



Nebraska Investment Council

Third Quarter 2021 Real Estate Performance Review

March 2022

Agenda

- SECTION 1 MARKET OVERVIEW
- SECTION 2 REAL ESTATE PORTFOLIO OVERVIEW
- SECTION 3 DB/CBB PORTFOLIO UPDATE
- SECTION 4 ENDOWMENT PORTFOLIO UPDATE
- SECTION 5 OSERS PORTFOLIO UPDATE
- SECTION 6 APPENDIX

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- SECTION 1 MARKET OVERVIEW**
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Real Estate Markets Performance and Overview

As of 9/30/2021

Performance Summary	Quarter (%)		1 Year (%)		3 Year (%)		5 Year (%)		10 Year (%)	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
NFI-ODCE Value Weight	6.6	6.4	14.6	13.6	7.1	6.1	7.5	6.6	9.9	8.9
NCREIF Property Index "NPI"	5.2		12.1		6.7		6.8		9.0	

- The NFI-ODCE trailing one-year return now stands at 13.6% net. NFI-ODCE returns have recovered to long-term expectations of 7% to 9% gross due to the robust recovery of the Global economy following the COVID-19 pandemic.

United States Real Estate Market Update (3Q21)

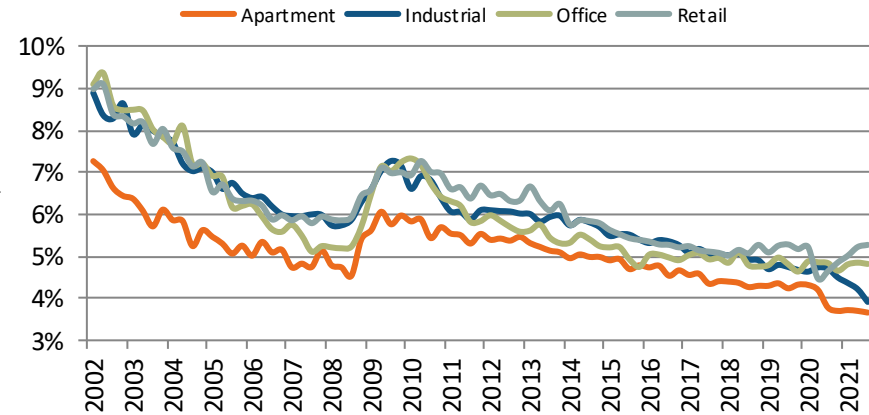
General

- As a result of the COVID-19 pandemic, national, state and local governments across the world implemented stay-at-home orders, which caused a near complete halt of the world economy in the 1st half 2020. Governments dramatically expanded expenditures in order to protect people and businesses from large-scale disruption. In 3Q21, equity markets continued to bounce back from the March 2020 rout and continued to exceed prior highs, the S&P 500 produced a gross total return of 0.6%, bringing the year-to-date total return to 15.9%. The MSCI US REIT index continued to rebound and produced a return of 12.0% and exceed pre-COVID levels.
- The U.S. entered a recession in February 2020, but the economy has since rebounded with the accelerated development and continued rollout of vaccines. In the 3rd quarter, U.S. GDP grew at an annualized rate of 2.0%. The unemployment rate peaked in April at 14.8% and has since declined to 4.8% at quarter end 3Q21, falling an additional 110 bps from the end of 2Q21. The Federal Reserve continues to act aggressively, thus far financial markets have stabilized. The world economy shrunk by -3.5% in 2020 but is forecasted to grow 5.9% in 2021.

Commercial Real Estate

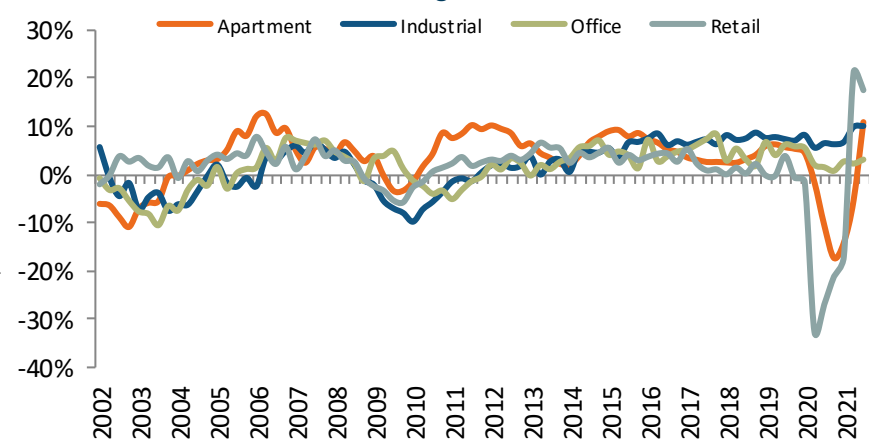
- Through the third quarter of 2021, total CRE transaction activity for the quarter was up 151% YoY, after seeing a significant transaction freeze in the first half of 2020, the market continues to rebound and has now exceeded activity levels observed prior to the COVID-19 induced slowdown. Transaction volume has been the strongest in the apartment and industrial sectors.
- Transaction cap rates (5.0%) compressed -16 bps during the quarter. Current valuation cap rates declined for industrial (-30 bps), apartment (-4 bps), and office (-3 bps). The retail (+5 bps) property sector continued to experience cap rate expansion.
- NOI growth has substantially diverged between property sectors due to the impacts of COVID-19. Retail NOI has expanded substantially (+17%) YoY as the sector recovers from decreased rent collections and retailer shutdowns early last year. Apartment NOI expanded (+11%) YoY, as broad-based effective market rents are deep in their recovery.
- In the third quarter of 2021, \$49 bn of aggregate capital was raised by real estate funds. There continues to be substantial dry powder, ~\$384 billion, seeking exposure to private real estate.
- 10-year treasury bond yields expanded 7 bps to 1.52% during the quarter.

Current Value Cap Rates by Property Type



Source: NCREIF

4 Qtr Rolling NOI Growth



Source: NCREIF

United States Property Matrix (3Q21)

INDUSTRIAL

- In 3Q21, industrial properties were the highest returning sector at 10.9% and outperformed the NPI by 570 bps.
- Transaction volumes rose to \$39.5 billion in the third quarter of the year, resulting in a 130% increase year-over-year. Individual asset sales increased 79% year-over-year, while portfolio purchases turned in a year-over-year volume increase of 258%. At slightly over \$39.5 billion, the industrial sector increased a significant \$7.0 billion quarter-over-quarter.
- The industrial sector turned in NOI growth of 10.2% over the past year. NOI continues to reach all time highs for the sector.
- Vacancy decreased by 100 bps year-over-year to 2.5%. Vacancy in the sector decreased 60 bps from last quarter, reaching all-time historic lows. E-commerce continues to drive demand across the sector.
- Industrial cap rates compressed approximately 80 bps from a year ago, to 3.9%. Industrial overall fundamentals still top all property sectors.

MULTIFAMILY

- The apartment sector delivered a 6.5% return during the quarter, outperforming the NPI by 130 bps.
- Transaction volume in the third quarter of 2021 rose to \$78.7 billion, resulting in an increase of 192% year-over-year. Transaction volume for the sector is now exceeding all historic highs. This volume continues to make multifamily the most actively traded sector for the seventeenth straight quarter.
- Cap rates remained steady at 3.7% quarter-over-quarter, compressing 10 bps year-over-year. Multifamily cap rates remain at the lowest level observed in years, driven by continued increases in valuation.
- The multifamily sector saw increasing vacancy rates throughout the entirety of 2020 due to the global pandemic. Through 2021, the sector appears to have shaken that trend as vacancy rates decreased 60 bps quarter-over-quarter, now 280 bps lower than a year ago and back to pre-pandemic levels. The aging millennials have begun shifting their desires to suburban living, but continued home price appreciation has deterred the full effect of this migratory trend.

OFFICE

- The office sector returned 1.9% in 3Q21, 340 bps below the NPI return over the period.
- Transaction volumes increased by 137% year-over-year in the third quarter. Transaction volume equated to \$34.8 billion for the quarter, an increase of \$6.7 billion quarter-over-quarter. Office transaction levels have officially regressed to levels only seen prior to the COVID-19 pandemic.
- Office sector vacancy rates have expanded since the beginning of the pandemic due to work from home orders and uncertainty revolving around the future of office space. Office continues to be the highest vacancy property type at close to 13.1%, expanding 40 bps from last quarter.
- NOI growth in the office sector expanded quarter-over-quarter by 80 bps and appears to be in the midst of its recovery to pre-pandemic levels as it has increased 160 bps since the same period last year.
- Office cap rates remained flat from a year ago, sitting at approximately 4.9%. Office-using job growth was stunted significantly through out 2020 due to work from home orders. Though we are observing a slow but steady flow back to in-office work, there is still uncertainty in the sector as many companies remain hesitant.

RETAIL

- As of 3Q21, the retail sector delivered a quarterly return of 1.6%, performing 370 bps below the NPI.
- Transaction volumes totaled \$17.4 billion in the third quarter, increasing 127% year-over-year. Single asset transactions accounted for just over 73.5% of all sales volume for the quarter.
- Cap rates have expanded approximately 60 bps within the sector over the last year, to 5.3%. Current valuation cap rates did expand quarter-over-quarter by 10 bps due to slight downward valuation adjustments made across the sector in general.
- NOI growth significantly increased, +17.4% over the last year. Retail has begun its slow recovery as vaccine rollouts have allowed a large portion of store nationally to open and operate safely.
- Retail vacancy rates compressed over the quarter by 60 bps, though still up 80 bps over the past year to 9.1%. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth. Paired with the global economic crisis, which has had a significant negative impact on this sector.

Global Real Estate Market Update (3Q21)

- The real estate investment market has continued its recovery from the COVID-19 crisis with investments in income producing real estate doubling the level of that last year. In 3Q21 US Volume was \$187.4 billion, a 193% growth year over year. The US was at the forefront of this recovery and transaction volume as a result of strong demand in industrial and apartment properties.

- Renewed COVID restrictions stemming from the spread of the Delta variant impeded the recovery in some parts of the world during the third quarter, but in most countries the economy continued to rebound. Uncertainty remains an ongoing theme.

- Investment activity in the Americas witnessed an extreme surge to 193% year-over-year. Transaction volume in the US decreased 28% relative to 2Q21.

- In the Asia Pacific region, volumes grew only 1% year-over-year. Mainland China (+20%) remains the top market in the region with Australia (+106%), and South Korea (+54%) seeing the most improvements in deal activity year over year in 3Q21.

- In the office sector, global leasing activity improved by 39% year-over-year; however, they remain 25% lower than Q3 2019, showing that the recovery, although underway, is far from over. Office re-entry rates still vary significantly by country but are now starting to rise around the globe. This is important, as before new space requirements are cemented, corporates need more evidence of how hybrid office and remote work impacts their demand profile. Vacancy continued its upward trajectory in Q3, adding 30bps over the quarter to 14.6%; that said, this is the slowest rate of increase since the onset of the pandemic.

- Supported by rising vaccination rates and easing restrictions, trading conditions for a large number of retailers have improved over the third quarter in markets such as the U.S. as well as most of Europe. Leasing activity continues to pick up in many major retail destinations globally, with prime space highly sought-after in countries with high vaccination rates and eased containment measures. In markets where containment measures have been tightened recently, notably across the Southeast Asia region, many retailers remain concentrated on servicing domestic consumers and opening stores in suburban shopping centers.

- Multifamily maintained its status as the most liquid asset type in the U.S. in the third quarter, while complementary segments such as single-family residential attracted increased attention. In Europe, investor interest in multifamily, along with single-family and affordable housing continues unabated. In Asia Pacific, Japan remained the most active market for multifamily in Q3, while the build-to-rent (BTR) market in Australia is gaining momentum. There are still very few projects operational in Australia, but the number planned and under construction continues to grow.

- Ongoing supply chain disruptions and pressure on critical supply hubs are posing a challenge to the global economic recovery. Demand for logistics space remained extremely robust across all three regions in the third quarter, to the extent that new supply is struggling to keep up with the weight of demand in some markets. With supply tight, aggregate vacancy rates are sub-5% in both the U.S. and Europe. These supply and demand dynamics are supporting solid rental growth, which is evident across all three regions.

