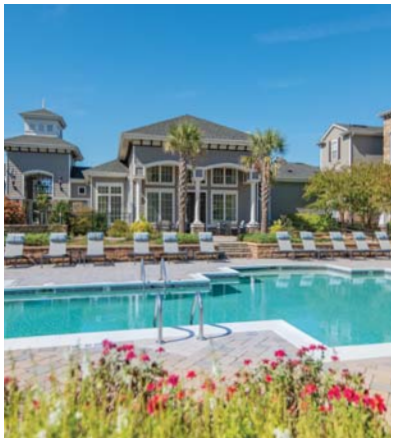
Sentinel

Sentinel Real Estate Fund, LP



FUND REVIEW FOR MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF LOUISIANA

BY: NICHOLAS STEIN, PORTFOLIO MANAGER
NICHOLAS VERANO, CLIENT SERVICES

JULY 18, 2018

Sentinel

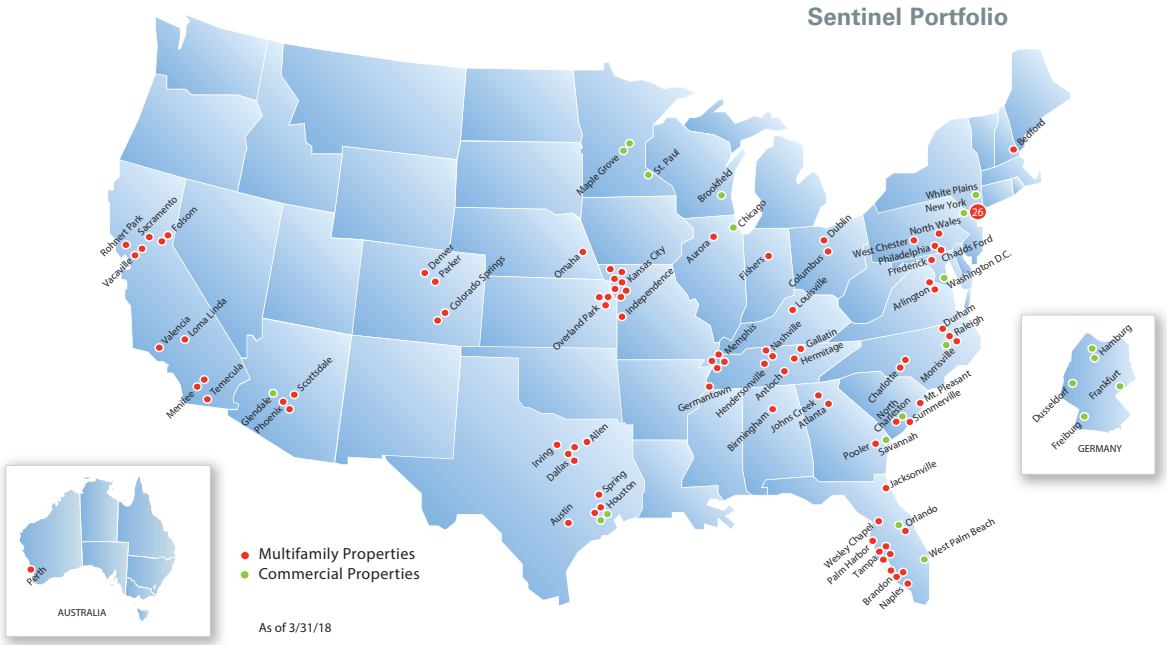
TABLE OF CONTENTS

	Page
SENTINEL REAL ESTATE CORPORATION	1
MULTIFAMILY UPDATE AND OPPORTUNITY	3
SENTINEL REAL ESTATE FUND, LP	6
SENTINEL NATIONAL URBAN PARTNERS I, L.P.	19
SENTINEL BIOGRAPHIES	21

The Sponsor: Sentinel Real Estate Corporation

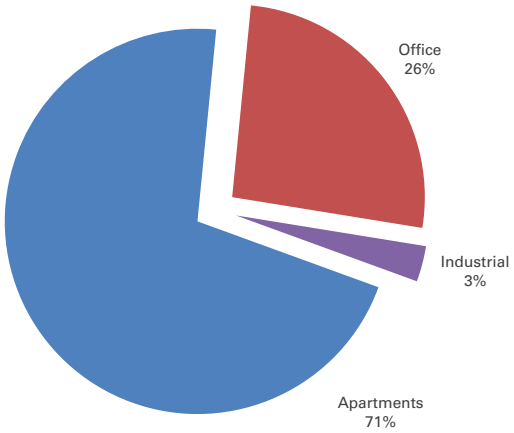
Sentinel Real Estate Corporation is an independently owned real estate investment management firm established in 1969. The firm currently has over $7 billion of institutional quality real estate assets under management on behalf of 90 domestic and international clients.

- Sentinel maintains its global headquarters in New York City and two international corporate offices in Amsterdam, the Netherlands and Melbourne, Australia. Sentinel maintains 13 operational offices throughout the US and an additional operational office in Australia. Client servicing offices are located in Bellevue, WA; Winston-Salem, NC; Munich, Germany; and Singapore.
- Since its formation, Sentinel has acquired and managed $16.8 billion of direct real estate investments, comprising 563 multifamily communities containing 145,000 apartment units and 173 commercial properties containing 32.2 million square feet of space.
- The Sentinel portfolio currently contains over 25,000 apartment units and 5.4 million square feet of commercial real estate.
- Sentinel operates on a vertically-integrated platform with over 900 employees performing all phases of the investment process, including on-site property management.
- Sentinel's senior management team has an average tenure with the firm of over 20 years.

