

Callan



Alabama Trust Fund

Real Estate Structure Study

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Market Overview

Market Overview

The first half of 2018 marks the 9th year of the US economic expansion and the U.S. economy continues to thrive. GDP was revised down slightly to 2.0% in the first quarter, but second quarter GDP clocked a solid 4.1% gain.

- The unemployment rate dropped to 3.8% in May, the lowest reading since 2000. Wages are inching up; consumer spending remains robust, as does consumer confidence. Housing starts surged to an 11-year high in May, before tapering over the past summer.
- Inflation is gradually trending up but remains contained. Much of the recent rise is attributable to a rebound in oil prices; if prices remain steady, the increase in inflation will abate.
- US Real estate fundamentals are healthy. The real estate sector continued to see steady returns driven by above inflation-level rent growth in many metros. In 2Q 2018, the NPI reported a total annual return of 7.2%, above the Barclay's US Aggregate Bond Index annual return of -0.4% and below the S&P 500 annualized return of 14.4%.

Within the NPI, the vacancy rate for U.S. property was 6.5% in the first quarter of 2018, near its lowest level since 2001. Vacancies were below their 20-year average in every major sector, however the rate of absorption has flattened.

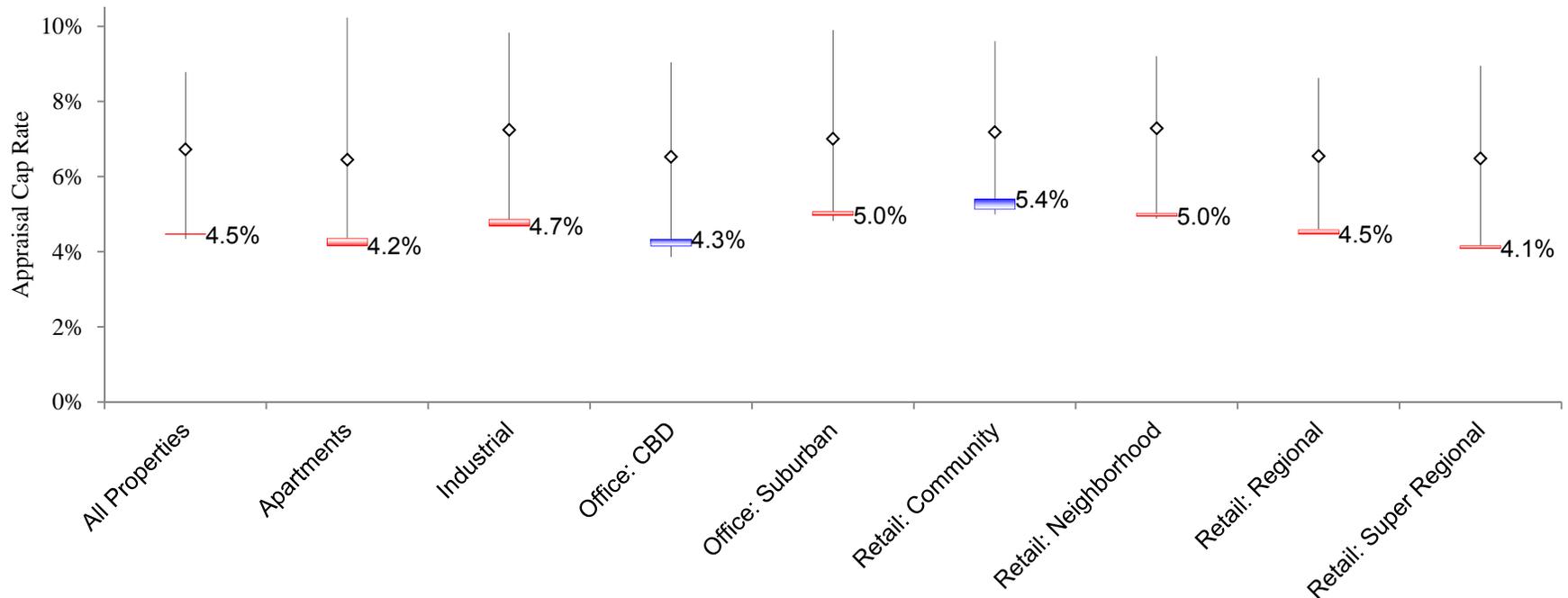
Net operating income has been growing annually, and is expected to be the primary driver of returns going forward as the real estate cycle is in a mature phase and appreciation has been moderating.

Valuations continue to creep higher, although there is a dispersion between property sectors. The office sector has had varying levels of performance based on location, suburban versus CBD, as well as market, primary or secondary/tertiary. Industrial performance has been strong and Multifamily may benefit from demand in the presence of declining home affordability.

Return Expectations Continue to Moderate

September 2018 Survey	2018	2019	2020	2018 to 2022
NPI Total Return	6.6%	5.3%	4.6%	5.4%
Income Return	4.7%	4.7%	4.8%	4.7%
Capital Appreciation	1.9%	0.5%	-0.3%	0.4%