Global Total Commercial Real Estate Volume - 2020 - 2021

\$ US Billions	Q3 2021	Q3 2020	% Change		% Change	
			Q3 21 - Q3 20	YTD 2021	Q1-Q3 2021	YTD 2021/Q1 - Q3 21
Americas	187	64	193%	424	230	84%
EMEA	76	61	24%	239	206	16%
Asia Pacific	205	203	1%	569	558	2%
Total	468	328	43%	1232	994	24%

Source: Real Capital Analytics, Inc., Q3' 21

Global Outlook - GDP (Real) Growth % pa, 2021-2023

	2021	2022	2023
Global	5.8	4.4	3.4
Asia Pacific	6.0	5.0	4.6
Australia	3.8	3.7	3.0
China	8.0	5.4	5.4
India	9.2	7.5	
Japan	2.4	2.6	1.3
North America	5.5	3.9	2.5
US	5.5	3.9	2.5
Middle East	3.0	4.7	3.6
European Union	5.4	4.4	2.3
France	6.7	4.1	2.1
Germany	2.8	4.8	2.0
UK	7.0	5.0	2.1

Source: Bloomberg

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Executive Summary

Portfolio Overview

- NAV for the DB/CBB portfolio ended Q3 at \$1.1 billion, resulting in an allocation of 5.5%
 - Real Estate Policy target range is between 1.0% and 11.0%
- NAV for the Endowments portfolio ended Q3 at \$57.7 million, resulting in an allocation of 3.4%
 - Real Estate Policy target range is between 0.0% and 10.0%
 - The Endowment’s core portfolio is currently out of compliance as a result of recent distributions from non-core real estate funds. As recent commitments to non-core funds are called, the portfolio should move towards its target allocation
 - Retail is out of compliance as a result of two core funds under allocated to retail properties. The Townsend Group is comfortable with the underweight of this underperforming property type
 - Clarion manages 35.4% of the total real estate portfolio, 42 basis points above the 35% policy limit to core fund managers. The Townsend Group is aware of this exposure and will continue to monitor
- NAV for the OSERS portfolio ended Q3 at \$101.1 million, resulting in an allocation of 6.4%
 - Real Estate Policy target is 7.5%

Investment Line-up Changes & Pacing

- DB/CBB 2021 Pacing: \$70 million to Non-Core planned for 2021
- 50-50 Endowment 2021 Pacing: \$2.5 million to Non-Core planned for 2021
- Healthcare Endowment 2021 Pacing: \$1.5 million to Non-Core planned for 2021
- OSERS 2021 Pacing: \$10 million to Non-Core and \$15 million to Core planned for 2021
 - Subsequent to quarter end capital pacing for 2021 has been filled for all four plans

Executive Summary (cont'd)

Performance

- In the near-term commercial real estate has appeared to recover and stabilize following market dislocation in the second and third quarters of 2020. The portfolios' total time weighted returns across the DB/CBB (6.1% net) and Endowments (5.8% net) held up relatively well against NFI-ODCE (6.4% net) for the quarter. OSERS (2.0% net) trailed NFI-ODCE largely due in part to underperformance of the opportunistic portfolio.

- In the long-term the DB/CBB, the two Endowment programs, and the OSERS portfolio continue to perform relatively in-line with ODCE, despite UBS TPF's drag on performance and COVID-19 distress. Since inception time weighted returns for the DB/CBB, Endowments, and OSERS exceed the benchmark by 19 basis points, 460 basis points, and 30 basis points, respectively.

- The since inception dollar weighted returns of the Plans have started to moderate similar to that of the overall real estate market.
 - DB/CBB plan (Est. Q4 2004): 6.9% net IRR and 1.4x net equity multiple
 - Endowments (Est. Q4 2008): 8.8% net IRR and 1.4x net equity multiple
 - OSERS (Est. Q3 1995): 8.4% net IRR and 1.5x net equity multiple

Portfolio Overview

Portfolio Detail as of September 30, 2021	Defined Benefit Portfolio	Endowment Portfolio	Total NIC Portfolio	OSERS RE Portfolio
Number of Active Investments	24	11	35	10
Total Commitments	\$1,551,000,000	\$113,000,000	\$1,664,000,000	\$374,350,798
Unfunded Commitments	\$248,184,792	\$13,186,864	\$261,371,656	\$18,445,905
Cumulative Paid-In	\$1,450,640,543	\$105,961,295	\$1,556,601,838	\$418,075,685
Cumulative Distributions	\$1,027,510,955	\$92,707,286	\$1,120,218,241	\$505,544,347
Net Asset Value	\$1,065,093,198	\$57,746,989	\$1,122,840,187	\$101,126,399
Total Value ²	\$2,092,604,153	\$150,454,275	\$2,243,058,428	\$606,670,746
DPI ³	0.71x	0.87x	0.72x	1.21x
TVPI ⁴	1.44x	1.42x	1.44x	1.45x
IRR since inception	6.92%	8.82%	7.01%	8.42%
Real Estate Inception Date	12/31/2004	12/1/2008	12/31/2004	9/30/1995

¹Total Paid-In Cash includes all contributions and all management fees

²Total Distributions + Net Asset Value

³Distributions / Paid-In Cash

⁴Total Value / Paid-In Cash

Significant Events

- During the quarter, Clarion announced that Jeb Belford, portfolio manager of Lion Properties Fund, will assume the role of CIO of Clarion. He will be taking over David Gilbert's CIO duties, who currently sits as both Clarion's CEO and CIO. Mr. Gilbert will remain CEO of Clarion. Townsend has reviewed this and is comfortable with the change in leadership.

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DB/CBB Portfolio Funding Summary

As of 9/30/2021

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	(%) Funded
Core									
Lion Properties Fund	2018	207,000,000	241,190,075	0	20,429,364	264,663,529	24.8	20.2	116.5
Prime Property Fund	2021	115,000,000	2,981,000	0	29,427	3,125,238	0.3	0.2	2.6
PRISA SA	2006	135,000,000	145,712,882	0	79,705,110	217,756,879	20.4	16.6	107.9
UBS Trumbull Property Fund	2006	115,000,000	120,405,366	0	74,389,316	138,790,895	13.0	10.6	104.7
Core	2006	572,000,000	510,289,322	0	174,553,218	624,336,542	58.6	47.5	89.2
Core Debt									
UBS Trumbull Property Income Fund	2015	120,000,000	130,040,852	0	20,166,462	148,528,106	13.9	11.3	108.4
Core Debt	2015	120,000,000	130,040,852	0	20,166,462	148,528,106	13.9	11.3	108.4
Core Plus									
PRISA II	2007	51,500,000	53,647,191	0	0	102,974,796	9.7	7.8	104.2
Core Plus	2007	51,500,000	53,647,191	0	0	102,974,796	9.7	7.8	104.2
Value Added									
Almanac Realty Securities V, LP	2008	25,000,000	25,009,202	0	38,305,789	43,268	0.0	0.0	100.0
Almanac Realty Securities VII	2015	40,000,000	35,392,692	9,264,579	27,997,336	21,743,120	2.0	2.4	88.5
Almanac Realty Securities VIII	2018	40,000,000	12,389,362	27,610,638	803,190	13,001,037	1.2	3.1	31.0
Rockwood Capital Real Estate Partners Fund IX	2012	20,000,000	18,281,973	1,718,027	20,870,288	3,984,723	0.4	0.4	91.4
Rockwood Capital Real Estate Partners Fund X	2016	40,000,000	35,846,243	4,881,029	16,361,802	29,111,365	2.7	2.6	89.6
Rockwood Capital Real Estate Partners Fund XI	2019	40,000,000	15,660,249	24,339,751	0	18,221,675	1.7	3.2	39.2
Value Added	2007	205,000,000	142,579,722	67,814,024	104,338,405	86,105,188	8.1	11.7	69.6
Opportunistic									
AG Realty Fund VIII	2012	25,000,000	23,683,278	3,854,470	30,320,981	6,083,627	0.6	0.8	94.7
CBRE Strategic Partners U.S. Opportunity 5	2008	25,000,000	24,309,623	821,564	33,659,158	295,832	0.0	0.1	97.2
Kayne Anderson Real Estate Partners VI	2021	40,000,000	1,599,997	38,400,003	0	1,000,638	0.1	3.0	4.0
Landmark Real Estate Fund VI	2010	40,000,000	35,090,608	4,909,392	52,753,910	1,581,427	0.1	0.5	87.7
Landmark Real Estate Fund VII	2014	50,000,000	46,103,438	3,896,562	41,619,457	13,328,367	1.3	1.3	92.2
Landmark Real Estate Fund VIII	2017	40,000,000	19,183,631	26,816,369	10,181,347	15,202,066	1.4	3.2	48.0
Oaktree Real Estate Opportunities Fund VIII L.P.	2021	50,000,000	2,500,000	47,500,000	0	5,314,733	0.5	4.0	5.0
Rockpoint Real Estate Fund III	2007	25,000,000	25,336,626	0	34,075,565	709,129	0.1	0.1	101.3
Torchlight Debt Fund VII, LP	2020	50,000,000	12,500,000	37,500,000	0	12,761,778	1.2	3.8	25.0
Torchlight Debt Opportunity Fund IV	2013	20,000,000	21,598,377	0	26,674,856	2,953,421	0.3	0.2	108.0
Torchlight Debt Opportunity Fund V	2015	40,000,000	32,001,583	8,000,000	33,430,686	8,261,685	0.8	1.2	80.0
Torchlight Debt Opportunity Fund VI	2018	40,000,000	31,364,407	8,672,408	805,233	35,655,864	3.3	3.4	78.4
Opportunistic	2008	445,000,000	275,271,568	180,370,768	263,521,193	103,148,568	9.7	21.6	61.9
Total Current Portfolio									
NIC - DB Direct	2005	1,393,500,000	1,111,828,655	248,184,792	562,579,277	1,065,093,200	100.0	100.0	79.8
Total Portfolio (Including Current & Historical Activity)									
NIC - DB Direct	2005	1,551,000,000	1,450,640,543	248,184,792	1,027,510,956	1,065,093,200	100.0	100.0	93.5

DB/CBB Portfolio Time Weighted Performance¹

As of 9/30/2021

Returns (%)	Quarter				1 Year				3 Year				5 Year				10 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple		
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET					
Core																											
Lion Properties Fund	1.0	5.1	6.1	5.9	3.8	12.6	16.8	15.9														8.6	7.8	1Q19	8.2	1.2	
Prime Property Fund	1.0	5.0	6.0	5.8																		6.0	5.8	3Q21	5.9	1.1	
PRISA SA	1.0	6.7	7.8	7.6	3.9	11.8	16.1	15.1	4.1	4.0	8.3	7.4	4.3	3.9	8.3	7.5	4.7	5.5	10.4	9.6	6.8	5.9	2Q06	5.9	2.0		
UBS Trumbull Property Fund	1.0	5.1	6.2	6.0	4.0	4.4	8.5	7.7	4.3	-2.4	1.9	1.1	4.4	-0.7	3.7	2.9	4.7	2.3	7.1	6.2	5.6	4.7	3Q06	4.6	1.8		
Core	1.0	5.7	6.7	6.5	3.9	10.2	14.4	13.6	4.1	2.5	6.6	5.8	4.2	2.7	7.0	6.2	4.7	4.6	9.4	8.5	6.7	5.8	2Q06	6.1	1.6		
Core Debt																											
UBS Trumbull Property Income Fund	0.9	3.4	4.3	4.1	3.7	6.6	10.5	9.6	3.8	2.4	6.2	5.4	3.9	2.2	6.3	5.4					7.2	6.4	2Q15	6.1	1.3		
Core Debt	0.9	3.4	4.3	4.1	3.7	6.6	10.5	9.6	3.8	2.4	6.2	5.4	3.9	2.2	6.3	5.4					7.2	6.4	2Q15	6.1	1.3		
Core Plus																											
PRISA II	1.1	6.4	7.6	7.3	4.3	12.6	17.3	16.1	4.1	4.1	8.3	7.1	4.2	4.5	8.8	7.6	4.5	6.9	11.6	10.4	5.4	4.3	3Q07	7.1	1.9		
Core Plus	1.1	6.4	7.6	7.3	4.3	12.6	17.3	16.1	4.1	4.1	8.3	7.1	4.2	4.5	8.8	7.6	4.5	6.9	11.6	10.4	5.4	4.3	3Q07	7.1	1.9		
Value Added																											
Almanac Realty Securities V, LP	-0.7	0.1	-0.6	-0.6	-35.6	8.1	-29.1	-29.2	-13.6	0.3	-12.5	-13.2	3.2	-5.3	-0.2	-1.3	7.7	-2.5	6.2	5.1	7.2	4.8	3Q08	11.9	1.5		
Almanac Realty Securities VII	2.4	4.0	6.4	6.1	7.4	5.5	13.1	11.9	7.8	4.7	12.8	11.6	8.2	6.7	15.4	13.5					15.6	12.6	3Q15	13.0	1.4		
Almanac Realty Securities VIII	3.1	2.0	5.2	4.2	8.5	22.4	32.2	25.9													15.9	2.7	3Q19	9.0	1.1		
Rockwood Capital Real Estate Partners Fund IX	1.9	2.5	4.4	3.7	5.5	9.5	15.4	12.4	3.2	-7.0	-4.1	-6.8	3.1	-1.1	1.9	-0.8					9.9	6.8	4Q13	10.7	1.4		
Rockwood Capital Real Estate Partners Fund X	0.3	7.0	7.3	6.8	2.2	22.7	25.3	23.2	2.2	9.1	11.4	9.4	0.7	8.7	9.4	6.7					9.4	6.7	4Q16	8.5	1.3		
Rockwood Capital Real Estate Partners Fund XI	1.0	6.3	7.3	6.6	4.3	22.8	27.8	20.4													-49.5	21.0	4Q19	22.1	1.2		
Value Added	1.5	5.1	6.6	6.0	4.9	17.1	22.6	19.7	4.7	6.7	11.6	8.8	5.4	7.5	13.2	10.3	5.8	8.4	14.6	12.3	5.3	2.7	4Q07	6.7	1.3		
Opportunistic																											
AG Realty Fund VIII	-0.6	1.2	0.6	0.5	-3.8	1.9	-2.1	-1.9	-3.1	-3.3	-6.3	-5.7	-2.2	2.2	0.0	-0.7					10.9	7.6	2Q12	12.7	1.5		
CBRE Strategic Partners U.S. Opportunity 5	0.1	6.9	7.0	7.0	-1.8	17.6	15.6	15.6	-0.9	11.4	10.4	10.3	0.9	9.5	10.5	10.0	1.9	10.3	12.6	11.6	-9.3	-11.0	4Q08	5.4	1.4		
Kayne Anderson Real Estate Partners VI	0.7	0.3	1.1	-10.2																	1.1	-10.2	3Q21	-37.7	0.6		
Landmark Real Estate Fund VI	-5.9	5.6	-0.4	-0.6	-11.2	3.6	-7.8	-8.7	-7.5	-7.4	-12.1	-13.1	1.3	-10.3	-6.8	-7.9	10.0	-6.7	4.2	2.8	4.2	2.7	1Q11	18.9	1.5		
Landmark Real Estate Fund VII	-0.7	3.5	2.8	2.3	6.0	-3.8	3.6	2.4	3.5	-5.1	-0.8	-1.8	7.0	-4.3	3.1	1.6					15.5	11.3	1Q15	7.4	1.2		
Landmark Real Estate Fund VIII	5.2	16.4	21.6	18.4	17.6	20.1	40.3	32.0	11.5	7.2	19.5	13.4									8.6	3.4	4Q17	16.0	1.3		
Oaktree Real Estate Opportunities Fund VIII L.P.																							4Q21	N/M	2.1		
Rockpoint Real Estate Fund III	-0.2	-2.6	-2.8	-3.6	9.3	-7.1	2.6	-0.2	4.2	1.8	6.4	3.7	3.1	0.3	3.6	1.0	2.2	6.1	8.6	4.9	8.1	2.3	2Q09	13.6	1.4		
Torchlight Debt Fund VII, LP	1.8	0.5	2.2	0.9	4.6	11.4	16.5	7.6													16.5	7.6	4Q20	3.2	1.0		
Torchlight Debt Opportunity Fund IV	0.4	4.4	4.8	3.0	2.1	3.6	5.7	5.2	3.8	-7.3	-3.7	0.6	6.2	-0.7	5.4	5.7					7.3	7.0	1Q14	9.3	1.4		
Torchlight Debt Opportunity Fund V	1.9	4.2	6.0	3.8	5.7	14.2	20.4	13.3	6.5	0.1	6.7	5.8	9.6	4.0	13.9	10.1					15.8	8.9	3Q15	10.5	1.3		
Torchlight Debt Opportunity Fund VI	1.7	5.7	7.4	7.0	6.2	9.0	15.6	14.1	10.5	-3.3	7.1	0.7									13.0	5.3	3Q18	6.9	1.2		
Opportunistic	1.5	5.8	7.3	6.0	6.6	8.1	15.2	11.3	5.2	-0.2	5.0	3.1	7.1	1.2	8.4	5.6	7.7	5.6	13.7	10.6	1.8	-2.5	4Q08	10.6	1.3		
Total Portfolio																											
NIC - DB Direct	1.1	5.4	6.5	6.1	4.3	10.2	14.8	13.4	4.2	2.7	6.9	5.8	4.6	3.0	7.7	6.5	5.1	5.3	10.6	9.3	8.2	7.0	1Q05	6.9	1.4		
Indices																											
NFI-ODCE Value Weight	1.0	5.6	6.6	6.4	4.0	10.4	14.6	13.6	4.0	2.9	7.1	6.1	4.1	3.3	7.5	6.6	4.6	5.1	9.9	8.9	7.8	6.8	1Q05				