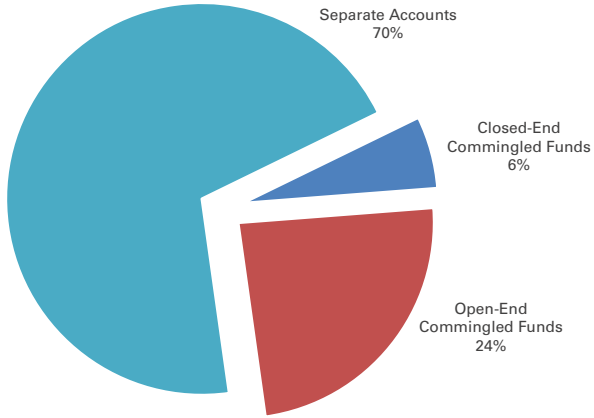


Assets Under Management

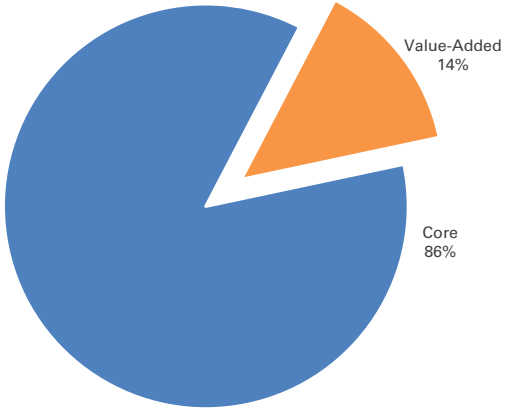
Property Type



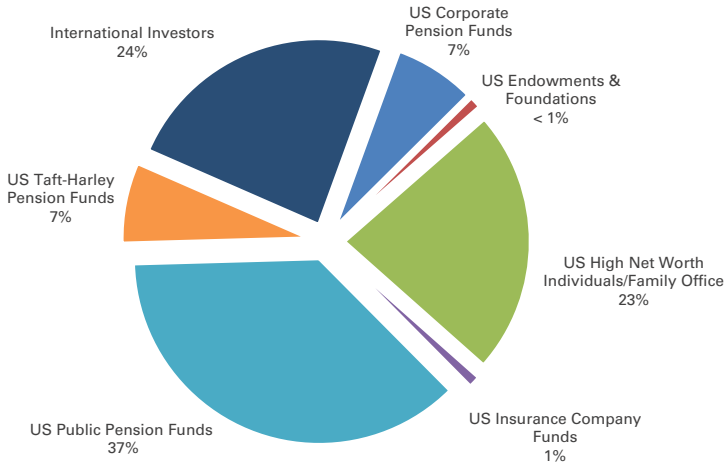
Fund Type



Investment Strategy



Client Type



Note: All information as of 3/31/18

Multifamily Update And Opportunity

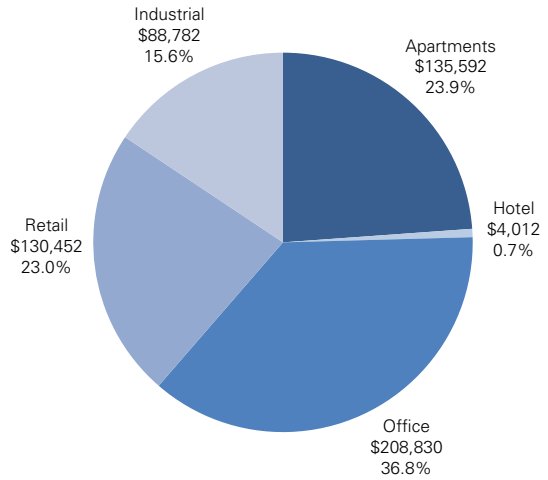
- Multifamily housing has been the fastest growing institutional real estate sector over the past ten years, now comprising 23.9% of the $567 billion US institutional real estate market, as an increasing number of investors recognize the strong demographic fundamentals underlying the sector, the stable cash flow streams generated by apartments and the sector's role as an inflation hedge.

- Over 43.1 million American households, or 34.2% of the population, currently rent their dwelling units, with 8 million new renter households added in the last ten years as younger and older Americans alike are renting for longer periods of time than ever before.

- Steady job and population growth continue to encourage new household formation, with 18.4 million jobs added in the US since 2010 and population growth of approximately 25 million people over the last decade. Similar population growth is projected over the next decade.

- The US homeownership rate measured 64.2% as of the first quarter of 2018, slightly above the 50-year low of 62.9% set in 2016, but 500 basis points below the peak of 69.2% set in 2004. The average age at which households are buying their first home continues to increase and affordability remains a substantial barrier to ownership.