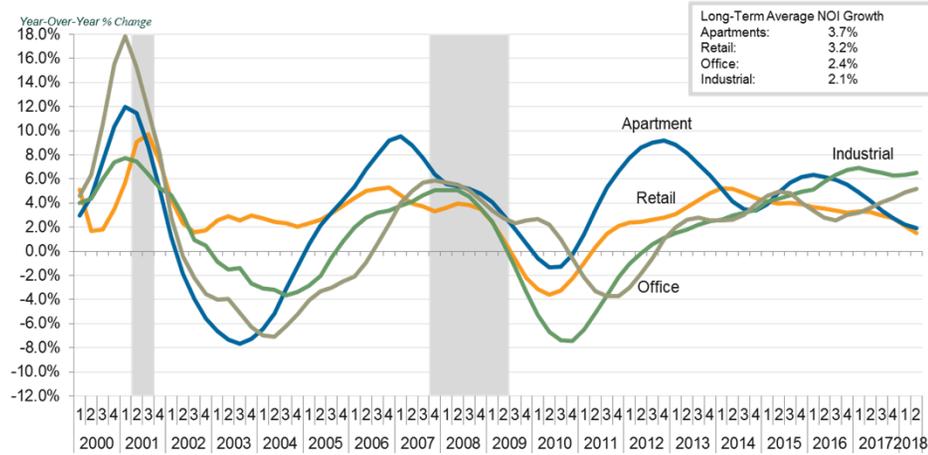
NCREIF Cap Rates By Property Type 1982-2018 Q2



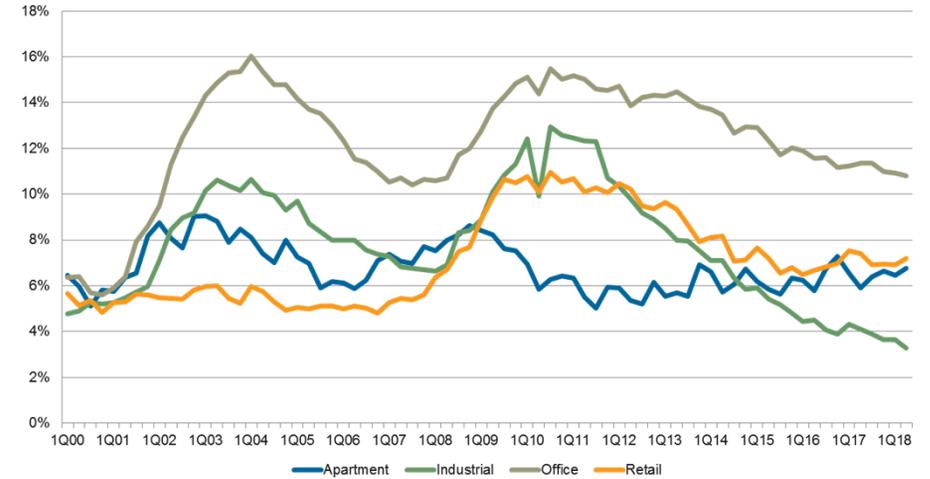
Source: PREA, NCREIF, AEW Capital Management. Note: Retail definitions in appendix. Cap rate levels chart shows historic range (hi to low) with the average indicated by the diamond and the current cap rates shown. Red indicates cap rates at historic lows. Width of band represents cap rates over the last year.

Market Trends

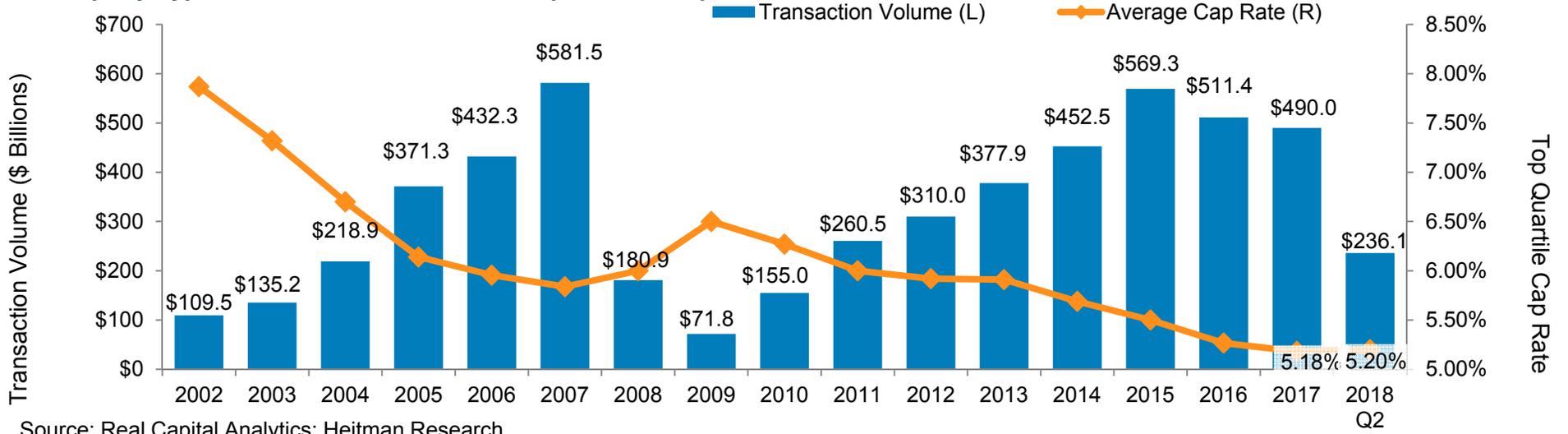
Same-Store NOI Trends By Property Type US NCREIF Properties 2000-2018 (Q2)



Vacancy by Property Type



All Property Types Transaction Volume And Top Quartile Cap Rates US 2002-2018 Q2



Source: Real Capital Analytics; Heitman Research

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Real Estate Portfolio Overview

