deal administration, operations, structuring, monitoring, and reporting of portfolio transactions.

Further, the broader MSIM Solutions Team will leverage the specialist investment teams in the Private Markets & Hedge Fund Solutions, Private Real Estate, and Private Infrastructure areas. These specialist teams support the MSIM Solutions Team in sourcing, diligence, transaction structuring, and execution. Overall, this platform employs over 350 professionals, inclusive of legal, tax, and reporting teams.

Risk management will be an integral part of the investment process for the MSIM-CT strategy. Risk will be adequately addressed on a pre-and post-investment basis, considering key risk factors (e.g., regional dynamics, regulation/policy, asset stage, market competition, market pricing, and asset utilization). The investment and legal professionals of the MSIM Solutions Team include a broad set of risk management interests and alignment clauses when negotiating the terms of a co-investment deal.

Investment Strategy

The objective of the MSIM-CT mandate is to access co-investment opportunities to enhance the RAF portfolio's real returns through exposure to differentiated sources of performance that focus on operational management, capital-constrained market segments, and favorable sectors. The MSIM-CT mandate is designed to be an actively managed completion portfolio to the RAF primary fund investments. The MSIM Solutions Team will review the composition of the real estate and infrastructure & natural resources assets and build a diversified portfolio of co-investments across property types, managers, and vintage years.

Within real estate, the MSIM-CT will focus mainly on the following co-investment deal targets:

- Value-add and opportunistic strategies
- Developed markets with select emerging market exposures
- Vertically integrated fund managers focused on operational management and business enhancement
- Less efficient small to mid-size real estate fund sectors

Within infrastructure and natural resources, MSIM-CT will target:

- Value-add and opportunistic strategies
- Assets with long useful lives, including energy businesses (e.g., power generation and midstream energy)
- Utilities, transport, and select infrastructure transactions
- Other select natural resources sectors, such as timberland, mining, and minerals

Portfolio Guidelines

PFM investment professionals will work with the MSIM Solutions Team to develop portfolio guidelines and constraints to customize the portfolio construction of the co-investment mandate. These guidelines will assist in building a targeted co-investment portfolio and include flexibility to adapt to changes in the RAF portfolio as the program matures. These parameters are based on committed capital as a percentage of aggregate commitments over the three-year commitment period. There is a single GP limit of 25% of either real estate or infrastructure & natural resources on GP concentration and a 20% limit of the overall mandate. In addition, examples of the MSIM-CT portfolio investment criteria are shown on the following page.

MSIM-CT Real Assets Co-Investment Mandate
Proposed Investment Guidelines

Investment Type	Lower Bound	Upper Bound
Co-investments	95%	100%
Stapled Primaries	0%	5%

Strategy	Lower Bound	Upper Bound
Real Estate	50%	70%
Infra & Nat. Resources	30%	50%

Commitment Sizing	Lower Bound	Upper Bound
Investment Size	$10M	$25M

Geography	Lower Bound	Upper Bound
North America	20%	80%
Europe	10%	60%
Developed Asia Pacific	0%	30%
Emerging Markets	0%	20%

Source: PFM, MSIM Solutions Team

On potential conflict situations: the MSIM Solutions team will be required to seek consent or waiver for transactions involving Morgan Stanley or any of its affiliates as a seller, agent, or advisors. During our investment due diligence, PFM investment professionals found the MSIM Solutions Team thoughtful in designing applicable and tailored guidelines for our co-investment mandate to be similar to other institutional investor mandates.

Sourcing

Co-investment opportunities for the MSIM-CT mandate will be driven by available supply based on our existing GP fund investments and market opportunities from the Morgan Stanley sourcing network. The MSIM Real Assets Solutions Team has and will continue to leverage the broader investment platform across Private Markets, Private Real Estate, and Private Infrastructure teams. Historically, the Morgan Stanley Alternative Investment Partners (AIP) Private Markets Team has collaborated on sourcing co-investment transactions with the MSIM Solutions Team. PFM investment professionals believe the Morgan Stanley brand and the collaboration of the AIP team are significant advantages contributing to the success of the track record and their continued ability to source co-investments across the mandate.

Examining the existing MSIM manager relationships indicates that those managers would all be new to the CRPTF, thus increasing exposure to other high-quality general partners for co-investments.

Transaction Process

Once a prospective investment is sourced, the deal undergoes a rigorous transaction cycle to be evaluated and executed. PFM investment professionals found the MSIM transaction process robust, comprehensive, and efficient in executing co-investment opportunities. The discretionary nature of the mandate allows MSIM-CT to be more agile in deal execution.

Shown below is a description of the specific steps in the transaction cycle:

- **Initial Review (Phase I)**: The opportunity is screened for fit against the specific MSIM-CT investment criteria. The MSIM Solutions Team creates an initial IC approval memo that summaries the alignment of interest, team, tenure, track record, strategy, alignment of interest between the GP and the CRPTF, risks, and mitigants, along with peer comparisons

- **Detailed Underwriting (Phase II)**: After the approval of Phase I, the opportunity undergoes a rigorous quantitative and qualitative analysis to confirm the initial screen and independent underwriting. The MSIM Solutions Team evaluates many critical factors, including but not limited to GP sponsor quality, fit and alignment, asset level fundamentals, entry/exit valuations, market dynamics, and historical and projected business performance, and Environmental, Social, and Governance ("ESG") factors
- **Transaction Execution**: Following Phase II diligence, the legal, economic, operational, and structuring considerations are addressed, along with other risks and mitigants. Negotiation of the terms with the sponsor is outlined, along with a review of necessary governing documentation and subscription materials
- **Investment Committee Decision**: The prospective investment is presented to the IC, which makes a decision on the deal. Each co-investment deal requires approval by a supermajority (five out of six members). Following the decision, the MSIM Solutions Team provides feedback to the GP sponsor and parameters for deal execution

GP Monitoring Process

All team members are involved in the monitoring process, which includes active dialogue with GPs and results in a written report. As part of the portfolio monitoring process, manager investments are ranked and rated based on relative performance.

Shown below is the ranking methodology used:

- Meets expectations - valuations are in line with funds of a similar vintage
- Above expectations - valuations are better than normal funds of a similar vintage
- Below expectations - portfolio companies not growing as expected
- Too early to tell – default case until several investments are made and developments (positive or negative) are observed

The need for active intervention or heightened sensitivity to developments is highlighted with a red, yellow, or green flag:

- Red flag - Requires active intervention
- Yellow flag - Requires close monitoring for developments
- Green flag - Investment proceeding normally

This process prioritizes monitoring activities and can be an early warning for issues developing at the general partner level of the underlying fund.

Track Record and Performance

The performance of the MSIM Real Assets co-investment program is summarized in the table on the following page.

MSIM Real Assets Performance Summary
as of March 31, 2021

	Vintages	Capital Committed	Called Capital	Distributions	NAV + Distributions	Gross-Net IRR	TVPI	# Deals
Real Assets co-investments only	**2009 – 2021**	**$821.9M**	**$705.7M**	**$601.4M**	**$1,051.4M**	**16.3%**	**1.5x**	**40**
Real Estate co-investments	2009 – 2021	$530.4M	$469.3M	$586.3M	$734.7M	12.8%	1.6x	31
Infra. & Nat. Res. co-investments	2013 – 2021	$291.5M	$236.4M	$15.1M	$316.7M	23.2%	1.3x	9
Total Real Assets Composite (prim., secd, co-inv)	2009 - 2021	$2,027.7M	$1,585.6M	$1,184.2M	$2,167.5M	11.6%	1.4x	113

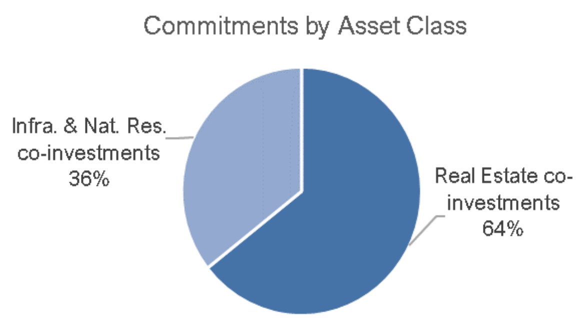
Source: MSIM Solutions Team
Gross-Net is defined as net of the underlying GP management fee, gross of Morgan Stanley fee

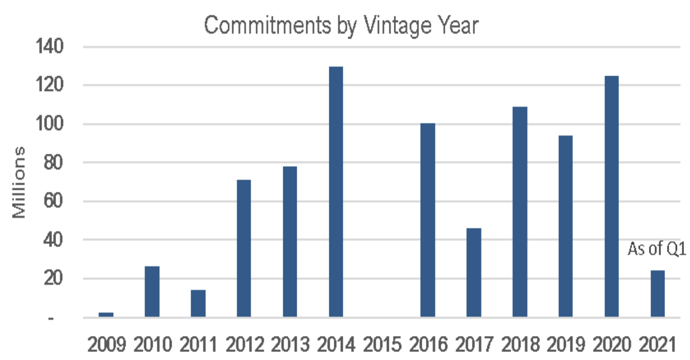
As of March 31, 2021, MSIM real assets platform has committed over $800 million to over 40 real asset co-investments since its inception in 2009. Overall, inclusive of primary and secondary commitments with co-investments, MSIM has put to work over $2.03 billion in over 110 real assets investments. The real assets co-investments have generated a 16.3% gross of Morgan Stanley fee net of underlying management fee return and 1.5x net multiple.

This track record reflects various sourcing of multiple customized mandates from MSIM clients and deals that have been approved through their process. The MSIM Solutions team has over twenty clients, including corporations, family offices, endowment and foundations, pension plans, and sovereign wealth funds. Relevant to our mandate, the MSIM Solutions team manages assets for six pension funds, of which five include real assets investments. The MSIM team interacts with more than 400 GPs annually due to its broad and deep sourcing capabilities.

The track record appears to balance real estate and infrastructure and natural resources investments in terms of commitments in dollar amounts relative to the number of deals. The commitments by vintage year are also shown below. In the past five years, the MSIM Solutions Team has deployed on average close to $100 million of co-investments per year on behalf of their clients. Closer examination of commitments by vintage year support MSIM's ability to deploy capital within the MSIM-CT mandate at our desired target level.

MSIM Real Assets Co-Invest Commitments
by Asset Class & Vintage Year
as of March 31, 2021





Source: PFM, MSIM Solutions Team

More importantly, a detailed review reveals that several investments in the track records represented highly sought-after opportunities sponsored by strong GPs. Several allocations were in sectors in which the CRPTF team has firm conviction, such as the logistics real estate sector. A substantial portion of the allocations was in attractive international markets for which CRPTF's current RAF portfolio lacks exposure. Overall, the GP network of the MSIM Solutions Team, evidenced by their track record, can serve as a solid complement to the current RAF allocations of the CRPTF.

Key Strengths

- Large Well-Resourced Organization: The Morgan Stanley platform is among the most significant asset management platforms for institutional clients seeking high-quality solutions. Morgan Stanley has a global brand in the private markets, which affords them important deal flow from intermediaries, general partners, and like-minded institutional investors. Morgan Stanley engages in primary and secondary fund activities in the private markets to leverage niche and specialize opportunities to source deals for their co-investment platform.

  The key strength for MSIM-CT will be the integration of primary fund investing and co-investment activities, which mirrors the same perspective in which the RAF investment team would approach portfolio integration. However, MSIM can leverage the full breadth and heft of its broader franchise to execute against the mandate.

  The MSIM Solutions Real Assets team is separate from the other private investment teams in the Morgan Stanley organization, which allows for managing potential conflicts. The team has built its real assets capability and works collaboratively with other groups on deal flow. Morgan Stanley has implemented a sourcing policy to manage allocations from GPs within the platform.

- Strong Experienced Team and Structure: Rui de Figueiredo, Ph.D., Ryan Meredith, CFA, FFA, Ted Eliopoulos, Catherine Hong, Steven Turner, CFA, and Damon Wu will lead and coordinate the real asset mandate for CRPTF and draw upon a number of resources across MSIM and the broader firm platform. These individuals form the IC that will be responsible for the day-to-day portfolio oversight and management of the MSIM-CT mandate. The MSIM Solutions Team is led by a strong team of senior professionals with a combined 116 years of experience, strong networks in the industry, and extensive experience working with public pension plans. For example, before joining Morgan Stanley, Ted Eliopoulos served as the Chief Investment Officer at the California Public Employees' Retirement System.

  The IC is structured to enhance the collective strengths of the whole team rather than a collection of individual experts. Catherine Hong, Steven Turner, and Ted Eliopoulos serve as the core of the IC, leading the global research team to assist with deal sourcing and underwriting. Rui de Figueiredo and Ryan Meredith, founders of the group, provide leadership and macro perspective to various mandates. Rounding out the team is Damon Wu, who brings a quantitative perspective when assisting with portfolio construction.

  Additionally, the global research team appears to have a very deep bench of talent currently in place. Notable additions include Joshua Myers, with solid industry experience in real estate, and Nick Di Giampasquale, who brings to the team corporate debt experience for example. Over the next 12 to 18 months, the team expects to add two more investment professionals.

Morgan Stanley has established talent retention mechanisms such as deferred carried interests and profit-sharing for alignment of interests. Overall, the leadership, IC structure, along with the research talent and the Morgan Stanley organization, will insulate the MSIM Solutions Team ability to execute on our mandate.

- ESG Integration: The MSIM Solutions Team integrates ESG concerns with investment goals during each transaction diligence. The team's diligence process evaluates investment managers, funds, portfolio companies, and assets on several ESG factors and themes during the screening and underwriting process before deal execution.

  Examples of factors evaluated during the ESG skill-set review of managers include:

  - What is the manager's experience considering ESG factors?
  - Who is responsible for ESG considerations? Does the investment team have ESG training? Is there a dedicated ESG resource?
  - What is the framework for evaluating ESG?
  - What are the key ESG risks in the relevant sector/geography, and how do they compare to the global opportunity set?

Ted Eliopoulos, a member of IC for the MSIM Solutions Team, brings deep experience in alternatives, portfolio construction, and an ESG perspective gained as an asset owner. Ted's past board affiliation includes advisory work with the Sustainability Accounting Standards Board which guides the disclosures of financially material sustainability information by companies to investors.

Risks

- Potential for Uneven Deal Flow: The availability of favorable co-investment opportunities can be unpredictable, based on the deal flow from the CRTPF manager sources and the Morgan Stanley sourcing network. The MSIM-CT strategy will target approximately a 50 / 50 split of co-investments sourced from the infrastructure & natural resource RAF partners and MSIM network, and a 25 / 75 split sourced from the real estate RAF partners and MSIM network, respectively. Additionally, once a prospective deal is identified, the transaction must undergo diligence before execution.

  Despite this risk, a strategic partner like Morgan Stanley affords the MSIM-CT strategy a greater chance of seeing attractive deal flow with high-quality general partners. CRPTF will engage with our portfolio GPs to indicate our interest in co-investment opportunities. The portfolio construction guidelines PFM investment staff and the Solutions Team have put in place will assist in mitigating this risk. Furthermore, the annual commitments are considered flexible across the three-year commitment period to allow the MSIM Solutions Team to account for market conditions when implementing co-investments.

Fees and Terms

The proposed fees for the MSIM-CT Co-investment partnership are detailed below:

Management Fee on Invested Capital:	45 basis points
Preferred Return Net of Fees:	8%
Carried Interest:	7%
Commitment Period:	Three years
Structure:	Separately Managed Account (SMA)
Target Return:	12% IRR (net of all fees)
Target Annual Commitment:	$125 million
Target Annual Commitments to Real Estate	$75 million
Target Annual Commitments to Infra. & Nat. Res.	$50 million
Total Commitment Size:	$375 million
Morgan Stanley Commitment	2% of Total Commitment Size

PFM investment professionals found the MSIM-CT management fees of 45 basis points favorable, considering the overall commitment size, track record of co-investments made over the team's tenure, and strategic partnership benefits. CRPTF retains the right to suspend or terminate future commitments to MSIM-CT at each year-end.

Additionally, PFM investment professionals were able to secure a Morgan Stanley commitment alongside the MSIM-CT mandate to firmly align the interest of the CRPTF and the MSIM Solutions Team beyond the discretionary economic incentives of carry shared between the team and firm. This commitment by Morgan Stanley is consistent with the expectations from a global leader who values our partnership.

Legal and Regulatory Disclosure (provided by Legal)

The Review of Notice of Legal Proceedings is attached.

Compliance Review (provided by Compliance)

The Workforce Diversity & Corporate Citizenship review is attached.

Environmental Social and Governance ("ESG") Analysis

The Assistant Treasurer for Corporate Governance & Sustainable Investment's Evaluation and Implementation of Sustainable Principles review is attached.

Morgan Stanley Investment Management Inc.

Review of Notice of Legal Proceedings

Through its disclosure, Morgan Stanley Investment Management Inc. ("MSIM"), states that its parent company, Morgan Stanley, files legal disclosures on its Form 10-K and Form 10-Q with the SEC. With respect to MSIM, the following matter is disclosed in its ADV:

- In December 2015, MSIM settled charges by the SEC relating to prearranged trades by a former portfolio manager/trader. The settlement covers the period from late 2011 through early 2012. The prearranged trades resulted in the undisclosed favorable treatment of certain MSIM advisory clients over others. The portfolio manager at MSIM who was involved was terminated in May 2014. MSIM consented to the entry of an administrative cease and desist order finding certain violations of the Securities Act and the Investment Advisers Act. MSIM was censured, and also agreed to pay a civil money penalty in the amount of $8 million to the SEC.

Morgan Stanley does not disclose any material claims under its fidelity, fiduciary or E&O insurance policies, and confirms that none of the individuals who would be closely responsible for the products or services sought by the OTT are subject to any ongoing internal investigations. Morgan Stanley states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

COMPLIANCE REVIEW FOR MORGAN STANLEY INVESTMENT MANAGEMENT, INC.

SUMMARY OF LEGAL AND POLICY[1] ATTACHMENTS

SUBMITTED BY

MORGAN STANLEY INVESTMENT MANAGEMENT, INC.

I. Review of Required Legal and Policy Attachments

MORGAN STANLEY INVESTMENT MANAGEMENT, INC. ("Morgan Stanley") completed all necessary attachments. It disclosed no impermissible third party fees, campaign contributions, known conflicts, or gifts. The firm's disclosure of legal/regulatory proceedings is being reviewed by the Legal Unit.

II. Workforce Diversity (See Also 3-year Workforce Diversity Snapshot Page Attached)

As of June 2021, Morgan Stanley, a New York-based firm, employed 856 people, 36 more than the 820 employed as of December 31, 2019. The firm identified 153 women and/or minorities as Executive/Senior Level Officials and Managers. Over the 3-year period reported (2021 - 2019), the firm promoted 90 women and 84 minorities within the ranks of professionals or managers. Minorities (the highest percentage being Asians) are well represented at all levels of the firm.

Workforce Statistics

For Executive/Senior Level Officials and Managers:

- Women held 28% of these positions in June 2021 (105 of 371), December 2020 (99 of 358), and in December 2019 (92 of 329).
- Minorities held 22% (81 of 371) of these positions in June 2021 (2% Black, 3% Hispanic, 16% Asian, 0.27% American Indian or Alaskan Native, and 0.81% Two or More Races), up from 19% (69 of 358) (1.4% Black, 3.1% Hispanic, 14% Asian, 0.28% American Indian or Alaskan Native, and 0.84% Two or More Races) in December 2020, and slightly down from 20% (65 of 329) (2% Black, 3% Hispanic, 14% Asian, and 0.30% American Indian or Alaskan Native, and 1.22% Two or More Races) in December 2019.

At the Management Level overall:

- Women held 30% (173 of 573) of these positions in June 2021, June 2020 (164 of 549), and in December 2019 (154 of 519).
- Minorities held 27% (155 of 573) of these positions in June 2021 (3% Black, 5% Hispanic, 18% Asian, 0.17% American Indian or Alaskan Native, and 1.57% Two or More Races) slightly up from 26% (141 of 549) (3% Black, 5% Hispanic, 17% Asian, 0.18% American Indian or Alaskan Native, and 1.28% Two or More Races) in December 2020, and slightly up from 25% (132 of 519) (2% Black, 4% Hispanic, 18% Asian, 0.19% American Indian or Alaskan Native, and 1.54% Two or More Races) in December 2019.

At the Professional Level:

[1] The Treasury's Policy Unit will prepare a separate Summary with respect to Morgan Stanley's ESG submission.

- Women held 44% (100 of 225) of these positions in June 2021, up from 40% (102 of 258) in December 2020, and 37% (91 of 243) in December 2019.
- Minorities held 41% (93 of 225) (3% Black, 8% Hispanic, 25% Asian, and 5% Two or More Races) of these positions in June 2021, up from 38% (99 of 258) (3% Black, 9% Hispanic, 23% Asian, and 4.3% Two or More Races) in December 2020, and up from 35% (84 of 243) (3% Black, 8% Hispanic, 19% Asian, and 4.1% Two or More Races) in December 2019.

Firm-wide:

- Women held 38% (329 of 856) of these positions in June 2021, slightly up from 37% (321 of 864) both in December 2020, and in December 2019 (300 of 820).
- Minorities held 33% (279 of 856) (4% Black, 7% Hispanic, 19% Asian, 0.12% American Indian or Alaskan Native, and 3% Two or More Races) of these positions in June 2021, up from 31%(270 of 864) (4% Black, 7% Hispanic, 18% Asian, 0.12% American Indian or Alaskan Native, and 2.31% Two or More Races) in December 2020, and 30% (247 of 820) (4% Black, 7% Hispanic, 18% Asian, 0.12% American Indian or Alaskan Native, and 2.32% Two or More Races) in December 2019.

III. Corporate Citizenship

Charitable Giving:
Morgan Stanley and its more than 800 staff members (from senior management down) support children's physical and cognitive development through sustained access to healthy and nutritious foods, safe places to play and access to quality and mental healthcare. In 2019, 93% of Morgan Stanley employees participated in philanthropic programs, provided over $106 million to nonprofits and more than 52K employees volunteered nearly 509,000 hours. Specifically, in Connecticut, $847,707 was donated to Project Purple, United Way, and Boys and Girls Club of Greenwich; Morgan Stanley employees donated $608,878 to the Sandy Hook Promise Foundation, Shatterproof and Make a Wish Foundation of Connecticut; and 8,272 of volunteer hours went to the Greenwich Land Trust, Columbus House, and The Community Foundation for Greater New Haven. In the United States and United Kingdom, the 2019 Strategy Challenge delivered over 13,000 hours of pro bono consulting hours to 14 nonprofits. Some of the Morgan Stanley's partner highlights include: In 2019, built their 23rd playground with KaBOOM! to deliver accessible and safe play spaces to over 10,000 children; distributed nearly 211 million meals to children and families in need through a 10-year partnership with Feeding America; and 2019 marked the fifth year of the Healthy London Program. Through this program, over 60,000 meals have been delivered and play specialists have led over 5,700 hours of play for local children. Since its launch is Glasglow, 53,000 meals have been delivered with over 22,000 hours of play for children led by play specialists.

Internships/Scholarships:
Morgan Stanley sponsors several scholarships and internships for diverse students and works closely with external partners to build and maintain a workforce that is diverse in experience and background. Morgan Stanley's various programs offer students exposure to a variety of divisions at the firm to gain insights into the financial services sector, learn about the

technology used and networking opportunities with professionals. Some of the programs to recruit diverse candidates include: The Morgan Stanley MBA Fellowship, the Richard B. Fisher Scholarship, the Sales and Trading Enrichment Program, the Investment Management & Wealth Management Diversity Open House, The Technology Showcase and the Return to Work Program.

In addition, the firm works to develop its diverse individuals by offering their employees challenging opportunities, career development programs, networking opportunities, coaching and access and exposure to senior management through various programs such as the Leadership Conference for Newly Promoted Women Managing Directors, Leadership Engagement and Development Program, and the Morgan Stanley Wealth Management's biennial Women's and Multicultural Leadership Summits, among others.

