



***Summit Strategies Group***

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**Private Equity Update**

**Howard County Retirement Plans**

*September 28, 2017*

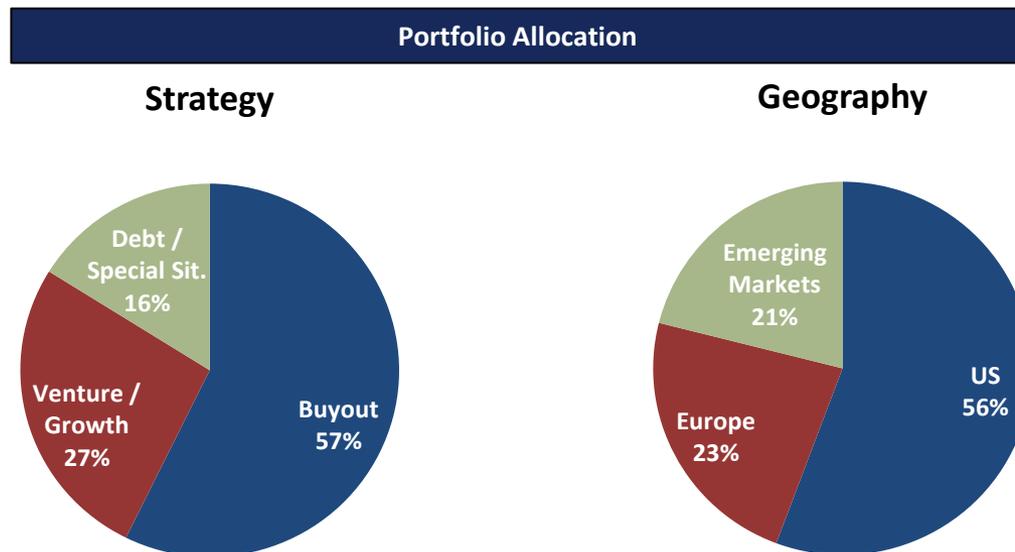
## PRIVATE EQUITY PORTFOLIO UPDATE

- **Performance:**

- Howard County committed \$157.5 million to private equity fund of funds from 2007-2017.
- Paid-in capital is equal to \$97.2 million or 62% of total commitments (as of 3/31/2017).
- Total Value is equal to \$128 million or 1.32x capital drawn, including distributions of \$34 million (35% of paid-in capital).
  - Equates to a 12.8% net IRR since inception.

- **Allocation:**

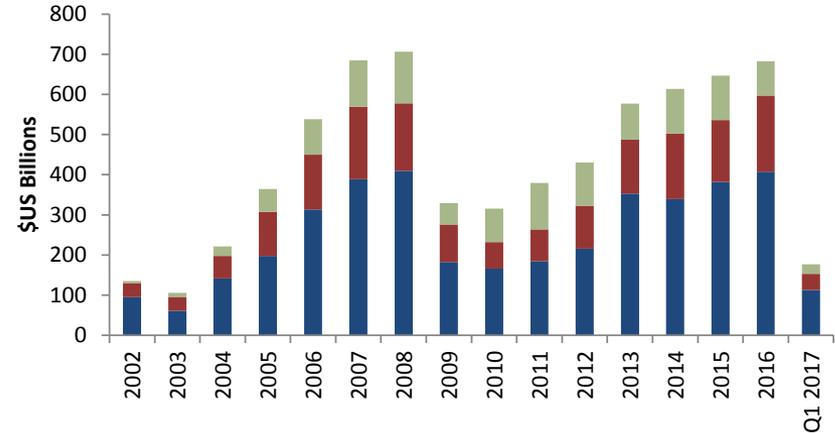
- The portfolio is well-diversified by both strategy and geography, though the exposure to Debt/Special Situations is below Summit's typical recommendation of 25% and the exposure to Buyout is above Summit's typical recommendation of 50%.
- This is a result of the opportunity set since the beginning of the program.
- These allocation recommendations are simply guidelines, and Summit is comfortable with the existing exposure; however, moving forward, the underlying allocations should be watched to help ensure the portfolio remains well-balanced.
- If there is a credit dislocation, the Board should look to increase exposure.