Alabama Trust Fund Current Portfolio Exposure and Targets

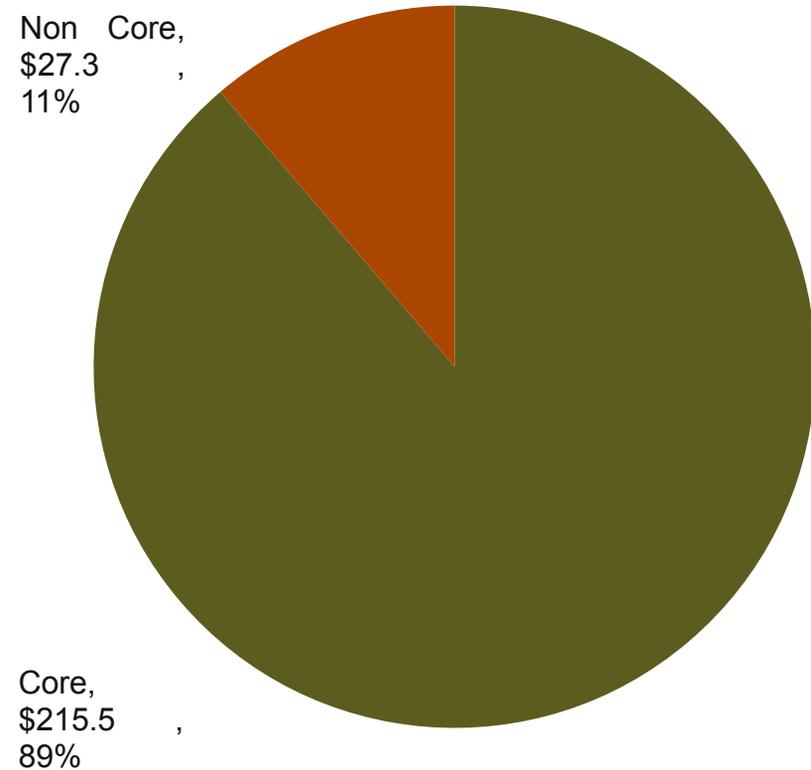
As of September 30, 2018

Real Estate Portfolio

	%	\$MM
Real Estate Target	9%	\$292
Real Estate Range	6%-12%	\$196 - \$389
Current Allocation	7.7%	\$250
Current Allocation including Unfunded Commitments	9.2%	\$300

- Unfunded commitments include \$50 million to Angelo Gordon Realty Value Fund X

Alabama Trust Fund Real Estate Diversification (\$mm)



Including \$35 million commitment to Angelo Gordon Realty Value Fund X, Non-Core Real Estate is 26% of the overall Real Estate Portfolio

Portfolio Composition

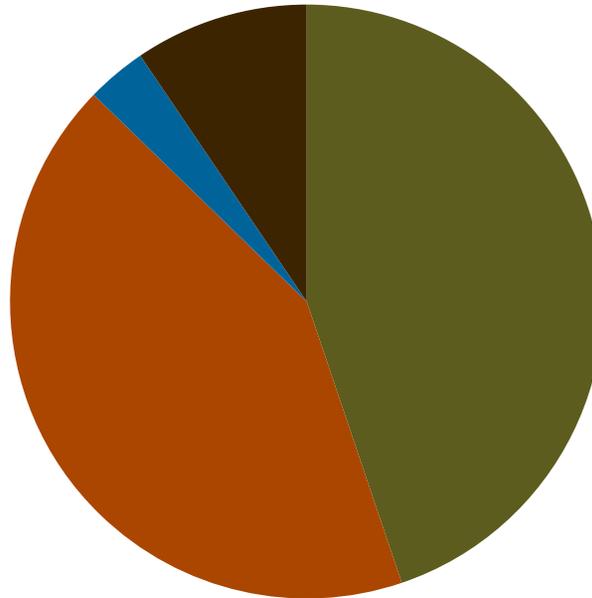
As of September 30, 2018

Alabama Trust Fund Real Estate Portfolio (\$mm)