Procurement:

Morgan Stanley has a supplier Diversity Program whereby the firm seeks to partner with minority and multicultural businesses, run by women, veterans, physically challenged individuals and members of the LGTB community, that meet the firm's competitive standards to better serve their employees, clients and communities.

SUMMARY OF RESPONSES TO ATTACHMENT M (REAL ESTATE): EVALUATION AND IMPLEMENTATION OF SUSTAINABLE PRINCIPLES

SUBMITTED BY
MORGAN STANLEY INVESTMENT MANAGEMENT, INC.

Morgan Stanley Investment Management (MSIM) has been a signatory to the UN Principles of Responsible Investment since 2013 and is a member/signatory of 20 other sustainability-oriented groups.

The firm's disclosure conveyed a clear commitment to ESG considerations in its investment process. The firm assesses energy and water cost/usage as a part of its pre-investment due diligence process. They actively engage general partners (GPs) on these matters as part of its ongoing monitoring process and conduct evaluations based on sustainability reports and energy usage/costs summaries of the underlying assets submitted by GPs.

The firm utilizes a multitude of resources to assist with energy and water research, and engages with MSCI, Sustainalytics, ISS, S&P Trucost, and Bloomberg for overall ESG research and training. MSIM benchmarks its investment portfolios across real estate and other real assets against both public and private benchmarking options, most notably, the Global Real Estate Sustainability Benchmark (GRESB).

Overall, MSIM's disclosure suggested comprehensive integration of ESG considerations in its investment processes.

Summary of Responses to Attachment M:
Evaluation and Implementation of Sustainable Principles
Submitted by: Morgan Stanley Investment Management Inc.
August 26, 2021

	Criteria	Responses
1	Firm has an ESG policy	Yes
1a	If yes, firm described its ESG policy	Yes
2	If yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
3	Designated staff responsible for sustainability policies and research	Yes
4	Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
5	Signatory/member of sustainability-related initiatives or groups	Yes
6	Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No
7	Policy that requires safe and responsible use, ownership or production of guns	No
8	Enhanced screening of manufacturers or retailers of civilian firearms	No
9	Enhanced screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impacts	Yes
10	Merchant credit relationships with retailers of civilian firearms and accessories	No
10a	If yes, firm confirms compliance with laws governing firearms sales	N/A
11	Overall assessment of responses (e.g., depth of approach to ESG and integration)	The firm described a comprehensive integration of ESG into its investment process. MSIM is a signatory of the UN PRI and 20 other sustainability organizations including the Carbon Disclosure Project and the UK Stewardship Code. The firm employs six different groups to oversee ESG research and policies, including its Sustainability Team, Sustainability Council and Global Sustainable Finance Group. MSIM provides extensive training on ESG topics and partnered with the UNPRI to train portfolio managers and analysts. The firm's disclosure included detail concerning ESG integration -- both as part of the due diligence process prior to deal execution as well as ongoing evaluation. The firm does not have a policy regarding investments in civilian firearms manufacturers or retailers. Overall, MSIM's disclosure was exemplary.
	SCORE: **Excellent - 1** Detailed description of ESG philosophy and integration; ongoing ESG assessment; established framework; member of sustainability-oriented organizations; enhanced screening of firearms and/or higher-risk sectors **Very Good - 2** Detailed description of ESG philosophy and integration; ongoing ESG assessment; established framework; member of sustainability-oriented+B3 organizations **Satisfactory - 3** General description of ESG philosophy and integration; some evidence of framework for ongoing ESG assessment; member of sustainability-oriented organizations **Needs Improvement - 4** Generic and/or vague description of ESG philosophy and integration; no ongoing ESG assessment; no dedicated ESG staff or resources **Poor - 5** Incomplete or non-responsive	**2**

MEKETA INVESTMENT GROUP

Private Markets Investment Memorandum

Morgan Stanley Investment Management/CRPTF Real Assets Co-Investment Partnership

September 8, 2021

MEKETA
INVESTMENT GROUP

BOSTON OFFICE
80 University Avenue
Westwood, MA 02090
(781) 471-3500

MIAMI OFFICE
5200 Blue Lagoon Drive, Suite 120
Miami, FL 33126
(305) 341-2900

NEW YORK OFFICE
48 Wall Street
11th Floor
New York, NY 10005
(212) 918-4783

PORTLAND OFFICE
2175 NW Raleigh Street, Suite 300A
Portland, OR 97209
(503) 226-1050

CHICAGO OFFICE
1 East Wacker Drive, Suite 1210
Chicago, IL 60601
(312) 474-0900

SAN DIEGO OFFICE
5796 Armada Drive, Suite 110
Carlsbad, CA 92008
(760) 795-3450

LONDON OFFICE
25 Green Street
London, UK W1K 7AX
+44 (0)20 3841-6255

Confidentiality: This communication has been prepared by Meketa Investment Group solely for the use by the intended recipient in its evaluation of the investment manager ("Manager") that is the subject of this communication (such evaluation, the "Purpose"). In taking receipt of this communication, the recipient acknowledges and agrees: (i) this communication contains, reflects or is based on information of the Manager and/or one or more of its affiliates not generally available to the public ("Information"); (ii) it shall maintain this communication in strict confidence, use all reasonable efforts to prevent the unauthorized use, disclosure or dissemination of this communication; (iii) it will use this communication solely for the Purpose; (iv) that it will not distribute or otherwise divulge this communication to any person other than its legal business, investment or tax advisors in connection with obtaining the advice of any such person in connection with the Purpose; and (v) it will promptly remove any Information (as directed by Meketa Investment Group) from this communication and to certify such removal in writing to Meketa Investment Group. If recipient is requested or required by law or legal process to disclose this communication, in whole or in part, it agrees that it shall provide Meketa Investment Group with prompt written notice of such request or requirement and will reasonably cooperate with the Manager and/or one or more of its affiliates in its and/or their efforts to obtain a protective order or other appropriate remedy to limit disclosure of the Information.

Table of Contents

Executive Summary

DILIGENCE PROCESS

Meketa Investment Group ("Meketa") initiated its evaluation of Morgan Stanley Investment Management's ("MSIM" or the "Manager") proposed Real Assets Co-Investment Partnership ("RACP"), a "fund of one", discretionary separate account (the "Account") in August 2021 at the request of Connecticut Retirement Plans and Trust Funds ("CRPTF"). MSIM offers a range of bespoke strategies to institutional investors from its Customized Solutions Platform and this Account's mandate will be to make private markets co-investments on a discretionary basis on behalf of CRPTF in real estate, infrastructure, natural resources, and related other real assets. CRPTF Staff conducted a search process and identified and selected the Manager for this real assets mandate. Meketa did not evaluate any other participants or offerings during the search process.

As part of a comprehensive due diligence process, Meketa completed a thorough review of all marketing materials and other supporting documentation related to the offering, including the Manager's response to Meketa's Due Diligence Questionnaire, and the draft Investment Guidelines (as of August 25, 2021). Meketa also conducted two virtual meetings with the MSIM team: an introductory session with the senior team on August 5, 2021; and an in-depth due diligence session on August 18, 2021 with the senior team that covered the organization, strategy development and execution, historical performance, and operations among other topics. Virtual meetings were held in lieu of in-person meetings due to the travel policy restrictions and other considerations related to COVID-19 at the time of Meketa's diligence. Meketa also conducted a number of reference calls to further assess the Manager, team, and strategy.

MANAGER BACKGROUND

Account Name	Manager	Office Location(s)	Target Market	Target Geography
CRPTF Real Assets Co-Investment Partnership	Morgan Stanley Investment Management	52 offices in 22 countries	Infrastructure, Natural Resources, and Real Estate	Global

Morgan Stanley Investment Management was established in June 1975, when Morgan Stanley Asset Management Inc. (later changing its name to Morgan Stanley Investment Management Inc.) was established in New York, NY. MSIM became a subsidiary of Morgan Stanley Group Inc.

in 1980 and registered with the SEC under the Investment Advisers Act of 1940 on January 29, 1981. MSIM provides global asset management products and services spanning the risk and return spectrum across geographies, investment styles and asset classes, including equity, fixed income, alternatives and private markets to a wide range of investors and institutions. On March 1, 2021, Morgan Stanley completed its acquisition of Eaton Vance. The combined organization creates an asset management firm with $1.5 trillion in assets under management and expands its client solutions, consultants and business partners globally. The acquisition of Eaton Vance does not have any impact on the services, team or product offering related to the real assets co-investment mandate.

In aggregate, MSIM's AUM comprises a variety of strategies, including High Conviction Equities ($404 billion), Active Fixed Income & Liquidity ($547 billion), Alternative Investments ($110 billion), Sustainable Investing ($50 billion), and Customized Solutions ($501 billion). Specifically, the Customized Solutions Platform houses the Portfolio Solutions team, which designs and manages custom multi-asset portfolios for institutional and high net worth investors, including providing Outsourced Chief Investment Officer ("OCIO") services. The team has developed 25 partnerships since its inception in 2009, representing $16 billion in total assets. In addition to Portfolio Solutions, Customized Solutions also encompasses Hedge Fund Solutions, Parametric and a Liquidity & Overlay Business (both from Eaton Vance), two multi-asset businesses, FundLogic, and other smaller businesses.

OFFERING TERMS

Account Size	Management Fee[1]	Carry And Carry Structure	Preferred Return	Fee Income	Inv. Period And Total Term
Total target up to $175 million deployed per year. Infrastructure & Natural Resources target/year: $50 million to $75 million. Real Estate target/year: $75 million to $100 million.	45 bps on invested capital	7% whole fund	8% net of fees	N/A	3 years minimum commitment for fee rate; total term per underlying investments.

[1] Assumes a minimum of three-year commitment: implied target of $375 million to up to $525 million.

STRATEGY

MSIM is proposing to create a co-investment multi-manager portfolio of real asset opportunities across private real estate, infrastructure, and natural resources segments globally. The platform seeks to:

- Enable CRPTF to develop co-investment activities within real assets in an effort to generate solid returns and further expand CRPTF's reputation as a limited partner of choice;
- Identify attractive co-investment opportunities with investment managers that are in CRPTF's real assets portfolio;
- Utilize MSIM's deep bench of relationships and market exposure to identify investment opportunities via MSIM's network to produce risk adjusted returns and overall portfolio return enhancement; and
- Develop a strategic partnership between CRPTF and MSIM in an effort to leverage resources, gain more market access, and provide training to CRPTF staff.

CRPTF looks to initially invest $75 million to $100 million within real estate and $50 million to $75 million within infrastructure and natural resources on an annual basis. The Fund does not have any specific targets with respect to sub-sector exposures but will maintain a focus on diversification. The co-investment Account has a target return of 12% net of fees.

TRACK RECORD

REAL ASSET CO-INVESTMENTS: BY ASSET CLASS
AS OF MARCH 31, 2021 ($ IN MILLIONS)

Asset Class	Year of First Investment	Invested ($)	Realized Value ($)	Total Value ($)	Net Gross Multiple[2] (X)	Net Gross IRR[2] (%)
Infrastructure & Natural Resources	2013	236.4	15.1	316.7	1.3	23.3
Real Estate	2009	469.3	586.3	734.7	1.6	12.8
Total		**705.7**	**601.4**	**1,051.4**	**1.5**	**16.3**

[2] Net-Gross IRR and Net-Gross TVPIs are after deducting all underlying managers' fees, expenses and carried interest paid or accrued to date and taking into account cash balances drawn in advance of funding underlying investments but before MSIM fees, expenses and carried interest paid or accrued to date.

INVESTMENT ANALYSIS

Strengths

- Platform Deal Flow and General Partner Network — MSIM has access to an extensive network of General Partners ("GPs") thereby positioning MSIM to gain exposure to attractive co-investment opportunities in addition to CRPTF's own GPs.
- Team Experience and Resources — The team has a broad range of experience within real assets, brings significant years of investing experience, is well versed in separately managed accounts, and is supported by the broader Morgan Stanley platform.
- Investment Themes and Research Capabilities — MSIM uses a global investment research team to assist with deal sourcing and underwriting to build customized client portfolios.
- Creative Investment Structure — The mandate provides flexibility to pursue attractive deals across asset classes, sectors, property types, and geographies.
- GP Access — The Account will position CRPTF before leading GPs as an attractive source of capital with transaction reliability and diligence efficiency, and continue to strengthen CRPTF's reputation as a limited partner of choice.
- Strategic Partnership — MSIM resources will provide client collaboration, training, and investment tools for CRPTF staff.

Weaknesses

- Conflicts of Interest — There is a potential for allocation conflicts and a lack of transparency around allocation decisions as MSIM manages multiple co-investment mandates for institutional investors and high net worth entities.
- Deployment Capabilities — CRPTF's mandate represents a meaningful increase in MSIM's annual capital deployment target within real assets co-investment opportunities and MSIM has yet to demonstrate the ability to execute at these levels and target timeframe.
- No Prior Co-investment Experience with CRPTF's Managers — MSIM does not appear to have co-invested with any of CRPTF's existing real assets managers and it may take some time for MSIM to forge relationships with them.
- Aggregate MSIM Co-Investment Activity — MSIM's reported real assets track record consists of just 41 investments (35 deals) since its 2009 inception. Infrastructure and natural resources account for only nine of the investments (seven deals), representing $292 million of committed capital versus $530 million in real estate activity.
- Senior Departure — The impact of the departure of an Executive Director is uncertain as he played a significant role in the execution of real estate investments.

- Track Record — The real estate track record does not provide strong evidence of property type or geographic expertise, or consistent repeat sourcing channels with key GP relationships.
- Double Fees — In some circumstances, CRPTF may pay fees to MSIM as well as to underlying investment managers for investment opportunities.
- Weak Alignment — MSIM is not making a GP contribution to the investment vehicle, which highlights a lack of GP/LP alignment of interests.
- CRPTF Governance Procedures — CRPTF needs to clearly define internal procedures and processes for addressing any conflicts, issues and guideline changes to maintain the efficiency of a delegated authority structure with an asset manager.

Opportunities

- Broaden GP Exposure — This mandate will provide CRPTF with an opportunity to invest with leading fund managers and to expand its manager relationships on a global basis.
- Hands-on Participation — Under the proposed Strategic Partnership, CRPTF staff can interact with managers, track market trends and investment opportunities, and follow co-investment diligence.
- Growth Potential — The initial mandate is relatively modest in size compared to CRPTF's real assets allocation but has the potential to scale up as CRPTF gains experience and if co-investment appetite increases.

Threats

- Limited Partner Competition — MSIM co-investments will compete with other Limited Partners ("LPs"), including ones who are existing investors in the underlying funds, highlighting potential accessibility issues.
- Platform Demand — MSIM is not limited in the number of co-investment mandates it can oversee, potentially further increasing competition for deal flow.
- MSIM as a Competitor — MSIM has a number of commingled private funds that invest in infrastructure and real estate, and GPs may not want colleagues of those fund teams diligencing their underwriting, asset management, and other proprietary processes.

CONCLUSION

Meketa believes that the Real Assets Co-Investment Partnership with MSIM is an attractive structure that provides CRPTF with its initial foray into co-investments within the Real Assets Portfolio. Since 2019, CRPTF has stated a desire to participate in co-investment opportunities within the private markets asset classes. RACP will enable CRPTF to partner with a global asset manager to participate in attractive opportunities with leading general partners investing in the target asset classes. RACP allows co-investment opportunities to be identified, analyzed, and underwritten via an efficient process while minimizing investment risks.

MSIM has assembled a solid investment team that has a strong track record of co-investments. MSIM works with leading institutional investors and provides OCIO solutions to sophisticated investors. MSIM takes a global perspective when evaluating investment opportunities, thereby expanding CRPTF's deal sourcing universe beyond its current roster. In addition, MSIM will partner with CRPTF's existing investment managers to further analyze more co-investment opportunities that CRPTF is currently unable to address given staff restrictions and time constraints. MSIM provides a platform whereby CRPTF will not forego attractive investment opportunities due to these constraints.

Investment Strategy

OVERVIEW

MSIM customizes its Real Assets Solutions strategies by client mandate to pursue any combination of primary fund investments, co-investments, secondaries, and other types of vehicles to access underlying funds or individual assets or portfolio companies. The mandates can cover all of infrastructure, natural resources, and real estate, or selectively focus on only one or two asset classes, and/or selected sectors and/or property types. MSIM mandates are also customizable by geography to focus on certain regions or exclude areas or countries.

CRPTF's Account mandate will target primarily co-investments alongside commingled funds across all three asset classes with a value-add and opportunistic risk-return profile in North America, Western Europe, and other regions to a lesser extent. MSIM will source opportunities from CRPTF's own existing real assets General Partners ("GPs"), looking to invest alongside CRPTF's commingled funds, as well as with current GPs alongside funds CRPTF is not invested. MSIM will also source co-investment opportunities for the Account from among the universe of GPs other Portfolio Solutions clients are invested with, as well as MSIM's broader, firm-wide network of GP relationships. Primary fund investments may be made where MSIM can secure co-investment access (i.e., "stapled primaries"). The Account's Investment Guidelines contemplate a three-year minimum investment period and target a return of 12% IRR net of fees.

Across all asset classes, MSIM will focus on segments of the market it believes are inefficient, including middle-market scale, with absolute size relative to the asset class, sector, property type, etc., and on deals where MSIM believes the GP has sufficient ability to control outcomes (see additional asset-specific strategy descriptions below). The team emphasized the premium it places not only on the quality of a GP, but on the specific quality and expertise of the deal team associated with each particular opportunity. MSIM will also position clients where their aggregate investment can offer a mutually beneficial solution to a GP's capital need that regular LPs, investment banks, or other financing sources cannot. MSIM will look for attractive opportunities where it has a competitive advantage by virtue of its relationships, information reach, resources it can bring to bear from other Morgan Stanley divisions, and reputation as a deal partner trusted to execute.

CRPTF ACCOUNT PORTFOLIO CONSTRUCTION

The Account's Investment Guidelines and related documents will establish targets and constraints for capital deployment by asset class, risk-return profile, geography, and investment type, as summarized below. See also the Summary of Key Terms in Appendix Exhibit 2 for more detail on diversification targets and limits.

Guideline	Infrastructure & Natural Resources	Real Estate	RACP Account
Annual Target Commitment $M	50 - 75	75 - 100	125 – 175
Bite Size	Target approximately $15 million $10 million minimum, up to $25 million		
Implied # Deals	3 to 5	5 to 7	8 to 12
Deal Source: CRPTF / MSIM	50% / 50%	25% / 75%	35% / 65% [3]
Asset Class Exposure % of Total	30% to 50%	50% - 70%	100%
Risk Profile Exposure % of Total	Core: 0% - 30% Value-Add/Opp: 10% - 50%	Core 0% - 30% Value-Add/Opp: 20% - 70%	Core 0% - 60%[4] Value-Add/Opp: 40% - 100%
Geography Exposure % of Total	North America 20% - 80% Europe 10% - 60% Developed Asia 0% - 30% Emerging Markets 0% - 20%		
Single GP Concentration[5]	25%	25%	20%

INFRASTRUCTURE & NATURAL RESOURCES STRATEGY

Within infrastructure and natural resources, MSIM focuses on assets with long useful lives that are essential to society and the economy, including energy businesses (primarily power generation and midstream energy), utilities, transportation assets, social infrastructure, and select infrastructure service companies. MSIM anticipates that co-investments are likely to come from deals with exposures reflecting the impact of key mega trends such as population growth, urbanization, technology changes, and rising public debt.

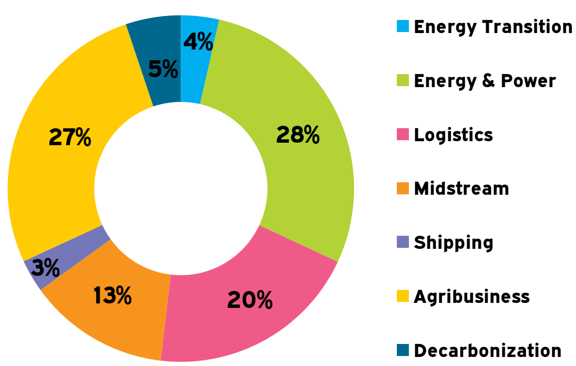
[3] Approximation, could range from 32.5% /67.5% to 37.5% / 62.5% across bounds of possibilities.
[4] Implied by asset-class level guidelines.
[5] Based on committed capital as a percentage of the intended aggregate Annual Commitments over the three-year Commitment Period.

Prior Infrastructure & Natural Resources Co-Investments

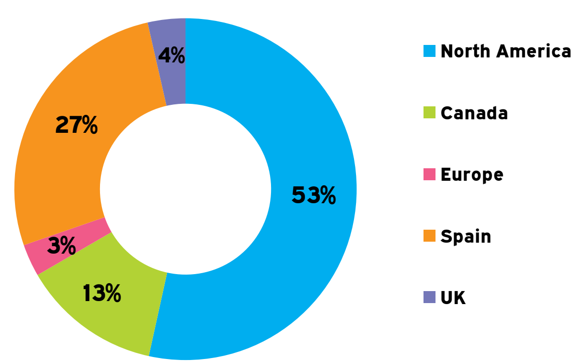
Of MSIM's 41 co-investment deals provided as the team's track record, only nine were infrastructure/natural resources related, representing $292 million of total capital committed, with the majority deployed between 2018 and 2021. Meketa would classify six as infrastructure and three as natural resources, as described below and illustrated in the accompanying charts:

- North American pallet business;
- UK company providing rapid charging units for electric vehicles;.
- Portfolio of rolled-over power, utilities, and other natural resources investments;
- Four European-based shipping vessels;
- Canadian midstream energy services provider;
- Company producing oils and lubricants by recycling used inputs; and
- Investment in a European agri-food business focusing on the fruit and vegetable industry.

IS & NR Co-Invest Capital Deployed: Sector



IS & NR Co-Invest Capital Deployed: Geography



Current and Forward-Looking Infrastructure & Natural Resources Themes

MSIM provided Meketa with its top-down infrastructure and natural resources market views and screening criteria, which it will combine with its bottom-up sourcing to develop co-investment opportunities in these sectors, as Meketa has summarized below.

Infrastructure

- Post-COVID-crisis opportunities exist in devalued areas such as transport, but deal volume has been limited (could look for preferred equity positions in these assets).
- Digital infrastructure was resilient during COVID and has strong growth trajectories in most geographies for increasing installed fiber, wireless, and data centers.

- Renewables deal volumes continue to be strong in most geographies, with clean energy transition goals also driving interest in related assets, such as energy storage, transmission and distribution, and electric vehicle infrastructure.
- Somewhat unique to infrastructure, MSIM looks for deals where the seller is retaining a piece and/or staying on as operator and the manager brings a competitive advantage to the go-forward partnership.

Agriculture

- Preference exists for product differentiation and opportunities to include vertical integration for margin capture and natural price hedging.
- MSIM is cautious on homogenous commodity outputs and consolidated midstream operations.
- The team will look for seasonal diversification to mitigate supply-demand imbalances.

Timber

- MSIM is focused on opportunities with clear value-creation strategies, particularly those with vertical integration components and entry advantages.
- The Team is cautious around investment returns driven by exogenous, market-related risk factors.

Energy

- Their midstream focus is on the level of commodity exposures, contracted revenues, and counterparty quality.
- Traditional exploration and production pricing is suppressed, and out of public market favor, creating some private opportunities; they are wary of potential further downside.
- Energy transition, decarbonization, and fossil fuel impact reduction goals create new businesses in recycling, services, and some areas overlapping with infrastructure.

REAL ESTATE STRATEGY

Within real estate, MSIM presented an unconstrained investment approach that allows MSIM to allocate capital based on macro-economic trends, government policy, and geo-political factors. MSIM will focus on global gateway markets, which demonstrate liquidity, and properties managed by best-in-class, vertically integrated local market experts. More tactically, MSIM currently favors industrial and residential investments, along with investments in life science properties and select service hotels in resort/leisure locations.

Based on MSIM's review of the client's portfolio, it proposes investing primarily in value-add and opportunistic opportunities in the U.S., Europe and Asia Pacific regions. MSIM also noted it intends to collaborate on co-investments with emerging and diverse GPs.