## PRIVATE EQUITY: CURRENT MARKET OBSERVATIONS

- It is time to be cautious in the private markets.
  - Fundraising, dry powder and valuations are at or near all time highs.
  - Credit is easy to obtain and on favorable terms to equity sponsors, which can be good or bad depending on how the manager behaves.
  - Secondary pricing remains elevated, offering liquidity to LPs but also suggesting overconfidence in future returns.

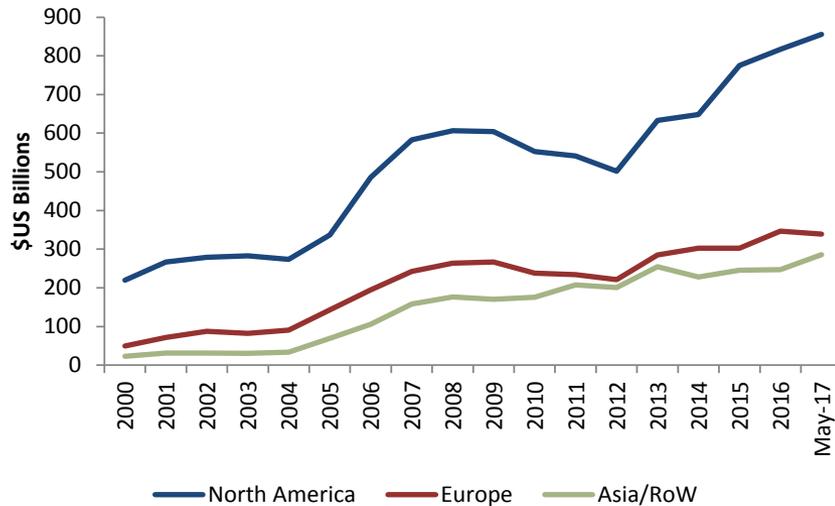
### Global Fundraising



Source: Preqin

■ North America ■ Europe ■ Asia/RoW

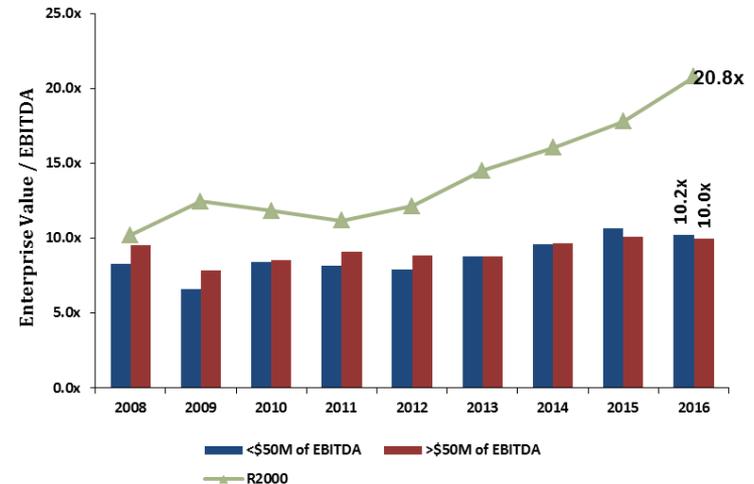
### Global Dry Powder



Source: Preqin

— North America — Europe — Asia/RoW

### Purchase Price Multiples vs. R2000



Source: S&P LCD, Bloomberg

■ <\$50M of EBITDA ■ >\$50M of EBITDA  
— R2000

## PRIVATE EQUITY SUMMARY

March 31, 2017

Partnerships	Vintage Year	Investment Strategy	Capital Commitment (\$)	Drawn Down (\$,1)	Distributed (\$,1)	Market Value (\$,1,2)	IRR (%) (3)	TVPI Multiple (3)	Valuation Date
<b>Private Equity</b>									
Siguler Guff Distressed Opps III	2007	Distressed Debt (FOF)	10,000,000	10,217,661	12,856,674	2,712,149	10.40	1.52	03/31/2017
Greenspring IV	2008	Venture Capital (FOF)	4,000,000	3,796,255	3,776,032	4,592,813	19.49	2.21	03/31/2017
Pantheon Global Secondaries IV	2010	Secondaries (FOF)	3,000,000	2,186,420	2,012,421	1,081,079	13.28	1.42	03/31/2017
LGT Crown Asia-Padfic II	2011	International Private Equity (FOF)	14,000,000	10,515,006	1,554,000	13,296,809	11.87	1.41	03/31/2017
Greenspring V	2011	Venture Capital (FOF)	7,000,000	5,933,846	1,942,500	8,290,668	18.11	1.73	03/31/2017
Adveq Europe V	2012	Buyout- Small (FOF)	10,000,000	6,242,363	1,527,142	4,610,441	-0.79	0.98	03/31/2017