¹Returns shown are time-weighted, which ignores both the timing and magnitude of cash flows into and out of the portfolio. While time-weighted returns are commonly used as a standard measure of performance in traditional asset classes, the Internal Rate of Return ("IRR") is a better and more common measure of real estate performance.

Non-Core IRR Equivalent

RE Strategy	NIC Performance	NFI-ODCE	NPI	Inception Date
DB Value Added	6.7%	6.6%	7.6%	8/24/2007
DB Opportunistic	10.6%	9.1%	9.3%	9/24/2007
DB Value Added & Opportunistic	8.7%	7.8%	8.4%	8/24/2007

- In an exercise to examine whether the Non-Core portfolio is adding alpha over Core, an IRR equivalent measure of performance has been created for traditional Core benchmarks
 - Cash flows, dates and sizes from Non-Core funds are applied to the NFI-ODCE and NPI indices to derive an IRR equivalent for those indices

- The Value Added portfolio is currently in line with the lower risk Core at this point, the fully liquidated investment in Beacon V being the primary detractor due to it's -7.9% net IRR
 - An additional analysis that excluded Beacon V resulted in an IRR of 10.5% for the Value Added portfolio

- The Opportunistic portfolio has, so far, been a source of alpha over Core

DB/CBB Current Pacing

Projected NAV of Real Estate as a Percent of Total Program





DB/CBB Vintage Year Diversification¹

As of 9/30/2021

Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
2004	0	183,528,392	0	226,385,612	0	0.0	0.0
2006	250,000,000	266,118,248	0	154,094,427	356,547,775	33.5	27.1
2007	124,000,000	124,252,890	0	82,087,177	103,683,926	9.7	7.9
2008	50,000,000	49,318,825	821,564	71,964,947	339,100	0.0	0.1
2010	150,000,000	145,105,031	4,909,392	243,288,364	1,581,427	0.1	0.5
2012	45,000,000	41,965,251	5,572,497	51,191,269	10,068,350	0.9	1.2
2013	20,000,000	21,598,377	0	26,674,856	2,953,421	0.3	0.2
2014	50,000,000	46,103,438	3,896,562	41,619,457	13,328,367	1.3	1.3
2015	200,000,000	197,435,127	17,264,579	81,594,484	178,532,911	16.8	14.9
2016	40,000,000	35,846,243	4,881,029	16,361,802	29,111,365	2.7	2.6
2017	40,000,000	19,183,631	26,816,369	10,181,347	15,202,066	1.4	3.2
2018	287,000,000	284,943,844	36,283,046	22,037,787	313,320,430	29.4	26.6
2019	40,000,000	15,660,249	24,339,751	0	18,221,675	1.7	3.2
2020	50,000,000	12,500,000	37,500,000	0	12,761,778	1.2	3.8
2021	205,000,000	7,080,997	85,900,003	29,427	9,440,609	0.9	7.3
Total Portfolio (Including Current & Historical Activity)							
	1,551,000,000	1,450,640,543	248,184,792	1,027,510,956	1,065,093,200	100	100

Investment Vintage Year	Quarter				1 Year				3 Year				5 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET			
2004																		1Q05	11.7	1.2	
2006	1.0	6.1	7.1	6.9	3.9	8.7	12.9	12.0	4.2	1.2	5.5	4.7	4.3	1.9	6.3	5.5	6.4	5.5	2Q06	5.3	1.9
2007	1.1	6.4	7.5	7.2	4.4	12.4	17.2	15.9	4.1	4.1	8.4	7.1	4.2	4.4	8.6	7.4	4.4	2.2	3Q07	5.8	1.5
2008	0.0	6.2	6.2	6.2	-3.8	16.8	12.5	12.5	-1.0	10.3	9.2	9.1	3.3	7.0	10.7	10.1	3.0	0.4	3Q08	7.9	1.5
2010	-5.9	5.6	-0.4	-0.6	-11.2	3.6	-7.8	-8.7	0.7	-3.1	-1.9	-2.7	2.4	-0.9	1.8	0.9	7.9	6.9	1Q11	11.3	1.7
2012	0.4	1.7	2.1	1.8	-0.3	4.8	4.4	3.4	-0.4	-4.9	-5.2	-6.0	0.1	1.0	1.1	-0.4	10.8	7.2	2Q12	12.0	1.5
2013	0.4	4.4	4.8	3.0	2.1	3.6	5.7	5.2	3.8	-7.3	-3.7	0.6	6.2	-0.7	5.4	5.7	7.3	7.0	1Q14	9.3	1.4
2014	-0.7	3.5	2.8	2.3	6.0	-3.8	3.6	2.4	3.5	-5.1	-0.8	-1.8	7.0	-4.3	3.1	1.6	15.5	11.3	1Q15	7.4	1.2
2015	1.2	3.5	4.7	4.4	4.3	6.9	11.4	10.2	4.6	2.4	7.1	6.2	5.3	3.2	8.7	7.2	9.4	7.8	2Q15	7.6	1.3
2016	0.3	7.0	7.3	6.8	2.2	22.7	25.3	23.2	2.2	9.1	11.4	9.4	0.7	8.7	9.4	6.7	9.4	6.7	4Q16	8.5	1.3
2017	5.2	16.4	21.6	18.4	17.6	20.1	40.3	32.0	11.5	7.2	19.5	13.4					8.6	3.4	4Q17	16.0	1.3
2018	1.2	5.0	6.2	5.9	4.3	12.2	16.9	15.8	4.4	3.8	8.3	6.6					14.2	11.0	3Q18	8.1	1.2
2019	1.0	6.3	7.3	6.6	4.3	22.8	27.8	20.4									-49.5	21.0	4Q19	22.1	1.2
2020	1.8	0.5	2.2	0.9	4.6	11.4	16.5	7.6									16.5	7.6	4Q20	3.2	1.0
2021	0.6	5.1	5.7	2.2													5.7	2.2	3Q21	N/M	1.3

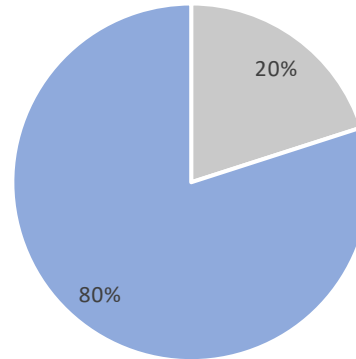
- Vintage years and investment types largely drive performance
- The 2004 vintage year consists of 100% REIT investments
- The 2006 vintage year consists of 100% open-end diversified Core equity funds

¹Returns shown are time-weighted, which ignores both the timing and magnitude of cash flows into and out of the portfolio. While time-weighted returns are commonly used as a standard measure of performance in traditional asset classes, the Internal Rate of Return ("IRR") is a better and more common measure of real estate performance.