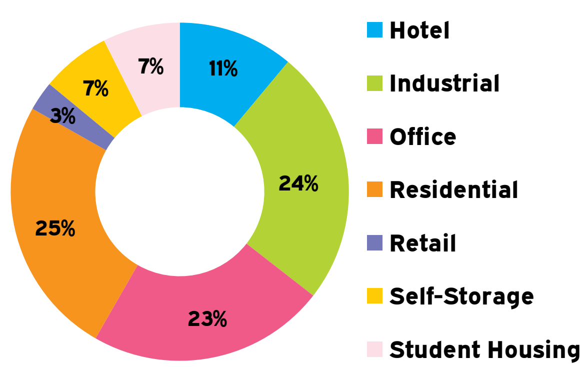
Prior Real Estate Co-Investments

Of MSIM's 41 co-investment deals provided as the Team's track record, 32 were real estate investments representing $530 million of total capital committed. Notably, five of the investments are part of a single, sector-specific, programmatic co-investment venture (NYC Hotels – 2020). Including these five, MSIM has made fourteen real estate commitments since the beginning of 2016, or less than three per year. Co-investments have been made in the U.S., South America, Europe, the Middle East and Asia-Pacific, and across property sectors. The tables and charts below summarize investment diversification by count and capital across property type and geography.

Property Type Diversification to Date (Investments)

	2009-2015	2016-2021	Total
Residential	5	3	8
Hotel	2	5	7
Office	4	2	6
Industrial	4	1	5
Retail	2	1	3
Student Housing	0	2	2
Self-Storage	1	0	1
Total	18	14	32

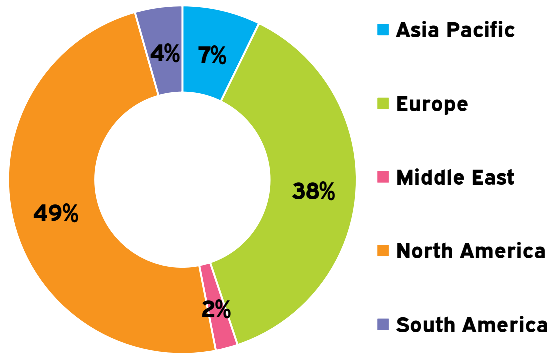
RE Co-Invest Capital Deployed – Type



Geographic Diversification to Date (Investments)

	2009-2015	2016-2021	Total
United States	6	10	16
Europe	6	2	8
Asia Pacific	5	1	6
Brazil	1	0	1
Middle East	0	1	1
Total	18	14	32

RE Co-Invest Capital Deployed - Geography



Current and Forward-Looking Real Estate Investment Themes

MSIM provided Meketa with its top-down real estate screening criteria and current market views, which it will combine with its bottom-up sourcing to develop co-investment opportunities in various real estate strategies, property types, and geographies, as Meketa has summarized below.

Long Term Screening Attributes

- MSIM focuses on gateway markets within developed countries that have reliable liquidity and draw high quality tenants.
- MSIM seeks areas of relative capital inefficiency, for example in property sectors and locations where development spreads are above historical averages.
- The Team will concentrate on opportunities with reputable vertically integrated local market experts.

Medium Term Screening Attributes

- MSIM identified recapitalization opportunities where the owner needs capital to pay down debt or provide exit liquidity to partners (e.g., hotel).
- Green and sustainable construction projects are targets.
- The team will lean into demand trends (e.g., industrial/logistics, residential).

U.S. Market View

- MSIM sees a strong post-COVID recovery supported by stimulus:
  - $2 trillion in excess savings exists to support household consumption; and
  - Resilient capital markets and strong investor demand put downward pressure on yields (particularly for in-favor property types).
- MSIM will focus on large markets benefiting from population in-migration (e.g., Sunbelt), and markets with a strong life science tenant base (e.g., South San Francisco, San Diego, Boston).

Europe Market View

- The economy is expected to accelerate in second half of 2021 supporting a rebound in fundamentals:
  - An older demographic with slower population growth in most countries will likely limit longer term growth prospects; and
  - Inflation is expected to remain low and yield spreads should remain attractive, contributing to strong investor demand.
- MSIM will focus on locations that benefit from e-commerce growth and resilient supply chains, and cities with strong population and employment growth prospects.

Asia Pacific Market View

- The region experienced a faster post-COVID recovery; however, renewed lockdowns have begun to slow growth:
  - Longer term demographics remain favorable in many markets, but less so in China and Japan; and
  - China's growth remains pivotal to the region, though increased regulation and heightened tensions with the U.S. are creating volatility.
- MSIM will focus on stable and defensive markets (i.e., Japan) and Chinese markets with urbanization trends and strong economic clusters.

EXISTING INVESTMENTS AND PIPELINE

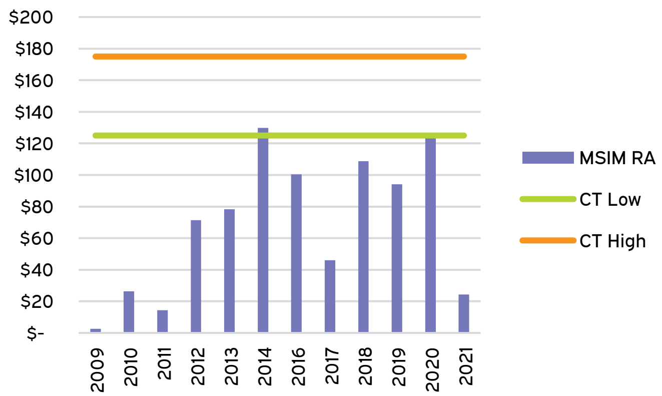
The Account has not made any investments to date, and it is not expected that CRPTF will have access to any of the existing co-investments MSIM's Portfolio Solutions group has made to date on behalf of other clients. MSIM provided a pipeline of opportunities which appears to be in line with the strategy and desired diversification needs of the CRPTF mandate.

MSIM REAL ASSETS CO-INVESTMENT ACTIVITY: 2009 – 2021

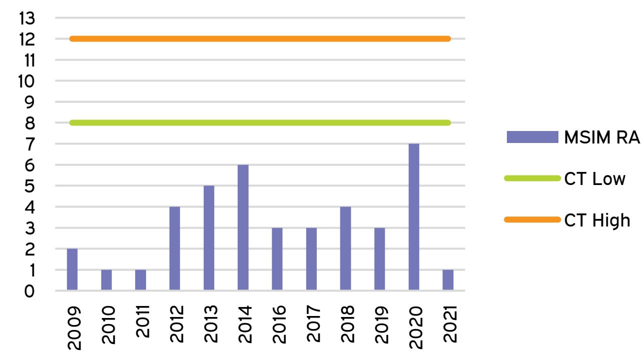
The charts on the following page show MSIM's level of co-investment activity in real assets by capital committed and number of deals, with horizontal lines marking the annual targets for CRPTF's Account. The charts illustrate that the Account's mandate will represent a significant increase in MSIM's activity, both by the level of capital and number of deals.

MSIM Real Asset Co-Investment Activity: 2009 - 2021

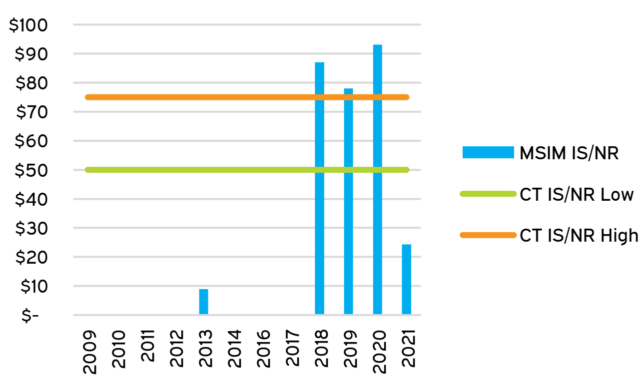
MSIM Real Assets Co-Investment Commitments $M



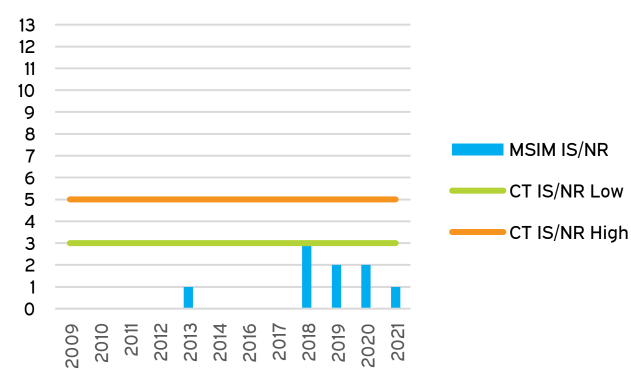
MSIM Real Assets Co-Investment Commitments # Deals



MSIM Infrastructure & Natural Resources Co-Investment Commitments $M



MSIM Infrastructure/Natural Resources Co-Investment #Deals



MSIM Real Estate Co-Investment Commitments $M

MSIM Real Estate Co-Investment #Deals

Manager Background

Founded in 1935, Morgan Stanley is a publicly traded financial services institution providing a variety of solutions across investment banking, securities, investment management, and wealth management. To date, the company's global footprint spans 41 countries and includes over 71,000 employees. Within the broader Morgan Stanley platform, three distinct business segments comprise total firm activity, including the Institutional Securities Group, Wealth Management, and Investment Management, the latter of which will serve as the Manager of the CRPTF Co- Investment Partnership.

Founded in 1975, Morgan Stanley Investment Management (MSIM) provides global asset management products and services to a wide range of investors and institutions. The Firm is based over 52 offices in 22 countries, with 2,849 employees, of which 1,134 are investment professionals. Additionally, Morgan Stanley recently completed its acquisition of Eaton Vance in March 2021, integrating the business as part of the overall MSIM platform. As of June 30, 2021, MSIM has over $1.5 trillion in AUM across its variety of strategies, consisting of High Conviction Equities ($404 billion), Active Fixed Income & Liquidity ($547 billion), Alternative Investments ($110 billion), Sustainable Investing ($50 billion), and Customized Solutions ($501 billion).

The Customized Solutions Division within MSIM houses the Portfolio Solutions group that manages custom multi-asset portfolios, outsourced CIO programs, and liquid alternative investment strategies for institutional and high net worth investors. As of June 30, 2021, the group had approximately $16 billion in assets across 25 partnerships and has committed over $2 billion to real assets investments since inception in 2009. In addition to Portfolio Solutions, the Customized Solutions Platform also comprises: Hedge Fund Solutions ($22 billion); Parametric, which manages customized direct indexing portfolios ($280 billion); a Liquidity & Overlay Business ($130 million); two multi-asset businesses ($36 billion); FundLogic, an alternatives and systematic investment solutions business ($11 billion), and other smaller businesses.

Investment Resources and Experience

The Portfolio Solutions team comprises 26 total professionals across investment research, investment administration, data management, and the Investment Committee. The Investment Committee, including senior members Rui de Figueiredo, Ted Eliopoulos, Ryan Meredith, Catherine Hong, Steven Turner, and Damon Wu, will be responsible for day-to-day portfolio oversight and management of the CRPTF Real Asset Co-Investment mandate. Mr. Figueiredo, Mr. Meredith, Ms. Hong, and Mr. Wu have worked together as Portfolio Managers at Morgan Stanley for 14 years, in addition to their previous time together at Citigroup. Mr. Turner joined the team over nine years ago, while Mr. Eliopoulos is the most recent addition, joining in 2019.

The leadership team is directly supported by a 13-person investment research team that executes sourcing, diligence, and monitoring of the real asset co-investment opportunities. Additional investment administration and data management employees provide operational expertise to the group, implementing administration, structuring, and reporting for the Partnership. The Portfolio Solutions team will also leverage the broader Morgan Stanley platform, including investment research specialists across AIP Private Markets & Hedge Fund Solutions (110 professionals), MS Private Real Estate (200 professionals), and MS Private Infrastructure (50 professionals), for depth in investment sourcing, diligence, transaction structuring, and execution, as well as operations personnel for portfolio services and administration, reporting and analysis, information technology, compliance, marketing, legal and tax.

INVESTMENT PROFESSIONALS

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Rui de Figueiredo	Managing Director; Co- Head & CIO of the Solutions & Multi-Asset Group;	14	24	→ Led Research on behalf of Citi Alternative Investments → Case Leader, Boston Consulting Group → Associate Professor Emeritus, Haas School of Business at UC Berkeley → AB: Harvard University MA/PhD: Stanford University
Ted Eliopoulos	Managing Director	2	24	→ CIO, CalPERS → Chief Deputy Treasurer, California State Treasurer's Office → Attorney, Latham & Watkins real estate division → BS: Dartmouth College JD: University of Virginia
Ryan Meredith	Managing Director; Head of Portfolio Solutions Group	14	24	→ Director, Quantitative Research Group, Citigroup Alternative Investments → Actuarial departments of Towers Perrin and Alexander Forbes Consultants and Actuaries → BSc: University of Witwatersrand in South Africa MSc: Courant Institute at NYU
Catherine Hong	Managing Director	13	18	→ Associate, Morgan Stanley's Real Estate Private Capital Markets Group → Associate, Citigroup Property Investors → Analyst, Merrill Lynch real estate finance and global principal investments group → BA: Wellesley College MBA: Wharton School of the University of Pennsylvania

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Steve Turner	Executive Director	9	13	→ Analyst, Mercer Investment Management → BSc: University of Southampton MSc: International Capital Markets Association Centre at Henley Business School
Damon Wu	Executive Director	14	14	→ Associate, Merrill Lynch → BS: National Taiwan University MBS/MS: Case Western Reserve University MS: Carnegie Mellon University
Pennapa Tantiyakul	Executive Director	11	13	→ Hedge Fund Research Analyst, Lipper → Quantitative Analyst, ING Fund of Hedge Funds → Business Consultant, IBM → BS: Chulalongkorn University MS: University of Chicago
Alicia Biggs	Vice President	8	11	→ Business Development, Hukkster → Associate, Roundtable Investment Partners & Carleon Capital Partners → BS: Princeton University MPA: University of Pennsylvania
Yige Zou	Vice President	8	8	→ Associate, Morgan Stanley Investment Management → BS: Renmin University of China MS: New York University
Blanca Garcia Requesens	Vice President	9	9	→ BS: Northeastern University
Nick Di Giampasquale	Vice President	6	12	→ Associate, Mercer in Fiduciary Management → BS: University of Nottingham
Greg Waterman	Vice President	1	15	→ Vice President and Senior Equity Analyst, Cortina Asset Management → Vice President, Goldman Sachs → BA: Duke University

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Joshua Myers	Vice President	<1	10	→ Vice President, Good Hill Partners → Senior Associate, Neuberger Berman Alternatives → BS: New York University

FIRM DIVERSITY

Staff Demographics (%)	Male	Female	Minority	Non-Minority
Entire Staff	49	51	34	66
All Investment Professionals	63	37	46	54
Senior Investment Professionals	78	22	26	74

OWNERSHIP & COMPENSATION

Morgan Stanley employees receive a discretionary compensation package comprised of a base salary and discretionary variable incentive compensation. The fixed compensation amounts are not compared to any peer group, but rather determined by one or more of the following factors depending on the specific team and circumstances: revenue and profitability of the business and/or fund/account managed by the portfolio manager; revenue and profitability of the firm; risk factors; assets managed by the portfolio manager; external market conditions; new business development; contribution to client objectives; pre-tax investment performance; and individual contribution and performance.

Discretionary variable incentive compensation typically includes a combination of cash bonus and deferred incentive awards, a significant percentage of which is subject to vesting conditions and market and cancellation risk. The Compensation, Management, Development, and Succession Committee of the Morgan Stanley Board of Directors approves the amount of variable compensation to be allocated to deferred incentive awards annually. For the CRPTF Real Assets Co-Investment Partnership, the Portfolio Solutions team will also participate in any carried interest paid to MSIM, based on Account performance, split between the team and Morgan Stanley.

DEPARTURES

Since inception, five senior professionals—two Executive Directors, one Managing Director, and two Vice Presidents—have departed the Portfolio Solutions team. One Managing Director who departed in 2018, was a member of the Investment Committee; however, MSIM described his role as more of an oversight position with his expertise primarily focused on operational functions. Additionally, one Executive Director who was the most recent departure in 2021, reported to Catherine Hong on the real estate side while at MSIM, and his responsibilities have been taken over by several existing staff and new hires, including Joshua Myers.

PERSONNEL SUMMARY

MSIM employs almost 3,000 employees globally, including 1,134 investment professionals. Within the broader platform, 26 professionals are dedicated to the Portfolio Solutions team, which will manage the CRPTF Real Assets Co-Investment Partnership on a daily basis, alongside other client mandates across its current roster of 25 total relationships. MSIM believes the current team is appropriately staffed to successfully execute the guidelines of this specific mandate, but will continue to look for high quality talent with plans to hire two investment professionals with real asset experience within the next 18 months.

Investment Process

The investment team is responsible for sourcing, with senior members covering specific areas of focus. The team conducts sourcing through a variety of channels: its established brand; existing GP relationships and personal networks; the team's market survey and outreach; and the broader Morgan Stanley platform and resources. The team has additional sourcing channels through MSIM's broader investment platform including AIP Private Markets & Hedge Fund Solutions (110 professionals, $31.7 billion in AUM), MS Private Real Estate (200 professionals, $36.4 billion), and MS Private Infrastructure (50 professionals, $6.4 billion).

The co-investment team is integrated with the primary fund investment team, allowing for efficient co-investment due diligence processes and on-going monitoring. Following the sourcing of a prospective investment, the co-investment process has two phases: the preliminary screening phase; and a more rigorous quantitative and qualitative analysis. The team screens opportunity for fit and develops an initial view of the prospective opportunity based on client co-investment criteria during the initial phase. If the criteria are likely to be met, the team presents the opportunity to the Investment Committee (the "IC") to discuss interest and concerns. The next phase entails a detailed examination specific to each sponsor and asset, confirming initial findings in a comprehensive manner and developing an independent underwriting.

If the deal team reaches consensus on the co-investment opportunity, the team prepares an investment memorandum, including criteria such as: rationale and investment thesis including desired investment amount; due diligence analysis; merits, risks and mitigants; and Environmental, Social, and Governance diligence. The due diligence process covers sponsor-specific and asset-specific aspects, which include: quality (team, resources, track record, integrity); fit (sponsor's experience and fit in the targeted asset and strategy); alignment of interest, and sponsor profile. The asset is analyzed based on a number of factors, including: the submarket's supply and demand dynamics and macroeconomic perspective; transaction structure, including entry valuation, leverage, and terms; ESG risk profile; value creation plan and return profile. The team also reviews the prospective process, including transparency during diligence, timing, and capacity.

A recommendation is presented to the IC upon completion of the comprehensive due diligence. The IC for CRPTF's Account will be comprised of six senior members of the team as follows: Rui De Figueiredo, Ted Eliopoulos; Ryan Meredith; Catherine Hong; Steven Turner; and Damon Wu. Five out of six consents are required from the IC to approve an investment.

Following the due diligence but prior to the IC approval, the team initiates the execution phase. Transaction execution addresses legal, economic, and structuring considerations. The transaction support team initiates a review of governing documents and subscription materials while the deal team finalizes the underwriting and negotiates terms. The transaction support team also engages in negotiation of terms after the IC's final approval. The co-investment will not be executed if the team, the sponsor, and its counsel cannot reach an agreement on key terms.

The team relies on the primary fund manager or other primary sponsor of the investment to determine the investment's exit strategy. Where there is a Board of Directors for the asset or portfolio company, the Team typically seeks board observer seats for co-investments to closely monitor developments and remain engaged with the sponsors (MSIM's collective capital in a co-investment would not typically be large enough to garner a voting Board seat).

Historical Performance

MSIM provided track record data for the 41 co-investment deals and for the 27 individual separate account mandates. The deal-level data includes net-gross TVMI and IRR (see footnotes this page), asset class, industry, sourcing, and other deal-specific attributions. The account-level performance data, including TVMI, IRR, were aggregated for each account, and do not identify which deal(s) each account participated in, only the number. Each set of data are relevant for evaluating MSIM's co-investment track record and are presented in turn below.

AGGREGATED DEAL PERFORMANCE BY ASSET CLASS

Real Assets Co-Investments: By Asset Class
As of March 31, 2021
($ in Millions)

Fund	Year of First Investment	Number of Investments	Invested Capital ($)	Realized Value ($)	Unrealized Value ($)	Total Value ($)
Infrastructure & Natural Resources	2013	9	236.4	15.1	301.6	316.7
Real Estate	2009	32	469.3	586.3	148.4	734.7
Total		**41**	**705.7**	**601.4**	**450.0**	**1,051.4**

Fund	Net - Gross IRR[6] (%)	Net - Gross TVM[4, 7] (x)	Loss Ratio[8] (%)
Infrastructure & Natural Resources	23.3	1.3	0.0
Real Estate	12.8	1.6	6.8
Total	**16.3**	**1.5**	**4.5**

Since inception in 2009, the Portfolio Solutions team has invested approximately $706 million across 41 real assets co-investments. The track record is heavily weighted in real estate, which accounts for $469.3 million, or 67%, of invested capital, while infrastructure and natural resources together constitute the remaining 33% capital, totaling $236.4 million. Additionally, real estate represents the Firm's longest standing asset class within real assets co-investments,

[6] Net-Gross IRR and Net-Gross TVPIs are after deducting all underlying managers' fees, expenses and carried interest paid or accrued to date and taking into account cash balances drawn in advance of funding underlying investments but before MSIM fees, expenses and carried interest paid or accrued to date.

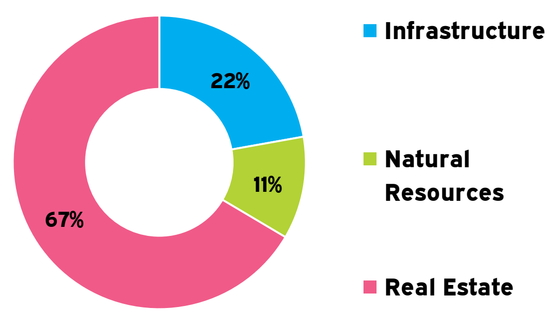
[7] Total Value Multiple (TVM) equals Realized Value plus Unrealized Value, then divided by Invested Capital.

[8] Loss Ratios represent the proportion of invested capital that has resulted in realized and unrealized losses in a portfolio. The Ratio is calculated by taking the sum of lost capital (invested capital minus an investment's total value) for all investments that have generated a negative return, then dividing that amount by total invested capital across the entire portfolio.

dating back to the group's inception. The team made its first infrastructure co-investment in 2013, but the rest of infrastructure deals have been executed in 2018 or later, which is the same timeline as for natural resources investment activity. Accordingly, real estate investments have had the most realizations to date across all asset classes, overall generating a 1.7x net-gross realized multiple. Infrastructure and natural resources investments remain young, but are all tracking above cost as of March 31, 2021. Performance attribution analysis is provided in the narrative and charts immediately below, with detailed deal-level performance provided in Appendix Exhibit 1.

ASSET CLASS ALLOCATION

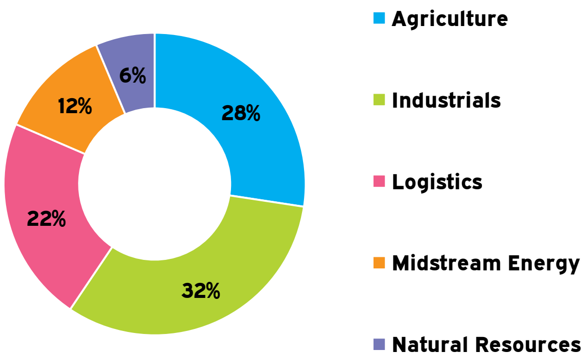
Across MSIM's aggregate real assets co-investment track record, the large majority of investment activity falls within the real estate asset class. Real estate co-investments represent 67% of capital invested, totaling $469.3 million spanning 32 deals. Non-real estate investments include infrastructure and natural resources, which comprise six and three deals, respectively[9]. Infrastructure investments represent $156.7 million in invested capital, while natural resources investments represent the smallest allocation at $79.8 million.