LGT Crown Global Secondaries III	2012	Secondaries (FOF)	10,000,000	5,574,447	1,690,000	5,667,564	14.58	1.32	03/31/2017
Flag Private Equity V	2013	Diversified (FOF)	15,000,000	10,964,188	3,319,263	9,744,797	10.66	1.19	03/31/2017
HarbourVest Partners 2013 Direct	2013	Diversified (COI)	15,000,000	15,411,146	3,210,301	17,260,267	18.97	1.33	03/31/2017
Greenspring M	2014	Venture Capital (FOF)	7,500,000	5,101,152	168,750	6,133,047	11.76	1.24	03/31/2017
Greenspring Secondaries Fund I	2014	Secondaries	2,500,000	2,349,097	416,664	2,912,420	24.86	1.42	03/31/2017
Adveq Europe M	2015	Buyout- Small (FOF)	7,500,000	1,668,022	371,951	1,314,842	1.31	1.01	03/31/2017
Flag Private Equity M	2014	Buyout- Small (FOF)	15,000,000	5,700,000	357,410	5,970,625	14.53	1.11	03/31/2017
57 Stars	2015	Diversified (FOF)	7,000,000	2,148,135	-	1,975,485	-10.77	0.92	03/31/2017
NB Crossroads XI	2015	Diversified (FOF)	15,000,000	4,125,000	750,000	3,243,004	-4.20	0.97	03/31/2017
LGT Crown Asia-Padfic III	2014	International Private Equity (FOF)	5,000,000	1,593,161	-	1,755,273	9.55	1.10	03/31/2017
HarbourVest IV	2016	Buyout- Mid (COI)	10,000,000	3,630,747	-	3,643,378	1.55	1.00	03/31/2017
<b>Total Private Equity</b>			<b>157,500,000</b>	<b>97,156,647</b>	<b>33,953,108</b>	<b>94,204,662</b>	<b>12.78</b>	<b>1.32</b>	<b>03/31/2017</b>

1. Information contained in this report is being derived using custodial data. 2. Custodial valuations may be lagged in comparison to actual fund valuations. 3. In the beginning life of a fund, fees and expenses are disproportionately large compared to investments (aka "J-Curve"); therefore, performance is considered not meaningful until a fund is about 50% drawn.