NCREIF US Institutional Investor Property Breakout ($ Millions) as of March 31, 2018



Total Assets $567,468 ($ Millions)
Source: NCREIF

US Population and Household Growth by Age Cohort

Age of Householder	Population Growth 2008-2017	Renter Household Growth 2008-2017	Projected Population Growth 2018-2027
20 to 34	+6,904,000	+1,794,000	+1,825,000
35 to 44	-1,443,000	+1,256,000	+5,648,000
45 to 54	-1,741,000	+883,000	-664,000
55 to 64	+8,609,000	+2,054,000	-983,000
65 and older	+13,279,000	+1,970,000	+17,976,000
Total	+25,608,000	+7,957,000	+23,802,000

Source: US Census Bureau

Multifamily Update And Opportunity (cont'd)

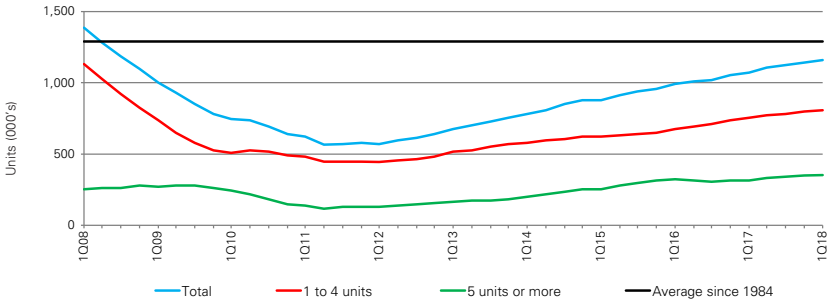
- Multifamily developers have increased construction activity over the past four years in order to satisfy this growing demand with 697,453 apartment units currently under construction; however, the pace of deliveries has slowed substantially due to average construction delays of over five months resulting from the lack of availability of labor and construction materials.

- Deliveries in the first quarter of 2018 were the lowest since 2013 allowing absorption to keep pace and the multifamily occupancy rate to stay at 93.7%, still 10 basis points above the ten-year historical average.

- Single-family homebuilders have been slow to increase production, resulting in a continued shortage of overall housing units in the United States. Total housing construction is still trending 9.8% below the annual average since the *US Census Bureau* began record keeping in 1984.

- The median price of a single-family home has increased by 54.8% from a low of $158,600 in the first quarter of 2012 to $245,500 in the first quarter of 2018, marking 24 consecutive quarters of year-over-year growth. *CoreLogic's Home Price Index* estimates that one-half of the 50 largest US markets are "overvalued", defined as at least 10% above the long run average.

New Privately Owned Housing Completed in US Permit Areas



Source: US Census Bureau
Not Seasonally Adjusted, Rolling 12-Month Data

Multifamily Update And Opportunity (cont'd)

- A growing affordability crisis is emerging in the United States as an insufficient supply of overall housing is being built and refurbished to supply middle class renters.

- The *US Census Bureau* has identified 23.1 million 18- to 34-year-olds living at home or residing in college dorms, up 27.4% compared to 20 years ago as student debt, credit card debt and housing prices form a growing barrier to independent household formation.

- Over the last decade, an average of only 18,151 new units of mid-tier rental housing, or 8.9% of total new construction, were delivered annually compared with the average annual delivery of 186,119 newly developed 4- and 5- star units.

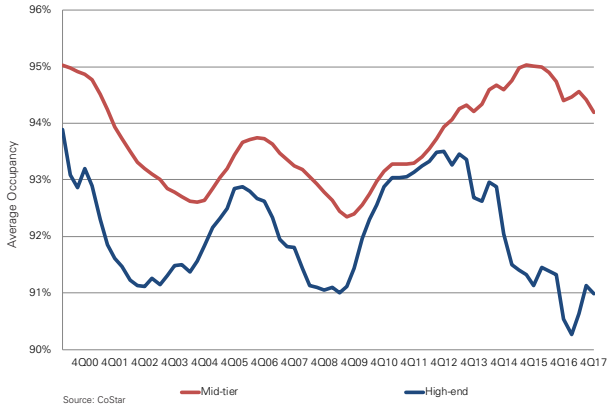
- From 2013 to 2017, mid-tier communities had an average occupancy rate of 94.6% with average annual rent growth of 3.7%. High-end properties had an average occupancy rate of 91.8% with average annual rent growth of 2.8%.

US Rental Apartment New Development Unit Deliveries

PERIOD[1]	MID-TIER[2]	%	HIGH-END[2]	%	TOTAL[1]
2000 - 2007	401,566	29.9%	942,978	70.1%	1,344,544
2008 - 2017	181,509	8.9%	1,861,186	91.1%	2,042,695
2000 - 2017	583,075	17.2%	2,804,164	82.8%	3,387,239

[1] Total comprises mid-tier and high-end assets. From 2000-2007, 1- and 2-Star unit deliveries totaled -847, or -0.1%, of the net completions and, from 2008-2017, totaled -81,516, or -4.2% of the net completions, according to CoStar, as more units in this category were demolished than constructed.
[2] Mid-tier assets are considered to be 3-Star assets. High-end assets are considered to be 4- and 5-Star assets.