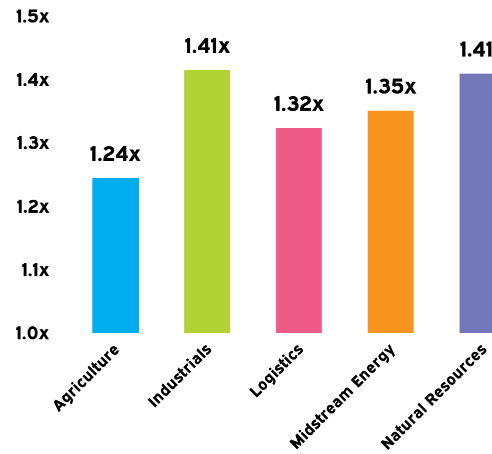


[9] Meketa considers MSIM's shipping investment as infrastructure and treats it as such throughout the performance analysis; however, MSIM classifies it as natural resources due to commodity exposure of cargo. The investment includes a fleet of petroleum product, food grade oil, and chemical tankers.

ALLOCATION & PERFORMANCE BY SECTOR – INFRASTRUCTURE/NATURAL RESOURCES[10]

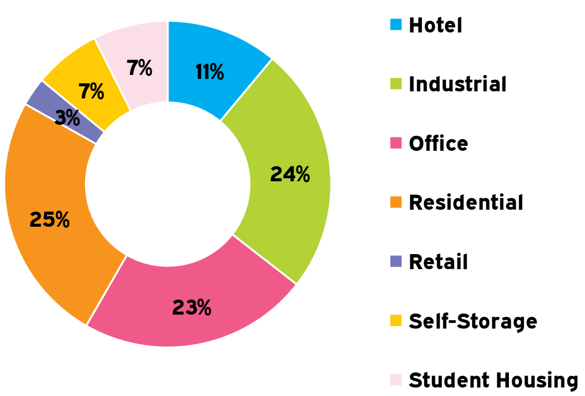
Within infrastructure and natural resources, MSIM has made nine investments across a variety of subsectors, as defined by the Manager. The industrials sector represents the largest allocation, comprising three investments and $75.8 million of invested capital. Aggregate industrials investments are tracking at a 1.41x, tied for highest performing sector with natural resources, which includes a single investment of $15.0 million. Agriculture is currently the lowest performing sector, tracking at a 1.24x, however it is the second largest sector allocation, totaling $64.8 million invested across two investments. Logistics is the only additional IS/NR sector with two investments.

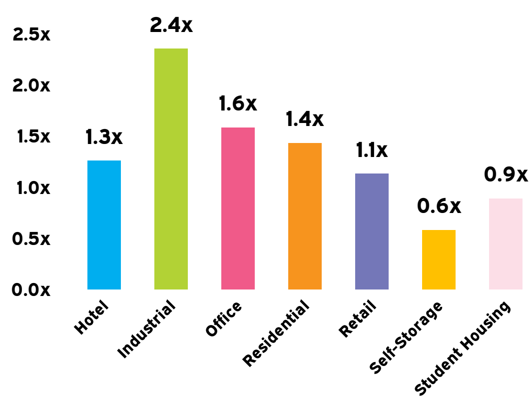




ALLOCATION & PERFORMANCE BY PROPERTY TYPE – REAL ESTATE

Across the 32 real estate co-investments, MSIM has invested in seven property types. Residential is the largest sector allocation by a slight margin, representing $116.7 million invested across eight deals. Industrial and office both comprise five investments, totaling $114.8 million and $106.9 million of invested capital, respectively. These three sectors are the highest performing, in addition to being the largest allocations, with industrial demonstrating significant outperformance at a 2.4x gross-net multiple. Self-storage is the lowest performing sector, but only represents a single investment, which is located in Brazil.

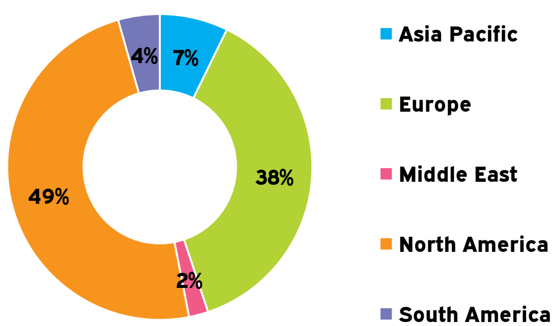


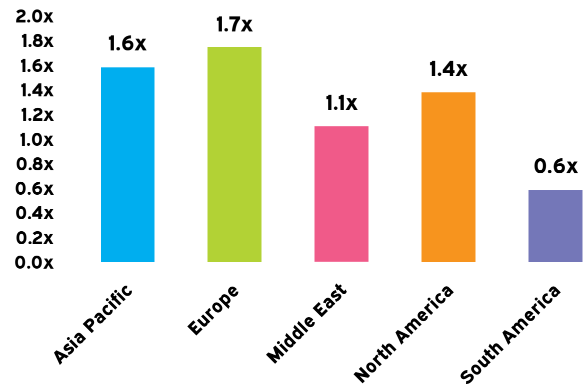


[10] Uses Morgan Stanley's industry classifications.

ALLOCATION & PERFORMANCE BY GEOGRAPHY – AGGREGATE

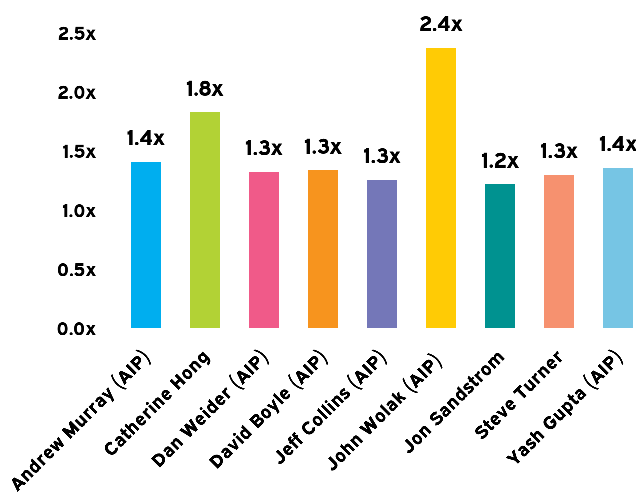
North America represents the largest geographic allocation across all MSIM real assets co-investments, comprising 17 investments and $343.5 million of invested capital. Europe is the second largest allocation, but the strongest performing geography, totaling 13 investments and $265.5 million of invested capital. Other geographies outside of North America and Europe also received capital for real estate co-investments. Asia Pacific investments include China, Hong Kong, and Japan specifically, while the South America investment is located in Brazil and is currently the lowest performer in the track record. The Middle East investment is a regional deal.





PROFESSIONAL ATTRIBUTION - AGGREGATE

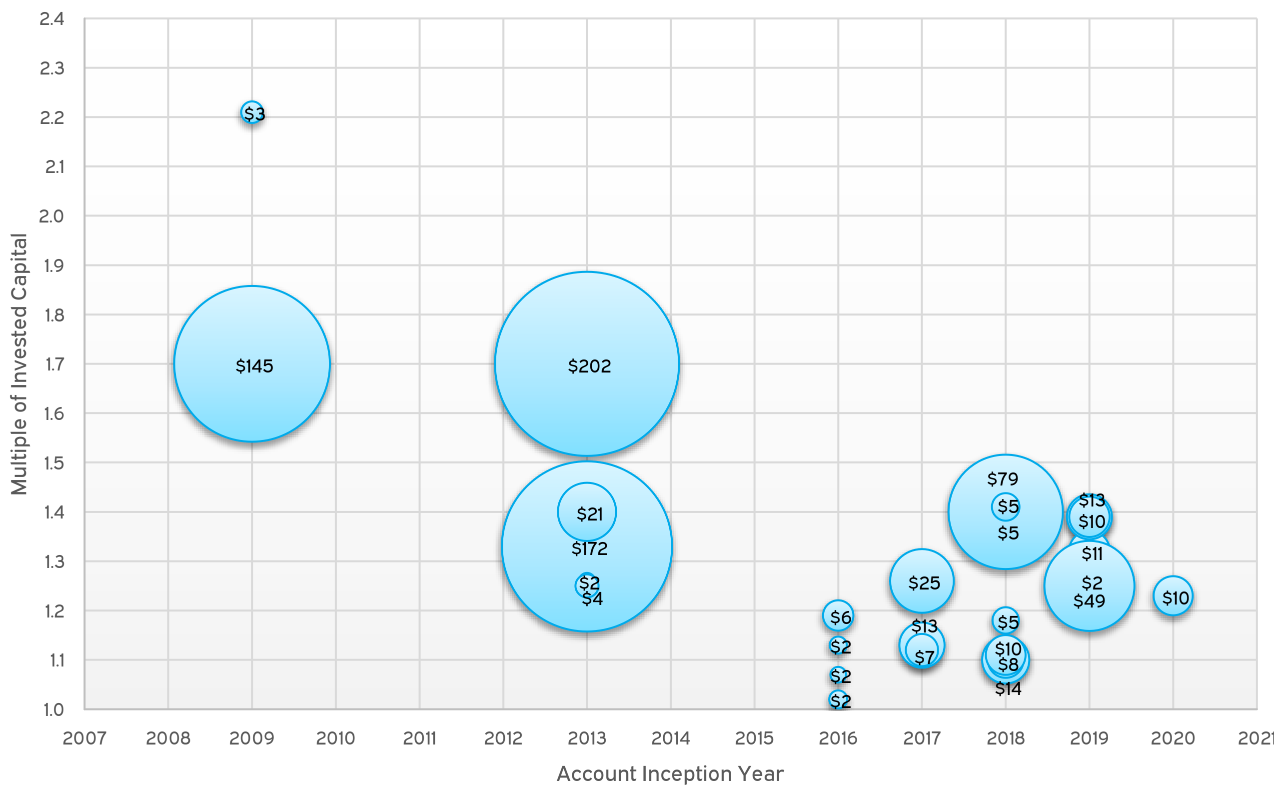
Deal attribution for the MSIM real assets co-investment track record includes current IC members and Managing Directors Catherine Hong and Steve Turner. Ms. Hong has sourced and led 14 real estate deals, representing 32.2% of invested capital, the largest percentage, or $227.3 million. Mr. Turner has sourced and led two deals, both infrastructure investments, totaling $34.2 million in invested capital, however he is also listed as Co-Lead for six of the seven deals where he was not the lead deal team member. The remaining professionals who have led and sourced deals from the track record are from Morgan Stanley's Alternative Investment Partners (AIP) Private Markets team, demonstrating synergies across the Custom Solutions Platform.



SEPARATE ACCOUNT PERFORMANCE

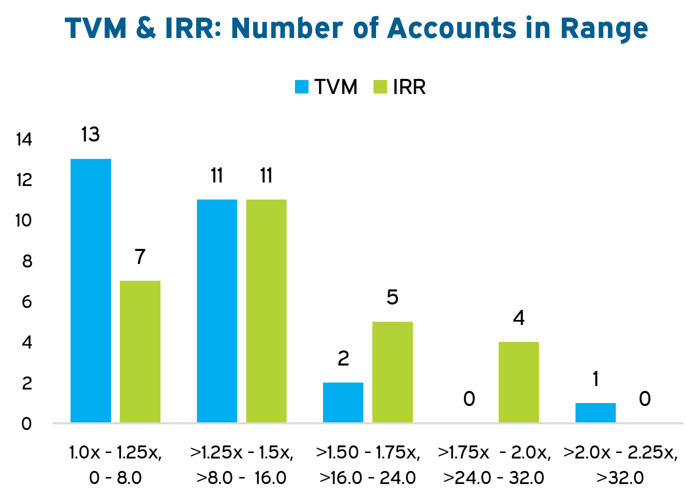
MSIM's real assets co-investment track record comprises 27 mandates, incepted as early as 2009, to as recently as 2020, which vary meaningfully in level of activity, bite size, and cumulative account size. The bubble chart below displays the account inception year, performance to date using multiple of invested capital, and the size of the bubble reflects the amount of capital each account has committed. Note that in most cases not all capital was deployed in the accounts' inception year.

MSIM Real Assets Co-Investment Accounts
Inception Year, Performance Multiple, and Cumulative Committed $ Million



Across the whole set of mandates, clients made 141 commitments to 37 deals, at an average bite size of $5.8 million and an average deal size of $22.2 million. For any individual client, the minimum average deal commitment was $0.6 million, and the largest was $25 million. With respect to factors influencing performance, neither total capital committed nor number of deals is significant, while account inception year explains some variation in performance, as would be expected from a preponderance of value-add and opportunistic deals that take some time to execute business plans and deliver to targets with older accounts having generally better performance. Variance in performance across the accounts is as would be expected from a collection of mandates that relies on a combination of sourcing deals from each client's primary investment managers and the additional managers MSIM has relationships with independent of their clients. The table and chart below provide some performance statistics and graphic representation for the observed range and variance within.

Statistic	TVM	IRR
Aggregate ($ Weighted)	1.50	16.3
Average ($ Unweighted)	1.31	14.4
Median	1.26	13.0
Minimum	1.02	1.3
Maximum	2.21	30.5
Std Dev	0.25	8.3
Count > / < Aggregate	3 / 24	9 / 18



Of particular note is the high number of accounts with TVMs and IRRs less than the aggregate for the collective 27 accounts: on a TVM-basis, only three accounts performed better than the aggregate, with 24 below; and on an IRR-basis, a slightly more reasonable nine performed better than the aggregate, with 18 below. The bar chart illustrates this, with the first two range buckets showing accounts at one and two standard deviations below median, and the right three range buckets showing one, two, and three standard deviations above median. Recognizing 27 accounts is too small a number for statistical significance, using standard deviation is a convenient approach to sizing the buckets. The account metrics behind these results are described below.

- **TVM**—Two of the three accounts with TVMs greater than 1.50 (each at 1.7x) collectively represent 45% of invested capital. These accounts each have made 10 investments, beginning in 2009 and 2013 respectively. The third account, at 2.2x, only represents 0.4% and is not a factor in the asymmetry.
- **IRR**—The nine accounts with IRRs greater than 16.3% collectively represent 38% of invested capital. These include the 2009 account with $130.8 million invested with a 21.1% IRR (19% of total) invested, as well as 2018 and 2019 accounts that have invested $62.4 million and $41.2 million with IRRs of 30.5% and 17.7%, respectively (together 15% of total invested). The other six have each invested between $2 million and $11 million to date.

As expected in this situation, the dollar-unweighted average and the median are both lower than the aggregate TVM and IRR, and are perhaps more indicative of overall performance.

Environmental, Social, & Corporate Governance

ESG POLICY AND PROGRAM

Morgan Stanley has a multi-faceted program covering traditional elements of ESG policies, as well as continually evolving and improving goals around sustainable and responsible investing, and enhanced levels of broad or targeted impact investing. The Firm's Environmental and Social Policy Statement was most recently updated in December 2020 and covers the following areas: sustainable finance and investing; environmental and social risk management ("ESRM"); climate change; human rights; operations; and governance, implementation, and reporting. The section on ESRM addresses due diligence processes and ESG analysis, and includes specific guidance for sectors with meaningful ESG considerations. Additionally MSIM has been a signatory to the United Nations Principals of Responsible Investment ("PRI") since 2013.

While each product-cognizant investment team is responsible for ESG integration and implementation across its own strategy/ies, as described shortly for the Portfolio Solutions team and its separate accounts, there are a number of organizational entities that drive continuous improvement, consistency, and provide support across the Firm, as described immediately below.

- *Sustainability Team*: Develops ESG investment integration standards; produces data, tools, and research; and partners with investment teams to enhance ESG integration practices.
- *Sustainability Council*: In 2017 convened cross-functional leaders to guide implementation of ESG and related programs across product development, investment processes, measurement, education, and reporting.
- *Global Stewardship Team*: Oversees proxy voting across the Firm, supports investment teams engaging with portfolio companies, leads various initiatives including Firm-level ESG reporting and the annual PRI assessment.
- *Global Sustainable Finance Group and Institute for Sustainable Investing*: Established in 2009 and 2013, respectively, the Group and Institute drive and support a variety of regular and special activities across the Firm and are a resource for knowledge sharing and initiative collaboration with business units.

The Custom Solutions Platform implements the MSIM ESG program in several ways, which are woven into the sourcing, diligence, manager selection, and monitoring process. Beginning with, and most likely memorializing a client's goals in their Investment Guidelines, the Platform can incorporate a range of ESG-relevant target levels and approaches, including:

- *Restriction Screening*—Avoiding investments based on specific criteria;
- *ESG Integration*—Proactively considering ESG criterial alongside financial analysis to identify and characterize opportunities and risks;
- *Thematic Exposure*—Focusing on themes and sectors dedicated to solving sustainability-related challenges; and
- *Impact Investing*—Allocating capital to opportunities designed to deliver specific positive social and/or climate impacts.

Specifically for CRPTF's co-investment mandate, MSIM is offering to target renewables and sustainable infrastructure, consistent with Connecticut's interest in sustainability, as well as collaborate on co-investments with emerging and diverse GPs, consistent with the Connecticut Inclusive Investment Initiative ("CI3").

With respect to evaluating specific managers and deal opportunities, MSIM described that it uses a matrixed-approach that combines classifying GPs in one of three ESG "skill set" categories—Best in Class, Moderate, or Weak, and classifying a specific opportunity in one of three risk categories (and corresponding grades)—High (A), Medium (B), or Low (C). The risk assignments are made for each of an applicable sector or business line, if multiple and for each of the E, S, and G elements of ESG. The skill set review covers the manager's overall ESG framework, resources, experience and attitude, investment process, and monitoring and reporting. The deal-level risk analysis considers such areas as potential for environmental or human impacts, as well as integrity and corruption issues and the individual and country level.

MSIM synthesizes its granular analysis of manager skill set elements with the business' E, S, and G grades to place the manager-deal opportunity in one of nine GP-Opportunity categories in the corresponding matrix. The combined skill and risk results inform MSIM's level of engagement with and interest any particular opportunity and guide the Team's interaction with the manager, deal team, and portfolio company during diligence and in the post-investment monitoring process. Better-skilled managers will be tagged for a standard monitoring program, with engagement and awareness activities being included with increasing levels of deal-level risks. Weak-skilled managers combined with high deal risk opportunities may be reconsidered for capital allocation entirely, or only advance with approval contingent on having a concrete plan in place to improve the GP's skills and reduce deal risk.

RESPONSIBLE CONTRACTOR POLICY

MSIM does not have an RCP. Instead, the Investment Team evaluates underlying GPs' human capital practices using MSIM's ESG framework, with labor policies as one element of environmental, social, and governance practices. MSIM represents that it will put in place the standards and practices necessary to comply with the State of Connecticut RCP as applied to this mandate, which is a GP-sponsored co-investment structure where asset-level decisions are delegated to the underlying GPs. MSIM stated that the strength of governance in relation to being a responsible contractor is expected to be delivered through the MSIM team's diligence of the underlying GPs with RCPs and the relevant standards being stipulated through side letter inclusions with the underlying GPs.

Operations

ORGANIZATION

Morgan Stanley Investment Management employs 2,849 professionals globally, including both investment and operations personnel. As of June 30, 2021, operations resources comprise over 1,000 employees across a variety of back office functions including compliance, human resources, information technology, legal, marketing, and tax. While these professionals are shared across the Firm, certain members from each function directly support the Portfolio Solutions team and their respective multi-alternative investment activities. The Portfolio Solutions team also has dedicated operations resources, including Chief Operating Officer, Victoria Eckstein and an additional six investment administration and data management professionals who are responsible for all operational aspects of the partnership and communication with the broader MSIM functions.

FINANCE AND ACCOUNTING

The Alternative Investment Services Operations team ("AIS") within the broader MSIM Operations group employs over 60 professionals and will assist the Portfolio Solutions team across three functional areas: portfolio services and business management (31); fund administration (11); and pricing, processing, and reconciliation (25).

Within these functions, AIS manages cash movements, and provides daily cash projections for portfolios managed by the Portfolio Solutions team.. This report is used by the team to determine whether a capital call or distribution is required and what amount is appropriate. The AIS Operation team then prepares a file containing all components of the cash flow, which is subsequently reviewed and approved by the investment team prior to notice generation. MSIM Investor Services prepares the notice, and they or Client Services distributes the notice via an online portal. Only the Portfolio Services function within AIS has the authority to instruct the bank to wire funds, and requires signatures from two members before wire instruction. The team utilizes the internal Investran accounting system throughout this process and for all investment activity.

Morgan Stanley Investment Management engages Deloitte & Touche LLP ("Deloitte") to perform annual audits of the Firm and individual teams' funds. Deloitte has been the auditor for the Firm since 1997 upon the merger of Morgan Stanley and Dean Witter Discover & Co. Prior to 1997, MSIM's auditor was Ernst & Young. Internally, the Firm also employs an Internal Audit Department to support senior management and the Board Audit Committee with risk management, control, and governance procedures.

VALUATION

Morgan Stanley Investment Management performs valuations in compliance with US GAAP accounting standards. Valuations are prepared by the administrator as well as independently by AIS. MSIM investments in investment funds and co-investments are carried at fair value. Investments in investment funds are valued at an amount equal to the portfolio's pro rata interest in the net assets of such investment fund, typically provided quarterly by the investment manager. Co-investments are valued utilizing information provided by the respective investment funds based on established policies, as described in financial statements and offering memoranda.

When no valuation is available for an investment fund or co-investment, or the valuation provided is deemed incorrect by the Portfolio Solutions team, the MSIM Valuation team will determine the fair value through a recommendation to the Valuation Committee, chaired by the head of MSIM Valuation. Voting members of the Valuation Committee include representatives from MSIM Valuation, AIS Business Management, AIS Fund Administration, and MSIM Risk Management. Additional non-voting members include the Portfolio Management team, MSIM Legal, and MSIM compliance.

LEGAL AND COMPLIANCE

The MSIM Compliance Program is led by Chief Compliance Officer, Raul Yanes and the Morgan Stanley Funds Board, and supported by a team of one Managing Director and nine Executive Directors, all of whom head their respective functions. Overall, the compliance team oversees business line management, independent risk management, and internal audit, executing advisory initiatives, testing, risk assessment, policies & procedures, and training across the Firm.

MSIM Legal provides legal advice relating to fund formation, fund management, investment activities, regulatory & compliance requirements, and matters in dispute across the fund and transaction level. Managing Director Philip Quirk serves as the General Counsel for MSIM and the International General Counsel covering EMEA, APAC, and Japan. Mr. Quirk leads a team of 32 professionals globally.

TECHNOLOGY INFRASTRUCTURE

Morgan Stanley's technology infrastructure functions are encompassed within its Fusion Resilience Center which maintains the goal of defending the Firm against operational threats and incidents, including those related to technology and cyber-attacks. The Center includes the business continuity management and technology disaster recover teams. Business continuity plans are prepared for individual business units, detailing recovery strategies and available options during an event, as well as the team's roles and responsibilities. Plans are reviewed on a regular basis by the respective business unit management team and circulated to staff at least annually. The investment management technology team includes a total of 45 professionals and is led by Chief Infrastructure Officer, Raj Bendre.

Other Items

LEGAL ISSUES

Over the past ten years, the Portfolio Solutions team has not been involved in any legal issues, as disclosed by the Manager. More broadly, Morgan Stanley Investment Management and Morgan Stanley, its parent company, are occasionally named as defendants in various legal proceedings, as well as involved in investigations by governmental, regulatory, and self-regulatory agencies, which may result in adverse penalties. All litigations, proceedings, and investigations are disclosed in Morgan Stanley's filings with the SEC.

POTENTIAL CONFLICTS

MSIM does not anticipate any material potential conflicts of interest with respect to the management of the CRPTF real asset portfolio. The Firm employs dedicated Conflict Management Officers for each business unit to identify and address any potential conflicts of interest within their area. If a conflict were to arise, an escalation process is in place, moving first to senior management within the business unit, and ultimately to Firm management if necessary.