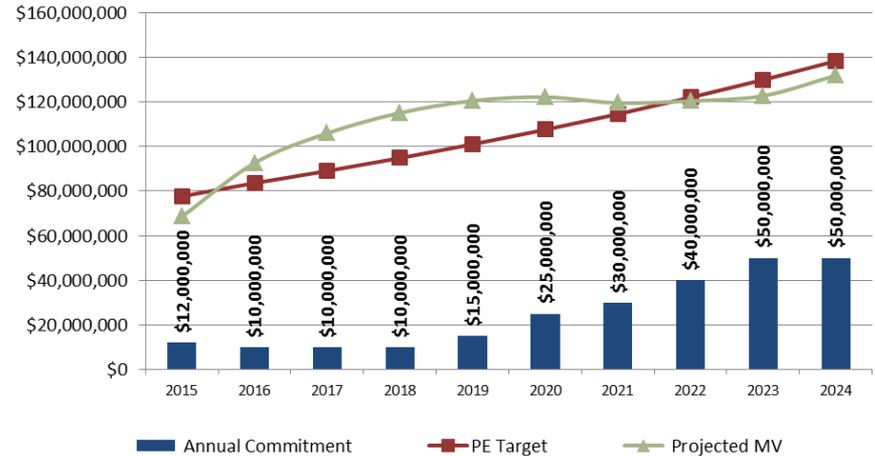
### PRIVATE EQUITY: RECAP AND LOOK AHEAD

- In 2014, Howard County approved the following commitments (\$37.5 million):
  - 1) FLAG Private Equity Fund VI—\$15.0 million.
  - 2) Neuberger Berman Crossroads XXI Special Situations—\$15.0 million.
  - 3) Adveq Europe VI—\$7.5 million.
- In 2015, Howard County approved the following commitments (\$12.0 million total):
  - 1) LGT Crown Asia-Pacific III—\$5.0 million.
  - 2) 57 Stars Global Opps. 4—\$7.0 million.
- In 2016, Howard County approved a \$10 million commitment to HarbourVest Co-Investment Fund IV.
- **For 2017, Summit again proposed a \$10 million commitment budget; \$5 million of which has been committed.**
  - Initially targeted a venture capital fund of funds—Greenspring Associates' Fund VIII was approved for a \$5 million commitment by Howard County.
  - \$5 million remains in the commitment budget for 2017—consider other areas of private equity throughout the remainder of 2017.
    - Summit recommends targeting Aberdeen VII at \$5 million.

## PRIVATE EQUITY COMMITMENT MODEL

- The Commitment Model attempts to predict how much capital will actually be in private equity funds at a given point in time.
  - Estimates the commitments needed to reach and maintain the allocation target.
  - Diversifies the portfolio.
    - Reduces vintage year risk by staggering commitments.
    - Reduces strategy and sector risk.
    - Reduces individual general partner risk.
  - Schedule is monitored and adjusted over time by Summit.
- The commitment model for Howard County assumes:
  - \$847 million of total plan assets as of December 31, 2016.
  - 6.5% annual return on total plan assets.
  - 10.0% target to private equity.
- **In 2017, the model calls for \$10 million of commitments.**
  - Starting in 2016, commitments were reduced due to a higher than expected private equity market value and a decrease in the assumed annual return on total plan assets.
  - Return on total plan assets reduced from 7.5% to 6.5% to match the most recent asset allocation review.

Private Equity Commitment Model



Commitment Schedule				
Year	Annual Commitments	Cumulative Commitments	Projected Market Value	Partnership Inv. Target (10% of Plan Assets)
2015	\$12,000,000	\$147,000,000	\$68,559,857	\$77,671,138
2016	\$10,000,000	\$157,500,000	\$92,571,803	\$83,554,344
2017	\$10,000,000	\$167,500,000	\$105,892,342	\$88,985,376
2018	\$10,000,000	\$177,500,000	\$114,980,591	\$94,769,426
2019	\$15,000,000	\$192,500,000	\$120,411,465	\$100,929,439
2020	\$25,000,000	\$217,500,000	\$122,039,685	\$107,489,852
2021	\$30,000,000	\$247,500,000	\$119,459,957	\$114,476,692
2022	\$40,000,000	\$287,500,000	\$120,334,668	\$121,917,677
2023	\$50,000,000	\$337,500,000	\$122,661,758	\$129,842,326
2024	\$50,000,000	\$387,500,000	\$131,769,833	\$138,282,078