US Multifamily Average Occupancy



Source: CoStar

US Multifamily Same-Store Rent Growth

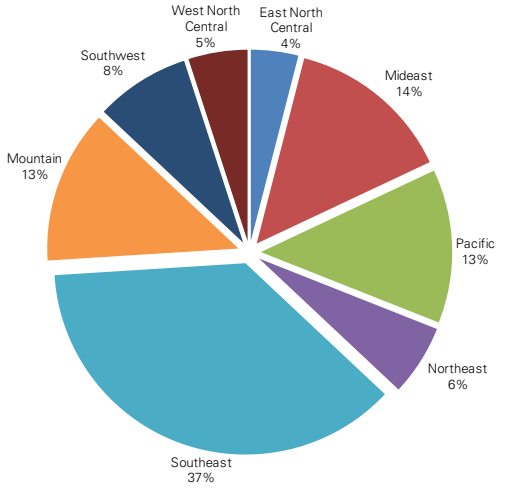
Source: CoStar

Fund Overview

As of March 31, 2018:

- Gross asset value was $1.69 billion. Net asset value was $1.16 billion.
- The Fund owned 29 apartment communities containing 8,827 units dispersed across 21 different Metropolitan Statistical Areas. Average asset size is $56 million. No single property comprises more than 5.3% of gross assets and no market contains more than 10.3% of gross assets.
- The Fund had $501 million of debt outstanding, representing a leverage ratio of 29.7%.
- For the 12 months ending March 31, 2018 net additions to contributed capital totaled $9.3 million.
- There were 57 investors in the Fund with an average investment size of $20.5 million. The investor composition is 64.1% domestic/35.9% international. No investor comprises more than 7.9% of total equity.

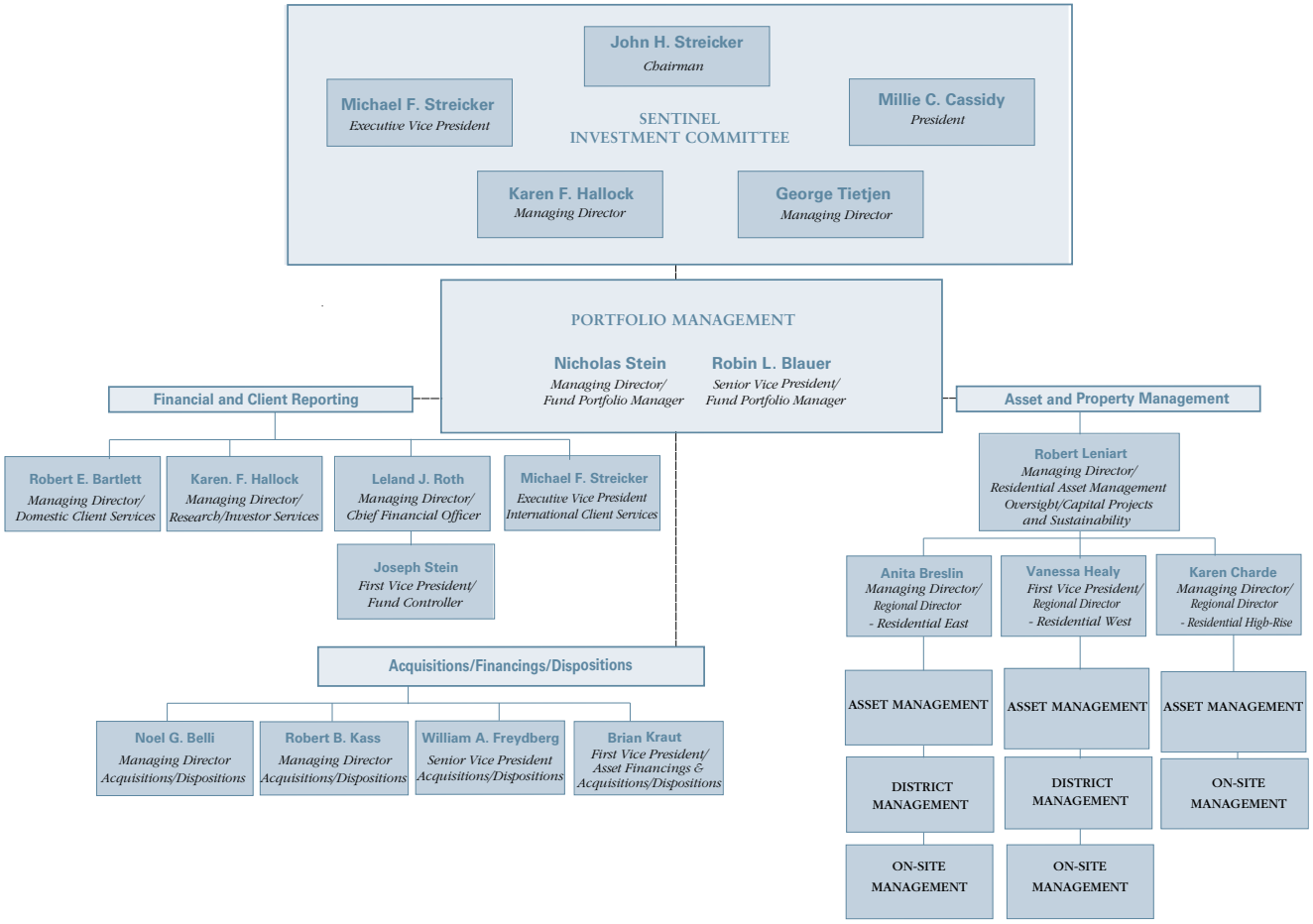
Portfolio Diversification by Region



Locations of Current Holdings by Market

Fund Management Team

- The members of the Fund's management team have been with the firm for an average of 21 years. One team member, Julianne Sullivan, a Regional Director responsible for residential asset management, left the firm in December 2017 to return to a family business. This position has been filled by Vanessa Healy, who has been with Sentinel since 2006. Most recently, she was responsible for analysis of asset management, property management and capital programs. Prior to that she served as an Asset Manager in Sentinel's high-rise/mid-rise residential portfolio group.