DB/CBB Real Estate Equity/Debt Exposure

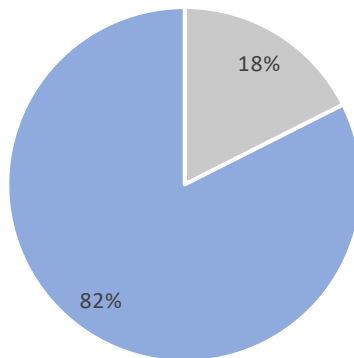
Total Real Estate

■ % Debt ■ % Equity



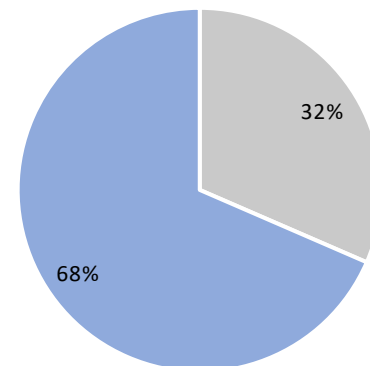
Core

■ % Debt ■ % Equity



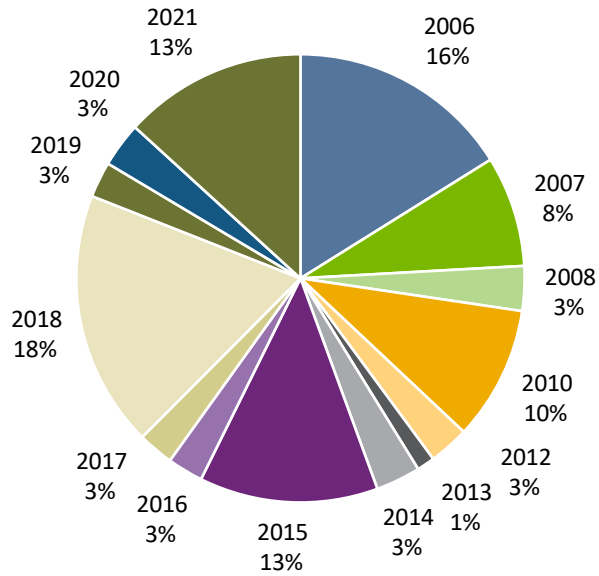
Non-Core

■ % Debt ■ % Equity

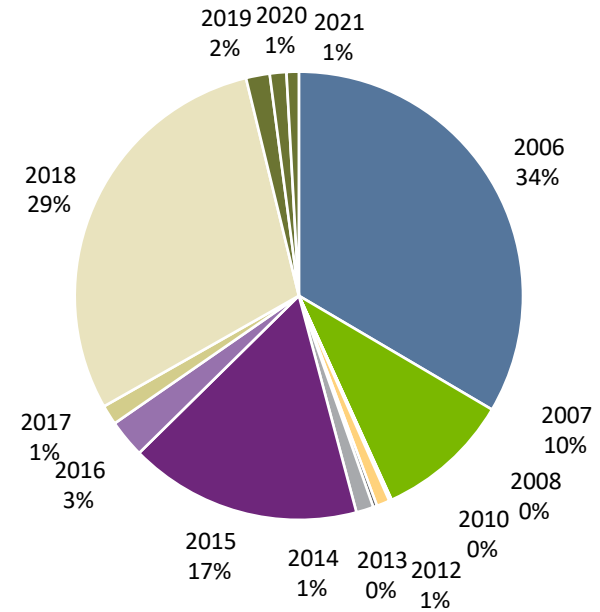


DB/CBB Portfolio Diversification

**DB Vintage Year Diversification
as % of Committed Capital**

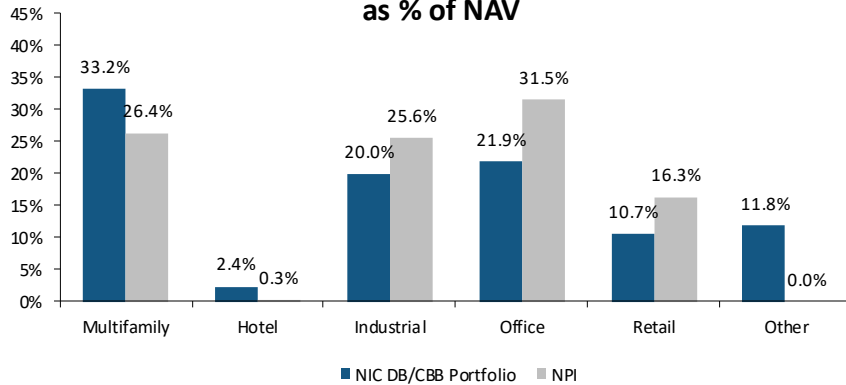


**DB Vintage Year Diversification
as % of Net Asset Value**



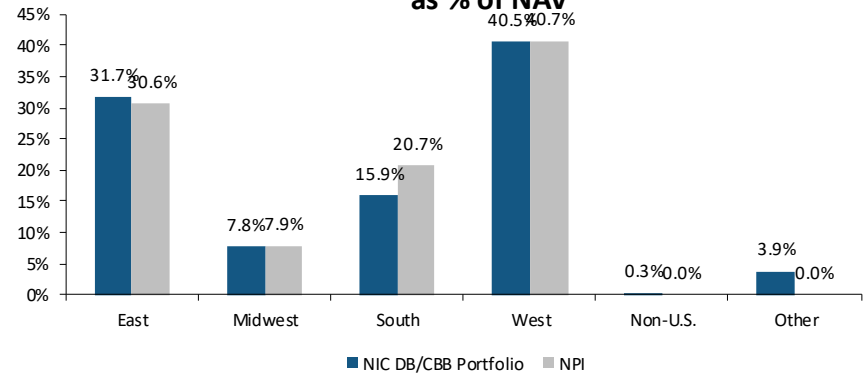
Property Type Diversification¹

as % of NAV



Geographic Diversification²

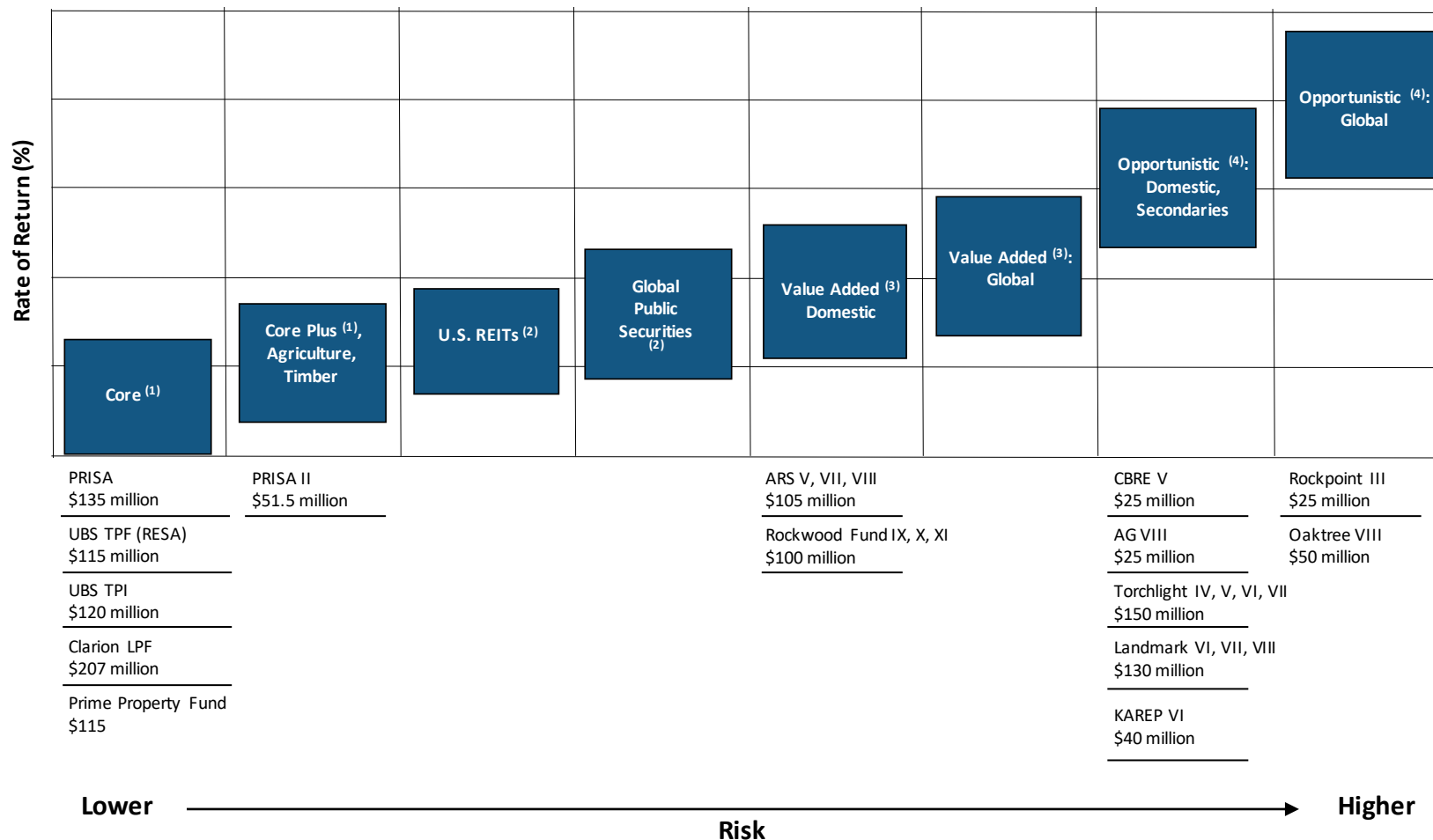
as % of NAV



¹Other property types include manufactured housing, healthcare, self-storage, and mixed use/diversified investments

²Other regional exposure include secondary investments

Real Estate Risk/Return Spectrum (DB/CBB)



Notes:

1. Core - investment in stabilized properties; employ no/low portfolio leverage (0 to 35%); asset-level leverage up to 50%
2. Securities - Core/Value Added exposure to real estate via public securities
3. Value Added - direct investment in properties where development/redevelopment of property generates incremental return; employ moderate portfolio leverage (35 to 65%); asset-level leverage up to 70%
4. Opportunistic - direct/indirect investment in non-stabilized properties, companies, loans, etc.; employ portfolio leverage up to 85%; Asset-level leverage up to 90%; possible investments in emerging markets

DB/CBB Compliance – Private Markets

RISK MANAGEMENT						
Property Type		Plan Target	Minimum	Maximum	Actual	Compliant?
Office		N/A	10.00	50.00	21.87	Yes
Retail		N/A	10.00	40.00	10.66	Yes
Industrial		N/A	10.00	40.00	19.98	Yes
Multi family		N/A	10.00	40.00	33.24	Yes
Lodging/Hotel		N/A	0.00	20.00	2.41	Yes
Other ¹		N/A	0.00	15.00	11.83	Yes
Geography	NPI	Target/Constraint	Minimum	Maximum	Actual	Compliant?
West	40.75	NPI +/- 50%	20.37	63.16	40.52	Yes
East	30.62	NPI +/- 50%	15.31	47.47	31.74	Yes
Midwest	7.90	NPI +/- 50%	3.95	12.25	7.76	Yes
South	20.72	NPI +/- 50%	10.36	32.12	15.86	Yes
Other ^{2,3}	0.00	n/a	n/a	n/a	3.85	Yes
Non-U.S.	0.00	12.50	0.00	25.00	0.26	Yes
Manager		Target/Constraint	Minimum	Maximum	Actual	Compliant?
Almanac		10.00	0.00	20.00	3.27	Yes
Angelo Gordon		10.00	0.00	20.00	0.57	Yes
CBRE		10.00	0.00	20.00	0.03	Yes
Heitman		10.00	0.00	20.00	0.00	Yes
Kayne Anderson		10.00	0.00	20.00	0.09	Yes
Landmark		10.00	0.00	20.00	2.83	Yes
Lion		10.00	0.00	35.00	24.85	Yes
Morgan Stanley		10.00	0.00	35.00	0.29	Yes
Oaktree		10.00	0.00	20.00	0.50	Yes
Prudential		10.00	0.00	35.00	30.11	Yes
Rockpoint		10.00	0.00	20.00	0.07	Yes
Rockwood		10.00	0.00	20.00	4.82	Yes
Torchlight		10.00	0.00	20.00	5.60	Yes
UBS		10.00	0.00	35.00	26.98	Yes
Style		Target	Minimum	Maximum	Actual	Compliant?
Core		60.00	50.00	80.00	72.56	Yes
Non-Core ⁴		40.00	20.00	50.00	27.44	Yes

¹Other property types include senior housing, data center, medical office, and self-storage properties

²Other geographic regions include secondary investments

³Does not include Core Plus opportunities

⁴Core Plus, Value Added, and Opportunistic

Agenda

- SECTION 1 MARKET OVERVIEW
- SECTION 2 REAL ESTATE PORTFOLIO OVERVIEW
- SECTION 3 DB/CBB PORTFOLIO UPDATE
- SECTION 4 ENDOWMENT PORTFOLIO UPDATE**
- SECTION 5 OSERS PORTFOLIO UPDATE
- SECTION 6 APPENDIX

Endowment Portfolio Funding Summary

As of 9/30/2021

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	(%) Funded
Core									
Lion Properties Fund	2019	15,000,000	18,677,787	0	1,405,250	20,453,373	35.4	28.8	124.5
Prime Property Fund	2021	8,500,000	222,000	0	2,191	232,740	0.4	0.3	2.6
PRISA LP	2009	6,000,000	6,000,000	0	2,534,822	10,502,340	18.2	14.8	100.0
UBS Trumbull Property Fund	2010	8,500,000	8,500,000	0	4,583,751	10,338,946	17.9	14.6	100.0
Core	2010	38,000,000	33,399,787	0	8,526,015	41,527,398	71.9	58.5	87.9
Core Debt									
UBS Trumbull Property Income Fund	2016	6,000,000	6,000,000	0	1,097,240	6,841,754	11.8	9.6	100.0
Core Debt	2016	6,000,000	6,000,000	0	1,097,240	6,841,754	11.8	9.6	100.0
Opportunistic									
Landmark Real Estate Fund VII	2014	7,500,000	6,915,516	584,484	6,240,463	1,999,254	3.5	3.6	92.2
Metropolitan Real Estate Partners International III, L.P.	2014	10,000,000	16,430,682	990,393	17,545,463	828,684	1.4	2.6	164.3
Metropolitan Real Estate Partners VI, L.P.	2008	20,000,000	22,127,480	1,566,180	32,046,927	922,538	1.6	3.5	110.6
Metropolitan Real Estate Secondaries and Co-Investments Fund, L.P.	2015	10,000,000	8,286,269	1,345,807	6,399,880	3,968,650	6.9	7.5	82.9
Oaktree Real Estate Opportunities Fund VIII	2021	6,000,000	300,000	5,700,000	0	637,769	1.1	8.9	5.0
Torchlight Debt Fund VII, LP	2020	4,000,000	1,000,000	3,000,000	0	1,020,943	1.8	5.7	25.0
Opportunistic	2009	57,500,000	55,059,947	13,186,864	62,232,733	9,377,838	16.2	31.8	95.8
Total Current Portfolio									
NIC - DB Endowment	2009	101,500,000	94,459,734	13,186,864	71,855,988	57,746,990	100.0	100.0	93.1
Total Portfolio (Including Current & Historical Activity)									
NIC - DB Endowment	2009	113,000,000	105,961,295	13,186,864	92,707,286	57,746,989	100.0	100.0	93.8

- The above schedule reflects commitments closed through 3Q21
- The Opportunistic unfunded commitments reflect the investment period of the underlying closed end funds of funds which are fully drawn down over a multi-year period