MSIM manages customized solutions for a variety of separately managed accounts and fund-of-one vehicles which also include real asset co-investments. Accordingly, an investment may be allocated to multiple portfolios at the discretion of the Investment Committee ("IC") based on the following considerations: (i) investment guidelines, goals or restrictions of the portfolio; (ii) existing allocation to similar strategies and the diversification objectives of the portfolio; (iii) tax considerations; (iv) legal or regulatory considerations; and/or (v) other relevant business considerations. If the available capacity in an investment is less than the target allocations of the portfolios eligible for the investment, portfolios that are an attributable source will receive priority allocation for the full amount (for example where the client is a limited partner in the subject fund, or otherwise has a relationship with the GP). When available capacity for applicable portfolios is limited, materiality assessments will be made to determine allocations. Additionally, when capacity allocated to a portfolio is below a defined threshold for a co-investment, the IC may decide to allocate to a subset of appropriate portfolios or revert to a serial lottery drawing. All rationale for investment allocations will be detailed in the respective investment memos.

The Partnership may include internal MSIM products, if approved by CRPTF; however, the Portfolio Solutions team will not receive any incentive for allocation to in-house vehicles through trailer fees or transfer pricing.

While it is not within Morgan Stanley's policy to disclose any Principal's involvement with other business ventures, all outside business activity or private investments must be approved by compliance prior to participation. Compliance will review whether such involvement presents an actual or potential conflict of interest and will interfere with a professional's ability to carry out designated responsibilities at the Firm.

DISTRIBUTION/MARKETING

Morgan Stanley Investment Management has not engaged a placement agent with respect to the CRPTF Real Assets Co-Investment Partnership and has not historically used a placement agent for similar investor mandates. There is no compensatory relationship between MSIM and Meketa Investment Group.

LIMITED PARTNERS

RACP will have a fund of one structure and CRPTF will be the only investor. MSIM has worked with numerous limited partners representing sovereign wealth funds, pension plans, corporations, endowments and foundations as well as high net worth individuals to execute co-investment strategies.

Analysis & Conclusions

DUE DILIGENCE BASIS

Meketa has carefully evaluated the proposed Account's Manager—MSIM, its investment professionals' experience and qualifications and related resources, strategy, co-investment pipeline, investment process, historical track record, and other aspects of this opportunity as described in prior sections of this investment memorandum.

Overall, we find MSIM's Real Assets Co-Investment Partnership, with a mandate developed in collaboration with CRPTF Staff, an attractive opportunity that supports CRPTF's goal of establishing co-investment expertise and deploying capital to expand the investment opportunities within the real estate and real assets portfolios. Our finding is based on our evaluation of this offering's primary advantages, balanced with any concerns or considerations, along with Meketa's and the Manager's view of the Account's mandate relative to market opportunities and potential strategy execution challenges. These elements of our findings are documented below, along with our summary conclusion.

SWOT ANALYSIS

Strengths

- Platform Deal Flow and GP Network - MSIM has access to an extensive network of GPs thereby positioning MSIM to gain exposure to attractive co-investment opportunities in addition to CRPTF's own GPs.
- Team Experience and Resources - The team has a broad range of experience within real assets, brings significant years of investing experience and is well versed in separately managed accounts, and is supported by the broader Morgan Stanley platform.
- Investment Themes and Research Capabilities - MSIM utilizes a global investment research team to assist with deal sourcing and underwriting to build customized portfolios for clients.
- Creative Investment Structure - The mandate provides flexibility to pursue attractive deals across asset classes, sectors, property types, and geographies.
- GP Access – The Account will position CRPTF before leading GPs as an attractive source of capital with transaction reliability and diligence efficiency, and continue to strengthen CRPTF's reputation as a limited partner of choice.
- Strategic Partnership - MSIM resources will provide client collaboration, training, and investment tools for CRPTF staff.

Weaknesses

- Conflicts of Interest - There is a potential for allocation conflicts and a lack of transparency around allocation decisions as MSIM manages multiple co-investment mandates for institutional investors and high net worth entities.
  - → Mitigating Factor(s): The MSIM Investment Committee oversees the allocation process and reviews client allocations and determines the appropriate allocations for each client portfolio based on customized investment guidelines. As a result, every investment opportunity may not be appropriate for every client portfolio.
- Deployment Capabilities – CRPTF's mandate represents a meaningful increase in MSIM's annual capital deployment target within real assets co-investment opportunities and MSIM has yet to demonstrate the ability to execute at these levels and target timeframe.
  - → Mitigating Factor(s): MSIM represents a global platform within a global asset manager. MSIM is supported by a significant research team which can identify and diligence a large number of investment opportunities for clients.
  - → CRPTF's existing investment managers will also generate investment opportunities for MSIM to evaluate.
- No Prior Co-investment Experience with CRPTF's Managers - MSIM does not appear to have co-invested with any of CRPTF's existing real assets managers and it may take some time for MSIM to forge relationships with them.
  - → Mitigating Factor(s): MSIM is well staffed to begin developing a relationship with CRPTF's existing investment managers.
- Aggregate Co-investment Activity - MSIM's reported real assets track record consists of just 41 investments (35 deals) since its 2009 inception. Infrastructure and natural resources account for only nine of the investments (seven deals), representing $292 million of committed capital versus $530 million in real estate activity.
  - → Mitigating Factor(s): While the MSIM co-investment track record is limited in the number of transactions, those transactions have generated an attractive return of 16.3% net IRR.
  - → MSIM has a deep bench of investment personnel to assign to deal sourcing. In addition, MSIM will develop relationships with CRPTF's existing roster of real assets managers which may increase deal sourcing opportunities.

- Senior Departure - The impact of the departure of an Executive Director is uncertain as he played a significant role in the execution of real estate activities.
  - → Mitigating Factor(s): Since the Executive Director's departure the team has continued to execute on real estate transactions.
  - → Based on reference calls with two fund managers / co-investment partners listed in the track record, the Executive Director's successor on the deal, Catherine Hong, is knowledgeable, thorough, and great to work with.
- Track Record - The real estate track record does not provide strong evidence of property type or geographic expertise, or consistent repeat sourcing channels with key GP relationships.
  - → Mitigating Factor(s): The lack of focused track record is reflective of a high-level thematic investment approach and multiple mandates. MSIM has access to Morgan Stanley's broader real estate team which can provide access to investment opportunities, and insights and underwriting guidance based on managing the firm's global real estate portfolio.
- Double Fees - In some circumstances CRPTF may pay fees to MSIM as well as to underlying investment managers for investment opportunities.
  - → Mitigating Factor(s): MSIM has sourced some co-investment opportunities that were associated with a no fee and no carry structure. However, the fee arrangement on each underlying opportunity will vary based on the GP of the underlying fund.
  - → CRPTF staff has negotiated an attractive fee structure with MSIM for the RACP mandate.
- Weak Alignment - MSIM is not making a GP contribution to the investment vehicle, which highlights a lack of GP/LP alignment of interests.
  - → Mitigating Factor(s): MSIM is not managing assets as it relates to this mandate and as a result, it is not contributing the normal general partner contribution as is common for a fund manager.
  - → CRPTF staff has negotiated an attractive fee structure with MSIM for the RACP mandate.
- CRPTF Governance Procedures – In addition to the investment guidelines, CRPTF needs to clearly define internal procedures and processes for addressing any conflicts, issues and guideline changes so as to maintain the efficiency of a delegated authority structure with an asset manager.
  - → Mitigating Factor(s): As this is a new opportunity for CRPTF, staff can create internal processes and procedures before the Limited Partner Agreement is finalized.

Opportunities

- Broaden GP Exposure – This mandate will provide CRPTF with an opportunity to invest with leading fund managers and to expand its manager relationships on a global basis.
- Hands-on Participation – Under the proposed Strategic Partnership, CRPTF staff can interact with managers, track market trends and investment opportunities, and follow co-investment diligence.
- Growth Potential – The initial mandate is relatively modest in size compared to CRPTF's real assets allocation but has the potential to scale up as CRPTF gains experience and if co-investment appetite increases.

Threats

- Limited Partner Competition - MSIM co-investments will compete with other LPs, including ones who are existing investors in the underlying funds, highlighting potential accessibility issues.
- Platform Demand – MSIM is not limited in the number of co-investment mandates it can oversee, potentially further increasing competition for deal flow.
- MSIM as a Competitor – MSIM has a number of commingled private funds that invest in infrastructure and real estate, and GPs may not want colleagues of those fund teams diligencing their underwriting, asset management, and other proprietary processes.

CONCLUSION

Meketa believes that the Real Assets Co-Investment Partnership with MSIM is an attractive structure that provides CRPTF with its initial foray into co-investments within the Real Assets Portfolio. Since 2019, CRPTF has stated a desire to participate in co-investment opportunities within the private markets asset classes. RACP will enable CRPTF to partner with a global asset manager to participate in attractive opportunities with leading general partners investing in the target asset classes. RACP allows co-investment opportunities to be identified, analyzed and underwritten via an efficient process while minimizing investment risks.

MSIM has assembled a solid investment team that has a strong track record of co-investments. MSIM works with leading institutional investors and provides OCIO solutions to sophisticated investors. MSIM takes a global perspective when evaluating investment opportunities, thereby providing CRPTF with more investment opportunities. In addition, MSIM will partner with CRPTF's existing investment managers to further analyze more co-investment opportunities that CRPTF is currently unable to address given staff restrictions and time constraints. MSIM provides a platform whereby CRPTF will not forego attractive investment opportunities due to these constraints.

Appendices

Exhibit 1: Partnership Terms

MANAGEMENT/GOVERNANCE

Type of Partnership	TBD
Legal Counsel	TBD
Auditor	TBD
Placement Agent	Not Applicable

TERMS AND CONDITIONS SUMMARY

Below is a summary of the key terms and conditions that appear in the draft Investment Guidelines ("IG") for the co-investment Account (a fund of one Partnership) CRPTF is negotiating with Morgan Stanley Investment Management in the version dated August 25, 2021. A draft Limited Partnership Agreement was not available for Meketa's review at the time this Investment Memorandum was prepared. Note that the Investment Guidelines described below are subject to change based on ongoing or future negotiations between the CRPTF and MSIM.

PROVISION	TERMS	COMMENT
Return Target	12% IRR net of all fees for each three-year commitment period	The target is consistent with the stated strategy and investment vehicles. It appears the return target may be tranched for purposes of calculating MSIM's carry, but was not explicit in the IG. Additionally, many co-investors target higher returns from investing outside commingled funds.
Account Size & Hard Cap	Implied $375 million to $525 million in first three years; hard cap not set [Not stated in the IG]	The size is appropriate for CRPTF's scale; however it represents a meaningful increase in MSIM's capital deployed into co-investments over prior years.
GP Commitment	None	The market is mixed.
Investment Period	3 years minimum for quoted Management Fee [Referenced but not directly defined in the IG]	CRPTF maintains the right to suspend or terminate future commitments at each year-end.
Total Term	The total term of the underlying co-investments will depend on the underlying deal terms.	MSIM will have discretion over selecting co-investments with reasonable terms.

PROVISION	TERMS	COMMENT
Commitment Size	Minimum of $10 million & Maximum of $25 million Target $15 million + $5 million [Prior Materials, not stated in the IG]	The sizes are reasonable for CRPTF's programs; however the quantum, on an individual and implied cumulative basis represents a meaningful increase over MSIM's pace to date.
Diversification Limits		
Investment Type	Co-investments: 90% - 100% Stapled Primaries: 0% - 10% Blind Pool Co-Investments (consent needed from CRPTF): 0% - 5% Primaries: 0% Secondaries: 0%	The targets are reasonable. Primaries and secondaries are not a focus of this mandate.
Risk-Return Profile *% Range of Total Account*	**% / IS / RE** Core: IS 0-30; RE 0-30 Non-Core: IS 10-50; RE 20-70 **Total: IS 30-50; RE 50-70**	The targets are reasonable; however very little core investments in these asset classes are done outside of open-end funds, which would not be expected to offer co-investment, except to large individual investors.
Geography *At the Account Level*	North America: 20% - 80% Europe: 10% - 60% Developed Asia: 0% - 20% Emerging Markets: 0% - 20%	The targets are reasonable given the opportunity set, noting that infrastructure may offer more ex-U.S. deals than either other asset class.
General Partner Concentration	25% max by Asset Class 20% max at Account Level Based on committed capital as a percentage of the intended aggregate Annual Commitments over the three-year Commitment Period.	The targets are reasonable.
Management Fee	45 bps on invested [Prior Materials, not stated in the IG]	Neutral
Preferred Return	8% [Prior Materials, not stated in the IG]	Neutral
Carried Interest	7% [Prior Materials, not stated in the IG]	Neutral
Carry Structure	Whole-fund [Prior Materials, not stated in the IG]	Favorable
Catch-Up Provision	Not specified	
Fee Income	N/A	Consistent with account type.
Key Person Provision	Not specified	
No-Fault Termination	CRPTF maintains the right to suspend or terminate future commitments at each year-end.	Not specified/unclear how CRPTF can remove MSIM as the Account manager.

ESTIMATED IMPACT OF FEES

Meketa did not have sufficient data to estimate the impact of fees on CRPTF's expected Account performance relative to the 12% net of all fees target (MSIM's and underlying GPs'). MSIM provided the statement below around the matter of underlying fees, with respect to level of management fees and/or carry that co-investments managers where CRPTF is and is not an existing LP:

> *The average fee across all investments is 0.8% management fee on invested capital, with 11% carried interest over an 8% preferred return with a 40% catch up rate. 35% of the 37 investments have a management fee below 0.5% (seven deals have no management fee). While a higher proportion of the real estate investments are structured with management fees and carried interest, 40% of the real estate investments have no catch up mechanism on the carried interest calculation, which can potentially have a material impact on the transfer of economics.*

Exhibit 2: Professional Biographies

Rui De Figueiredo, Ph.D., Managing Director

Rui is Co-Head and Chief Investment Officer of the Solutions & Multi-Asset Group at Morgan Stanley Investment Management. Additionally, he is a member of the Global Investment Committee and of the Investment Management Operating Committee, and Chairman of Investment Management's Sustainability Council. He has 24 years of industry experience. Prior to his current role, he provided investment leadership to the Portfolio Solutions Group and Hedge Fund Solutions team within Investment Management. Prior to joining the firm in 2007 he led Research on behalf of Citi Alternative Investments. In this capacity, he developed and implemented leading-edge research on portfolio strategy with alternative investments for proprietary and client portfolios. Earlier, he was a case leader at the Boston Consulting Group and an associate at the Alliance Consulting Group, both business strategy consulting firms. Rui has published in finance, economics, law and political science journals. Additionally, he is Associate Professor Emeritus of the Graduate School and was previously an Associate Professor (with tenure) at the Haas School of Business at the University of California Berkeley. His research there focuses on game theoretic and econometric analysis of institutions. Rui holds an AB degree from Harvard University, and a PhD and two master's degrees from Stanford University.

Ryan Meredith, FFA, CFA, Managing Director

Ryan is the head of the Portfolio Solutions Group at Morgan Stanley Investment Management. He is based in New York and has 23 years of industry experience. Prior to joining the firm in 2007, Ryan was a director in the quantitative research group at Citigroup Alternative Investments, focused on the development of leading-edge modeling and research on portfolio strategy, and a research vice president at Citigroup Asset Management. Previously, he worked in the actuarial departments of both Towers Perrin in London and Alexander Forbes Consultants and Actuaries in South Africa, conducting asset liability modeling and investment research. Ryan received a B.Sc. in mathematical statistics from the University of Witwatersrand in South Africa and a M.Sc. in mathematics of finance from the Courant Institute at New York University. He is a fellowship member of the Faculty of Actuaries in the United Kingdom and holds the Chartered Financial Analyst designation.

Ted Eliopoulos, Managing Director

Ted is the Vice Chairman & Head of Strategic Partnerships at MSIM. He is also a member of the Investment Management Operating Committee and Senior Sponsor of MSIM's Diversity Council. Before joining Morgan Stanley in 2019, Ted served as the Chief Investment Officer at California Public Employees' Retirement System (CalPERS). From 2007 to 2014, he held various leadership roles at CalPERS including interim Chief Investment Officer and Senior Investment Officer of Real Estate and Real Assets. From 2002 to 2006, he served as the Chief Deputy Treasurer and Deputy Treasurer at the California State Treasurer's Office. Ted has also held positions in both the private and public sectors, including real estate development and in environmental management with the U.S.

Department of Energy. He began his career at Latham & Watkins as an attorney in the real estate division. Ted's past board affiliations include the U.S. Real Estate Roundtable and the Pension Real Estate Association and the Sustainability Accounting Standards Board's Investor Advisory Group and is on the Alliance for Southern California Innovation's Advisory Council. He received a Bachelor's degree, magna cum laude, with honors, in comparative literature from Dartmouth College and holds a Juris Doctor degree from the University of Virginia.

Catherine Hong, Managing Director

Catherine is a managing director for the Portfolio Solutions Group at MSIM, co-responsible for fundamental investment research in public and private markets. In addition to having oversight of fundamental research for the team, Catherine is a member of the real estate investment committee. She has 19 years of industry experience. Before joining the Investment Management division, Catherine worked as an associate in Morgan Stanley's Real Estate Private Capital Markets Group, focusing on private real estate fund formation throughout Europe. Prior to joining the firm, Catherine was an associate with Citigroup Property Investors in New York, where she evaluated global real estate fund investments for the firm's real estate multi-manager platform and the Citigroup Pension Plan. She began her career as an analyst in the Real Estate Finance and Global Principal Investment groups at Merrill Lynch in New York. Catherine received a B.A. cum laude in economics and art history from Wellesley College and an M.B.A. from the Wharton School of the University of Pennsylvania.

Steven Turner, CFA, Executive Director

Steven is a senior research analyst for the Portfolio Solutions Group at MSIM, co-responsible for fundamental investment research in public and private markets. In addition to having oversight of fundamental research for the team, Steven focuses on asset allocation in private markets and has helped develop and refine the proprietary cash flow models utilized by the team. He has 13 years of industry experience. Prior to joining the firm in 2013, Steven was an Analyst for Mercer Investment Management where he was involved in the construction of alternative investment portfolios for large UK pension funds. Steven received a B.Sc in economics from the University of Southampton and an M.Sc in Investment Management from the International Capital Markets Association (ICMA) Centre at Henley Business School. He holds the Chartered Financial Analyst designation.

Damon Wu, Executive Director

Damon is a portfolio manager for the Portfolio Solutions Group at MSIM. He is responsible for quantitative investment research in public and private markets. In addition to having oversight of quantitative research for the team, Damon focuses on asset allocation, portfolio optimization and rebalancing and has helped develop and refine the proprietary quant models utilized by the team. He has 14 years of industry experience. Prior to joining the firm in 2008, Damon was an associate at Merrill Lynch, responsible for portfolio construction and quantitative research in the hedge fund development and management team. Damon received a B.S. in engineering from National Taiwan

University and an M.B.A. and M.S. joint degree from Case Western Reserve University. He also holds an M.S. in computational finance from Carne.

Pennapa Tantiyakul, CAIA, Executive Director

Pennapa is a quantitative research analyst for the Portfolio Solutions Group at MSIM. She has 13 years of industry experience. Prior to joining the firm in 2010, Pennapa was a hedge fund research analyst at Lipper, a Thomson Reuters company, responsible for fund selection and rating as well as publishing comprehensive hedge fund research reports. Previously, she was at ING Fund of Hedge Funds where she served as a quantitative analyst. Before that, she was a business consultant with IBM, serving clients within the financial sectors. Pennapa received her B.S. in Statistics, summa cum laude and class valedictorian, from Chulalongkorn University. She also received an M.S. in Financial Mathematics from the University of Chicago. She holds the Chartered Alternative Investment Analyst (CAIA) designation.

Alicia Biggs, Vice President

Alicia is a portfolio specialist and research analyst for the Portfolio Solutions Group at MSIM. She has 11 years of industry experience. Prior to joining MSIM in 2014, Alicia was an associate for the Morgan Stanley Merchant Banking & Real Estate Investing Capital Markets team where she focused on investor coverage and new product development. Before joining the firm, Alicia worked as an investment associate at Roundtable Investment Partners, where she was involved in the construction of alternative investment portfolios for institutions and high net worth individuals. Alicia received a B.A. from Princeton University and a MPA from the University of Pennsylvania.

Yige Zou, CFA, Vice President

Yige is a quantitative research analyst for the Portfolio Solutions Group at MSIM. She has eight years of industry experience. Prior to joining the firm in 2014, Yige received her Bachelor of Science in Economics from Renmin University of China. She also received a Master of Science in Financial Mathematics from New York University. She holds the Chartered Financial Analyst designation.

Blanca Garcia Requesens, Vice President

Blanca is a portfolio specialist and research analyst for the Portfolio Solutions Group at MSIM. She has nine years of industry experience. Prior to joining the firm in 2012, Blanca received her dual B.S., summa cum laude, in International Business from Northeastern University and Universidad Pontificia de Comillas (ICADE) in Spain.

Nick Di Giampasquale, CAIA, CFA, Vice President

Nick is a research analyst for the Portfolio Solutions Group at MSIM. He has 12 years of industry experience. Prior to joining the firm in 2015, Nick was an analyst for Mercer Investment Management where he was involved in the construction of alternatives portfolios for large institutional investors. Nick received a first class MEng in Mechanical Engineering from the University of Nottingham. He holds the Chartered Financial Analyst and Chartered Alternatives Investment Analyst designations.

Greg Waterman, CFA, Vice President

Greg is a research analyst for the Portfolio Solutions Group at MSIM. He has 15 years of industry experience. Prior to joining the firm in 2020, he was a senior equity analyst at Cortina Asset Management, a boutique long-only investment management firm focused on small-cap equities. His responsibilities at Cortina included both sector coverage and a role guiding portfolio strategy. Greg began his career at Goldman Sachs in the Global Investment Research division, where his role grew to include lead coverage of the specialty pharmaceuticals sector. Greg received a B.A. in Economics, cum laude, from Duke University. He holds the Chartered Financial Analyst designation.

Joshua Myers, Vice President

Joshua is a research analyst for the Portfolio Solutions Group at MSIM. He has 10 years of industry experience. Prior to joining the firm in 2021, he managed a portfolio of commercial mortgage backed-securities and was a high yield bond and bank debt analyst at Good Hill Partners, a credit-focused hedge fund firm. Joshua began his career at Neuberger Berman, where he was involved in the construction and management of hedge fund portfolios for large institutional investors. Joshua received a B.S. in Finance, magna cum laude, from New York University Leonard N. Stern School of Business.

Kaili Li, Senior Associate

Kaili is a quantitative research analyst for the Portfolio Solutions Group at MSIM. She has four years of industry experience. Prior to joining the firm in 2018, Kaili received a Masters of Science in Financial Mathematics from New York University and a Bachelor of Science in Applied Mathematics from Fudan University. She has passed all three levels of the CFA program.

Ravel Shen, CFA, Senior Associate

Ravel is a quantitative research analyst for the Portfolio Solutions Group at MSIM. He has four years of industry experience. Prior to joining the firm in 2018, Ravel received his Bachelor of Science in Computing Mathematics from City University of Hong Kong. He also received a Master of Science in Financial Mathematics from New York University. He holds the Chartered Financial Analyst designation.

Carlo Arlunno, Senior Associate

Carlo is a research analyst for the Portfolio Solutions Group at MSIM. He has five years of industry experience. Prior to joining the firm in 2021, Carlo was an Investment Manager for a UK Life Insurance company where he was investing across the credit spectrum. Before that he worked at Cambridge Associates where he was involved in the construction of advisory and discretionary portfolios across all asset classes. He started his career at Russell Investments researching Hedge Fund managers. Carlo received a first class MSc in Management from ESCP Europe. He holds the Chartered Alternatives Investment Analyst designation.

Emir Osmani, Associate

Emir is a research analyst for the Portfolio Solutions Group at MSIM. He has five years of industry experience. Emir joined Morgan Stanley in 2016 after graduating and has spent time in the Investment Oversight and Product Management teams, having worked in the New York, Dublin, and London offices. Emir graduated cum laude from Georgetown University, where he studied Finance and Operations & Information Management. He has passed all three levels of the CFA program and both levels of the CAIA exam.