AG Core Plus Realty
Fund IV, \$23.7 , 10%

AG Core Plus Realty
Fund III, \$8.2 , 3%

UBS Trumbull Property
Fund, \$106.2 , 42%



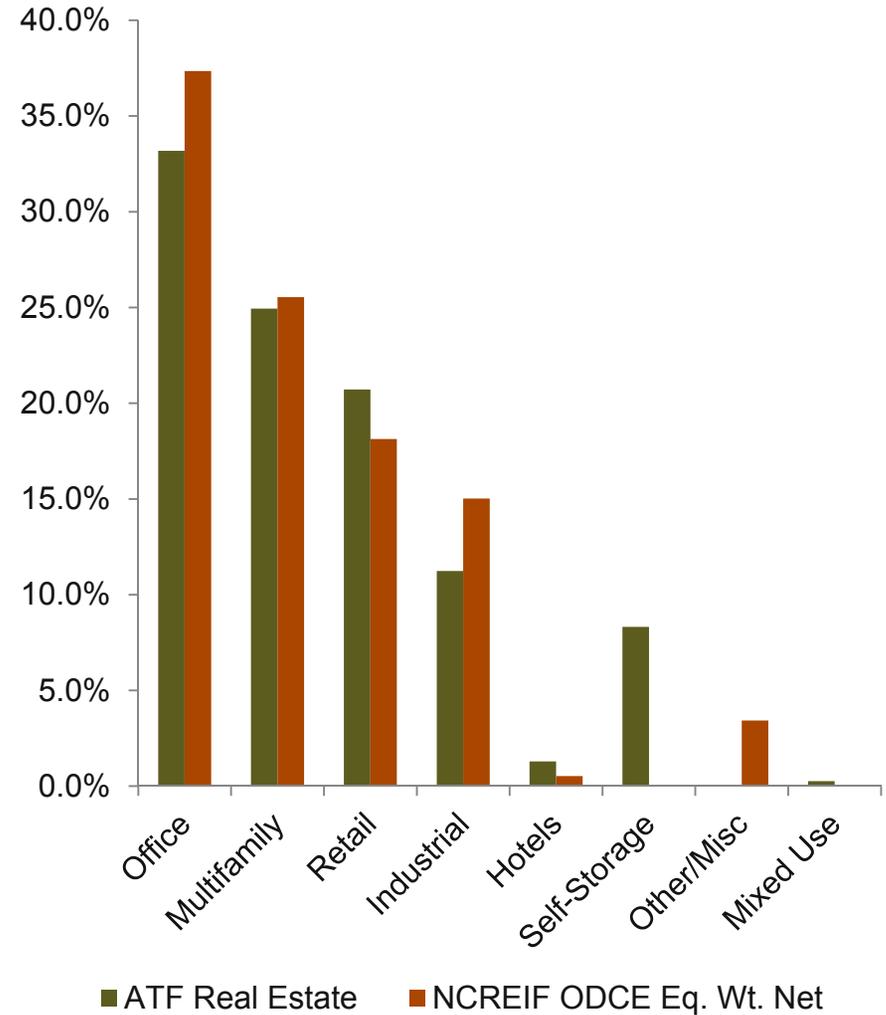
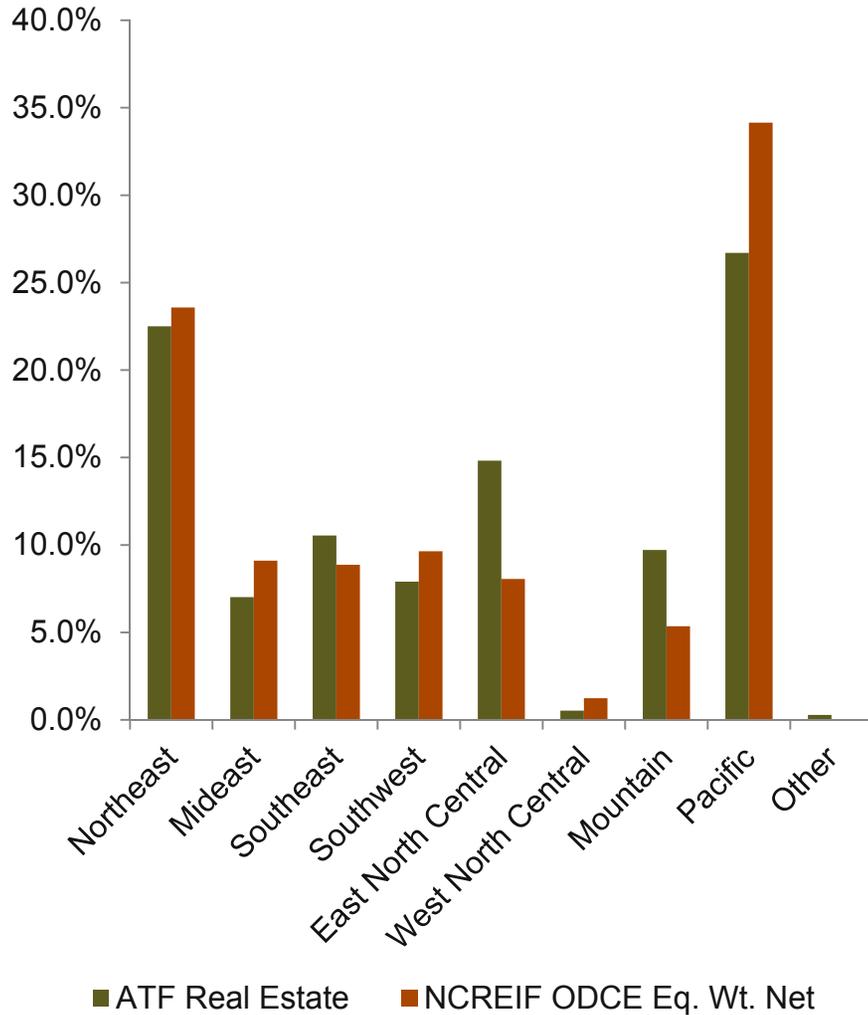
Heitman America Realty
Trust, \$112.1 , 45%

Observations

- Portfolio anchored by long-standing core managers that focus on the four main property types with additional self-storage exposure from Heitman.
- Non-core portfolio consists of Angelo Gordon core-plus/value add funds, a longstanding non-core manager with proven ability to perform throughout a market cycle.

Portfolio Diversification

As of June 30, 2018



Note: NCREIF does not break Self-Storage out as a unique sector, rather it is grouped with Other/Misc. Data not yet available for September 30, 2018.

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**Portfolio Considerations and
Recommendations**

Portfolio Considerations

- Real Estate added to portfolio in 2009 asset allocation, with a target of 5%. Target increased to 9% in 2013.
- Real Estate provides the portfolio with distributable income and diversification.
- Portfolio is anchored by established core managers investing in Class A income-producing properties
- Non-core portfolio now has both value add and opportunistic exposure through Angelo Gordon
- Portfolio currently has an overweight to retail and an underweight to industrial
- Angelo Gordon Funds will wind down, time and discipline needed to continue with a closed-end non-core program
- More complex portfolios with a number of different managers require more resources to monitor

