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Fairfax County Teachers

2017 Real Assets Strategic Plan

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Real Estate General Market Thoughts and 2017 Implementation Views

General Market Thoughts

- **Core/REIT market environment normalized**
 - Real estate fundamentals (rent growth, occupancy, net absorption) remain strong; however, valuations are high on an absolute and relative basis
 - Rising interest rates have been baked into existing valuations but excess cap rate expansion (beyond general expectations) will reset valuations
 - REIT sector has been volatile and remain at historically high FFO multiples
- **Opportunity remains in non-core strategies**
 - In the US, we favor managers that are attentive to duration risk at the current stage of the expansion cycle, are focused on cash flow, and may have niche areas of expertise
 - Outside the US, Europe remains a relatively attractive opportunity for asset focused managers who are not making macro bets on growth. Current US-dollar denominated investors with currency exposure will feel near-term impact of Brexit, but new investors may benefit from strong US-dollar amidst asset repricing in select cities (e.g. London). Long-term Brexit implications, however, remain unclear.

Implementation Views

Strategy		Outlook	Commentary
Core	Private	0	Hold to target allocation; focus on quality managers/portfolios in primary locations that should better navigate a downturn
	Public REITs	0	Hold to target allocation; if under-allocated leg into a target allocation to minimize entry point risk; expect high volatility in the near term
Non-Core	Value-Add	+	Flight to quality will continue to favor US real estate, while opportunities to capitalize on distress or capital markets inefficiencies in Europe and select emerging markets will remain; emphasize more defensible demographically driven sectors vs. GDP driven sectors and watch for “emerging institutional” asset classes with high cash yields
	Opportunistic		
Real Estate Debt		+ -	Low interest rate environment is challenging for senior loans but mezzanine strategies can offer favorable terms with downside protection



- **Fairfax County Teacher's current exposure to real estate is as follows:**
 - \$177 million net asset value (7.8% of total plan assets)
 - Current allocation split between Global REIT and diversified (Core), open-end products
 - Highly liquid
 - Non-US exposure provided by Global REIT mandate with Centersquare
- **The Plan's new target allocation to real estate is 9%.**
 - Based on historical closed-end fund drawdown schedules and the Plan's sub-allocation targets within real estate, NEPC recommends the Fund maintain a slight over-commitment to real estate at 1.2x the target allocation.
 - This implies a target total real estate exposure of \$123 million.
- **NEPC recommends long-term target sub-strategy allocations approximately as follows:**
 - ~60-70% Open-end, Core real estate (including Global REITs)
 - ~30-40% Closed-end, non-core real estate
- **NEPC recommends the following investment pacing model to achieve the target allocations:**
 - 2017: Commit \$20-25 million to non-core real estate funds
 - Recommend committing \$25 million to Landmark Real Estate Fund VIII
 - 2018: Commit \$20-25 million to non-core real estate funds, redeem \$15 million from REITs
 - 2019: Commit \$20-25 million to non-core real estate funds