Endowment Portfolio Time Weighted Performance

As of 9/30/2021

Returns (%)	Quarter				1 Year				3 Year				5 Year				10 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple		
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET					
Core																											
Lion Properties Fund	1.0	5.1	6.1	5.9	3.8	12.6	16.8	15.9														8.7	7.8	2Q19	8.5	1.2	
Prime Property Fund	1.0	5.0	6.0	5.8																		6.0	5.8	3Q21	5.9	1.1	
PRISA LP	1.0	6.6	7.7	7.4	3.9	11.9	16.2	15.2	4.1	3.9	8.2	7.3	4.3	3.9	8.3	7.4	4.7	5.5	10.4	9.4	11.7	10.7	1Q10	9.8	2.2		
UBS Trumbull Property Fund	1.0	5.1	6.2	6.0	4.0	4.4	8.5	7.7	4.3	-2.4	1.9	1.1	4.4	-0.7	3.7	2.9	4.7	2.3	7.1	6.2	8.4	7.5	1Q10	6.6	1.8		
Core	1.0	5.5	6.5	6.3	3.9	10.1	14.3	13.4	4.1	2.3	6.4	5.6	4.2	2.6	6.9	6.1	4.6	4.4	9.2	8.3	11.7	10.7	1Q10	8.8	1.6		
Core Debt																											
UBS Trumbull Property Income Fund	0.9	3.4	4.3	4.1	3.7	6.6	10.5	9.6	3.8	2.4	6.2	5.4	3.9	2.2	6.2	5.4					6.5	5.7	2Q16	5.6	1.3		
Core Debt	0.9	3.4	4.3	4.1	3.7	6.6	10.5	9.6	3.8	2.4	6.2	5.4	3.9	2.2	6.2	5.4					6.5	5.7	2Q16	5.6	1.3		
Opportunistic																											
Landmark Real Estate Fund VII	-0.7	3.5	2.8	2.3	6.0	-3.8	3.6	2.4	3.5	-5.1	-0.8	-1.8	7.0	-4.3	3.1	1.6					15.5	11.3	1Q15	7.4	1.2		
Metropolitan Real Estate Partners International III, L.P.	-0.5	5.1	4.6	4.2	6.1	0.4	6.8	5.4	5.5	-11.1	-5.9	-7.1	4.7	-5.3	-0.6	-1.7	3.2	3.2	6.5	5.0	-9.5	-10.6	3Q09	5.1	1.1		
Metropolitan Real Estate Partners VI, L.P.	-0.5	1.6	1.1	0.8	5.2	1.9	7.5	6.3	-0.1	2.8	3.0	1.9	0.3	3.4	4.0	2.9	0.7	8.2	9.0	8.2	10.9	10.3	1Q09	11.2	1.5		
Metropolitan Real Estate Secondaries and Co-Investments Fund, L.P.	0.2	8.0	8.2	7.9	0.2	9.2	9.4	8.3	0.7	-4.0	-3.3	-2.3	0.8	3.8	4.6	4.0					4.6	3.5	1Q16	7.5	1.3		
Oaktree Real Estate Opportunities Fund VIII L.P.																					N/M	N/M	4Q21	N/M	N/M		
Torchlight Debt Fund VII, LP	1.8	0.5	2.2	0.9	4.6	11.4	16.5	7.6													16.5	7.6	4Q20	3.2	1.0		
Opportunistic	0.0	5.4	5.4	4.9	3.8	4.0	8.0	6.1	2.1	-3.9	-1.8	-2.2	2.9	0.3	3.2	2.2	2.2	7.1	9.5	8.1	10.7	9.6	1Q09	9.4	1.3		
Total Portfolio																											
NIC - DB Endowment	0.8	5.2	6.1	5.8	3.9	8.6	12.7	11.7	3.7	1.0	4.7	4.0	3.9	2.3	6.2	5.3	3.7	6.0	9.9	8.8	11.5	10.6	1Q09	8.8	1.4		
Indices																											
NFI-ODCE Value Weight	1.0	5.6	6.6	6.4	4.0	10.4	14.6	13.6	4.0	2.9	7.1	6.1	4.1	3.3	7.5	6.6	4.6	5.1	9.9	8.9	7.0	6.0	1Q09				

- Portfolio is underperforming the benchmark over the Quarter, 1-Year, 3-Year, and 5-Year timeframes while performing in-line with the 10-Year timeframe
- Portfolio is outperforming the benchmark over the Since Inception timeframe

Non-Core IRR Equivalent

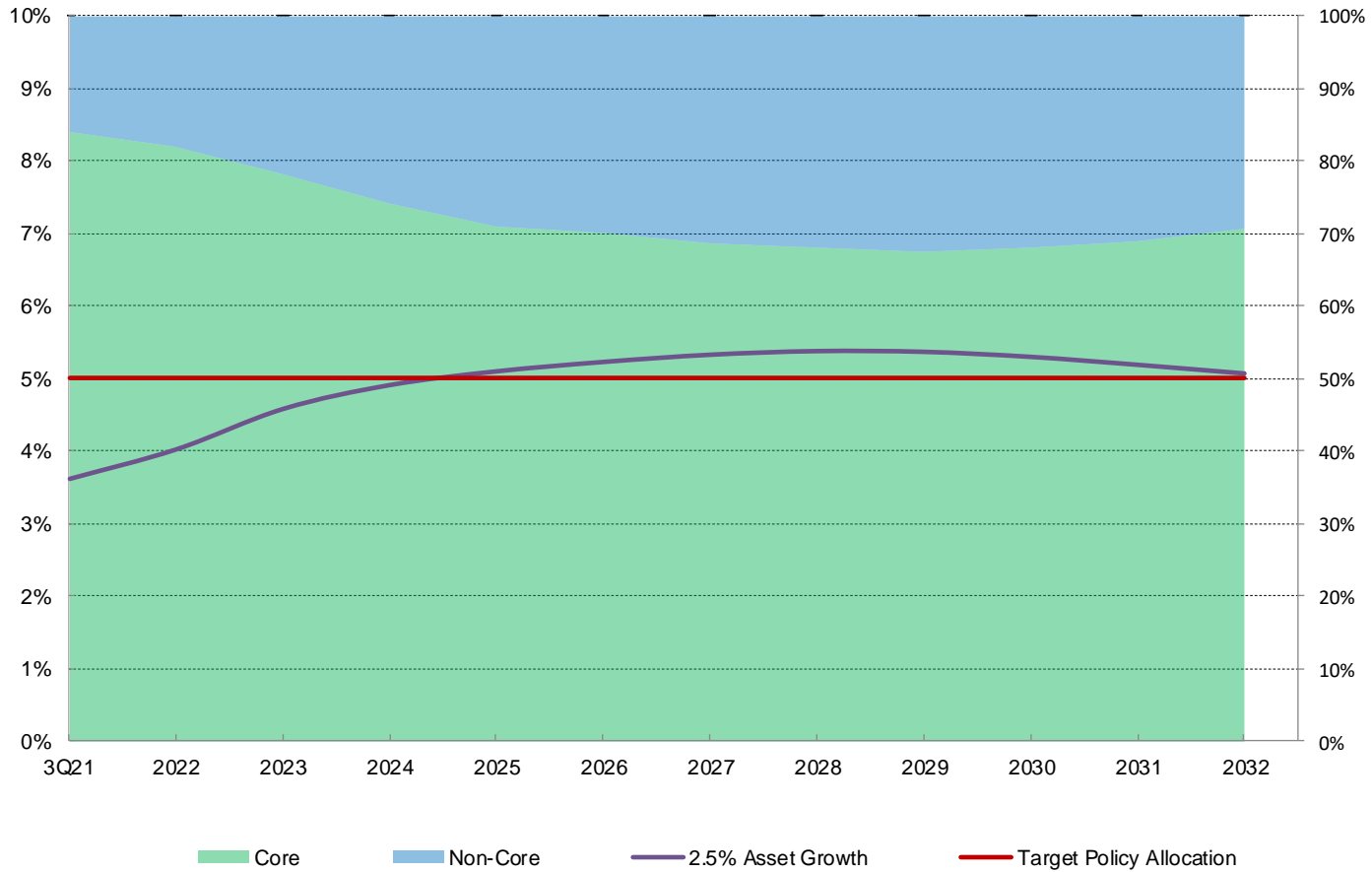
RE Strategy	NIC Performance	NFI-ODCE	NPI	Inception Date
Endowment Opportunistic	9.4%	8.1%	8.8%	12/1/2008

- In an exercise to examine whether the Non-Core portfolio is adding alpha over Core, an IRR equivalent measure of performance has been created for traditional Core benchmarks
 - Cash flows, dates and sizes from Non-Core funds are applied to the NFI-ODCE and NPI indices to derive an IRR equivalent for those indices

- The Opportunistic portfolio has, so far, been a source of alpha over the broadly used Core fund index (NFI-ODCE)

50-50 Endowment Current Pacing

Projected NAV of Real Estate as a Percent of Total Program



Healthcare Endowment Current Pacing

Projected NAV of Real Estate as a Percent of Total Program



Endowment Vintage Year Diversification

As of 9/30/2021

Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
2008	20,000,000	22,127,480	1,566,180	32,046,927	922,538	1.6	3.5
2009	16,000,000	22,430,682	990,393	20,080,285	11,331,024	19.6	17.4
2010	20,000,000	20,001,561	0	25,435,049	10,338,946	17.9	14.6
2014	17,500,000	15,201,785	1,930,291	12,640,343	5,967,904	10.3	11.1
2016	6,000,000	6,000,000	0	1,097,240	6,841,754	11.8	9.6
2019	15,000,000	18,677,787	0	1,405,250	20,453,373	35.4	28.8
2020	4,000,000	1,000,000	3,000,000	0	1,020,943	1.8	5.7
2021	14,500,000	522,000	5,700,000	2,191	870,509	1.5	9.3
Total Portfolio (Including Current & Historical Activity)							
	113,000,000	105,961,295	13,186,864	92,707,286	57,746,989	100	100

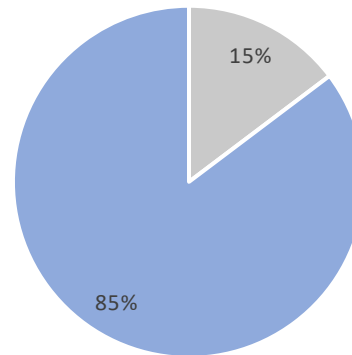
Investment Vintage Year	Quarter				1 Year				3 Year				5 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET			
2008	-0.5	1.6	1.1	0.8	5.2	1.9	7.5	6.3	-0.1	2.8	3.0	1.9	0.3	3.4	4.0	2.9	10.9	10.3	1Q09	11.2	1.5
2009	0.9	6.5	7.4	7.2	4.1	10.9	15.3	14.3	4.2	1.5	5.8	4.9	4.2	2.5	6.8	5.9	5.6	4.6	3Q09	8.0	1.4
2010	1.0	5.1	6.2	6.0	4.0	4.4	8.5	7.7	4.2	-0.8	3.4	2.7	4.3	0.7	4.9	4.2	11.3	10.3	1Q10	8.4	1.8
2014	-0.1	6.6	6.5	6.2	2.8	4.3	7.4	6.3	1.9	-4.2	-2.2	-2.0	3.5	0.6	4.2	3.2	19.7	14.5	1Q15	7.4	1.2
2016	0.9	3.4	4.3	4.1	3.7	6.6	10.5	9.6	3.8	2.4	6.2	5.4	3.9	2.2	6.2	5.4	6.5	5.7	2Q16	5.6	1.3
2019	1.0	5.1	6.1	5.9	3.8	12.6	16.8	15.9									8.7	7.8	2Q19	8.5	1.2
2020	1.8	0.5	2.2	0.9	4.6	11.4	16.5	7.6									16.5	7.6	4Q20	3.2	1.0
2021	0.5	6.3	6.8	4.4													6.8	4.4	3Q21	N/M	1.7