Portfolio Recommendations

- Broaden definition of core to include core-plus and reorient portfolio over time to 100% core/core-plus as non-core portfolio winds down.
- Review universe for open-end core-plus opportunities over the next year
- Evaluate Angelo Gordon disposition process and current core funds to facilitate capital needs for an allocation to core-plus
- Launch a search in 2019
- Strengths of open-end core-plus funds
 - Will provide additional manager diversification and enhance returns above ODCE benchmark
 - Open end structure does not require vintage year diversification or re-up exercise to continue investment
 - Universe has greatly expanded over recent years providing both diversified and property sector specific options
 - Industrial options (Clarion and Prologis)
 - Traditional non-core closed-end fund managers now have open-end core-plus funds: Blackstone, Brookfield, Carlyle , and TA Realty
 - Open-end funds provide liquidity in comparison to closed-end non-core funds
 - Funds would provide ability to place more capital in a faster manner than non-core closed ends funds typically have
 - 2-4 year investment period versus commitment queues that typically range from one to three quarters if they exist at all
 - Fees are more advantageous than closed-end non-core
 - Standard fees are asset value based
 - Not all funds have performance fees

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Appendix

Investment Structure Overview

	Internal Management Direct	Separate Account Direct	Open End Commingled Fund	Closed End Commingled Fund	Co-Investment
Definition	Execution by the Investor's Staff. External manager/fiduciary not used.	Single investor account that holds securities, properties, and/or debt investments and is managed by an external manager/fiduciary.	Fund with infinite life that allows entry and exit of multiple investors, typically on a quarterly basis, subject to manager discretion.	Fund with a stated capital raising time period and finite life. Additional investors not allowed after the formation of the fund (except for secondary purchase).	Ownership of an investment alongside a fund, typically by an investor(s) in the fund but may be by an investor not in the fund.
Execution	Investor designs strategy, sources transactions, completes due diligence, executes purchases and sales, and manages the portfolio.	<p>Investor designs guidelines and strategy for the account.</p> <p><u>Non Discretionary Account:</u> Manager sources transactions, completes due diligence, executes purchases and sales subject to approval from the investor, and manages the portfolio.</p> <p>Investor retains complete discretion for purchases, sales, and major decisions.</p> <p><u>Discretionary Account:</u> Manager has discretion to execute subject to guidelines and strategy.</p>	<p>Investor diligences the fund and decides when to enter and exit, subject to entry and exit queues.</p> <p>Manager controls all execution and is a fiduciary to the fund.</p> <p>Manager engages in ongoing investment purchase, management, and sale activities and reinvests proceeds.</p> <p>Manager makes dividend/income distributions to investor.</p>	<p>Investor diligences the fund and allocates capital during the fund raising period.</p> <p>Manager controls all execution and is a fiduciary to the fund.</p> <p>Manager purchases a portfolio of properties, manages them, and, as sales occur, distributes sales proceeds to investors which is the primary liquidation mechanism.</p> <p>Sale of investor's interest allowed</p>	<p>Investor or designated fiduciary diligences the investment on behalf of the co-investor.</p> <p>Fund manager controls the execution and diligence for the investment on behalf of the fund, and manages the investment and the sale on behalf of the fund and co-investors.</p> <p>Co-investors may have some control rights.</p>

Investment Structure Overview (cont.)

	Internal Management Direct	Separate Account Direct	Open End Commingled Fund	Closed End Commingled Fund	Co-Investment
Control by Investor	High	High	Limited	Low	Low
Investor Time Requirement	High	High	Low	Moderate	Low to Moderate Depends on Process
Fees	Lowest	Low	Medium	Highest	Medium
Liquidity (relative to Real Estate)	High	High	Moderate	Extremely Limited	Extremely Limited
Primary Benefits	Customization Control Cost	Customization Control Cost Separate account manager is a fiduciary	Easy to implement, limited decisions during holding period. Immediate investment in a diversified portfolio. Manager is a fiduciary	Access to management teams, deal flow and strategies not available directly or difficult to implement directly. Full discretion allows manager/General Partner to act quickly.	Enhanced deal flow and opportunity set. Fees lower than investment in the primary fund.
Primary Considerations	Must have staffing levels & expertise, management structure, and decision-making processes in place to fulfill fiduciary obligations and to be competitive in the market. Time required to assemble a portfolio	Similar to considerations for Internal Management if using Non-Discretionary format Time required to assemble a portfolio	Periodic liquidity is not guaranteed Not customizable	Investor time to implement ongoing program Limited liquidity Not customizable Fee load	Decision-making structure to respond to opportunities