### POTENTIAL MANAGER IDEAS

- **Aberdeen Private Equity VII**

- **Pros:** Continued commitment to focusing on the lower middle market is attractive; Strong track record; Concentrated portfolio of 12-14 fund investments will allow best ideas to impact the overall portfolio; Very attractive fee structure; Early fund commitments are attractive (seasonal primaries).
- **Cons:** A concentrated portfolio can yield excellent returns, but has the potential of greater downsides should any of the underlying managers underperform; Team is part of a very large asset manager that is in the process of merging with another large asset manager (Standard Life)—this could lead to a misalignment of interests with LPs; Fund IV (2008 vintage) has underperformed peers due to a prolonged J-Curve (4.5 years), though Aberdeen has learned from this and implemented J-Curve mitigating strategies in subsequent funds that have helped enhance performance.

- **Neuberger Berman Crossroads XXII – Special Situations**

- **Pros:** Strong prior performance; Compelling manager selection and concentration; Concentrated portfolio allows best ideas to impact performance; Flexibility to tilt between distressed debt and turnaround managers is attractive; Low management fees will help mitigate the J-Curve, as will the inclusion of secondaries/co-investments.
- **Cons:** Concentration allows best ideas to impact performance, but it can also magnify underperforming funds; Differential carry for primaries (5%) and secondaries/co-investments (10%) could produce a conflict of interest between the manager and its LPs.

- **LGT Crown Co-Investment Fund II (LGT COI II)**

- **Pros:** Positive track record in the space, but most of these deals were made outside of a dedicated co-investment fund; the broad LGT platform can be used to source attractive deals and secure diverse deal flow; Lower fee burden than typical fund of funds, which should help enhance net returns.
- **Cons:** Potential overlap or correlation with HarbourVest’s co-investment fund; LGT has only raised one other dedicated co-investment fund, so the historical track record is still relatively short; As with other co-investment funds, there is the potential for adverse selection, though this is mitigated by LGT’s primary fund of funds platform.

### CONCLUSION

- At the last meeting Aberdeen reviewed Howard County's investments in Funds V and VI. Both funds are tracking very well with strong returns and early distributions. The Board asked several questions regarding the fees of the underlying funds and how each firm used diligence to understand and manage these fees. Fund VI is fully committed and 45% called. Fund VII is in the market for Aberdeen and has a competitive fee and better than market terms (10% hurdle). In addition it has four primary commitments and three co-investments already.
- Fund XXI for Neuberger Berman NB Special Situations was interviewed as well. It has been slower to commit and drawdown funds. This shows strong patience on the part of the manager and should benefit the fund. They have committed \$185 mm of \$280 mm, but only 15% has been drawn down. The County has until late 2018 if they want to commit to Fund XXII.
- Summit continues to recommend both firms, but recommends committing the remaining \$5 million of the 2017 budget to Aberdeen Fund VII and revisiting Neuberger Berman's Special Situations in 2018.