General Plan Assumptions

General Plan Assumptions

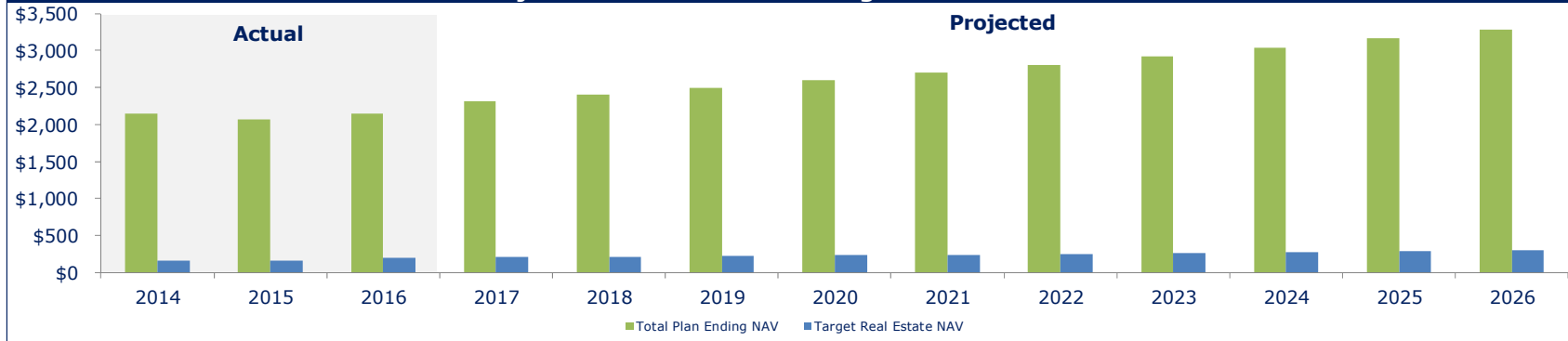
Total Plan Assets	\$2,219	Plan Return Assumptions	2017	2018	2019
Total Real Estate NAV	\$175	Target Investment Return	7.3%	7.3%	7.3%
Total Real Estate Capital to be Funded	\$0	Contributions	5.2%	5.2%	5.2%
Total Real Estate Exposure	\$175	Payouts	(8.3%)	(8.3%)	(8.3%)
Total Real Estate NAV / Total Plan Assets	7.9%	Expenses	(0.2%)	(0.2%)	(0.2%)
Total Real Estate Exposure / Total Plan Assets	7.9%	Reserve for Expenses	0.0%	0.0%	0.0%
Target Real Estate Allocation % (Current Target)	9.0%	Net Growth Rate	4.0%	4.0%	4.0%
		Plan-Level data as of	02/28/17		
		Fund-Level data as of	09/30/16		

- 7.9% current plan real estate NAV.
- 9% target allocation.

Total Projected Plan Assets

	Actual			Projected									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Plan Net Growth Rate	2.2%	(4.0%)	4.1%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Total Plan Beginning NAV	\$2,102	\$2,149	\$2,063	\$2,219	\$2,308	\$2,400	\$2,496	\$2,596	\$2,700	\$2,808	\$2,920	\$3,037	\$3,159
Yearly Net Growth	\$47	(\$86)	\$85	\$89	\$92	\$96	\$100	\$104	\$108	\$112	\$117	\$121	\$126
Total Plan Ending NAV	\$2,149	\$2,063	\$2,148	\$2,308	\$2,400	\$2,496	\$2,596	\$2,700	\$2,808	\$2,920	\$3,037	\$3,159	\$3,285
Target Real Estate Allocation	7.5%	7.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Target Real Estate NAV	\$161	\$155	\$193	\$208	\$216	\$225	\$234	\$243	\$253	\$263	\$273	\$284	\$296

Total Projected Plan Assets and Target Real Estate Allocation



\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.