- Vintage years and investment types affect performance

Endowment Capital Stack Exposure

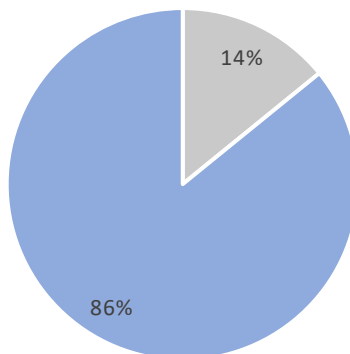
Total Real Estate

■ % Debt ■ % Equity



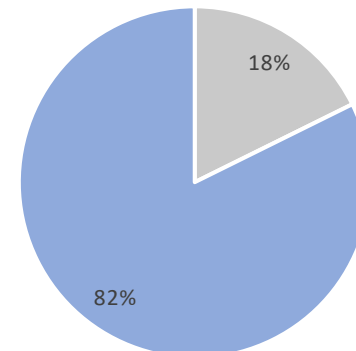
Core

■ % Debt ■ % Equity



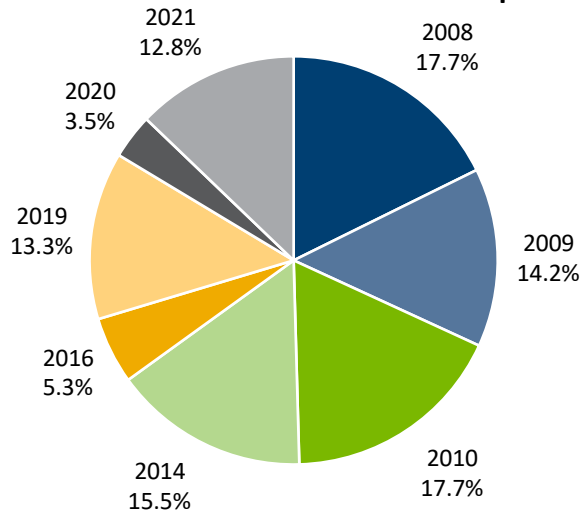
Non-Core

■ % Debt ■ % Equity

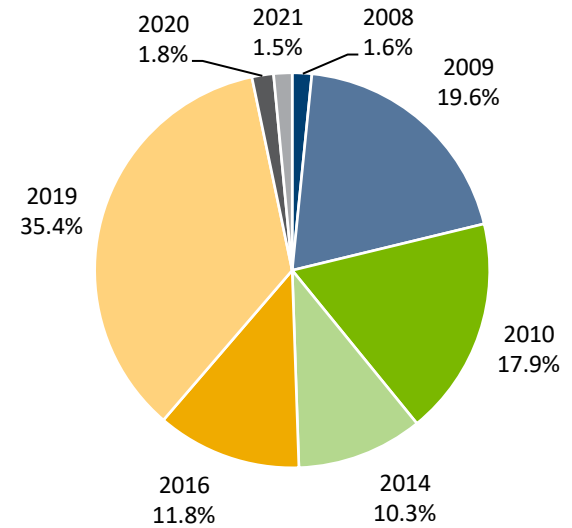


Endowment Portfolio Diversification

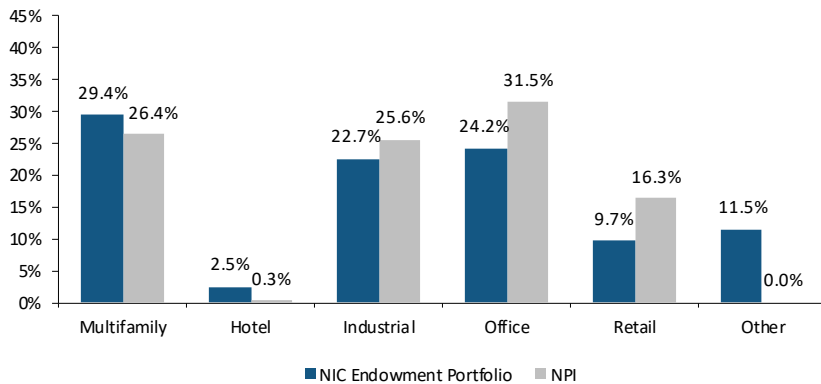
**Endowment Vintage Year Diversification
as % of Committed Capital**



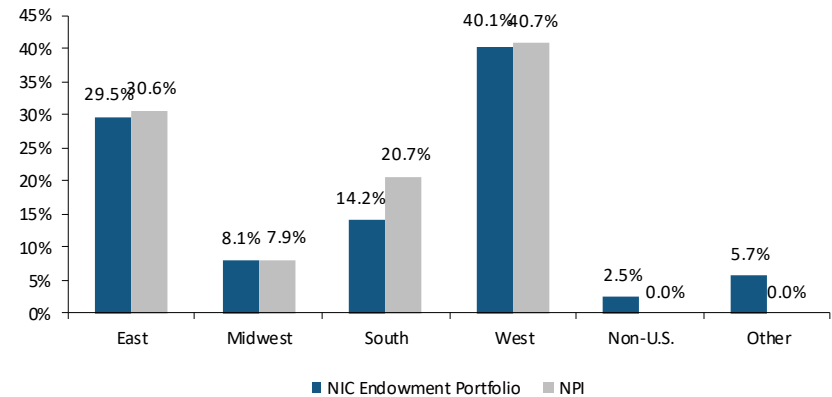
**Endowment Vintage Year Diversification
as % of Net Asset Value**



**Property Type Diversification¹
as % of NAV**



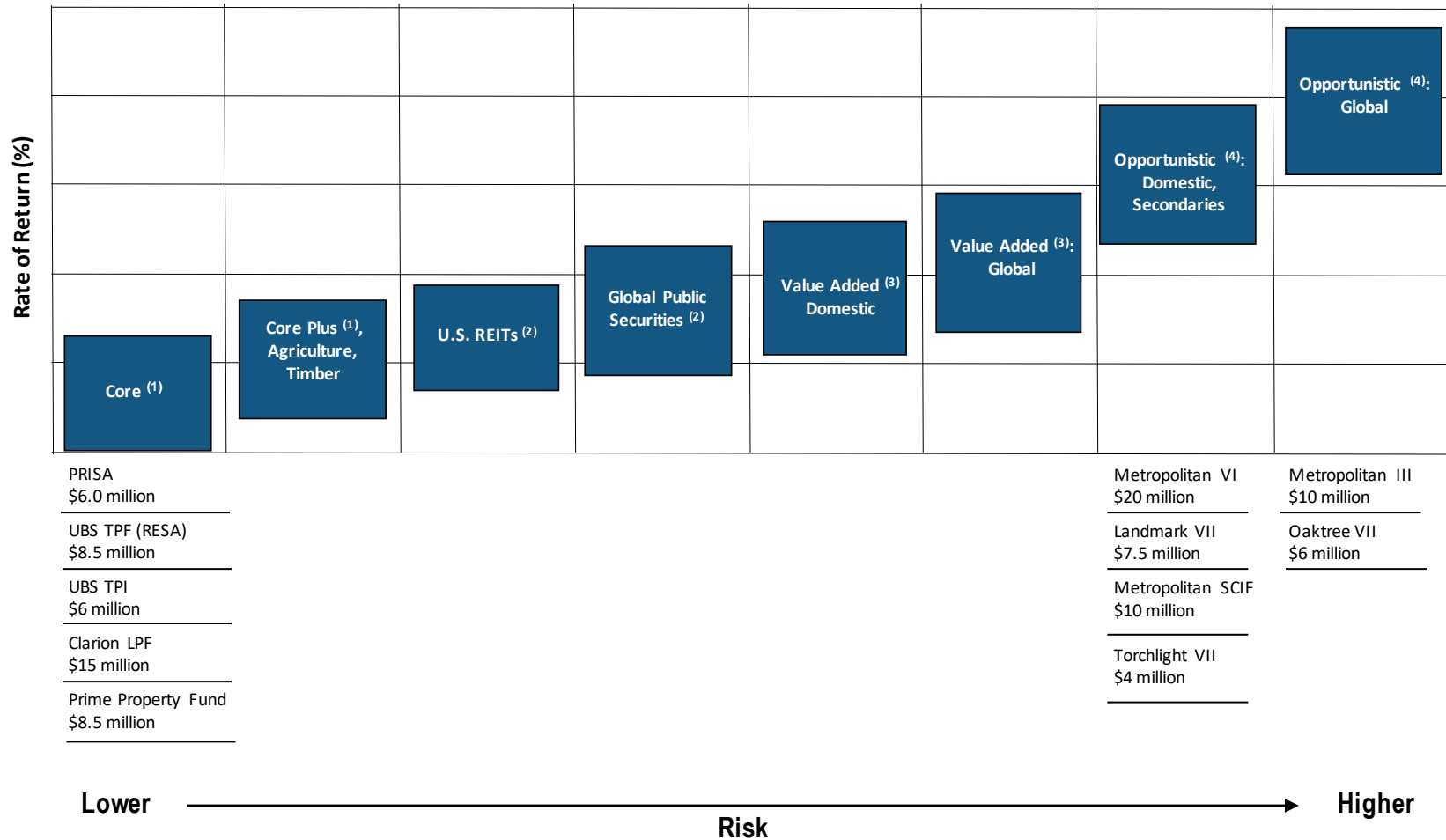
**Geographic Diversification²
as % of NAV**



¹Other property types include manufactured housing, healthcare, self-storage, and mixed use/diversified investments

²Other regional exposure include secondary investments

Real Estate Risk/Return Spectrum (Endowment)



Notes:

1. Core - investment in stabilized properties; employ no/low portfolio leverage (0 to 35%); asset-level leverage up to 50%
2. Securities - Core/Value Added exposure to real estate via public securities
3. Value Added - direct investment in properties where development/redevelopment of property generates incremental return; employ moderate portfolio leverage (35 to 65%); asset-level leverage up to 70%
4. Opportunistic - direct/indirect investment in non-stabilized properties, companies, loans, etc.; employ portfolio leverage up to 85%; Asset-level leverage up to 90%; possible investments in emerging markets

Endowment Compliance – Private Markets

RISK MANAGEMENT						
PropertyType		Plan Target	Minimum	Maximum	Actual	Compliant?
Office		N/A	10.00	50.00	24.22	Yes
Retail		N/A	10.00	40.00	9.69	No
Industrial		N/A	10.00	40.00	22.66	Yes
Multifamily		N/A	10.00	40.00	29.43	Yes
Lodging/Hotel		N/A	0.00	20.00	2.51	Yes
Other ¹		N/A	0.00	15.00	11.49	Yes
Geography	NPI	Target/Constraint	Minimum	Maximum	Actual	Compliant?
West	40.75	NPI +/- 50%	20.37	61.12	40.14	Yes
East	30.62	NPI +/- 50%	15.31	45.94	29.45	Yes
Midwest	7.90	NPI +/- 50%	3.95	11.86	8.09	Yes
South	20.72	NPI +/- 50%	10.36	31.08	14.15	Yes
Other ^{2,3}	0.00	n/a	n/a	n/a	5.67	Yes
Non-U.S.	0.00	12.50	0.00	25.00	2.50	Yes
Manager		Target/Constraint	Minimum	Maximum	Actual	Compliant?
Clarion		10.0	0.00	35.00	35.42	No
Landmark		10.0	0.00	50.00	3.46	Yes
Metropolitan		10.0	0.00	50.00	9.91	Yes
Morgan Stanley		10.0	0.00	50.00	0.40	Yes
Oaktree		10.0	0.00	35.00	1.10	Yes
Prudential		10.0	0.00	35.00	18.19	Yes
Torchlight		10.0	0.00	35.00	1.77	Yes
UBS		10.0	0.00	35.00	29.75	Yes
Style		Target	Minimum	Maximum	Actual	Compliant?
Core		60.0	50.00	80.00	83.76	No
Non-Core ⁴		40.0	20.00	50.00	16.24	No

- Retail is out of compliance as a result of two core funds under allocated to retail properties
- Clarion is out of compliance as a result of the Lion Properties Fund strong recovery from the COVID-19 pandemic
- The core portfolio is out of compliance; however, recent commitments to non-core funds should continue to move towards its target allocation irrespective of the liquidating investments

¹Other property types include land, self-storage, distressed debt, and diversified properties

²Other geographic regions include distressed debt portfolios and operating platforms with holdings across multiple regions

³The large allocation to diversified properties reduces the overall portfolio's exposure to traditional geographic regions; as such, we still consider the individual geographic regions to be in compliance with the stated policy as they portfolio is adequately diversified

⁴Value-Added and Opportunistic

Agenda

- SECTION 1 MARKET OVERVIEW
- SECTION 2 REAL ESTATE PORTFOLIO OVERVIEW
- SECTION 3 DB/CBB PORTFOLIO UPDATE
- SECTION 4 ENDOWMENT PORTFOLIO UPDATE
- SECTION 5 OSERS PORTFOLIO UPDATE**
- SECTION 6 APPENDIX

OSERS Portfolio Funding Summary

As of 9/30/2021

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	(%) Funded
Core									
JP Morgan Strategic Property Fund	1998	23,223,441	23,223,441	0	53,786,762	16,444,357	16.3	13.8	100.0
Prime Property Fund	2021	33,614,492	268,000	0	2,646	280,967	0.3	0.2	0.8
UBS Trumbull Property Fund	1995	33,614,492	33,614,492	0	73,843,379	12,476,874	12.3	10.4	100.0
Core	1995	90,452,425	57,105,933	0	127,632,787	29,202,197	28.9	24.4	63.1
Value Added									
Almanac Realty Securities VI	2012	25,000,000	17,487,904	0	19,074,607	3,343,897	3.3	2.8	70.0
Almanac Realty Securities VII	2015	30,000,000	28,771,013	6,948,434	23,224,500	16,307,350	16.1	19.4	95.9
Value Added	1998	55,000,000	46,258,917	6,948,434	42,299,107	19,651,247	19.4	22.2	84.1
Opportunistic									
25 Capital Residential Mortgage Opportunities Fund	2012	50,000,000	109,416,991	0	101,223,960	14,555,225	14.4	12.2	218.8
JP Morgan India Fund II	2012	25,000,000	25,498,209	1,897,471	2,395,679	8,991,236	8.9	9.1	102.0
Kayne Anderson Real Estate Partners VI	2021	10,000,000	400,000	9,600,000	0	250,160	0.2	8.2	4.0
Mariner Real Estate Partners III	2011	50,000,000	47,074,275	0	67,218,907	3,408,483	3.4	2.9	94.1
Mariner Real Estate Partners IV	2014	60,000,000	96,423,790	0	109,965,628	25,067,851	24.8	21.0	160.7
Opportunistic	2011	195,000,000	278,813,265	11,497,471	280,804,174	52,272,955	51.7	53.3	143.0
Total Current Portfolio									
OSERS	1995	340,452,425	382,178,115	18,445,905	450,736,068	101,126,399	100.0	100.0	112.3
Total Portfolio (Including Current & Historical Activity)									
OSERS	1995	374,350,798	418,075,685	18,445,905	505,544,347	101,126,399	100.0	100.0	111.7