Fund Performance

- For the 12 months ended March 31, 2018, the Fund continued to generate consistent income returns, achieving a net income return of 4.55%, 115 basis points above the one-year income return of the NFI-ODCE Index. Overall, the total net return for the 12 months ended March 31, 2018 was 7.11%.

- Over the next 12-month period, the Fund projects a total gross return of approximately 7.0% to 7.5% with an income return of 5.0% to 5.5%.

Performance Comparison (As of March 31, 2018)

	Sentinel Real Estate Fund, LP			NFI-ODCE Index [1]		
Period	*Net Income Return*	*Unrealized Appreciation*	*Total Net Return*	*Net Income Return*	*Unrealized Appreciation*	*Total Net Return*
Quarter	1.20%	0.61%	1.81%	0.82%	1.16%	1.97%
1-Year	4.55%	2.48%	7.11%	3.40%	3.61%	7.11%
3-Years	4.60%	4.20%	8.95%	3.54%	5.31%	9.00%
5-Years	4.81%	6.05%	11.07%	3.77%	6.45%	10.41%
10-Years	5.22%	1.79%	7.04%	4.25%	-0.08%	4.16%
Since Inception	7.37%	1.33%	8.76%	NA	NA	NA

(1) The NFI-ODCE (NCREIF Fund Index-Open-End Diversified Core Equity) is a fund level, capitalization weighted, time-weigted return index. It includes property investments at ownership share, cash balances and leverage; therefore, the returns reflect the fund's actual ownership positions and financing strategy. Total net assets: $181.82 billion.

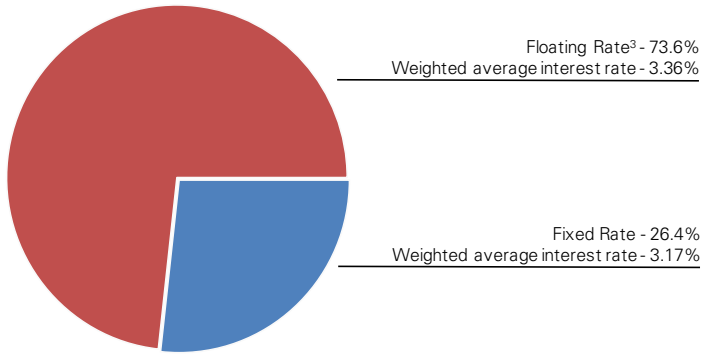
	Sentinel Real Estate Fund, LP (Unleveraged)			NCREIF Apartment Subindex [2]		
Period	*Gross Income Return*	*Unrealized Appreciation*	*Total Gross Return*	*Gross Income Return*	*Unrealized Appreciation*	*Total Gross Return*
1-Year	4.84%	1.95%	6.86%	4.37%	1.95%	6.38%
3-Years	4.80%	2.78%	7.67%	4.54%	3.34%	7.99%
5-Years	4.95%	4.35%	9.45%	4.72%	4.12%	8.99%
10-Years	5.37%	0.48%	5.87%	5.04%	1.03%	6.10%
Since Inception	8.26%	0.76%	9.05%	NA	NA	NA

(2) The NCREIF Apartment Subindex is an unleveraged, property level index, which includes 1,569 properties valued at $135.39 billion. In order to make a more appropriate comparison, we have provided unleveraged returns for the Fund above.

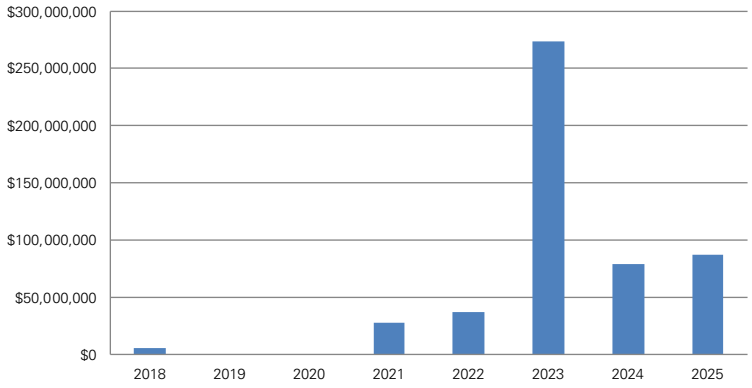
Financing Summary

- There has been no property level financing activity during the last year. There are no property level debt maturities within the Fund over the next three years.
- 18 of the Fund's 29 properties were encumbered by debt, with an average property level loan-to-value ratio of 48.7%. 73.6% of the total debt is floating rate, while 26.4% of the loans have a fixed interest rate.
- The Fund's overall debt service coverage ratio as of March 31, 2018 was 3.40:1.

Total Outstanding Principal[2] - $509.5M



Maturity Schedule



Debt to Total Assets[1]

- 29.7% - Including line of credit
- 29.3% - Excluding line of credit

Structure

- Secured Debt - 98.8%
- Unsecured Debt - 1.2%

Weighted Average Cost of Debt

- Contract Rate - 3.31%

Weighted Average Remaining Term

- 5.5 Years

[1] The Fund maintains a line of credit in the amount of $50,000,000 that matures on June 1, 2018 with two one-year extension options available. As of March 31, 2018, the amount drawn on the line of credit was $6,000,000. In addition, there is a revolving credit facility secured by a Fund property of $21,000,000. The amount drawn on the revolving credit facility is $0.