Real Estate Portfolio Construction

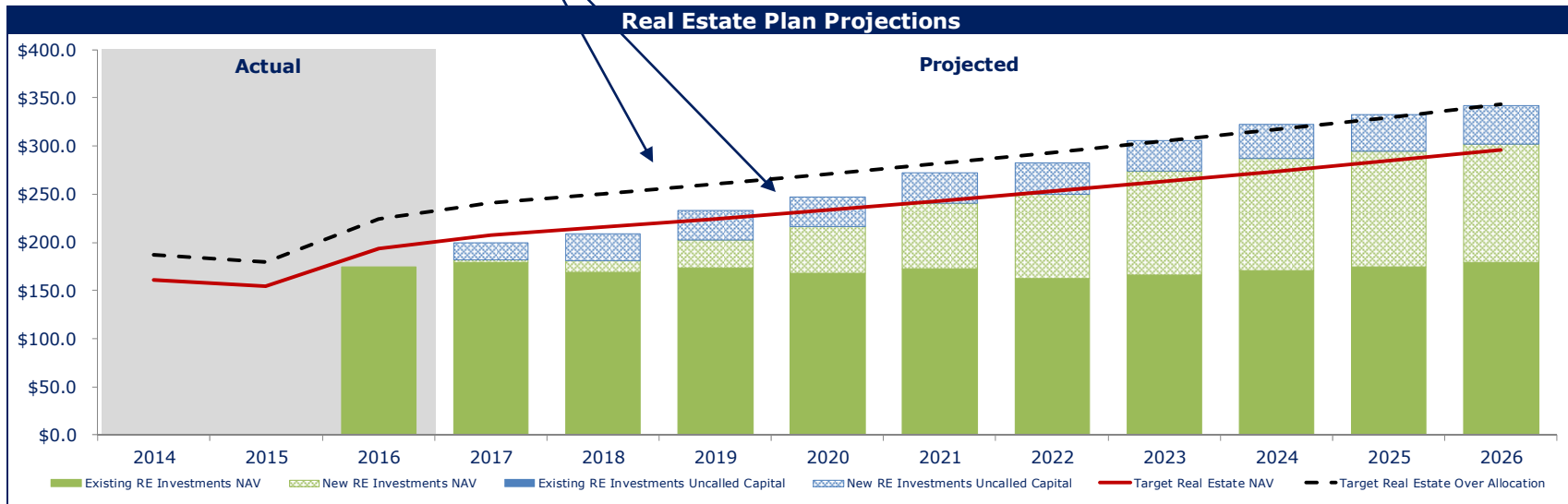
Target Real Estate & Real Assets Allocations									
Investment Strategy	Target Percent Allocation	Max Percent Allocation	Min Percent Allocation	Target Dollar Allocation	Current Valuation (NAV)	Capital to be Funded	Total Current Exposure	% of Total Exposure	Over / (Under) Funding of Total Exposure vs. Current Target
Core/Core-Plus (Open-End)	30%	40%	20%	\$59.9	\$94.3	\$0.0	\$94.3	54%	\$34.4
Value-Add (Closed-End)	20%	30%	15%	\$39.9	\$0.0	\$0.0	\$0.0	0%	(\$39.9)
Opportunistic (Closed-End)	15%	25%	10%	\$30.0	\$0.0	\$0.0	\$0.0	0%	(\$30.0)
Debt (Closed-End)	5%	10%	0%	\$10.0	\$0.0	\$0.0	\$0.0	0%	(\$10.0)
REITs/REOCs (Open-End)	30%	40%	20%	\$59.9	\$80.3	\$0.0	\$80.3	46%	\$20.4
Total / Wtd. Avg.	100%			\$199.7	\$174.6	\$0.0	\$174.6	100%	(\$25.1)

\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.



Real Estate Plan Projections

- **Red line** is the 9% target RE allocation based on projected plan total NAV; **Black dashed line** is the 1.2x over-commitment.
- Goal is to keep real estate NAV (**green bar**) plus uncalled capital commitments (**blue bar**), between red line and black dashed line.