- The above schedule reflects commitments closed through 3Q21
- The Value-Added and Opportunistic unfunded commitments reflect the investment period of the underlying closed end funds of funds which are fully drawn down over a multi-year period



OSERS Portfolio Time Weighted Performance

As of 9/30/2021

Returns (%)	Quarter				1 Year				3 Year				5 Year				10 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple	
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET				
Core																										
JP Morgan Strategic Property Fund	1.0	5.7	6.7	6.5	3.5	10.2	14.0	12.9	3.7	2.7	6.5	5.4	3.9	3.0	6.9	5.8	4.5	5.2	9.8	8.7	9.2	8.5	1Q98	9.7	3.0	
Prime Property Fund	1.0	5.0	6.0	5.8																	6.0	5.8	3Q21	5.9	1.1	
UBS Trumbull Property Fund	1.0	5.1	6.2	6.0	4.0	4.4	8.5	7.7	4.3	-2.4	1.9	1.1	4.4	-0.7	3.7	2.8	4.7	2.3	7.1	6.1	9.1	8.0	4Q95	10.4	2.6	
Core	1.0	5.5	6.5	6.2	3.7	7.5	11.4	10.5	4.0	0.3	4.2	3.4	4.1	1.2	5.3	4.3	4.6	3.7	8.4	7.3	9.6	8.6	4Q95	10.0	2.7	
Value Added																										
Almanac Realty Securities VI	0.0	2.5	2.4	2.1	-5.0	11.9	6.2	4.9	4.9	-14.0	-9.4	-10.3	6.0	-9.7	-4.1	-4.9					6.0	4.5	1Q12	9.2	1.3	
Almanac Realty Securities VII	2.4	4.0	6.4	6.1	7.4	5.5	13.1	11.9	7.8	4.7	12.8	11.6	8.2	6.7	15.4	13.5					15.6	12.6	3Q15	13.0	1.4	
Value Added	2.0	3.8	5.7	5.4	5.2	6.5	11.9	10.6	7.4	0.0	7.4	6.3	7.4	1.9	9.4	8.0	6.2	4.2	10.5	8.9	9.4	8.3	1Q98	7.5	1.4	
Opportunistic																										
25 Capital Residential Mortgage Opportunities Fund	1.7	1.8	3.4	2.6	4.3	14.8	19.8	15.5	4.2	-10.6	-6.7	-11.1	1.9	-4.4	-2.5	-6.0					1.8	-2.6	1Q13	2.3	1.1	
JP Morgan India Fund II	0.3	-0.6	-0.3	-0.8	0.2	7.5	7.7	4.7	-2.9	-17.4	-20.5	-22.6	-0.9	-14.7	-15.9	-17.8					-5.7	-8.6	4Q12	-13.7	0.4	
Kayne Anderson Real Estate Partners VI																					N/M	N/M	4Q21	N/M	N/M	
Mariner Real Estate Partners III	0.0	-3.5	-3.5	-3.5	0.0	5.7	5.7	4.8	0.0	-10.9	-10.9	-12.2	0.0	-5.5	-5.5	-6.8	0.0	2.8	2.8	1.4	2.8	1.4	4Q11	7.7	1.5	
Mariner Real Estate Partners IV	0.0	-0.9	-0.9	-1.2	0.0	22.3	22.3	21.0	0.0	16.5	16.5	14.1	0.0	23.0	23.0	18.8					14.1	10.7	1Q15	14.7	1.4	
Opportunistic	0.4	-0.5	-0.1	-0.7	0.8	16.8	17.8	15.6	0.0	2.6	2.6	0.3	0.0	4.9	4.8	2.3	-2.0	10.0	7.9	5.5	7.9	5.5	4Q11	5.6	1.2	
Total Portfolio																										
OSERS	0.8	1.7	2.5	2.0	2.1	13.8	16.2	14.4	1.8	1.9	3.7	1.8	1.7	3.6	5.4	3.3	0.9	7.3	8.2	6.3	9.6	8.3	4Q95	8.4	1.5	
Indices																										
NFI-ODCE Value Weight	1.0	5.6	6.6	6.4	4.0	10.4	14.6	13.6	4.0	2.9	7.1	6.1	4.1	3.3	7.5	6.6	4.6	5.1	9.9	8.9	9.0	8.0	4Q95			

- Portfolio is underperforming the benchmark over the Quarter, 3-Year, 5-Year, and 10-Year timeframes
- Portfolio is outperforming the benchmark over the 1-Year and Since Inception timeframe

Non-Core IRR Equivalent

RE Strategy	OSERS Performance	NFI-ODCE	NPI	Inception Date
OSERS Value Added	7.5%	6.8%	8.4%	1/1/1998
OSERS Opportunistic	5.6%	8.9%	8.9%	8/3/2011
OSERS Value Added & Opportunistic	6.3%	8.1%	8.7%	1/1/1998

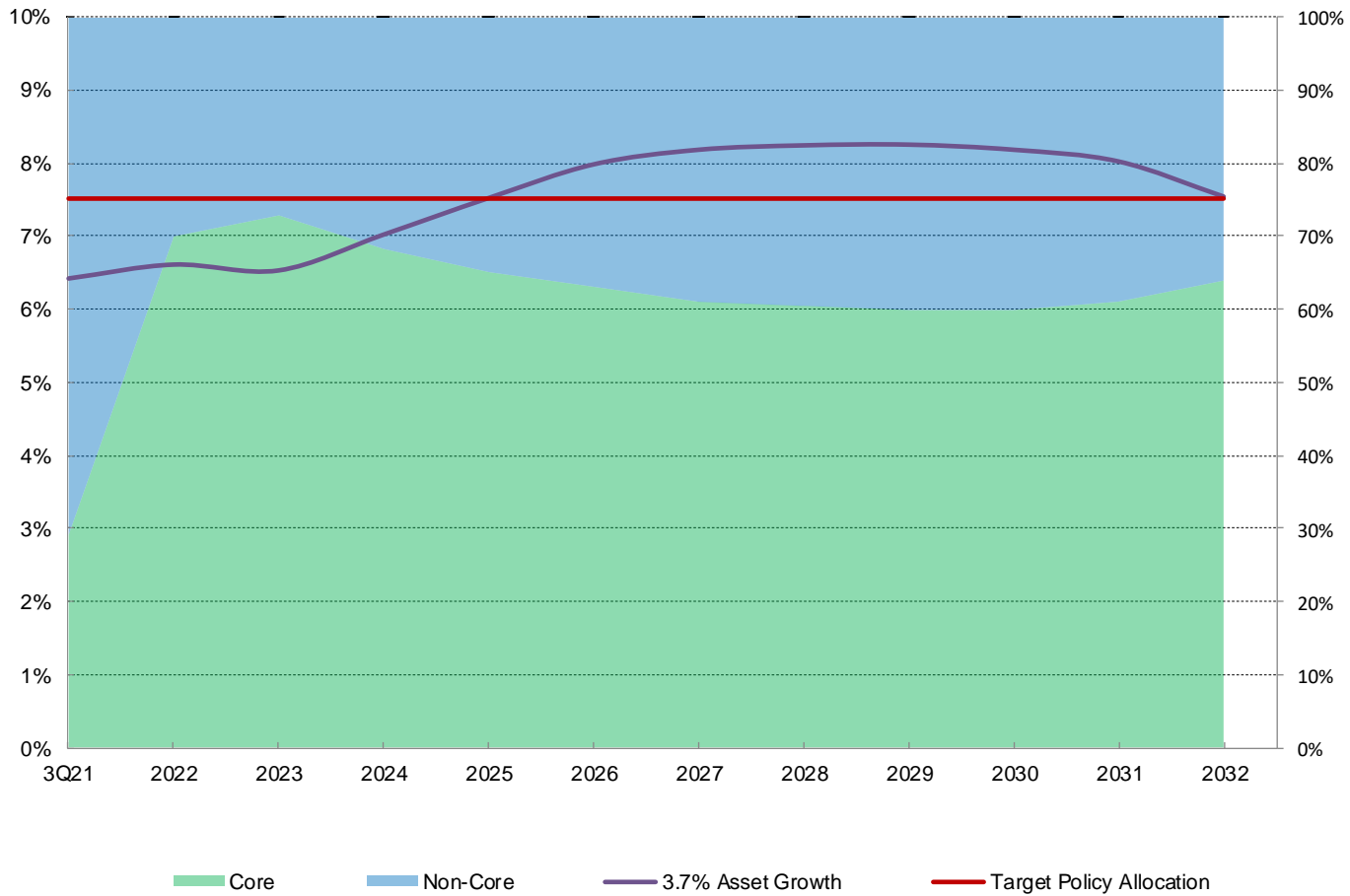
- In an exercise to examine whether the Non-Core portfolio is adding alpha over Core, an IRR equivalent measure of performance has been created for traditional Core benchmarks
 - Cash flows, dates and sizes from Non-Core funds are applied to the NFI-ODCE and NPI indices to derive an IRR equivalent for those indices

- The Value Added portfolio has, so far, been a source of alpha over the broadly used Core fund index (NFI-ODCE)

- The Opportunistic portfolio is currently trailing the lower risk Core at this point, the investments in 25 Capital Mortgage Opportunities and JP Morgan India II being the primary detractors due to their respective 2.3% and -13.7% net IRRs
 - An additional analysis that excluded these investments resulted in an IRR of 10.3% for the two Mariner Real Estate Partners in the Opportunistic portfolio

OSERS – Current Pacing

Projected NAV of Real Estate as a Percent of Total Program



OSERS Vintage Year Diversification

As of 9/30/2021

Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
1995	33,614,492	33,614,492	0	73,843,379	12,476,874	12.3	10.4
1998	26,834,300	26,834,300	0	68,108,172	16,444,357	16.3	13.8
2004	30,287,514	32,286,711	0	40,486,869	0	0.0	0.0
2011	50,000,000	47,074,275	0	67,218,907	3,408,483	3.4	2.9
2012	100,000,000	152,403,104	1,897,471	122,694,246	26,890,358	26.6	24.1
2014	60,000,000	96,423,790	0	109,965,628	25,067,851	24.8	21.0
2015	30,000,000	28,771,013	6,948,434	23,224,500	16,307,350	16.1	19.4
2021	43,614,492	668,000	9,600,000	2,646	531,127	0.5	8.5
Total Portfolio (Including Current & Historical Activity)							
	374,350,798	418,075,685	18,445,905	505,544,347	101,126,399	100	100

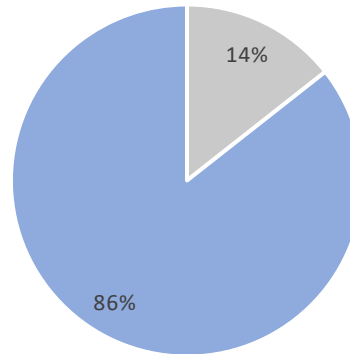
Investment Vintage Year	Quarter				1 Year				3 Year				5 Year				Inception		TWR Calculation Inception	Net IRR	Equity Multiple
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TGRS	TNET			
1995	1.0	5.1	6.2	6.0	4.0	4.4	8.5	7.7	4.3	-2.4	1.9	1.1	4.4	-0.7	3.7	2.8	9.1	8.0	4Q95	10.4	2.6
1998	1.0	5.7	6.7	6.5	3.5	10.2	14.0	12.9	3.7	2.7	6.5	5.4	3.8	3.1	7.0	5.8	9.1	8.4	1Q98	9.4	3.2
2004*																			1Q05	4.9	1.3
2011	0.0	-3.5	-3.5	-3.5	0.0	5.7	5.7	4.8	0.0	-10.9	-10.9	-12.2	0.0	-5.5	-5.5	-6.8	2.8	1.4	4Q11	7.7	1.5
2012	1.0	1.0	2.0	1.4	1.7	11.6	13.6	10.1	1.2	-12.5	-11.7	-14.5	1.0	-7.9	-7.2	-9.6	0.4	-2.5	1Q12	-0.7	1.0
2014	0.0	-0.9	-0.9	-1.2	0.0	22.3	22.3	21.0	0.0	16.5	16.5	14.1	0.0	23.0	23.0	18.8	14.1	10.7	1Q15	14.7	1.4
2015	2.4	4.0	6.4	6.1	7.4	5.5	13.1	11.9	7.8	4.7	12.8	11.6	8.2	6.7	15.4	13.5	15.6	12.6	3Q15	13.0	1.4
2021	-3.7	-2.3	-6.1	-25.8													-6.1	-25.8	3Q21	-25.6	0.8

- Vintage years and investment types affect performance
- 2004 vintage year funds have liquidated and no longer report time weighted returns