**ABERDEEN US PRIVATE EQUITY VII**

**ABERDEEN PRIVATE EQUITY**

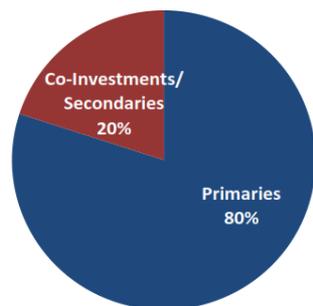
**OVERVIEW**

- **Fund Manager:** Aberdeen's US Private Equity team is based in Stamford, CT with additional offices in Boston and Hong Kong. The firm was founded in 1994 as FLAG Capital Management. In 2015, Aberdeen acquired FLAG to enhance its alternative offering in the US and Asia. The FLAG team has remained with Aberdeen since the 2015 acquisition.
- **Team:** The Global Private Markets team employs 63 professionals in the US, Europe, and Asia. Additionally, the team leverages Aberdeen's extensive infrastructure for legal, finance, and operations support.
- **Strategy:** The firm will construct a concentrated portfolio of US-based small-and mid-sized private equity funds managed by experienced, operationally-oriented investors that typically target companies smaller than \$250 million in enterprise value. Aberdeen will also strategically invest in co-investments and/or secondaries (up to 30% combined) to mitigate the J-curve and enhance the portfolio's return profile.
- **Investment Thesis:** The concentrated portfolio results in only the "best ideas" making it into the portfolio, which we believe results in superior performance. The firm's track record helps support this thesis, as all previous funds have beaten the Preqin median on an IRR basis, and only Fund IV has underperformed on a TVPI basis.
- **Key Risks:** While a concentrated portfolio can lead to outperformance, if any of the underlying managers were to exhibit poor performance, this would cause greater downside compared to a portfolio with greater diversification.

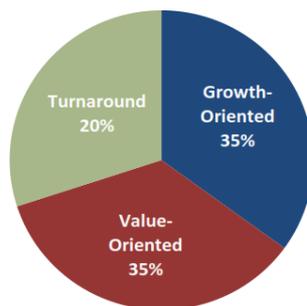
**CHARACTERISTICS**

<b>Asset Class:</b>	Private Equity	<b>Target Fund Size Min</b>	\$100mm
<b>Primary Strategy:</b>	Small/Mid US Buyout	<b>Target Fund Size Max</b>	\$1,000mm
<b>Positions:</b>	12-14		

Investment Type



Investment Styles



**FIRM**

<b>Founded</b>	1994
<b>Primary Office</b>	1266 E Main St, Stamford, CT 06902
<b>Ownership</b>	Subsidiary of Standard Life PLC
<b>Assets Managed</b>	\$11 billion (Global Private Markets)
<b>Strategies Covered</b>	Private Equity, Venture Capital, Real Assets
<b>Employees</b>	63 (Global Private Markets)

**INVESTMENT TEAM**

**Total Professionals:** 17

<u>Key Personnel</u>	<u>Title</u>	<u>Joined Firm</u>
Graham McDonald	Head of Private Equity	2014
Scott Reed	Co-Head, Private Equity USA	2007
John Dickie	Co-Head, Private Equity USA	2010
Whit Matthews	Sr Investment Manager	2016
Ryan Tiffany	Sr Investment Manager	2008

**FEES & KEY TERMS**

<b>Annual Mgmt Fee</b>	75 bps average annual fee for a \$10 million commitment
<b>Carried Interest</b>	5%
<b>Preferred Return</b>	10%
<b>Investment Period</b>	3 years
<b>Fund Term</b>	12 years
<b>GP Commitment</b>	1% up to \$2 million

**INVESTMENT INFORMATION**

<b>Target Size</b>	\$300 million
<b>Commitments</b>	\$149 million
<b>Minimum</b>	\$3 million
<b>Next Close</b>	November 2017 (expected)