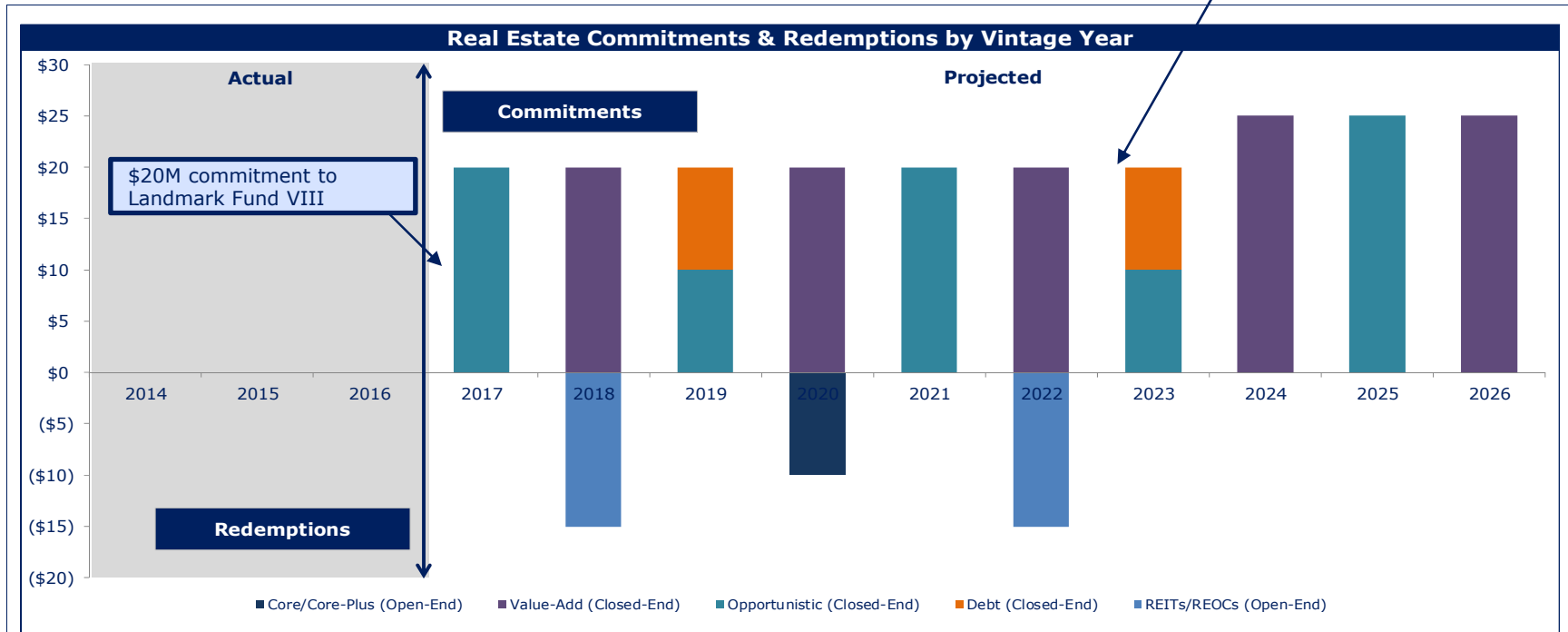
Year	Actual			Projected									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Real Estate NAV	\$0	\$0	\$175	\$182	\$181	\$202	\$216	\$241	\$250	\$274	\$287	\$295	\$302
Uncalled Capital Commitments	\$0	\$0	\$0	\$18	\$28	\$31	\$31	\$31	\$32	\$31	\$35	\$38	\$40
Real Estate NAV + Uncalled Capital Commitments	\$0	\$0	\$175	\$199	\$209	\$233	\$247	\$272	\$282	\$305	\$322	\$332	\$342
Target Real Estate NAV	\$161	\$155	\$193	\$208	\$216	\$225	\$234	\$243	\$253	\$263	\$273	\$284	\$296
Weighted Over-Commitment Pace	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x	1.2x
Target Real Estate Over Allocation	\$187	\$179	\$224	\$241	\$251	\$261	\$271	\$282	\$293	\$305	\$317	\$330	\$343
Percent of Total Plan Assets													
Real Estate NAV (%)	0.0%	0.0%	8.1%	7.9%	7.5%	8.1%	8.3%	8.9%	8.9%	9.4%	9.4%	9.3%	9.2%
Real Estate Uncalled Capital Commitments (%)	0.0%	0.0%	0.0%	0.8%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.2%	1.2%	1.2%
NAV + Uncalled Capital Commitments (%)	0.0%	0.0%	8.1%	8.6%	8.7%	9.3%	9.5%	10.1%	10.0%	10.5%	10.6%	10.5%	10.4%
Target Real Estate Allocation (%)	7.5%	7.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Target Real Estate Over Allocation (%)	8.7%	8.7%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%	10.4%

\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.



Real Estate Commitments & Redemptions by Year

Continue yearly commitments to illiquid, closed-end sub-allocations within real estate.