Core Plus Open End Fund Managers

Fund Name	AEW Value Investors US	Blackstone Property Partners LP	Brookfield Premier Real Estate Partners	Carlyle Property Investors, LP
Vehicle Overview				
Inception Date	June 2017	November 2014	November 2016	October 2015
Fund Size (Gross \$mm)	\$218.1 million	\$16,472 million	\$3,760 million	\$3,034 million
Fund Size (Net \$mm)	\$129.5 million	\$1,871 million	\$1,871 million	\$1,255 million
Uninvested Commitments/Entry Queue (\$mm)	\$86 million	\$1,000 million	\$300 million	\$200 million
Projected time before new commitments would be called	1-2 quarters	1-2 quarters	1-2 quarters	1-2 quarters
Terms				
Minimum Investment:	\$5 million	\$10 million	\$10 million	\$10 million
Total Return Target:	8.5%-10.5% Net	9%-11% Net IRR	None	No formal target
Income Return Target:	4% Net	N/A	None	No formal target
Redemption Policy	After initial lock-up period, quarterly with 90 days' notice	Following an initial 2-year lock-up, quarterly with 90 days' notice	Quarterly	After the expiration of the initial two-year Lock-up Period (which starts in the quarter of the LP's first capital contribution), quarterly
Dividend Policy	Quarterly	Quarterly	Quarterly	Quarterly
Fees				
Acquisition Fee:	None	None	None	None
Asset Management Fee:	For first three years: 0.75% of NAV Thereafter: 1.00% of NAV	<ul style="list-style-type: none"> • 1.00% on NAV per annum for Capital Commitments <\$300 million • 0.85% on NAV per annum for Capital Commitments ≥ \$300 million 	<ul style="list-style-type: none"> -First \$200 million: 1.00% -Above \$200 million: 0.85% 	See profile comments
Disposition Fee:	None	None	None	None
Performance Fee:	<ul style="list-style-type: none"> • 0.0625% per quarter of the Fund's quarter-end NAV if the Fund's Total Return for that quarter equals the rolling four quarter CPI plus 6.5%. • An additional amount up to a maximum of 0.0375% per quarter of the Fund's quarter-end NAV based on the proportion that the Fund's Total Return exceeds the rolling four quarter CPI plus 6.5% up to a maximum of the rolling four quarter CPI plus 8.5%. 	<ul style="list-style-type: none"> • 10% subject to a preferred return of 7% calculated on an LP-by-LP basis <ul style="list-style-type: none"> • 50/50 GP catch up • Crystallized on the earlier of the withdrawal or every three years 	10%, subject to a preferred return of 7%, with a 50/50 catch up	10%, subject to a preferred return of 7%, with a 50/50 catch up
Other Fees:	None	None	None	"Project Fees" in certain circumstances

Core Plus Open End Fund Managers

Fund Name	Clarion Lion Industrial Trust	Invesco U.S. Income Fund, L.P.	JP Morgan US Real Estate Income & Growth	PRISA II
Vehicle Overview				
Inception Date	December 2002	November 2013	February 2002	July 1980
Fund Size (Gross \$mm)	\$12,083 million	\$1,610 million	\$4,205 million	\$13,386 million
Fund Size (Net \$mm)	\$7,994 million	\$992 million	\$2,827 million	\$8,783 million
Uninvested Commitments/Entry Queue (\$mm)	\$500 million	\$95 million	\$169 million	None
Projected time before new commitments would be called	1-2 quarters	1-2 quarters	2 quarters	N/A
Terms				
Minimum Investment:	\$2.5 million	\$10 million	\$10 million	\$5 million (preferred)
Total Return Target:	11%-13% gross over a full market cycle	Exceed NFI - ODCE Index over 3 - 5 years	8%-10%	Outperform the ODCE Index by 100bps
Income Return Target:	10%-12% net over a full market cycle	200-250 bps in excess of ODCE over 3-5 years	5%-7%	None
Redemption Policy	On a quarterly basis, with 45 days of notice prior to quarter end	Quarterly basis with 45 days' notice	Quarterly, with 60 days' notice	Quarterly with 90 days' notice
Dividend Policy	Paid quarterly	Quarterly	Quarterly	Quarterly
Fees				
Acquisition Fee:	None	None	None	None
Asset Management Fee:	First \$10 million: 1.35% of NAV Next \$40 million: 1.30% of NAV Next \$25 million: 1.10% of NAV Next \$75 million: 0.90% of NAV Greater than \$150 million: 0.75% of NAV	First \$50mm: 1.20% Next \$50mm: 1.10% Next \$100mm: 1.00% Next \$300mm: 0.85% Above \$500mm: 0.80%	For NAVs < \$10 mm: 1.75% For NAVs >= \$10 mm: 1.05% For NAV >= \$100 mm: First \$50 mm: 1.05% Next \$50 mm: 0.90% Next \$50 mm: 0.85% Next \$50 mm: 0.80 % Remainder: 0.75 %	First \$25mm: 1.20% Next \$25mm: 1.15% Next \$50mm: 1.05% Next \$100mm: 0.95% Next \$100mm: 0.90% Above \$300mm: 0.85%
Disposition Fee:	None	None	None	None
Performance Fee:	15% over a 9% IRR payable after 60 months, or upon redemption if earlier	None	None	None
Other Fees:	None	0.15% on cash that exceeds 7.5% of aggregate NAV	None	Cash balances greater than 5% of the Fund's NAV will not incur a fee

Core Plus Open End Fund Managers

Fund Name	Principal Enhanced Property Fund, LP	Prologis Targeted U.S. Logistics Fund	TA Realty Core Property Fund (CPF)	UBS Trumbull Property Growth & Income Fund
Vehicle Overview				
Inception Date	May 2004	October 2004	2015 (warehouse portfolio, 2018 target first close)	June 2006
Fund Size (Gross \$mm)	\$2,828 million	\$10,323 million	\$2,637 million	\$1,193 million
Fund Size (Net \$mm)	\$1,721 million	\$8,252 million	\$1,967 million	\$727 million
Uninvested Commitments/Entry Queue (\$mm)	\$202 million	Not available	\$277 million	\$40 million
Projected time before new commitments would be called	6-9 months	Not available	1-2 quarters	Not available
Terms				
Minimum Investment:	\$5 million	\$5 million with GP discretion	\$5 million	\$1 million
Total Return Target:	11% - 13% Net	9-11% gross IRR	Outperform the NFI-ODCE index	Outperform ODCE by 200bps per annum; 7% real return
Income Return Target:	4% - 6% annual dividend	4%	Outperform the NFI-ODCE index	No formal target stated
Redemption Policy	Quarterly	Quarterly with 90 day's notice	Following lock-up provisions, for first close investors, quarterly	On a quarterly basis, with 60 days of notice
Dividend Policy	Quarterly	Quarterly	Quarterly	Quarterly
Fees				
Acquisition Fee:	None	0.90% of acquisition cost	None	None
Asset Management Fee:	Less than \$1 million: 1.50% \$1-\$5 million: 1.40% \$5-\$10 million: 1.30% \$10 to \$50 million: 1.20% \$50 to \$100 million: 1.10% \$100 to \$150 million: 1.00% Above \$150 million: 0.85%	7.5% of Fund-level NOI	0.70% in perpetuity on first \$750 million of committed capital For initial contributions greater than \$400 million: 0.50%	See profile
Disposition Fee:	None	None Assessed at the end of each three year incentive period:	None	None
Performance Fee:	15% above an 11% IRR	15% over a 9% net IRR 20% over a 12% net IRR	None	See profile
Other Fees:	0.75% development fee 0.25% financing fee	0.70% per annum with respect to renovation costs for the Fund	None	None