Patrick Kenney, Associate

Patrick is a portfolio specialist and research analyst for the Portfolio Solutions Group at MSIM. He joined the firm in 2016 and has five years of industry experience. Prior to joining the team, Patrick was an analyst for the Internal Audit team based in New York. He received his Bachelor of Science in Finance and Operations Management from the University of Delaware and has passed all three levels of the CFA program.

Hayley Soriano, Analyst

Hayley is a portfolio specialist and research analyst for the Portfolio Solutions Group at MSIM. She has one year of industry experience. Prior to joining the firm in 2020, Hayley received her B.A. in Government from Dartmouth College.

Exhibit 3: Manager Meetings

Meeting Location: Zoom Meeting

Date: August 5th, 2021

Manager Attendees: Rui de Figueiredo, Catherine Hong, Steve Turner, Ted Eliopolous, Patrick Lombardo, John Mecca

Meketa Attendees: Judy Chambers, Lisa Bacon, Colin Hill, Esther Lho, Sarah Christo

Purpose of Meeting: Initial call with MSIM team to introduce the Partnership and the Portfolio Solutions platform.

Meeting Location: Zoom Meeting

Date: August 18th, 2021

Manager Attendees: Rui de Figueiredo, Steve Turner, Catherine Hong, Ted Eliopoulos, Alicia Biggs, Vikram Raju, Victoria Eckstein, Noel Langlois, Francie Tai, Patrick Lombardo, John Mecca

Client Attendees: Kan Zuo

Meketa Attendees: Judy Chambers, Lisa Bacon, Colin Hill, Esther Lho, Sarah Christo

Purpose of Meeting: Onsite due diligence with the Portfolio Solutions team to cover the following items:

- Firm & Team Overview
- Market Environment
- Investment Philosophy & Process
- Co-Investment Track Record
- Operations
- Proposed Terms

Exhibit 4: Reference Checks

Meketa Investment Group conducts a large amount of due diligence before we evaluate references for the partnership's General Partners. Prior to this stage, we have already met numerous times with the key professionals at the partnership, and have evaluated fully the partnership's investment strategy.

The function of the reference check is twofold. First, reference checks provide insight into the personal integrity and character of the General Partners. A lack of integrity that is hidden during a series of formal meetings can sometimes be uncovered by discussions with references. Second, reference checks provide deeper insight into the partners' investment experience and reputation.

SCOPE OF REFERENCE CHECKS

As part of Meketa Investment Group's due diligence of MSIM CRPTF Real Assets Co-Investment Partnership, we requested that Morgan Stanley Investment Management provide us with personal references for each of the firm's managing partners.

We discussed with each of the references the nature of their relationship with Morgan Stanley Investment Management, and the reference's perception of the company's integrity, work ethic, character, and professional acumen. We asked further for the reference to discuss the specific individuals within Morgan Stanley Investment Management, to gain a better assessment of the firm's depth.

OUTCOME OF REFERENCE CALLS

Meketa Investment Group has contacted various references provided by Morgan Stanley Investment Management, as well as other references. References consisted of limited partners that are currently utilizing the Customized Solutions Platform operated by MSIM, other investors that have participated in certain co-investment transactions, and two real estate fund managers with which MSIM has an existing co-investment.

In general references were very pleased with the members of the Customized Solutions Platform team. One reference stated that his endowment's portfolio has almost doubled over the eleven years that MSIM has overseen the portfolio and his endowment does not receive contributions from its sponsor. The growth has been purely based on investment performance. References utilize MSIM as an OCIO platform whereby MSIM has delegated authority over investment portfolios. It was noted that Rui

Figueiredo, CIO, is very active in the client management and investment decision making process. Multiple references stated that Mr. Figueiredo participates in all client calls. One endowment reference stated that he has weekly calls with Mr. Figueiredo and that the MSIM team is extremely interactive with his staff. MSIM offers a plethora of resources to clients at all times so references feel as if their investment questions are always addressed because MSIM uses all resources to address questions and concerns. Some references stated that while Catherine Hong and Steve Turner made investment decisions, they interact with a different point person who oversees all aspects of their account (non co-investment activities and other asset classes).

References stated that MSIM provides a pipeline of investment opportunities on a no-name basis very frequently. As the limited partners have provided MSIM with delegated authority, they do not review the investment details of co-investment opportunities. However, MSIM does discuss how specific co-investment opportunities are a fit for their portfolio and MSIM reviews the risk/return criteria related to co-investment opportunities. References stated that they do not feel there are any allocation issues pertaining to deal sourcing as they have received access to many unique opportunities within real assets. These opportunities have been global and fall in line with the guidelines that they established with MSIM. Certain references have very specific investment guidelines pertaining to restricted assets and industries. However, they stated that MSIM is very cognizant of these guidelines and identifies appropriate investment opportunities accordingly. References stated that MSIM has been very transparent with regard to investment pipelines and deal allocations.

When asked about the performance of co-investments, one reference stated that most of the co-investments were purchased at a discount so the investments have experienced very little j-curve impact and have actually produced a positive return very quickly. Another reference stated that the real assets co-investments have been a good way to expand its exposure in this space.

The real estate fund managers / co-investment partners that were interviewed noted that MSIM's diligence process was very thorough, including property tours. MSIM worked with the managers to modify the cash flow models to include assumptions based on other investments owned by the Morgan Stanley platform. The one note of caution given by one of the references was turnover within the MSIM team. Though all MSIM team members were described as "really talented," the particular investment is being overseen by a fourth person (Catherine Hong) since the deal was consummated in 2014.

Exhibit 5: Background Checks

U.S. background checks were conducted for the following individuals:

Rui de Figueiredo, Managing Director; Co-Head & CIO of the Solutions & Multi-Asset Group

Catherine Hong, Managing Director

Steven Turner, Executive Director

U.S. background checks cover the following:

- → Executive Overview
- → Regulatory and Litigation summary
- → Biography
- → 2-year WatchList
- → SEC & FINRA Arbitration & Disciplinary Action archives
- → Stock Exchange Disciplinary decisions
- → Multiple Education verifications
- → Other Professional Credentials verification
- → Corporate Affiliations research
- → Business Filings research
- → FINRA Disclosure Events research
- → Investment Advisor Registrations research
- → NFA/CFTC &FINRA Regulatory Registrations
- → Property Record research
- → Multiple State Criminal Records
- → Multiple State Department of Corrections Incarceration, Parole & Probation records
- → Multiple Court Level Criminal Records research
- → National Bankruptcies, Liens & Judgments
- → Federal Criminal, Civil, Appellate & Bankruptcy records
- → State Civil Court Records research & UCC Filings
- → Subject identification (Name, DOB, SSN), Relatives and Address History

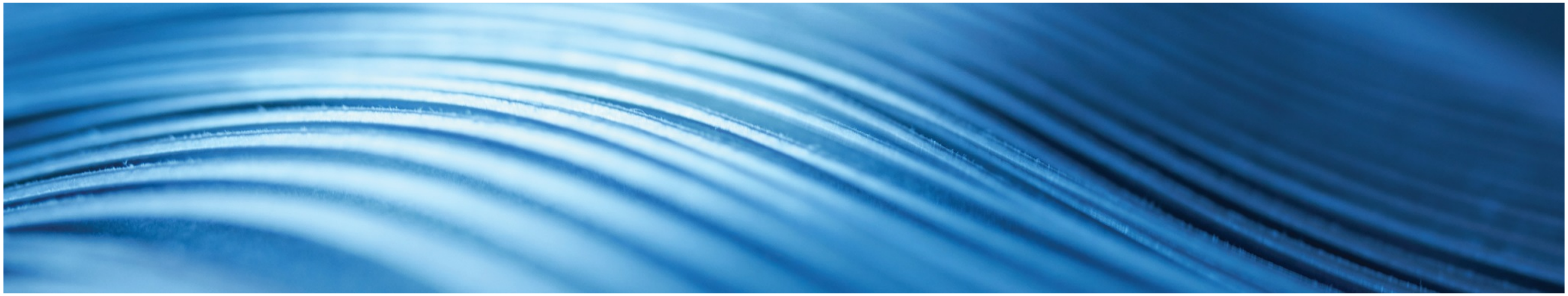
Meketa Investment Group engages third-party service providers to perform background checks to, among other things, reveal the civil and criminal legal histories of key managers of prospective pooled investment vehicle investment managers. Based on the information supplied by such service providers, assuming its accuracy, reliability and completeness, none of the above listed key managers of Morgan Stanley Investment Management has been the subject of (a) any federal or state (or where applicable foreign) criminal action, investigation or proceeding that claims or alleges fraud or violation of any federal or state securities law, rule or regulation, or (b) any federal or state (or where applicable foreign) civil action brought by the investors of a pooled investment vehicle for violation of duties owed to such investors.

Morgan Stanley

INVESTMENT MANAGEMENT

CRPTF: Real Assets Co-Investment Partnership

September 2021



Disclaimers

Certain assumptions have been made regarding the historical performance information included in this Presentation, and such performance information is presented by way of example only. No representation is made that the performance presented will be achieved as a result of implementing an investment strategy substantially identical or similar to that described in this Presentation or that every assumption made in achieving, calculating, or presenting the historical performance information in this Presentation has been considered or stated in preparing this Presentation. Any changes to assumptions that may have been made in preparing this Presentation could have a material impact on the investment returns that are presented herein by way of example. **Historical performance information is not indicative of future results, and the historical performance information in this Presentation should not be viewed as an indicator of any future performance that may be achieved as a result of implementing an investment strategy substantially identical or similar to that described in this Presentation.**

Information regarding expected market returns and market outlooks is based on the research, analysis, and opinions of the Investment Adviser as of the date of this Presentation. These conclusions are speculative in nature, are subject to change, may not come to pass, and are not intended to predict the future of any specific Morgan Stanley investment.

Alternative investments are speculative, involve a high degree of risk, are highly illiquid, typically have higher fees than other investments, and may engage in the use of leverage, short sales, and derivatives, which may increase the risk of investment loss. These investments are designed for investors who understand and are willing to accept these risks. Performance may be volatile, and an investor could lose all or a substantial portion of its investment. No representation or warranty, express or implied, is made or can be given with respect to the accuracy or completeness of the information in this Presentation or to the effect that any Agreement will conform to the terms described in this Presentation. No person has been authorized to make any representations which are inconsistent with the statements contained in this Presentation. As noted above, engagement of the Investment Adviser would be governed by the terms of the Agreement. In making any investment decision, the recipient should not rely on this Presentation.

Morgan Stanley does not render advice on tax and tax accounting matters to clients. This material was not intended or written to be used, and it cannot be used, with any taxpayer for the purpose of avoiding penalties which may be imposed on the taxpayer under U.S. federal tax laws. Federal and state tax laws are complex and constantly changing. You should always consult your legal or tax advisor for information concerning your individual situation.

The investment strategies described herein have not been registered with, or approved or disapproved by, the U.S. Securities and Exchange Commission, the U.S. Commodity Futures Trading Commission, any U.S. national securities exchange, or any other U.S. federal or state governmental agency or regulatory authority. No agency, exchange, or authority has passed upon the accuracy or adequacy of this Presentation or the merits of investing with the Investment Adviser. Any representation to the contrary is a criminal offense.

Additional information is available upon request.

The recipient should not construe the contents of this Presentation as legal, tax, or financial advice and should consult its own professional advisors as to the legal, tax, financial, or other matters relevant to the suitability of an investment in the Fund for the recipient.

Table of Contents

Morgan Stanley

INVESTMENT MANAGEMENT

SECTION 1

Co-Investment Overview

Private Market Co-Investment Overview

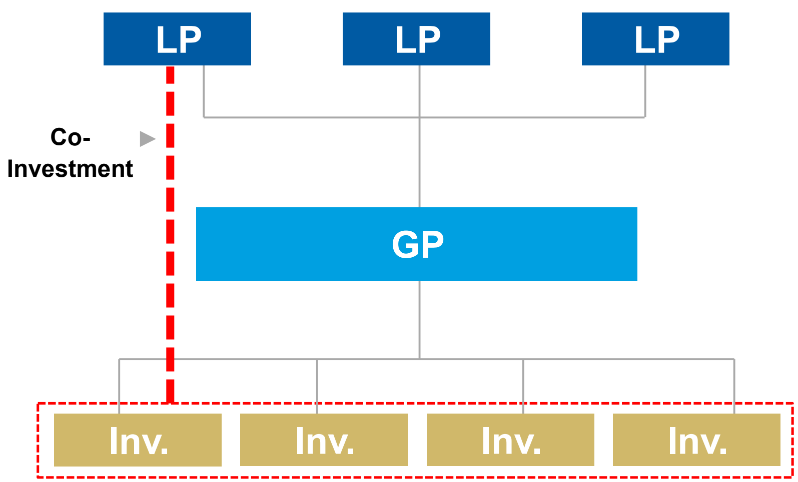
Co-Investment

A passive investment made directly into a pre-identified operating company / asset alongside a private market sponsor (also known as a general partner or "GP") that serves as an active lead investor.

A co-investment opportunity can arise when a sponsor seeks to acquire an interest in a company / asset for which the required investment capital is greater than what the sponsor's fundis able to commit.

Co-Investment Structure

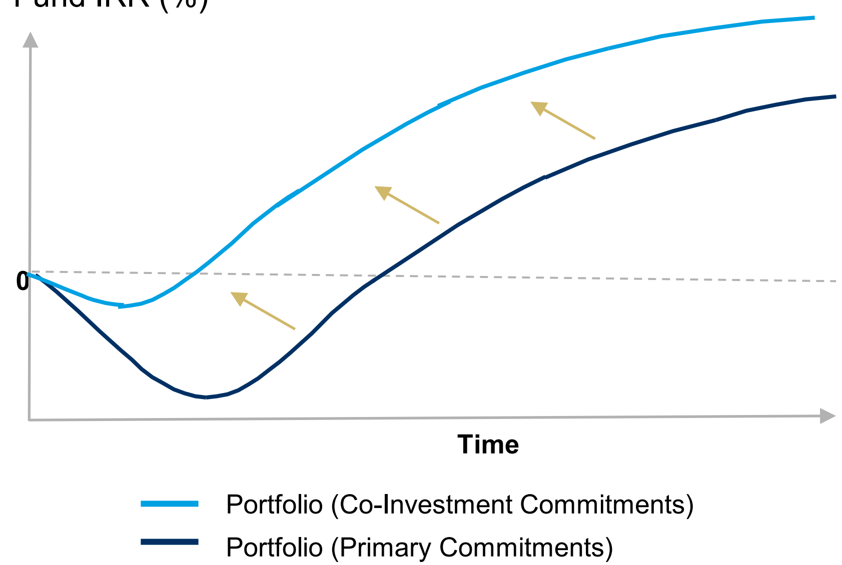
For illustrative purposes only



Co-Investment Deployment

For illustrative purposes only

Fund IRR (%)



The information set forth above is provided for purposes of illustration only and as an example and as an example and does not reflect an actual investment. Actual performance of any investment will depend on future general economic, financial and market circumstances, most, if not all, of which are not presently known. **For illustrative purposes only.**

Private Market Co-Investment Benefits

- Access to high quality investments
- Efficiently enhanced long-term net returns
- Low fee burden
- Ability to target specific vintage year and differentiated assets
- Enhanced selection and investment scrutiny
- Accelerated capital deployment

The information set forth above is provided for purposes of illustration only and as an example and as an example and does not reflect an actual investment. Actual performance of any investment will depend on future general economic, financial and market circumstances, most, if not all, of which are not presently known. **For illustrative purposes only.**

Morgan Stanley

INVESTMENT MANAGEMENT

SECTION 2

Partnership Overview

Our Understanding of CRPTF Objectives

- **Develop a real asset co-investment partnership to supplement CRPTF fund investments, increasing potential to achieve attractive risk-adjusted returns and overall portfolio return enhancement**

- **Create a resource extension allowing for CRPTF to quickly and efficiently assess and execute co-investments from existing GP relationships as well as leveraging GP network of a 3rd party partner**

- **Implement efficient and cost-effective deployment of real asset investments across real estate, infrastructure and natural resources**

The statements above represent our opinions and views as of the date hereof and not as of any future date and will not be supplemented. The proposal set forth above is for discussion purposes only and is not final. The terms of any investment shall be governed by definitive agreements. Any decision to invest should be made solely in reliance upon such agreements. Targets may not be realized and cannot be guaranteed. There is no guarantee a portfolio would meet its objectives.

MSIM's Partnership Approach to Co-investing

Co-investment Resource Extension: Partnership to underwrite real asset co-investment opportunities from current CRPTF portfolio/GPs

Third Party Co-investment Opportunities: Access to unique and proprietary co-investment opportunities that are complementary to CRPTF's broader real asset portfolio

Knowledge Transfer: Comprehensive program designed to address full spectrum of needs (content, research, investment insights, client training, etc.)

ESG Opportunities: Tailor portfolio based on the specific goals and sensitivities

Operational Benefits: Reduced operational and administrative requirements through a single investment vehicle and tailored reporting

The above represents the views and opinions of MSIM as of the date hereof and not as of any future date.

Benefits of a Strategic Partnership Approach

Tailored partnership beyond the investment portfolio

KNOWLEDGE TRANSFER

INVESTMENT

- Diagnostic analysis
- Asset allocation study
- Due diligence
- Illiquid portfolio management tools
- Benchmark study

ORGANIZATIONAL

- D&I collaboration (eg. programmatic, community and metrics)
- Organizational and governance study
- Trading, compliance and risk management best practices

RESEARCH & INVESTMENT INSIGHTS

- Access to broader Morgan Stanley research and network, including MS Senior Leadership
- Proprietary research and analytical tools
- Tailored research projects (examples):
  - Active / Passive
  - Strategic Asset allocation
  - Liability Framework
- Access to thematic investment insights such as ESG, diversity and inclusion and climate impact

CLIENT EVENTS & TRAINING

MSIM CONFERENCES:

- MSIM Institute
- MSIM Ideas
- Global Insights Day

AD-HOC EVENTS:

- Private Market Perspectives
- Post Crisis Investing
- Allocating to the Green Economy

TAILORED TRAINING CUSTOMIZED IN FOCUS AND LENGTH (1 – 8 WEEKS):

- Asset Allocation
- Sub-asset class focus
- Implementation
- Risk Management

The above represents the views and opinions of MSIM as of the date hereof and not as of any future date.

Morgan Stanley

INVESTMENT MANAGEMENT

SECTION 3

Real Asset Solutions Team

Real Assets Solutions Team

An experienced real asset co-investment partner

EXPERTISE IN CONSTRUCTING REAL ASSET PORTFOLIOS WITH A FIDUCIARY MINDSET

- A fully integrated investor across real asset primaries, secondaries and co-investments
- Unconstrained approach to identifying and investing in managers (flexible capital, JVs, syndication, etc.)

UNPARALLELED PROPRIETARY SOURCING NETWORK

- Proactive sourcing network that provides unique access to off-market, oversubscribed and invite-only opportunities
- Advantaged additional sourcing through Morgan Stanley platform through AIP team, MSIM real assets global platform, and broader Morgan Stanley relationships around the world

CO-INVESTMENT PARTNER OF CHOICE

- Well-established history of real asset co-investments across real estate, infrastructure and natural resources
- Strong and collaborative partnership with GPs (i.e. history of resolving issues, scale for smaller funds, and flexible capital for a fund life extension or outside/between a fund mandate)

ROBUST, REPEATABLE DUE DILIGENCE PROCESS

- Our long-tenured professionals track, analyse and diligence opportunities through a three-pronged approach: quantitative, qualitative and operational due diligence

STRONG CO-INVESTMENT TRACK RECORD OF INVESTMENT SUCCESS

- History of achieving our clients' mandated performance objectives
- Achieved 16.3% IRR and 1.5x TVPI since inception(1)

1. Net-Gross composite as of 3/31/2021, since inception 2009. Does not include core real assets, opportunistic and value add only. Net of underlying management fee, gross of MS fee.
Assets are presented in USD. **Past performance is not a guarantee of future results.** The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be updated or supplemented. Subject to third-party confidentiality obligations, information barriers established by Morgan Stanley in order to manage potential conflicts of interest, and applicable allocation policies.

CRPTF Senior Relationship and Portfolio Management Team

Dedicated resources responsible for delivering a best-in-class real asset co-investment partnership

RELATIONSHIP MANAGEMENT

Ted Eliopoulos

Managing Director

Vice Chairman & Head of Strategic Partnerships

- Former CIO & Head of Real Assets at CalPERS
- Member of IM Operating Committee, Co-Chair of the Sustainable Investing Council and Senior Sponsor of MSIM's Diversity Council

Seema Hingorani

Managing Director

Strategic Client Relationships

- Former CIO at New York City Retirement Systems, CIO & Founder of SevenStep Capital
- Founder & Chair of Girls Who Invest, Senior Sponsor of MSIM's Diversity Council, member of Morgan Stanley's Diversity and Inclusion Senior Leadership Advisory Council

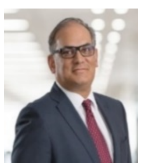
John Mecca

Executive Director

North America Institutional Sales

- Former Director on BlackRock's strategic client coverage team and previously a Managing Director at The Rock Creek Group
- 19 years of industry experience and 9 years with Morgan Stanley

INVESTMENT COMMITTEE

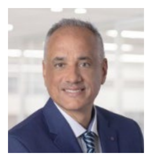


Rui De Figueiredo, PhD

Managing Director

Co-Head & CIO of Solutions & Multi-Asset Group

- AB from Harvard University, Ph.D. & two master's degrees from Stanford University. Emeritus at Hass Business School at UC Berkeley
- Member of Global Investment Committee & IM Operating Committee



Ted Eliopoulos

Managing Director

Vice Chairman & Head of Strategic Partnerships

- Former CIO & Head of Real Assets at CalPERS
- Member of IM Operating Committee, Co-Chair of the Sustainable Investing Council and Senior Sponsor of MSIM's Diversity Council

Ryan Meredith, CFA, FFA

Managing Director

Head of Portfolio Solutions Group

- M.Sc. in Mathematics of Finance, Courant Institute at New York University and B.Sc. in Mathematical Statistics, University of Witwatersrand in South Africa
- Fellowship member of the Institute and Faculty of Actuaries

Catherine Hong

Managing Director

Co-Head of Investment Research

- B.A. cum laude in Economics from Wellesley College and M.B.A from the Wharton School of the University of Pennsylvania
- Member of Real Estate Investment Committee and Sustainable Investing Council

Steven Turner

Executive Director

Co-Head of Investment Research

- B.Sc in Economics from the University of Southampton
- M.Sc in Investment Management from the International Capital Markets Association Centre at Henley Business School

Damon Wu

Executive Director

Head of Portfolio Construction & Analysis

- M.Sc. in Computational Finance from Carnegie Mellon University
- M.B.A. and M.S. joint degree from Case Western Reserve University
- B.Sc. in Engineering from National Taiwan University

Our Team

Investment Committee

- The Investment Committee is responsible for day-to-day portfolio oversight and management of CRPTF real asset co-investment solution

Investment Research

- Global investment research team responsible for sourcing, underwriting and monitoring of real asset co-investment opportunities

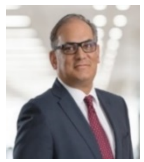
Investment Administration & Data Management

- Team responsible for administration, structuring, reporting and operational aspects of partnership

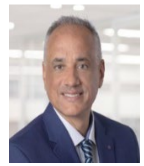
Specialist Investment Research

- Access to broader MS platform for support in investment sourcing, diligence, transaction structuring and execution depth

Investment Committee



Rui de Figueiredo
24 yrs experience



Ted Eliopoulos
24 yrs experience

Ryan Meredith
24 yrs experience

Catherine Hong
18 yrs experience

Steve Turner
13 yrs experience

Damon Wu
14 yrs experience

Investment Research

Pennapa Tantiyakul, CAIA *Executive Director (New York)*	**Alicia Biggs** *Vice President (New York)*	**Yige Zou, CFA** *Vice President (New York)*	**Blanca Garcia Requesens** *Vice President (New York)*
Nick Di Giampasquale, CAIA, CFA *Vice President (London)*	**Greg Waterman** *Vice President (New York)*	**Joshua Myers** *Vice President (New York)*	**Kaili Li** *Senior Associate (New York)*
Ravel Shen, CFA *Senior Associate (New York)*	**Carlo Arlunno** *Senior Associate (London)*	**Emir Osmani** *Associate (London)*	**Patrick Kenney** *Associate (New York)*
			Hayley Soriano *Analyst (New York)*

Investment Administration

Victoria Eckstein *COO (New York)*	**Francie Tai** *Executive Director (New York)*	**Kristen Debono** *Vice President (New York)*
Michael Schreier *Senior Associate (New York)*	**Fiona Deans** *Associate (London)*	**Veronica Lai** *(New York)*

Data Management

Ishaan Viegas
Senior Associate (New York)

350+ Specialist Investment Research Professionals

OPERATIONS | PORTFOLIO SERVICES AND ADMINISTRATION | REPORTING AND ANALYSIS | INFORMATION TECHNOLOGY | COMPLIANCE | MARKETING | LEGAL | TAX |

As of July 31, 2021. The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date.