Real Estate Commitments & Redemptions by Vintage Year

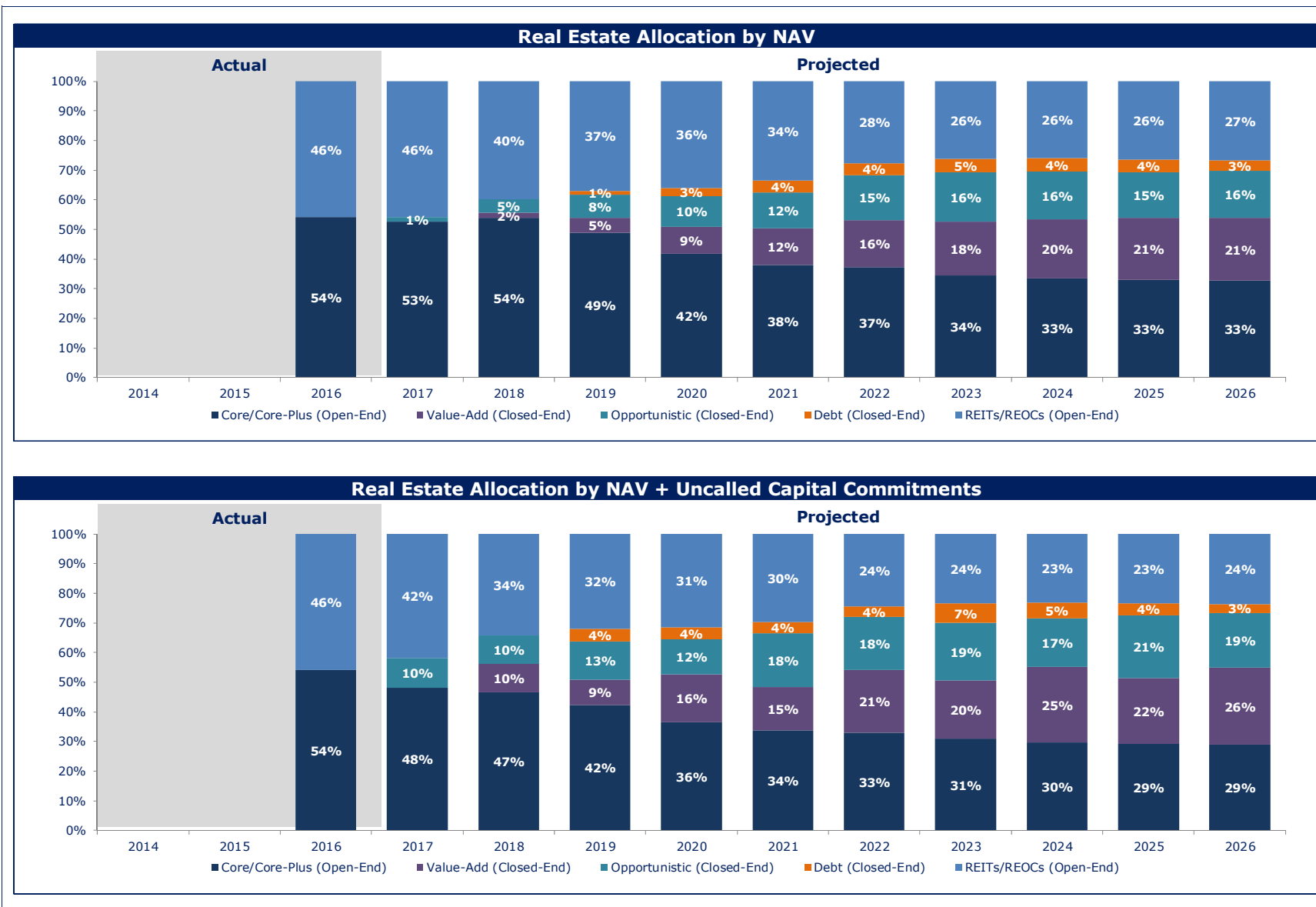
Commitments	Actual			More Certain			Less Certain						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Core/Core-Plus (Open-End)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Value-Add (Closed-End)	0	0	0	0	20	0	20	0	20	0	25	0	25
Opportunistic (Closed-End)	0	0	0	20	0	10	0	20	0	10	0	25	0
Debt (Closed-End)	0	0	0	0	0	10	0	0	0	10	0	0	0
REITs/REOCs (Open-End)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Commitments	\$0	\$0	\$0	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$25	\$25	\$25

Redemptions	Actual			More Certain			Less Certain						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Core/Core-Plus (Open-End)	NA	NA	NA	\$0	\$0	\$0	(\$10)	\$0	\$0	\$0	\$0	\$0	\$0
REITs/REOCs (Open-End)	NA	NA	NA	0	(15)	0	0	0	(15)	0	0	0	0
Total Redemptions	NA	NA	NA	\$0	(\$15)	\$0	(\$10)	\$0	(\$15)	\$0	\$0	\$0	\$0

\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.