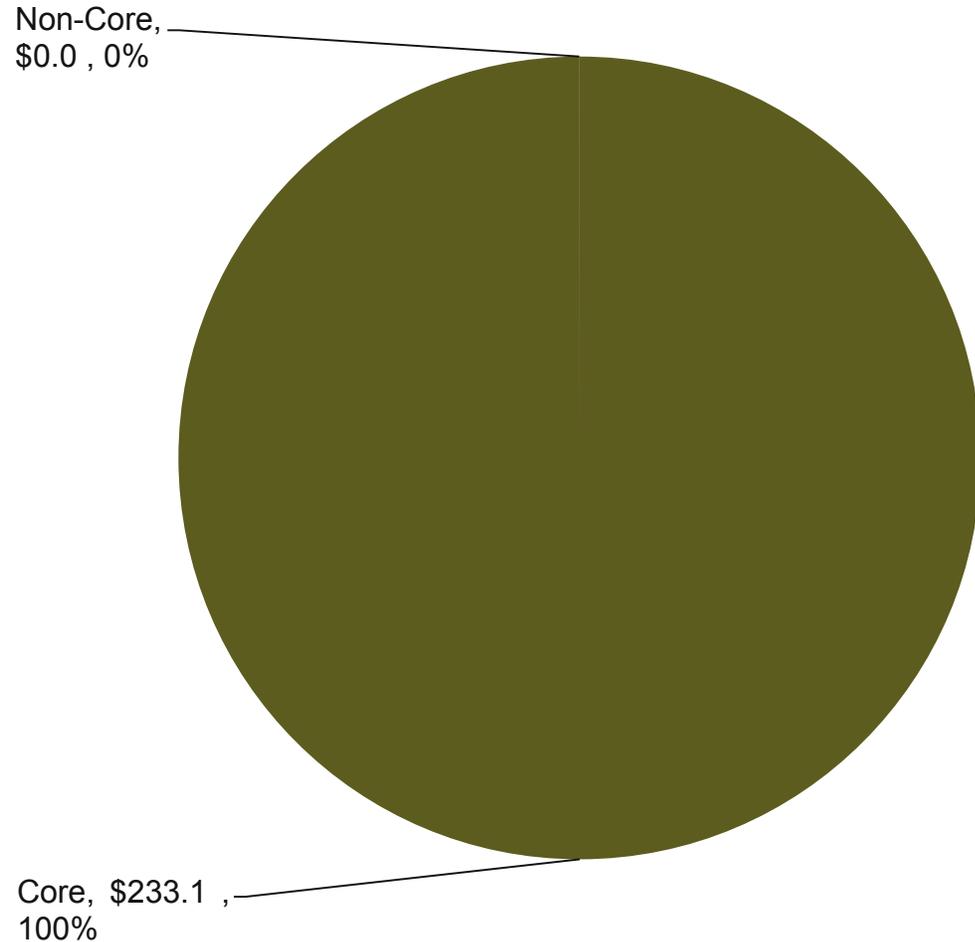
Case Studies

County Public Pension #1

\$2.5 billion in total assets under management

- 8% real estate target allocation
- 3 person staff covering all asset classes
- Current real estate market value \$233 million, representing 9.3% of plan
- Non-core portfolio liquidating
- Additional \$36 million in real estate in real assets portfolio through REIT Index Fund
- No specific targets to underlying strategies

Public Pension #1 Real Estate Structure (\$mm)