[2] Total mortgage note payable, at fair value as of March 31, 2018 was $501.1 million.

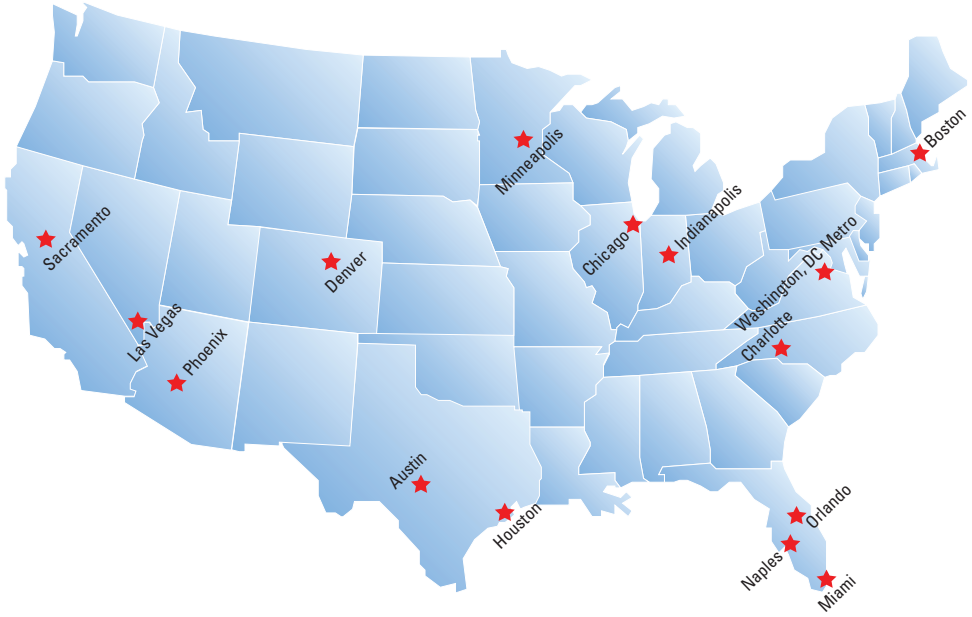
[3] Weighted average 30 day LIBOR cap "strike" rate - 2.32%.

Source: Sentinel Real Estate Fund Internal Reporting as of March 31, 2018.

Target Markets

- For new acquisitions, the Fund is focused on high growth secondary markets and suburban locations across the United States that will continue to enhance the Fund's overall diversification and benefit from the following attributes:
  - manageable supply pipeline;
  - convenient access to large and growing employment and retail centers;
  - high median incomes and high single-family home prices;
  - quality school systems.
- Current target markets are shown on the map below.

Target Market Map



Transaction Activity

- **Acquisition Activity:** The Fund continues to actively seek new acquisitions while maintaining a disciplined approach to both submarket and asset selection. In the last year, one property has been acquired by the Fund, Perimeter Gardens at Georgetown, a mid-rise community located in Suburban Atlanta.

  – A larger number of desirable assets have been marketed for sale over the last 30-to-45 days than we have seen in the last 18 to 24 months in various markets including Los Angeles and San Diego counties, Phoenix, Houston, DC suburbs and Chicago. Pricing has remained highly competitive.

- **Disposition Activity:** Kingscrest Apartments, located in Frederick, Maryland, was sold on May 10, 2018 following a very active sales process in which 204 confidentially agreements were submitted, 39 groups toured the property and 22 groups ultimately submitted offers.

  – Kingscrest was constructed in 1992 and acquired in 1998 for $28.1 million or $69,554 per unit. The disposition price was $64.25 million, which resulted in a property level IRR of 15.7% over the holding period, an unlevered income yield of 9.3.% and a loan-to-value ratio of 53.4% at the time of closing.