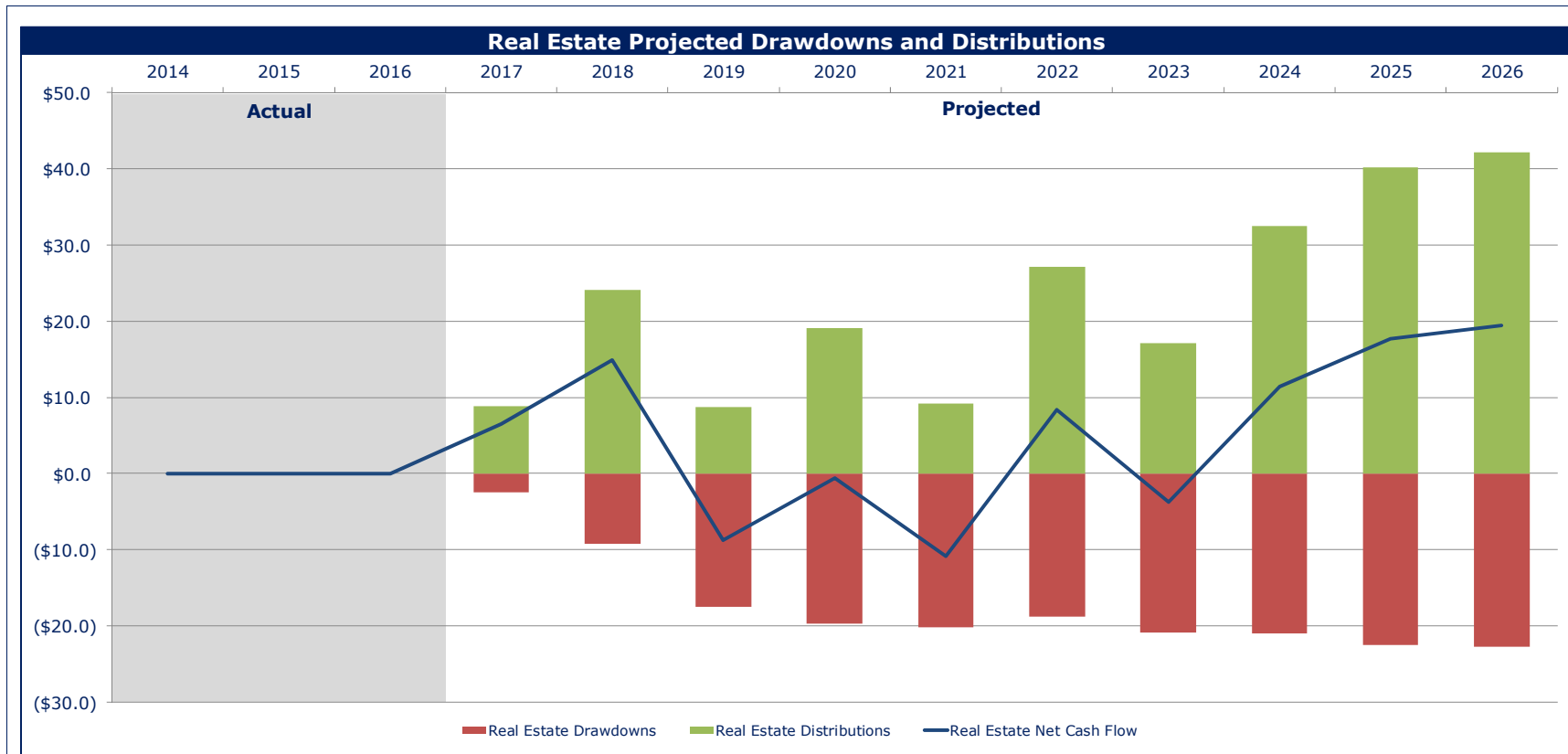


Projected Real Estate Sub-Allocations



\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.