Shared Resources to Benefit the CRPTF Mandate

AIP Private Equity & Hedge Fund Team

AIP Private Markets:

- History of working together on custom mandates for 10+ years
- 50+ dedicated professionals
- Committed $20+ billion to more than 950 private markets investments since inception in 2000
- Maintains relationships with over 300 GPs and, since inception, has tracked over 3,500

AIP Hedge Fund Solutions:

- History of working together on custom mandate for 10+ years
- 60+ dedicated professionals
- $22bn in AUM and AUA
- Pioneer and active co-investment investor with successful track record

MSIM Operations, Legal & Compliance

Access to best-in-class resources:

- Operations: 295 professionals
- Finance: 79 professionals
- Legal and Compliance: 94 professionals
- Risk Management: 35 professionals
- Technology: 163 professionals
- Human Resources: 10 professionals

MSIM Direct Private Real Asset Platforms

- **MS Private Real Estate**: Core to opportunistic deployment with 200 professionals and $36.4 bn AUM
- **MS Private Infrastructure**: Value add to opportunistic deployment with 50 professionals and $6.4bn AUM
- Access to thought leadership and industry expertise

The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be updated or supplemented. **For illustrative purposes only.** As of March 31, 2021

A Successful Tradition of Real Asset Co-Investing[1]

Top quartile co-investment track record

$2+Bn / 110+

COMMITTED & NUMBER OF INVESTMENTS TO REAL ASSETS SINCE INCEPTION (1)

$800+MM/40

COMMITTED & NUMBER OF INVESTMENTS TO REAL ASSETS CO-INVESTMENTS SINCE INCEPTION (1)

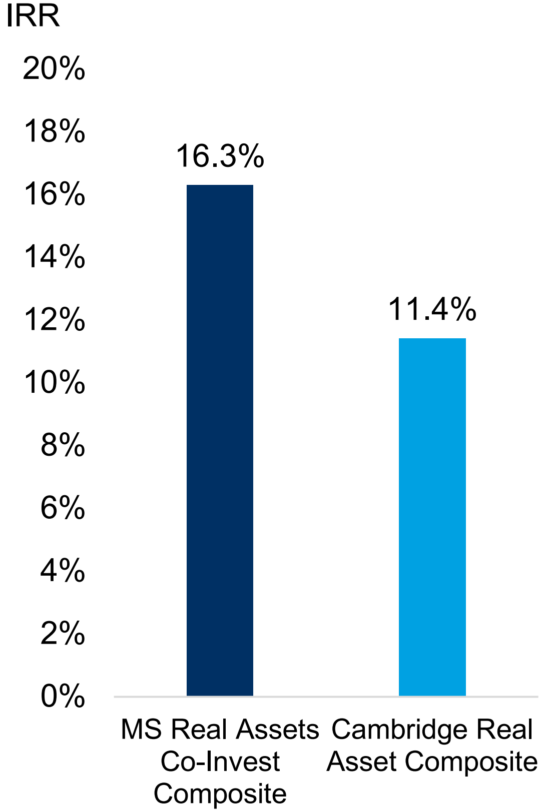
16.3% / 1.5x

REAL ASSET NET-GROSS IRR / TVPI (1)

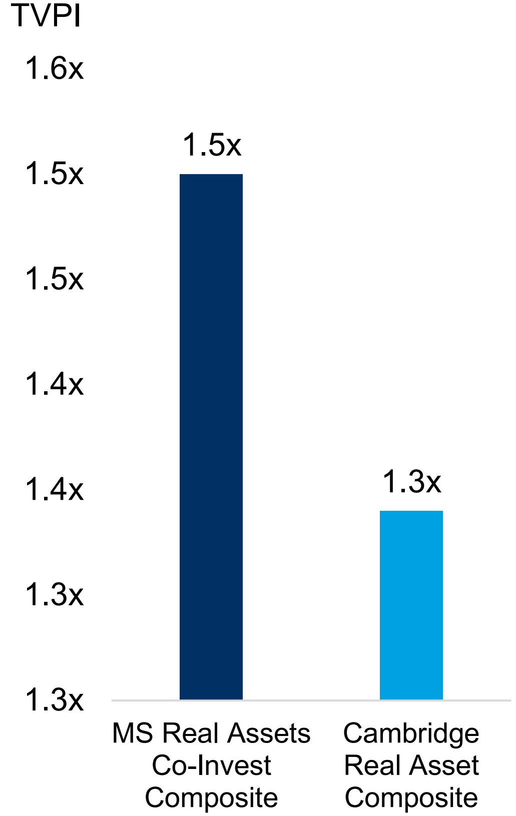
22.6% / 2.0x

REALIZED REAL ASSET NET-GROSS IRR / TVPI (1)

Real Asset Net-Gross IRR[1,2]



Real Asset Net-Gross TVPI[1,2]



1. As of 3/31/2021, since inception: 2009. Does not include core real assets, opportunistic and value add only. Net of underlying management fee, gross of MS fee.
2. Cambridge composite comprised of opportunistic and value add real estate, infrastructure and timber from vintages 2009-2021 as of December 31, 2020, NCREIF US from 3/31/2009-3/31/2021. Assets are presented in USD. **Past performance is not a guarantee of future results.** The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be updated or supplemented. Subject to third-party confidentiality obligations, information barriers established by Morgan Stanley in order to manage potential conflicts of interest, and applicable allocation policies.

Morgan Stanley

INVESTMENT MANAGEMENT

SECTION 4

Mandate Overview

Mandate Overview

Mandate is customizable in nature and reflective of a 3-year commitment period

Investment Strategy:

- Invest in co-investments across private real estate, infrastructure and natural resources sourced through CRPTF GPs and MSIM GPs
- Focus globally across value add and opportunistic co-investments
- Account for diversification by strategy, geography and vintage year
- Collaborate on co-investments with emerging and diverse GPs
- Consider CRPTF ESG preferences and objectives

Investment Objective:

- To target a 12% internal rate of return, net of all fees, for the investment associated with each three-year commitment period

Structure:

- A Separately Managed Account that is evergreen in nature with three-year commitment periods
- Commitment amount to be dynamic based on CRPTF's direction. We understand CRPTF's current desired commitments for the next 12 months are as follows:
  - Real Estate: $75MM annual commitments
  - Infrastructure / natural resources: $50MM annual commitments

***Alignment of Interest*:**

- Morgan Stanley & senior investment professionals aligned through GP commitment and carried interest

The statements above reflect the views and opinions of MSIM & CRPTF as of the date hereof and not as of any future date.

CRPTF Co-Investment Guidelines

Guidelines are customizable in nature and reflective of a 3-year commitment period

		Range
Commitments by Investment Type	Co-Investments	95% - 100%
	Stapled Primaries	0% - 5%
Commitments by Strategy	Real Estate	50% - 70%
	Infrastructure and Natural Resources	30% - 50%
Commitments by Geography	North America	20% - 80%
	Europe	10% - 60%
	Developed Asia Pacific	0% - 30%
	Emerging Markets	0% - 20%
Commitment Sizing	Target Investment Size	$10 - $25MM
	Materiality Constraint	$10MM
GP Concentration Limit	Asset Class	25%
	Portfolio Level	20%

The statements above reflect the opinions and views of MSIM and CRPTF as of the date hereof and not as of any future date and will not be updated or supplemented.

Investment Due Diligence Process with CRPTF

Discretionary Mandate

Step 1A

- CRPTF GP sourced co-investment
- CRPTF connects MSIM to GP
- MSIM initial review of co-investment & GP
- MSIM proceeds with due diligence
- MSIM provides initial stage memo / summary

Step 1B

- MSIM-sourced co-investment
- MSIM initial review of co-investment & GP
- MSIM proceeds with due diligence
- MSIM provides initial stage memo / summary

Step 2

- MSIM conducts in-depth review and due diligence of co-investment
- MSIM underwrites opportunity set, conducts site visit, reviews findings with GP, examines comparables in local market

Step 3

- MSIM develops investment report
- MSIM reviews full due diligence with Investment Committee

Outcome

- Approve/deny for Investment
- **Further Validation:** Respond to questions and document and repeat review with IC
- Acquire asset and begin ongoing monitoring

For illustrative purposes only. The statements above reflect the opinions and views of MSIM and CRPTF as of the date hereof and not as of any future date and will not be updated or supplemented.

MSIM CRPTF Co-Investment Partnership Proposed Fees

	Management Fee (On Invested Capital)	Carried Interest[1]	Annual Targeted Co-Investment Commitments[2]	Estimated Co-Investment Sources (CRPTF / Program Manager)
Real Asset Co-Investment Program	**45bps**	**7% over an 8% preferred return net of fees**	**$125M to $175M**	
Infrastructure / Natural Resources			$50 to $75M	50% / 50%
Real Estate			$75 to $100M	25% / 75%

Note the above does not constitute the full detailed set of terms, which will be included int he final agreement
1. Return calculated for each three-year investment period (in blocks aggregated across three vintage years).
2. Assuming a minimum of three-year commitments.
All underlying manager fees are borne by the client. For discussion purposes only. All terms are subject to a final definitive agreement. We seek to use our size and reputation as a leading investor to ensure efficient implementation of underlying positions and typically push for best pricing with each underlying manager. **Any discount that we may achieve is directly passed through to the client.**

Morgan Stanley

INVESTMENT MANAGEMENT

APPENDIX A

Real Asset Investment Strategy & Process

Our Real Asset Co-Investment Philosophy

A focus on differentiated exposure and alpha generation

SPONSOR RELATIONSHIPS

Source and partner with strong, well-positioned GPs

Co-investment partner of choice via integrated primary platform and rapid execution

RELATIVE VALUE ORIENTATION

Emphasize less efficient markets [(1)]

Focused on constrained markets and opportunistic investments to enhance entry pricing and return generation

FOCUS ON CAPITAL PRESERVATION

Seek sponsors who are institutional, well-resourced, aligned, and experienced

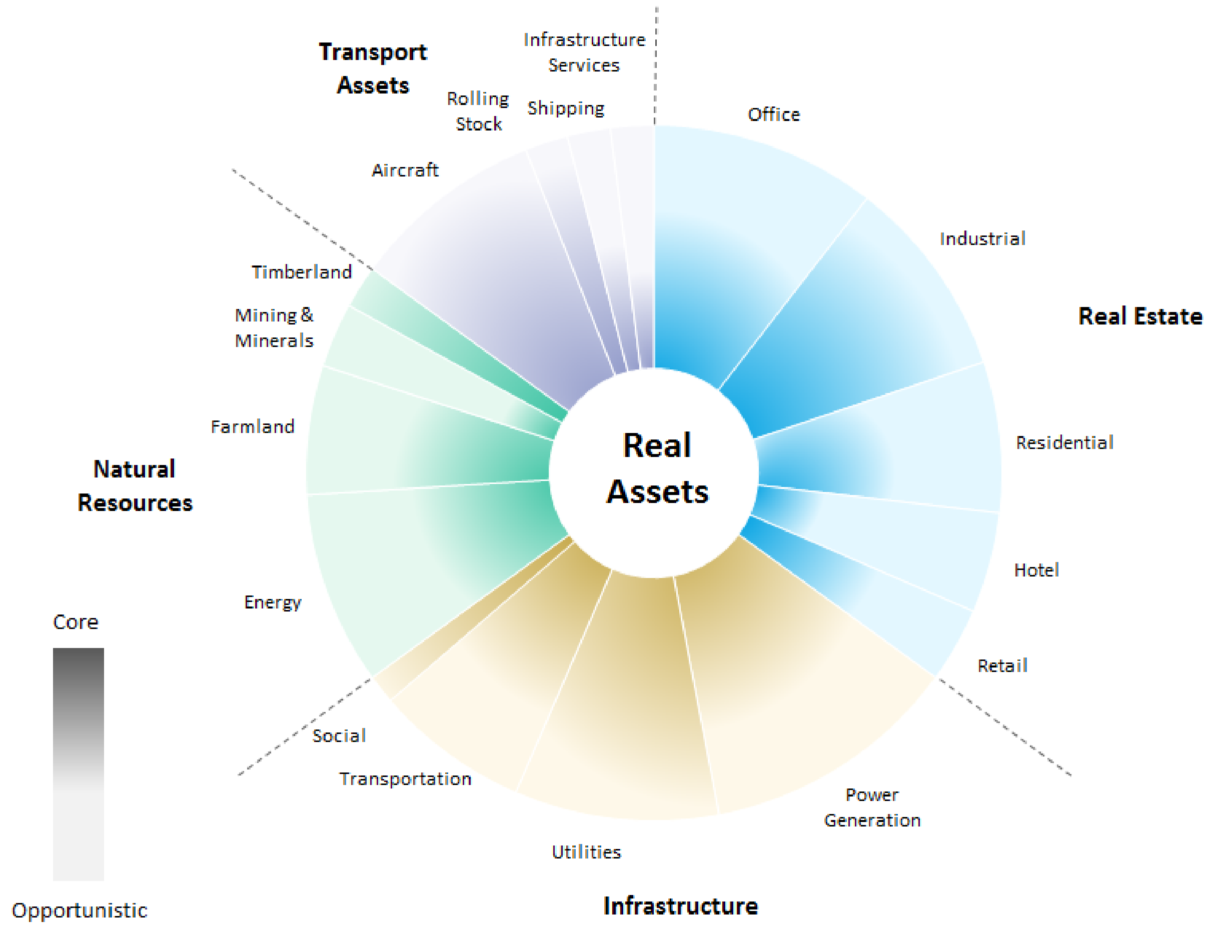
Construct exposure to highly differentiated return drivers (for example regulatory risk in infrastructure) to reduce correlation with other asset classes

FUNDAMENTAL VALUE CREATION

Preference for opportunities that are focused on operational management where asset level engagement is expected to drive business enhancements

Source: MSIM. This information reflects the views of the portfolio manager as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. This information should not be construed as investment advice and should not be deemed a recommendation to buy or sell any strategy.

Private Real Asset Opportunity Set



Source: MSIM. This information reflects the views of the portfolio manager as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. This information should not be construed as investment advice and should not be deemed a recommendation to buy or sell any strategy.

Co-Investment Sourcing

Strong sourcing allows for robust deal flow, high selectivity, and consistent investment pace

Sourcing Elements

WELL-ESTABLISHED PLATFORM

Experienced team with over **$2+ billion** committed to **110+ investments** since inception[1]

PERSONAL NETWORKS

IC members collectively have over **116 years of experience** with strong networks of industry professionals and general partners

GP RELATIONSHIPS

Tracked over **2,000 GPs** since inception with over **150+ active GP relationships**[2]. GP's sourced proactively through existing GP relationships, market research searches, MS client relationships and proprietary funds across MS platform.

GLOBAL REAL ASSETS FRANCHISE

Real Assets Solutions Team leverages functional experts from **MSIM's broader investment platform** in areas such as:

- AIP Private Markets & Hedge Fund Solutions | 110 professionals | $31.7bn AUM
- MS Private Real Estate | 200 professionals | $36.4 bn AUM
- MS Private Infrastructure | 50 professionals | $6.4bn AUM

MORGAN STANLEY NETWORKS

Extensive networks of Morgan Stanley with **over 70,000** employees in **40+ countries** [3]

Platform with Broad Reach

400+
GP Interactions Annually

150+
Active GP Relationships

<4%
Close Rate

Past performance is not indicative of future results. The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be supplemented.

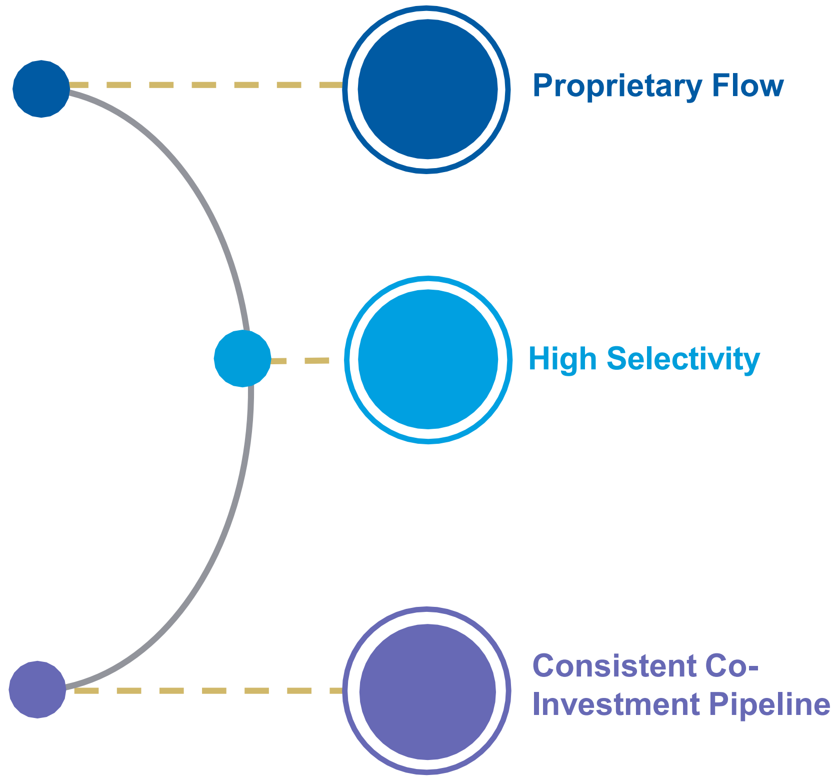
1. As of March 31, 2021, including unfunded commitments.
2. Real Assets Solutions Team estimate as of March 31, 2021.
3. As of March 31, 2021. Subject to third party confidentiality obligations and internal policies and procedures established by Morgan Stanley, including information barriers and allocation policies, to manage potential and actual conflicts of interest and/or in respect of regulatory requirements.

We Believe We are a Partner of Choice

Access to “best-of-breed” and hard to access opportunities

A “Partner of Choice”:

- Co-investment, secondary and primary capital
- Working with partners to resolve issues
- Fund life extensions
- Bridge to first close
- Expand smaller funds’ acquisition abilities
- Opportunities outside the underlying fund’s mandate



Source: MSIM. The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be supplemented.

Co-Investment Diligence Process

Methodical, granular process to ensure effective and disciplined execution

Our Investment Process Provides a Consistent Framework for Opportunity Evaluation

Deal Specific Steps →

Opportunity Sourcing (ongoing)

- Proactive sourcing of new opportunities and relationships
- Constant mining of existing Real Assets Solutions Team relationships
- Leading reputation as a significant LP and for direct co-Investment appetite and execution
- Leverage Morgan Stanley platform
- Placement agents

Initial Review

- Assess investment partner profile for co-investment
- Review initial materials and discuss opportunity with investment partner
- Screen opportunity for initial fit with key investment criteria
- Determine if we can perform detailed due diligence on underlying real assets
- Determine timeline, process, and pricing
- Consider portfolio fit
- Initial IC Approval

Detailed Underwriting, Site Visit and Execution

- Confirm fit with investment criteria
- Examine all GP diligence and related third-party analysis
- Independent benchmarking of GP underwriting
- Develop underwriting plan
- Conduct in-depth review of opportunity, focusing on key drivers of value and risk in the asset
- Site visit, broker meetings, comparison tours
- Map out capital structure, financing requirements and debt maturities
- Review legal structure and reporting basis for NAV
- Establish third party valuations using global network
- Stress test assumptions for differing outcomes
- Derive discount to FMV
- Management assessment and background checks
- Reference calling
- Tax, compliance, ESG, and operations assessment
- Obtain IC approval
- Provide feedback to GP on interest level, threshold valuation, and key sensitivities
- Negotiation of final structure and terms

Investment Monitoring (ongoing)

- Advisory board rights
- Routine interactions with management team and investment partners
- Portfolio-level investment monitoring
- Formal semi-annual investment monitoring
- Independent fair value process and audit
- GP performance review to inform future investment sourcing and assessment

The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be supplemented.

Real Asset Risk Management

Top Down

Portfolio Construction & Monitoring

- Granular portfolio monitoring; asset, fund & portfolio levels
- Integrated platform: flexibility to use primaries, secondaries & co-investments to contrast portfolios

Macro Economic Factors

- Focus on markets with exit liquidity
- Growth markets/supply & demand imbalances

Seeking to Generate Attractive Risk Adjusted Returns

Selecting Top Quartile Managers

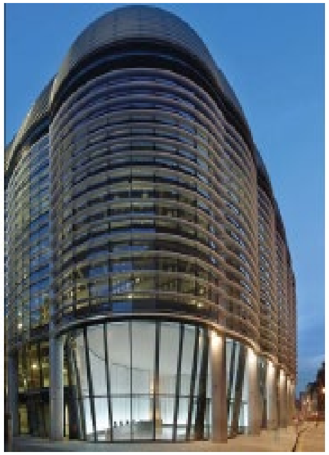
- Deep value investing and a focus on fundamental returns
- Alignment and fiduciary culture

Asset Focus

- A focus on unlevered post tax returns
- Asset by asset underwriting to develop a concrete understanding of value drivers, risks and mitigants

Bottom Up

Residential, NY



Class A Office, London

For illustrative purposes only. The statements above reflect the views and opinions of MSIM as of the date hereof and not as of any future date and will not be updated or supplemented.

Consistent and Rigorous Monitoring

Our process prioritizes monitoring activities and can be an early warning for issues at the GP level of investments

Institutionalized Monitoring Process

- Real Asset Team members are involved
- Strive to meet each GP at least twice each year
- Written review for each investment at least annually

Process encompasses three layers of oversight

- Annual onsite monitoring meeting
- Discussion of monitoring updates during team calls
- Participation on advisory boards

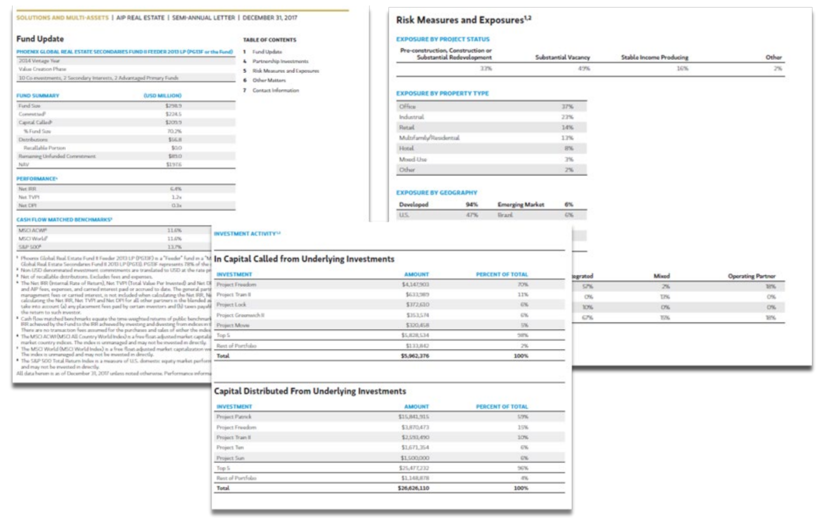
Investments are ranked and rated:

- Meets expectations
- Above expectations
- Below expectations
- Too early to tell

Need for active intervention or heightened sensitivity highlighted

- **Red Flag**
- **Yellow Flag**
- **Green Flag**

Sample Monitoring Note [1]



Images provided for illustrative purposes only. The statements above are the opinions and views of MSIM as of the date hereof and not as of any future date, and will not be supplemented.