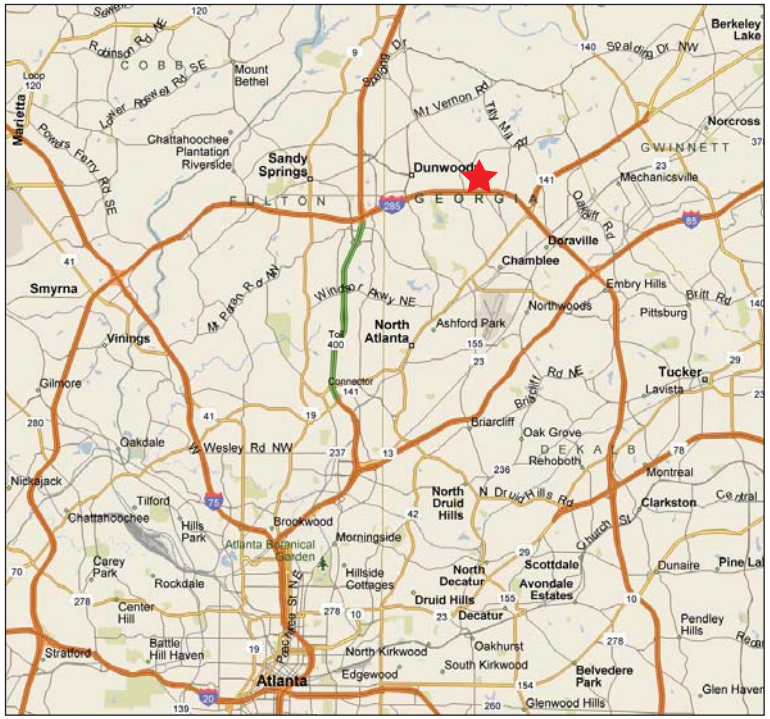
Frederick, Maryland

Recent Acquisition

Perimeter Gardens at Georgetown

Address	100 Azalea Garden Drive Dunwoody (Atlanta), Georgia
	Mid-Rise Apartment Community
Size	Number of units: 245 Average unit size: 959 sq. ft.
Year Completed	2006
Acquisition Date	September 12, 2017
Contract Purchase Price	$45,312,000
Pro Forma Returns*	
Initial Yield	4.33% (Unlevered) 4.63% (Levered)
10-Year IRR	6.59% (Unlevered) 7.91% (Levered)

* Pro forma levered returns are based on the target Fund leverage level of 40% at quoted loan terms at the time of the acquisition. Actual leverage levels for individual properties may vary.



Recent Acquisition (cont'd)

Investment Rationale

- Perimeter Gardens at Georgetown is located just north of I-285, Atlanta's Perimeter Interstate, which provides direct access to Perimeter Center, the largest Class A office submarket in Atlanta and the area's largest employment district. Perimeter Center is expected to add 35,000 jobs in the next eight years.

- The property is also proximate to the thriving neighborhoods of Buckhead and the Cobb Triangle, which together with Perimeter Center encompass over 60 million square feet of office space, 340,000 jobs and ten Fortune 1000 companies. Perimeter Mall, an upscale super regional mall with over 1.5 million square feet of space, is located within three miles of Perimeter Gardens at Georgetown.

- According to *Zillow*, the median single-family home price in Dunwoody was $444,000 as of the first quarter of 2017, which was significantly higher than the Atlanta MSA's median price of $182,800.

- Perimeter Gardens at Georgetown is located adjacent to the Dunwoody Trailway, providing access to abundant green-space in Pernoshal Park, Georgetown Park and Brook Run Park - the largest in the region at 102 acres.

- With its location just east of the densely packed Perimeter Center commercial district, Perimeter Gardens at Georgetown benefits from a suburban setting and access to highly-rated Dunwoody schools, at rental rates well below those of comparable assets in surrounding micro-markets.

Current Fund Portfolio

Name: 23Hundred at Berry Hill
Location: Nashville, TN
No. of Units: 266 Units
Year Built: 2014

Name: Acadia at Cornerstar Apartments
Location: Aurora (Denver), CO
No. of Units: 400 Units
Year Built: 2010

Name: Antelope Ridge Apartments
Location: Menifee (Riverside), CA
No. of Units: 248 Units
Year Built: 2010

Name: Asprey Apartments
Location: Brandon (Tampa), FL
No. of Units: 324 Units
Year Built: 2001

Name: Avant on Market Center
Location: Dallas, TX
No. of Units: 301 Units
Year Built: 2012

Name: Avenel at Montgomery Square
Location: North Wales (Philadelphia), PA
No. of Units: 256 Units
Year Built: 2004

Current Fund Portfolio (cont'd)

Name: Carrington Place at Shoal Creek Apartments
Location: Kansas City, MO
No. of Units: 270 Units
Year Built: 2008

Name: Cityplace Heights
Location: Dallas, TX
No. of Units: 396 Units
Year Built: 2014

Name: Courtney Station Apartments
Location: Pooler (Savannah), GA
No. of Units: 300 Units
Year Built: 2008

Name: The Crossings at Alexander Place Apartments
Location: Raleigh, NC
No. of Units: 300 Units
Year Built: 2008

Name: Delano at Cypress Creek Apartments
Location: Wesley Chapel (Tampa), FL
No. of Units: 288 Units
Year Built: 2006

Name: Egret's Landing Apartments
Location: Palm Harbor (Tampa), FL
No. of Units: 420 Units
Year Built: 1996

Current Fund Portfolio (cont'd)

Name: First and Main Apartments
Location: Colorado Springs, CO
No. of Units: 315 Units
Year Built: 2014

Name: Foothills at Old Town Apartments
Location: Temecula (Riverside), CA
No. of Units: 274 Units
Year Built: 2009

Name: Glenbrook Apartments
Location: Hendersonville (Nashville), TN
No. of Units: 312 Units
Year Built: 2015

Name: Hampshire Green Apartments
Location: Bedford (Manchester), NH
No. of Units: 204 Units
Year Built: 1998

Name: Hills of Valencia Apartments
Location: Valencia (Los Angeles), CA
No. of Units: 208 Units
Year Built: 2003

Name: Island Park/Harbor Town Square Apartments
Location: Memphis, TN
No. of Units: 300 Units
Year Built: 1998

Current Fund Portfolio (cont'd)

Name: Kingscrest Apartments
Location: Frederick (Washington, DC), MD
No. of Units: 404 Units
Year Built: 1992

Name: Lantern Woods Apartments
Location: Fishers (Indianapolis), IN
No. of Units: 460 Units
Year Built: 2000

Name: Lofts at Lakeview Apartments
Location: Durham, NC
No. of Units: 352 Units
Year Built: 2006