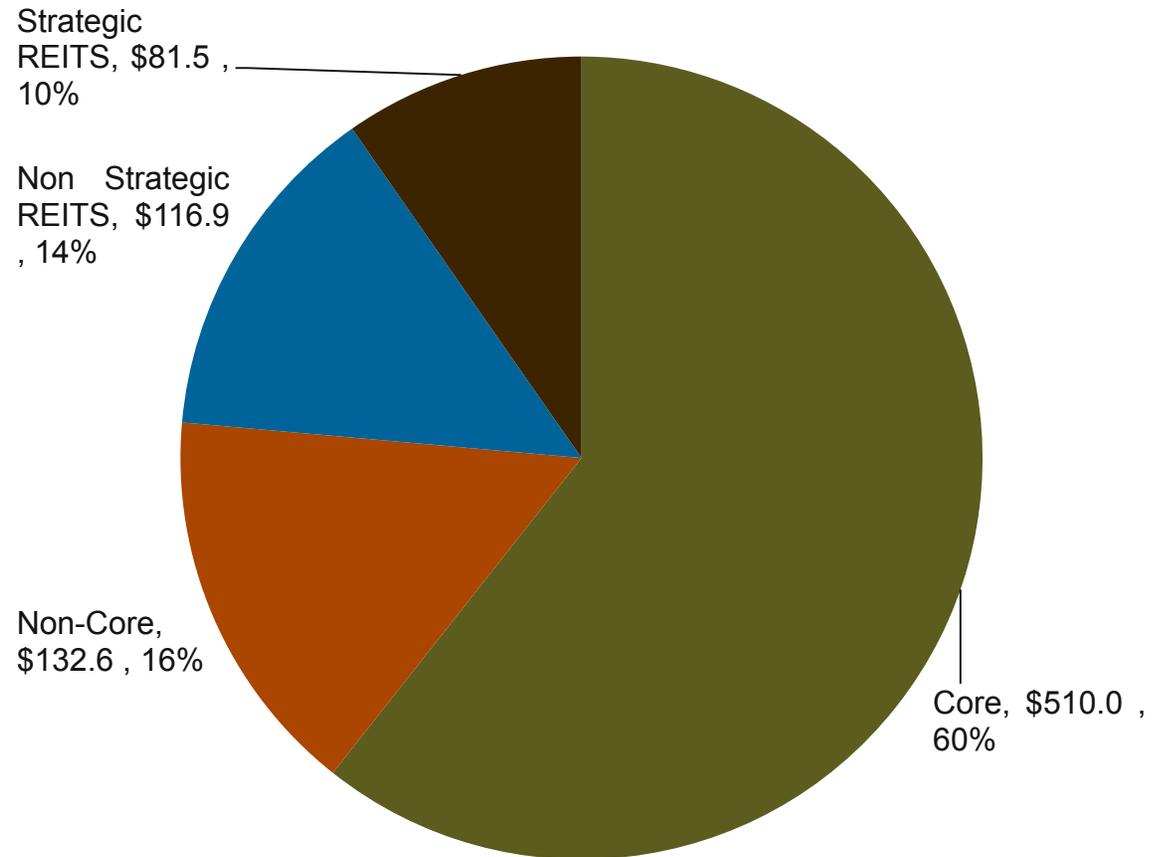
Case Studies

County Public Pension #2

\$10.5 billion in total assets under management

- 9% real estate target allocation
- 3 person staff covering all asset classes
- Current real estate market value \$841 million, representing 8.3% of plan
- Policy real estate structure:
 - Minimum of 70% of real estate portfolio in core
 - Maximum of 20% of real estate portfolio in non-core
 - Maximum of 20% in Strategic REITS (active management)
 - Non-Strategic REITS are not intended to be a long term part of portfolio, held until long term positions funded

Public Pension #2 Real Estate Structure (\$mm)



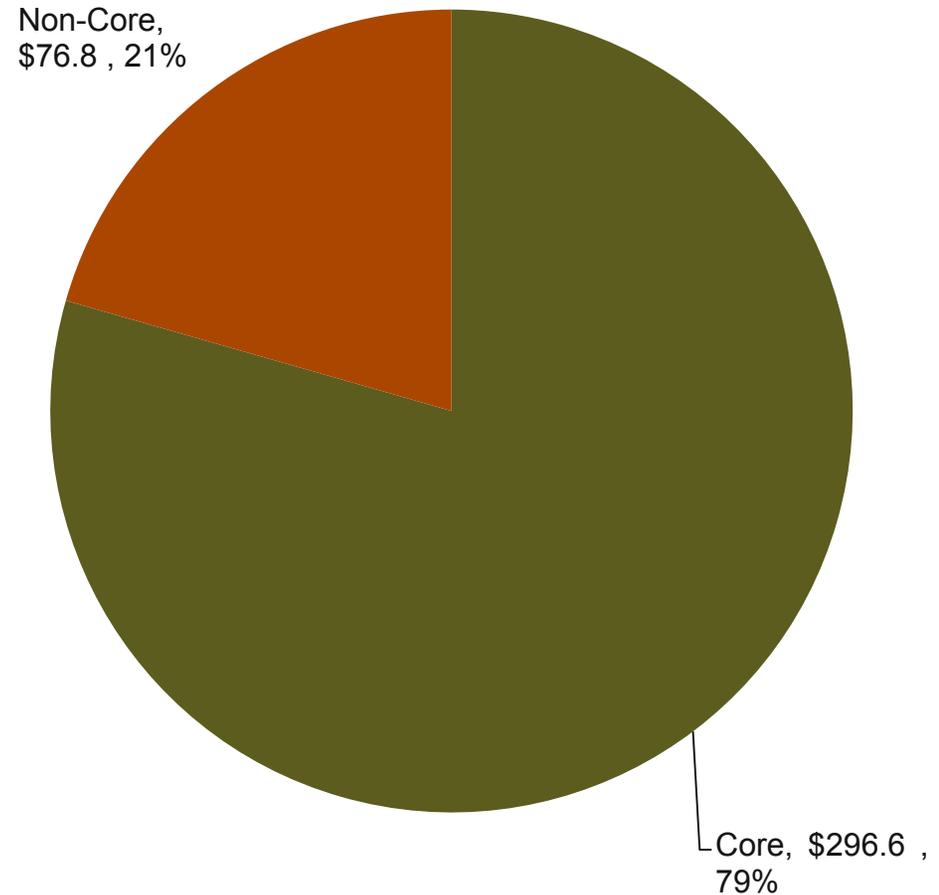
Case Studies

City Public Pension #3

\$5.4 billion in total assets under management

- 7.7% real estate target allocation
- 4 person staff covering all asset classes
- Current real estate market value \$373 million, representing 7.0% of plan
- Real Estate Strategic Plan provides clear definition of role of real estate
 - Enhance diversification of CMERS's Total Portfolio
 - Provide high current income and return that falls between stocks and bonds
 - Lower the volatility of the Total Portfolio
 - Provide a hedge against unanticipated inflation

Public Pension #3 Real Estate Structure (\$mm)



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