Projected Drawdowns and Distributions



Year	Actual			Projected									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Real Estate Drawdowns	\$0	\$0	\$0	(\$2)	(\$9)	(\$17)	(\$20)	(\$20)	(\$19)	(\$21)	(\$21)	(\$23)	(\$23)
Real Estate Distributions	0	0	0	9	24	9	19	9	27	17	32	40	42
Real Estate Net Cash Flow	\$0	\$0	\$0	\$6	\$15	(\$9)	(\$1)	(\$11)	\$8	(\$4)	\$11	\$18	\$20

\$ in millions. Analysis based on 2/28/2017 Plan date and 9/30/16 Fund data.

Fund Profile: Landmark Partners

General Fund Information		Fund Strategy		GP Fees, Promote and Commitment	
Fund Name	Landmark Real Estate Fund VIII	Fund Strategy	Secondaries	Target Net IRR	16%
General Partner	Landmark Realty Advisors LLC	Industry Focus	Diversified	Target Net Multiple	1.6x
Main Address	10 Mill Pond Lane Simsbury, CT 06070	Geographic Focus	Global Diversified (Primarily US)	Base Management Fees	1.0% of committed capital during the investment period, 1.0% of NAV thereafter
Target Fund Size / Hard Cap	\$2.0B / NA	Target Fund Leverage	None	Preferred Return	8%
Capital Raised	\$261M	Target Deal Size	\$5-\$50M	Carried Interest	12% with a 60% GP catch-up
Expected Final Close	Q1 2018	Strategy Description	Similar to its predecessor funds, Landmark Real Estate Fund VIII is expected to acquire interests in private real estate funds through the secondary's market at a discount to intrinsic value. The Fund is expected to provide manager, vintage year, property type, and geographic diversification.	GP Commitment	1.0% of total commitments
Fund Structure	Four years from the final close				
Investment Period	Four years from the final close				
Term of Entity	Ten years from the final close				
Minimum Investment	\$5M				
Fund Auditor	PricewaterhouseCoopers				

Fund Track Record (\$ in Millions)										
Fund Name	Fund Style	Vintage Year	Capital Committed	Capital Funded	Reported Value	Amount Distributed	Total Value	TVPI Multiple	DPI Multiple	Investor IRR
Landmark Real Estate Fund IV	Secondaries	2001	\$119.1	\$106.1	\$4.7	\$179.7	\$184.4	1.6x	1.5x	19.5%
Landmark Real Estate Fund V	Secondaries	2005	\$368.1	\$312.0	\$57.8	\$198.2	\$256.0	0.8x	0.6x	(5.0%)
Landmark Real Estate Fund VI	Secondaries	2009	\$717.7	\$597.4	\$353.7	\$696.0	\$1,049.7	1.6x	1.1x	23.3%
Landmark Real Estate Fund VII	Secondaries	2014	\$1,616.2	\$577.1	\$723.7	\$95.1	\$818.8	1.4x	0.2x	76.2%

Data provided by Manager as of March 31, 2016.



Appendix



- **Past performance is no guarantee of future results.**
- **The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Information used to prepare this report was obtained directly from the investment managers or custodians, and market index data was provided by other external sources. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
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- **NEPC's private markets pacing analysis projects a potential level of future assets and cash flows for a single scenario based on a series of assumptions. This analysis is intended to help estimate future exposure levels. It is not a guarantee of future cash flows, appreciation or returns.**
- **The timing and amounts of projected future cash flows and market values of investments could vary significantly from the amounts projected in this pacing analysis due to manager-specific and industry-wide macroeconomic factors.**
- **Estimates of projected cash flows and market values for existing private markets commitments were made at the Fund level and do not incorporate any underlying portfolio company projections or analysis.**
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It is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds and private equity:

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