Name: Nona Park Village Apartments
Location: Orlando, FL
No. of Units: 302 Units
Year Built: 2015

Name: The Oaks at Johns Creek Apartments
Location: Johns Creek (Atlanta), GA
No. of Units: 264 Units
Year Built: 2013

Name: The Paragon at Kierland Apartments
Location: Scottsdale (Phoenix), AZ
No. of Units: 276 Units
Year Built: 2000

Current Fund Portfolio (cont'd)

Name: Parc at Grandview
Location: Birmingham, AL
No. of Units: 334 Units
Year Built: 2011

Name: Perimeter Gardens at Georgetown
Location: Dunwoody (Atlanta), GA
No. of Units: 245 Units
Year Built: 2006

Name: The Vineyards Apartments
Location: Germantown (Memphis),TN
No. of Units: 200 Units
Year Built: 1997

Name: Weston Point Apartments
Location: Overland Park (Kansas City), KS
No. of Units: 350 Units
Year Built: 1998

Name: Windward Long Point Apartments
Location: Mount Pleasant (Charleston), SC
No. of Units: 258 Units
Year Built: 2012

Sentinel National Urban Partners I, L.P.

- Sentinel National Urban Partners I, L.P. (the "Fund") will acquire, renovate and manage multifamily properties built prior to 1960 located in economically strong US city centers.
- An opportunity exists to provide middle-income residents with modern, moderately-priced rental housing in urban locations that are benefitting from population growth, expanding employment opportunities, access to public transportation and walkable retail, and public and private capital investment into the municipalities.
- The Fund will aim to purchase properties at below the cost to construct new communities in the submarket, and will target multifamily buildings that exhibit below market rental rates, inferior management and/or deferred maintenance at the time of acquisition.
- The investment strategy of the Fund is to create value by upgrading unit interiors, common areas and building systems to achieve revenue growth, operating efficiencies and appreciation.
- The Fund aims to generate a gross internal rate of return of 12.0% to 14.0% with a portfolio-wide maximum loan-to-value ratio of 50.0% and an average annual gross income yield of 5.0% to 6.0%. The Fund will seek to raise $300 million of equity capital commitments.
- Over the last decade, Sentinel has successfully executed an urban upgrade strategy on 63 classic multifamily properties with an aggregate value of over $1.1 billion, generating a pro forma, gross IRR of 14.6% and an equity multiple of 2.1x.

Dallas, TX

New York, NY

Sentinel National Urban Partners I, L.P. (cont'd)

INVESTMENT PORTFOLIO	# OF ASSETS	AVG YEARS HELD	SALES PRICE/ FAIR MARKET VALUE[1]	AGGREGATE INVESTMENT[2]	EQUITY INVESTMENT[3]	EQUITY MULTIPLE[4] [6]	GROSS IRR[5] [6]
REALIZED INVESTMENTS	30	5.7	$572,902,662	$361,575,315	$261,343,833	2.2x	14.5%
UNREALIZED INVESTMENTS	33	3.5	$618,172,631	$499,604,370	$351,102,107	1.9x	15.1%
TOTAL PORTFOLIO	63	4.7	$1,191,075,293	$861,179,685	$612,445,940	2.1x	14.6%

(1) Actual sales price for realized investments and fair market value as of December 31, 2017 for unrealized investments.
(2) Represents the sum of the property purchase price and the related acquisition costs, as well as any amounts invested during the life of the property.
(3) Represents the actual equity at acquisition for each of the properties and additional equity invested during the life of the property.
(4) Ratio determined by dividing total distributions by the equity investment.
(5) Calculated using monthly cash flows. For unrealized assets, the terminal value is equal to the net market value as of the reporting date less sales cost of 3.5%. Returns presented are net of leverage and before fees.
(6) Pro forma yields are based on the assumption that each property was acquired with an interest-only loan at 50% LTV, which remained outstanding until December 31, 2017 or date sold, with a fixed interest rate equal to 4.00%.

Biographies

Nicholas Stein is a Managing Director in Sentinel's portfolio management group responsible for implementing the investment strategy for several of Sentinel's commingled funds and separate accounts. Prior to joining Sentinel in 2007, Mr. Stein was an Associate in the Energy, Infrastructure and Project Finance practice of the law firm White & Case, LLP. Mr. Stein received a BS degree in International Security Studies from Georgetown University School of Foreign Service and a JD degree from Georgetown University Law Center. He is a member of the New York State Bar.

Nicholas Verano is a Senior Vice President and heads Sentinel's investor services office in Winston-Salem, North Carolina. Prior to joining Sentinel, he was a Vice President and Manager of Marketing for Institutional Services at Wachovia Bank & Trust Company, with special emphasis on real estate from 1981 to 1988. From 1979 to 1981, he was a Senior Consultant with Mercer-Meidinger-Hansen, and was a Regional Manager for Corporate Accounts with Bank of America from 1975 to 1979. Mr. Verano graduated with a BA from Marshall University in 1971. He was a member of the Corporate Affiliate Board of Directors of the National Association of State Treasurers and is active in various national pension and real estate organizations for public, multi-employer and corporate plan sponsors, including IFEBP, NCTR, SCTR, TEXPERS and PREA. He has been speaker on real estate matters at conferences sponsored by NCPERS, LATEC, OPAL, ILI, IMN.