**ABERDEEN US PRIVATE EQUITY VII**

**ABERDEEN PRIVATE EQUITY**

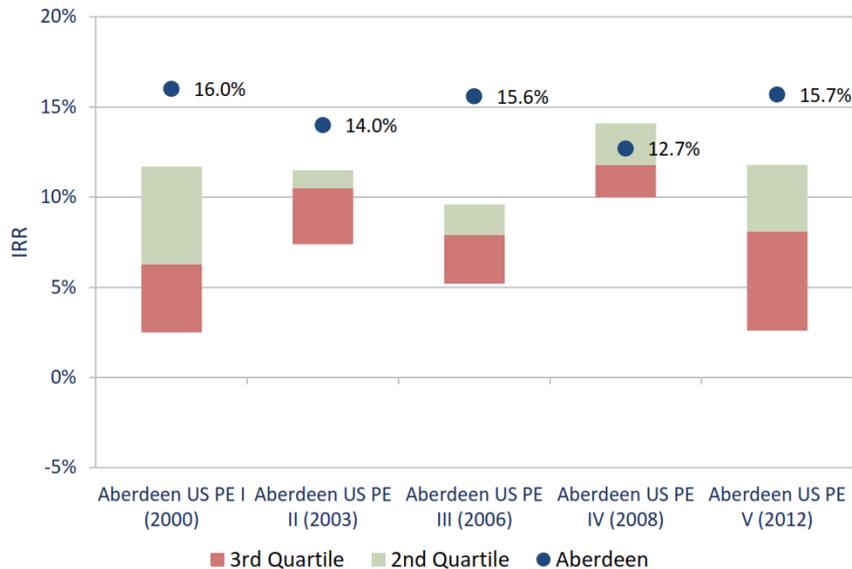
**OBSERVATIONS**

- Aberdeen has consistently outperformed North American fund of funds peers. All funds have outperformed on a IRR basis and only one fund has produced below median TVPI.
- The Aberdeen/FLAG team has shown an ability to perform in a variety of private equity environments dating back to 2000.
- The 2015 Vintage is not detailed below due to the lack of meaningful performance data for vintages beyond 2014. However, this fund is also showing strong marks early in its life.

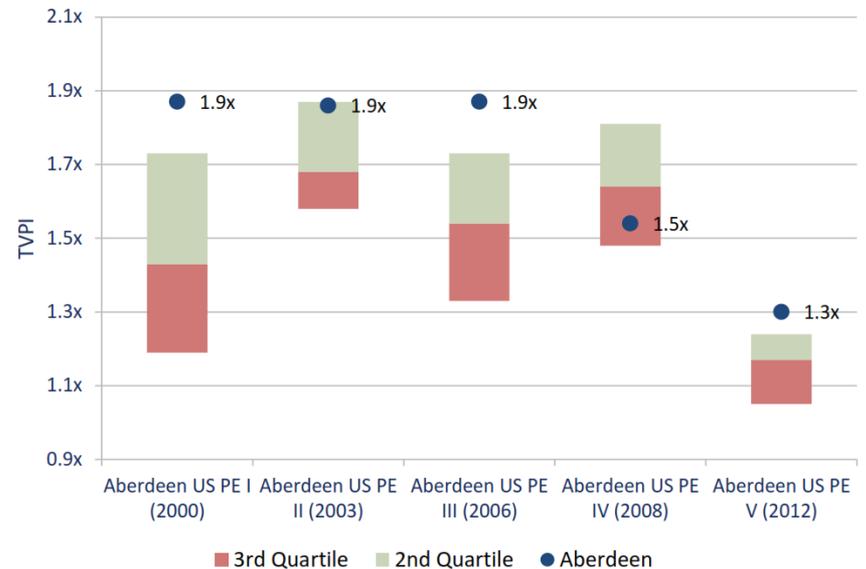
**TRACK RECORD**

Fund	Vintage Year	Fund Size	Invested Capital	Realized Value	Unrealized Value	Net IRR	Net TVPI
Aberdeen US PE I	2000	37	99%	391	16.2	16.0%	1.9x
Aberdeen US PE II	2003	146	99%	573	90.1	14.0%	1.9x
Aberdeen US PE III	2006	153	98%	286	231.3	15.6%	1.9x
Aberdeen US PE IV	2008	138	90%	73	119.2	12.7%	1.5x
Aberdeen US PE V	2012	217	69%	39	156.4	15.7%	1.3x
Aberdeen US PE VI	2015	295	30%	7	103.7	35.9%	1.3x

**IRR VINTAGE ANALYSIS**



**TVPI VINTAGE ANALYSIS**



Vintage comparison uses Preqin North American Private Equity Fund of Fund data through 12/31/2016.

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