1. Due to confidentiality reasons complete monitoring pages can only be shown onsite.

Client Case Study: Real Assets Portfolio of Endowment

Client had no exposure to real assets at inception, requiring a comprehensive deployment plan and access to our established deal flow

ENDOWMENT PARTNERSHIP PROGRAM

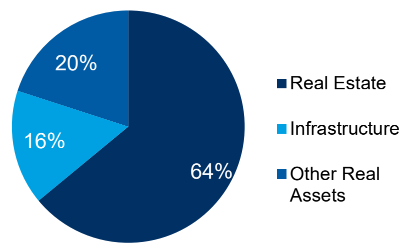
- Full management across traditional and alternative asset classes
- Limited internal operational capabilities so focused on extension of Morgan Stanley's comprehensive resources
- Long-term investment horizon
- Alternatives heavy allocation and focus
  - Opportunistically exploit our sponsor relationships for deal flow
  - Ad-hoc independent assessment and execution of client's deal flow
- Regularly collaborate on sourcing, decision making, and broader diligence efforts

REAL ASSETS IMPLEMENTATION

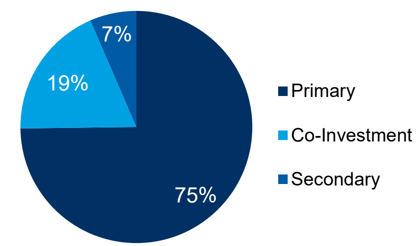
- Global open-architecture portfolio focused on value-add and opportunistic strategies with long-term investment horizon
- Multi-year deployment period focused on "best ideas" primary investments, supplemented by select real estate debt commitments, secondaries and co-investments

REAL ASSETS PORTFOLIO[1]

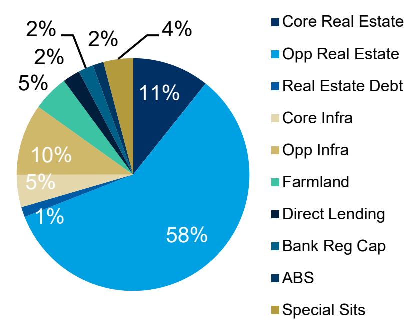
Commitments By Strategy



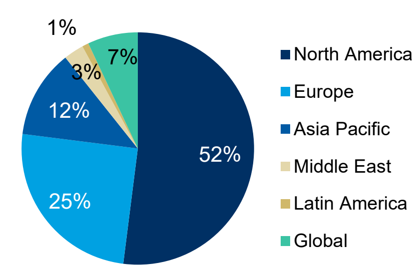
Commitments By Investment Type



Commitments By Sector



Commitments By Geography



As of March 31th 2021

This case study is being provided for informational purposes only. It is not a solicitation, or an offer to buy or sell any security or investment product. It does not contend to address the financial objectives, situation or specific needs of any investor.

Co-Investment Case Study: Real Estate Residential

INVESTMENT THESIS

- Co-investment interest in a partially built out master planned community totaling 11,000 acres and entitled for over 6,000 residential units
- Located in in Orlando, FL, Project Sunshine is one of Central Florida's largest Green Certified development
- Seller had completed all of the infrastructure and entitlement work, but was forced to liquidate the asset, as it was the last remaining asset in seller's fund
- Manager acquired the fully entitled site for large discount (70%) compared to seller's basis for an unentitled site

POTENTIAL BENEFITS

- Attractive acquisition basis at distressed pricing
- No entitlement risk, no major offsite infrastructure requirements and low land carry costs
- Strong management team with extensive expertise
- Orlando is one of Manager's strongest and largest investment markets

RISKS CONSIDERED

- Potential downturn in the U.S. residential market
- Key person

IMPLEMENTATION

- Underwritten base case 22% IRR over nine-year hold period using no leverage
- During underwriting, the Manager began negotiations to sell parts of the site within one year of closing
- Within six months of closing the co-investment, the Manager successfully sold two parts of the master planned community to strategic and bulk buyers, returning 50% of invested equity

Master Plan – Aerial View

Existing Homes on Site

Source: Solutions & Multi-Asset. This information reflects the views of the portfolio manager as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. This information should not be construed as investment advice and should not be deemed a recommendation to buy or sell any strategy.

Co-Investment Case Study: Real Estate Irish Industrial Asset

INVESTMENT THESIS

- Joint venture focused on acquiring vacant and other value-add industrial assets around Dublin
- No new supply post-GFC with attractive macro and rental growth prospects given the strong recovery of the Irish economy
- Opportunity to partner with a best-in-class, but capital-constrained, value-add industrial manager seeking to expand to Europe

POTENTIAL BENEFITS

- Opportunity to acquire prime industrial assets at ~50% below replacement cost, in good locations with long-term leases in-place that we expected to benefit from rental growth over the hold period
- Benefit from the economic growth prospects of Ireland over the life of the investment
- Upside potential in creating a larger portfolio of multiple assets in Dublin to sell as a portfolio at premium pricing to larger institutional investors looking to access the market and asset class

RISKS CONSIDERED

- Leasing risk given limited comparable rental transactions in the market at the time of acquisition
- Exit risk

IMPLEMENTATION

- Over a two-year period, manager acquired 21 warehouse assets, with going-in occupancy of 83% and 7.0% yield on cost
- Manager successfully leased up the portfolio to 100% occupancy and 10.3% yield on cost given stronger than underwritten rental growth
- Portfolio sold in December 2020, generating a gross-net 33% IRR and 3.3x TVPI

Asset Exterior
Dublin, Ireland

Property Interior

The statements above reflect our views and opinions as of the date hereof and not as of any future date and will not be updated or supplemented. This information should not be construed as investment advice and should not be deemed a recommendation to buy or sell any strategy.

Co-Investment Case Study: U.K. Electric Vehicle Charging Infrastructure

INVESTMENT THESIS

- Opportunity to co-invest in the UK's leading rapid charging operator in the UK that benefits from a first-mover advantage and a differentiated offering that should enable the Company to take advantage of market and regulatory tailwinds driven by the "Green Recovery."
- Stapled primary fund investment in a £400m target fund anchored by the UK Government to invest in the public charging infrastructure of electric vehicles in the UK

POTENTIAL BENEFITS

- Attractive EV infrastructure market that is growing rapidly
- Differentiated offering and strong consumer brand
- Site selection and partnership wins
- Strong and measurable environmental impact
- Attractive entry valuation and compelling exit opportunities
- Experienced management team that sponsor knows well

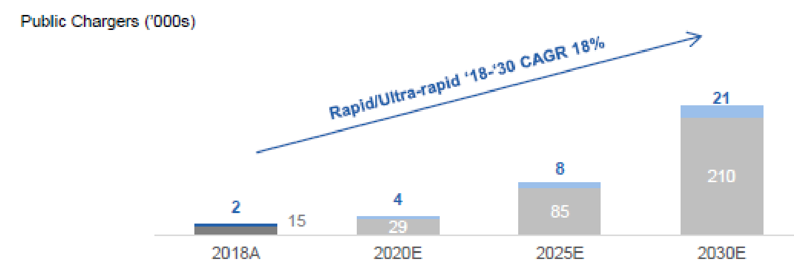
RISKS CONSIDERED

- Weak demand for electric vehicles in UK
- Highly competitive market
- Technology risks
- Management alignment

IMPLEMENTATION

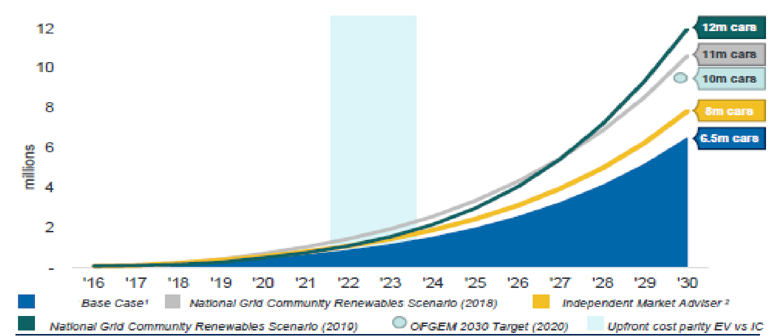
- Co-Investment combined with staple primary fund commitment
- Primary commitment involves gaining unique exposure to the high-return mobility infrastructure market with attractive demand-supply dynamics by backing an experienced and innovative team that has the support of the UK government

Forecasted Number of Public EV chargers



Source: PWC

EV Adoption Curve in the UK 2016-2030



Source: Solutions & Multi-Asset. This information reflects the views of the portfolio manager as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. This information should not be construed as investment advice and should not be deemed a recommendation to buy or sell any strategy.

Morgan Stanley

INVESTMENT MANAGEMENT

APPENDIX B

Risk Factors

Summary of Risk Factors

This is a summary of various risks associated with investing in portfolios of alternative investments. This summary is not, and is not intended to be, a complete enumeration or explanation of the risks involved. The recipient should consult with its own advisors before deciding whether to invest in these strategies. In addition, to the extent that the investment program of such a portfolio changes and develops over time, additional risk factors not described here may apply. Only a recipient who understands the nature of the investment, does not require more than limited liquidity in the investment, and has sufficient resources to sustain the loss of its entire investment should consider making the kind of investments described in this Presentation.

The following are among the risks applicable generally to a portfolio of hedge fund investments:

Reliance on Third-Party Management. The goal of investing in a portfolio of hedge funds managed by the Investment Adviser is to seek capital appreciation. Hedge funds selected for the portfolio are managed by third-party managers unaffiliated with the Investment Adviser over which the Investment Adviser does not exercise control.

No Assurance of Returns. The investment program of a portfolio of hedge funds is speculative and entails substantial risks. No assurance can be given that its investment objective would be achieved. Its performance depends upon the performance of the hedge funds included in the portfolio and upon the ability of the Investment Adviser effectively to select hedge funds and allocate and reallocate the portfolio's assets among them. Each hedge fund's use of leverage, short sales, and derivative transactions, in certain circumstances, can result in significant losses, volatility, or both.

Performance-Based Compensation. In addition to asset-based fees based on the hedge fund's net assets under management, a hedge fund's investment manager will typically charge each of the hedge fund's investors a performance or incentive fee or allocation based on net profits of the hedge fund which it manages. Similarly, in addition to asset based fees based on the portfolio's net assets, the Investment Adviser or one of its affiliates will also receive performance-based compensation (the "Performance Incentive"). The receipt of a performance or incentive fee or allocation by a hedge fund's investment manager or of the Performance Incentive by the Investment Adviser or one of its affiliates may create an incentive for the hedge fund's investment manager or the Investment Adviser, respectively, to make investments which are riskier or more speculative than those which might have been made in the absence of such an incentive.

Lack of Transparency. Hedge funds are not registered as investment companies with the U.S. Securities and Exchange Commission (the "SEC") under the Investment Company Act of 1940 (the "ICA"), and investors in hedge funds will not have the benefit of the protections afforded by the ICA to investors in registered investment companies. Although the Investment Adviser will periodically receive information from each hedge fund in which the portfolio is invested regarding such hedge fund's investment performance and investment strategy, the Investment Adviser may have little or no means of independently verifying this information. Hedge funds are not contractually or otherwise obligated to inform their investors of details surrounding proprietary investment strategies. In addition, the Investment Adviser has no control over the investment management, brokerage practices, custodial arrangements, or operations of hedge funds and must rely on the experience and competence of each hedge fund's investment manager in these areas.

Multiple Levels of Fees and Expenses. By investing in a portfolio of hedge funds managed by the Investment Adviser, an investor bears its proportionate share of the asset-based fees and the Performance Incentive payable to the Investment Adviser and any of its affiliates, as the case may be, as well as other expenses of the portfolio. An investor, however, also indirectly bears its proportionate share of the asset-based fees, performance or incentive fees or allocations, and other expenses borne by investors in the hedge funds included in the portfolio. An investor which meets the eligibility conditions imposed by the respective hedge funds included in the portfolio, including minimum initial investment requirements which may be substantially higher than those imposed by any fund, could avoid the extra layer of fees and expenses by investing directly in those hedge funds.

Independence of Hedge Funds' Investment Managers. A hedge fund's investment manager will receive any performance or incentive fees or allocations to which it is entitled, without regard to both the performance of the other hedge funds in the portfolio and the performance of the overall portfolio. An investment manager to a hedge fund with positive performance may receive compensation, even if the overall portfolio's aggregate returns are negative.

Potential for Increased Transactions Costs. Investment managers of the hedge funds included in the portfolio make investment decisions independently of each other. Consequently, at any particular time, one hedge fund in the portfolio may be purchasing interests in an issuer which at the same time are being sold by another hedge fund in the portfolio. Investment by hedge funds in this manner could cause the overall portfolio to incur certain transaction costs indirectly without accomplishing any net investment result.

Limited Liquidity of Hedge Funds. Additional investments in, or withdrawals from, the hedge funds in the portfolio may be made only at certain times, as specified in the governing documents of the respective hedge funds. As a result, before investments in hedge funds are effected or in furtherance of the portfolio's objectives generally, some assets held in the portfolio may temporarily be from time to time cash, cash equivalents, or high-quality fixed-income securities and money market instruments (whether or not managed by affiliates of the Investment Adviser)

Summary of Risk Factors (cont'd)

Limited Voting Rights of Investors. A hedge fund typically restricts the ability of its investors to vote on matters relating to the hedge fund. As a result, investors in the hedge fund will have no say in matters which could adversely affect their investment, via the portfolio, in the hedge fund. Additionally, for regulatory purposes related to the Investment Adviser's management of certain funds registered with the SEC under the ICA, the Investment Adviser may enter into contractual relationships under which other Funds irrevocably waive their respective voting rights (if any) to vote interests in underlying hedge funds.

Distributions in Kind. Hedge funds may distribute securities in kind to investors. Securities distributed in kind may be illiquid or difficult to value. In the event that a hedge fund were to make such a distribution in kind to a Fund, the Investment Adviser would seek to dispose of the securities so distributed in a manner which is in the best interests of such Fund.

Reliance on Third-Party Managers with Respect to Asset Valuation. Certain securities in which a hedge fund invests may not have a readily ascertainable market price and will be valued by the hedge fund's investment manager. Such a valuation generally will be conclusive, even though the hedge fund's investment manager may face a conflict of interest in valuing the securities, inasmuch as the value of such securities will affect the compensation payable to the hedge fund's investment manager. In most cases, the Investment Adviser will have no ability to assess the accuracy of any such valuation. In addition, the net asset values or other valuation information received by the Investment Adviser from hedge funds will typically be estimates only, subject to revision until completion of the annual audits of the respective hedge funds. Revisions to the gain and loss calculations will be an ongoing process, and no net capital appreciation or depreciation figure can be considered final until completion of the annual audits of the respective hedge funds.

Leverage. Investments can be highly volatile and may engage in leverage and other speculative investment practices, which can increase investment loss.

Regulation as a Bank Holding Company. Morgan Stanley elected in September 2008 to be regulated as a Bank Holding Company (a "BHC") under the U.S. Bank Holding Company Act of 1956, as amended (the "BHCA"), and the Federal Reserve has granted Morgan Stanley's application for "financial holding company" ("FHC") status under the BHCA. FHC status is available to BHCs which meet certain criteria. FHCs may engage in a broader range of activities than BHCs which are not FHCs.

The activities of BHCs and their affiliates are subject to certain restrictions imposed by the BHCA and related regulations. Because Morgan Stanley may be deemed to "control" a Fund within the meaning of the BHCA, these restrictions could apply to such Fund as well. These restrictions may materially adversely affect the Fund, among other ways, by imposing a maximum holding period on some or all of the Fund's investments; limiting the amount of an entity's beneficial ownership interests which the Fund may hold; restricting the ability of Morgan Stanley, the Adviser, the AIP affiliate which serves as general partner or manager of the relevant Fund (in either case, the "General Partner"), or their affiliates to invest in the Fund or to participate in the management and operations of the entities in which the Fund or an Investment Fund invests; or affecting either the ability of the Adviser to pursue certain strategies within the Fund's investment program or the ability of the Fund, Morgan Stanley, the General Partner, the Adviser, or any of their respective affiliates to invest in certain Investment Funds. Certain BHCA regulations may also require aggregation of the positions owned, held, or controlled in client and proprietary accounts by Morgan Stanley and its affiliates (including without limitation the General Partner and the Adviser) with positions held by the Fund (and, in certain instances, one or more Investment Funds). Moreover, Morgan Stanley may cease in the future to qualify as an FHC, which in either case may subject the Fund to additional restrictions or cause the General Partner to dissolve the Fund. Additionally, there can be no assurance either that the bank regulatory requirements applicable to Morgan Stanley and the Fund will not change or that any such change will not have a material adverse effect on the Fund.

Morgan Stanley may in the future, in its sole discretion, restructure the Fund, the General Partner, or the Adviser in order to reduce or eliminate the impact or applicability of these bank regulatory restrictions on the Fund or other funds and accounts managed by the Adviser or any of its affiliates. Morgan Stanley may seek to accomplish this result by causing another entity to replace the Fund's current General Partner, transferring ownership of the General Partner or the Adviser, reducing the amount of Morgan Stanley's investment in the Fund (if any), effecting any combination of the foregoing, or implementing such other means as it determines in its sole discretion. Any such transferee may be unaffiliated with Morgan Stanley. In connection with any such change, the General Partner may in its sole discretion assign its right to receive any performance fee or allocation or cause another entity to be admitted to the Fund for the purpose of receiving such performance fee or allocation. In connection with any such change, the General Partner may in its sole discretion, assign its right to receive any performance fee or allocation or cause another entity to be admitted to the fund for the purpose of receiving such performance fee or allocation.

Recent Legislative Events. On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). Section 619 of the Dodd-Frank Act is known as the "Volcker Rule." Once the Volcker Rule takes effect, which will be no later than July 21, 2012, it will limit the extent to which a "banking entity," including Morgan Stanley and any of its affiliates, may sponsor or invest in a hedge fund or a private equity fund. It will also limit the aggregate equity, partnership, or other ownership interests of Morgan Stanley in hedge funds and private equity funds to a maximum of 3% of Morgan Stanley's Tier 1 Capital. In addition, Morgan Stanley will be able to own no more than 3% of the total equity, partnership, or other ownership interests of any hedge fund or private equity fund organized and offered by Morgan Stanley. Banking entities such as

Summary of Risk Factors (cont'd)

Morgan Stanley will also not be permitted, directly or indirectly, to guarantee, to assume, or otherwise to insure the obligations or performance of such funds or of any funds in which such funds invest. Upon effectiveness, the Volcker Rule will also prohibit Morgan Stanley from engaging in certain "covered transactions" with any Fund, such as extensions of credit. The Volcker Rule may require Morgan Stanley and its affiliates, including the General Partner, the Adviser, or both, to restructure or terminate their respective affiliations with the Fund. During a statutory transition period for Morgan Stanley to become compliant with the requirements of the Volcker Rule, a Fund and any offshore fund formed for the purpose of investing in such Fund may need to change its name so as to avoid sharing a name with Morgan Stanley. Also, the General Partner and any other affiliate of Morgan Stanley invested in the Fund may need to reduce its investment in the Fund so as to meet the limitation that no more than 3% of Morgan Stanley's Tier 1 Capital be invested in hedge funds and private equity funds. Any of the Fund, the General Partner, or the Adviser may also be required to take other actions. Morgan Stanley currently believes that any investments by it or any of its affiliates should comply with the 3% limitation on Morgan Stanley's total ownership interest in the Fund. Because the Dodd-Frank Act and the Volcker Rule are such recent legislative changes and because the Dodd-Frank Act and the Volcker Rule direct a variety of other bodies and regulatory agencies of the U.S. Government to consider certain additional implementing regulations, the full scope of the impact of both the Dodd-Frank Act and the Volcker Rule is not yet known, and other direct or indirect consequences of the Dodd-Frank Act and the Volcker Rule may affect Morgan Stanley, the General Partner, the Adviser, or any of their respective affiliates and may result in a material adverse effect on the Fund.

The following risks are applicable to emerging markets investments:

Emerging Markets. The Fund or the hedge funds selected for the Fund's portfolio may invest in assets in emerging markets. Investing in emerging markets involves risks and special considerations not typically associated with investing in other more established economies or securities markets. Such risks may include: (i) increased risk of confiscatory taxation or nationalization or expropriation of assets; (ii) greater social, economic, and political uncertainty, including war; (iii) higher dependence on exports and the corresponding importance of international trade; (iv) greater volatility, less liquidity, and smaller capitalization of securities markets; (v) greater volatility in currency exchange rates; (vi) greater risk of inflation; (vii) greater controls on foreign investment and limitations on repatriation of invested capital and on the ability to exchange local currencies for U.S. dollars; (viii) increased likelihood of governmental involvement in, and control over, the economies; (ix) governmental decisions to cease support of economic reform programs or to impose centrally planned economies; (x) differences in auditing and financial reporting standards which may result in the unavailability of material information about issuers; (xi) less extensive regulation of the securities markets; (xii) longer settlement periods for securities transactions and less reliable clearance and custody arrangements; and (xiii) less developed corporate laws regarding protection of investors and fiduciary duties of officers and directors.

Non-U.S. Investments. The fund or hedge funds selected for the Fund's portfolio expects to make investments (directly or indirectly) in a number of different countries. Such investments may be made in countries or economies which may prove unstable. Depending on the country in which the investment is made, there may exist the risk of adverse political developments, including nationalization, confiscation without fair compensation, or war. Laws and regulations of other countries may impose restrictions which would not exist in the U.S. Investments in non-U.S. corporations may require significant government approvals under corporate, securities, exchange control, foreign investment, and other similar laws and may require financing and structuring alternatives which differ significantly from those customarily used in the U.S. No assurance can be given that a given political or economic climate, or that particular legal or regulatory risks, might not adversely affect an investment by the Fund.

Small-Capitalization Stocks. The Fund or the hedge funds selected for the Fund's portfolio may invest in other funds which make investments in small- to medium-sized companies of a less seasoned nature. Investments in small-capitalization issuers often involve significantly greater risks than the securities of larger, better-known companies because they may lack the management experience, financial resources, product diversification, and competitive strengths of larger companies. The equity securities of these smaller issues are usually traded in the over-the-counter markets or on regional securities exchanges, and the frequency and volume of trading in these securities is often substantially less than that of larger companies, which may result in wider price fluctuations in small-capitalization stocks than in stocks of larger issuers. When selling large positions in small-capitalization stocks, the Fund or the hedge funds selected for the Fund's portfolio may have to sell holdings at discounts from quoted prices or may have to make a series of small sales over a period of time.

Currencies. The Fund or one or more of the hedge funds selected for the Fund's portfolio may invest a portion of its assets in non-U.S. currencies, or in instruments denominated in non-U.S. currencies, the prices of which are determined with reference to currencies other than the U.S. dollar. The Fund or such hedge funds may or may not seek to hedge all or any portion of its foreign currency exposure. To the extent unhedged, the value of the Fund or such hedge fund's assets will fluctuate with U.S. dollar exchange rates, as well as the price changes of its investments in the various local markets and currencies. In addition, some governments from time to time impose restrictions intended to prevent capital flight, which may for example involve punitive taxation (including high withholding taxes) on certain securities transfers or the imposition of exchange controls making it difficult or impossible to exchange or repatriate the local currency. These and other restrictions may make it impracticable for the Fund or the hedge funds selected for the Fund's portfolio to distribute the full amount of the Limited Partners' capital accounts in U.S. dollars, and, therefore, a portion of the distribution may be made in non-U.S. securities or currency.