OSERS Capital Stack Exposure

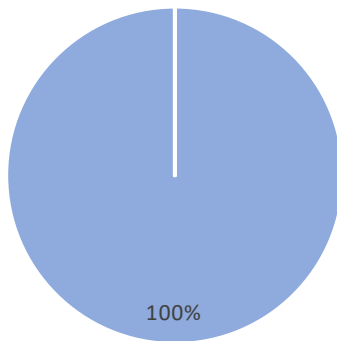
Total Real Estate

■ % Debt ■ % Equity



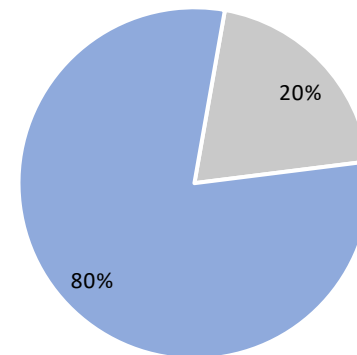
Core

■ % Debt ■ % Equity

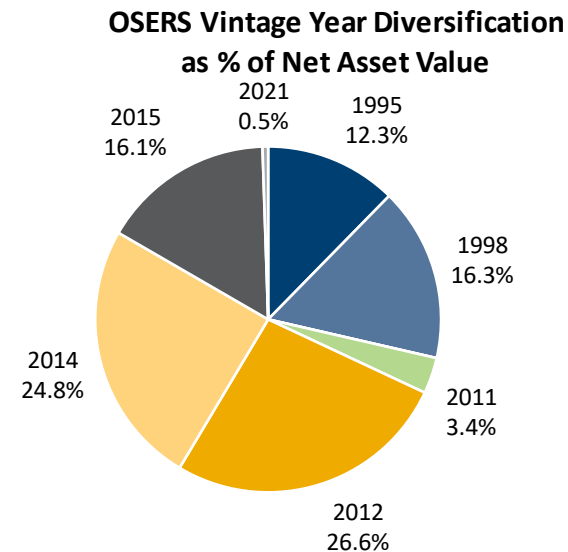
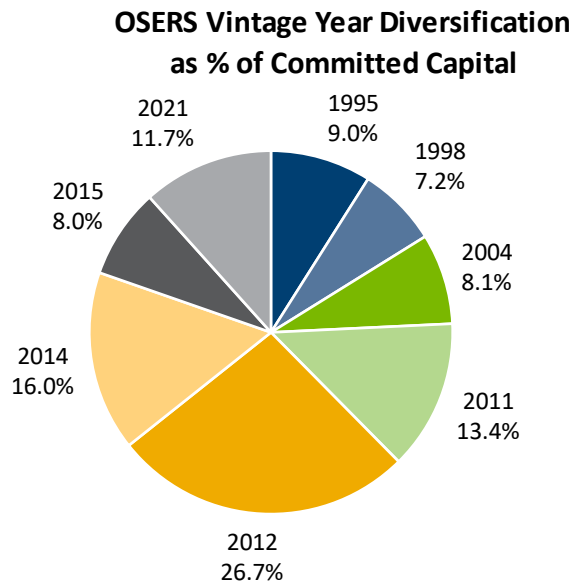


Non-Core

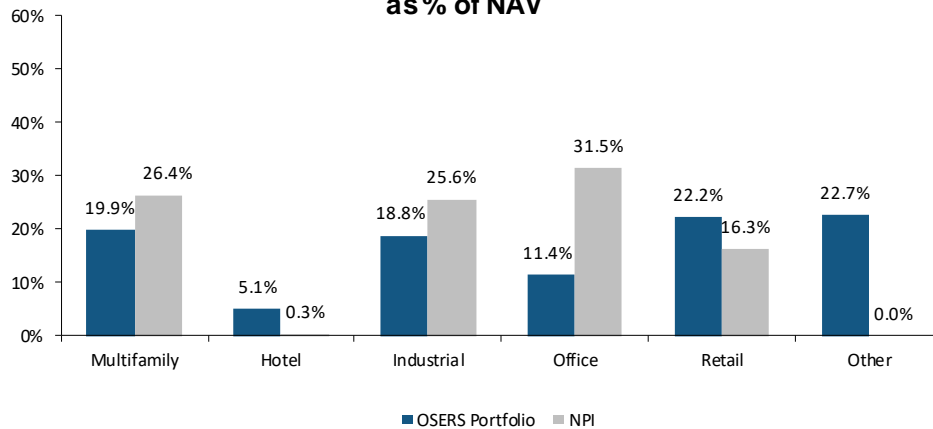
■ % Debt ■ % Equity



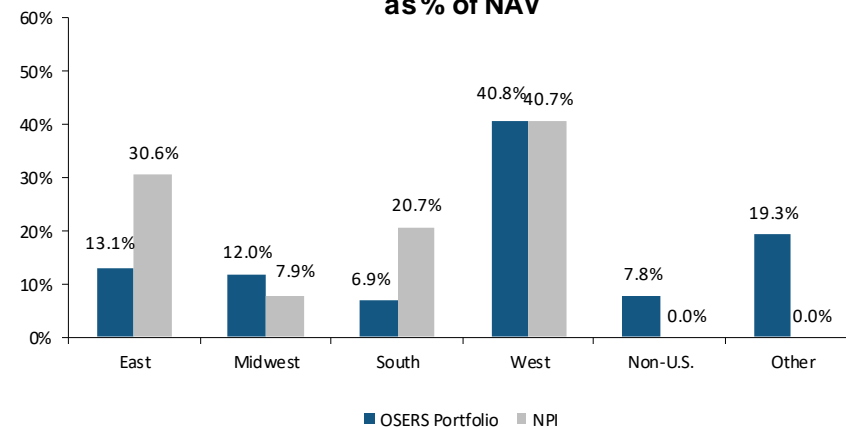
OSERS Portfolio Diversification



Property Type Diversification¹ as % of NAV



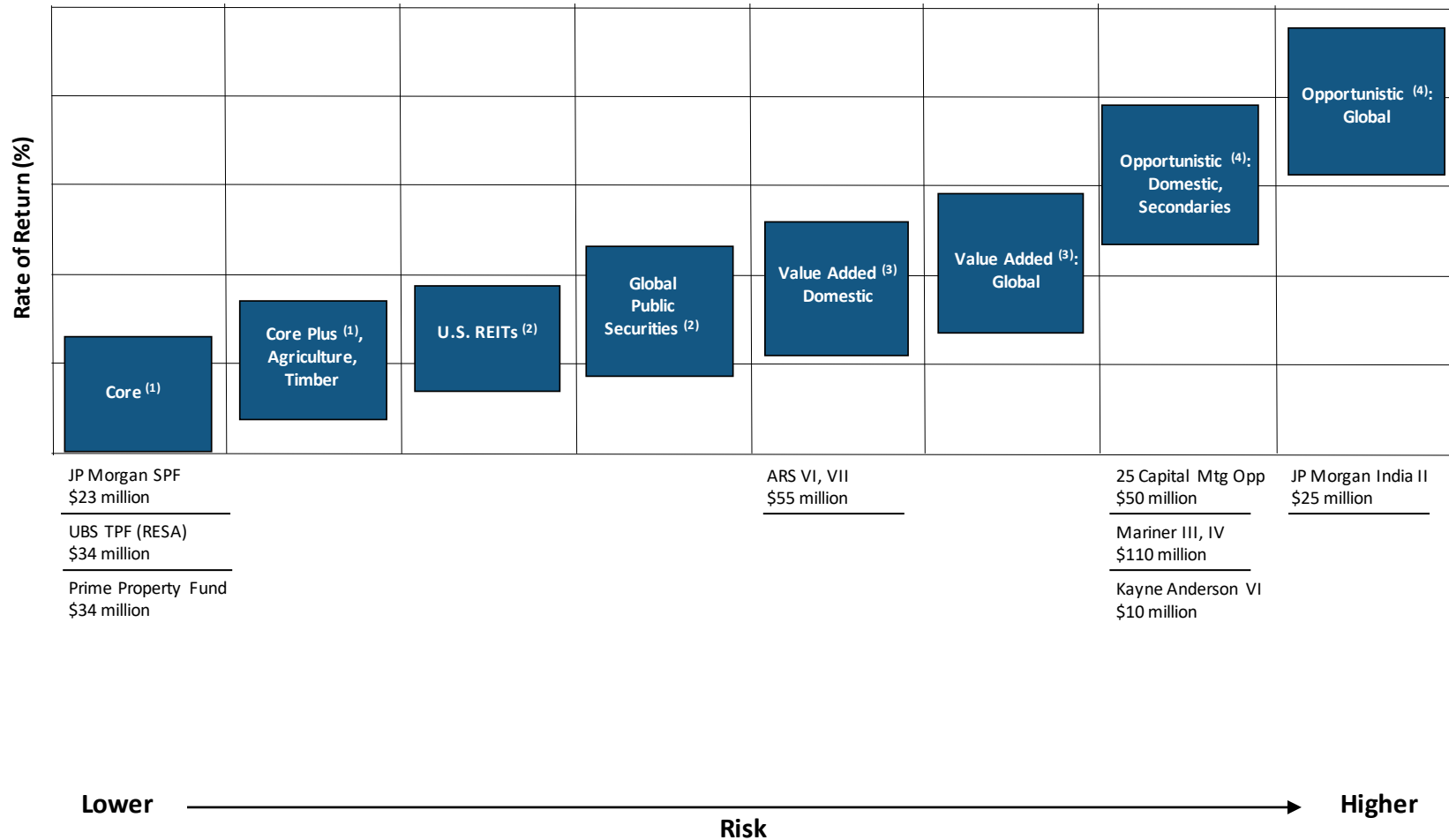
Geographic Diversification² as % of NAV



¹Other property types include manufactured housing, healthcare, self-storage, and mixed use/diversified investments

²Other regional exposure include secondary investments

Real Estate Risk/Return Spectrum (OSERS)



Notes:

1. Core - investment in stabilized properties; employ no/low portfolio leverage (0 to 35%); asset-level leverage up to 50%
2. Securities - Core/Value Added exposure to real estate via public securities
3. Value Added - direct investment in properties where development/redevelopment of property generates incremental return; employ moderate portfolio leverage (35 to 65%); asset-level leverage up to 70%
4. Opportunistic - direct/indirect investment in non-stabilized properties, companies, loans, etc.; employ portfolio leverage up to 85%; Asset-level leverage up to 90%; possible investments in emerging markets

OSERS – Real Assets Portfolio Funding Summary



Partnership Name	Vintage Year	RA Strategy	Commitment	Cumulative Paid-In (Inside Commitment)	Percent Funded	Unfunded Commitment	Net Asset Value
JP Morgan Maritime Global	2010	Infrastructure	\$25,000,000	\$25,085,937	100.3	\$682,971	\$21,929,811
Subtotal Infrastructure			25,000,000	25,085,937	100.3	682,971	21,929,811
BTG Pactual Timberland	2004	Real Estate	25,000,000	25,000,000	100.0	0	257,819
Subtotal Real Estate			25,000,000	25,000,000	100.0	0	257,819
Total Real Assets Portfolio			\$50,000,000	\$50,085,937	100.2	\$682,971	\$22,187,630

OSERS – Real Assets Evolution of Performance

Partnership Name	Vintage Year	Real Asset Strategy	IRR as of										
			12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	9/30/2021
BTG Pactual Timberland	2004	Real Estate	0.00%	4.15%	4.38%	3.91%	3.53%	3.15%	2.63%	1.30%	1.21%	1.20%	1.20%
JP Morgan Maritime Global	2010	Infrastructure	0.00%	-86.16%	7.20%	-1.93%	-18.11%	-23.19%	-10.76%	-6.96%	-7.29%	-9.32%	0.93%
Total Real Assets Portfolio			0.00%	2.90%	4.47%	3.58%	1.69%	0.05%	0.42%	-0.51%	-0.88%	-1.63%	1.11%

Partnership Name	Vintage Year	Real Asset Strategy	TVPI as of										
			12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	9/30/2021
BTG Pactual Timberland	2004	Real Estate	1.00x	1.33x	1.41x	1.40x	1.39x	1.38x	1.33x	1.16x	1.16x	1.16x	1.16x
JP Morgan Maritime Global	2010	Infrastructure	1.00x	0.32x	1.10x	0.97x	0.74x	0.60x	0.73x	0.76x	0.70x	0.59x	1.06x
Total Real Assets Portfolio			1.00x	1.20x	1.34x	1.25x	1.11x	1.00x	1.03x	0.96x	0.93x	0.87x	1.11x

OSERS – Real Assets Portfolio Performance by Vintage Year

Vintage Year	Number of Investments	Commitment	Unfunded Commitment	Cumulative Paid-In	Cumulative Distributions	Net Asset Value	Total Value	Return Multiples		IRR
								DPI ¹	TVPI ²	
2004	1	\$25,000,000	\$0	\$25,000,000	\$28,653,562	\$257,819	\$28,911,381	1.15x	1.16x	1.20%
2010	1	25,000,000	682,971	25,085,937	4,677,520	21,929,811	26,607,330	0.19x	1.06x	0.93%
Total Real Assets Portfolio	2	\$50,000,000	\$682,971	\$50,085,937	\$33,331,082	\$22,187,630	\$55,518,712	0.67x	1.11x	1.11%

Agenda

- SECTION 1 MARKET OVERVIEW
- SECTION 2 REAL ESTATE PORTFOLIO OVERVIEW
- SECTION 3 DB/CBB PORTFOLIO UPDATE
- SECTION 4 ENDOWMENT PORTFOLIO UPDATE
- SECTION 5 OSERS PORTFOLIO UPDATE
- SECTION 6 APPENDIX**

Portfolio Benchmark Descriptions

- The portfolio's current benchmark is the National Council of Real Estate Investment Fiduciaries Open-End Diversified Core Fund Index (NFI-ODCE). From October 1, 2011 to December 31, 2015 the benchmark was the National Council of Real Estate Investment Fiduciaries Property Index ("NPI"). From October 1, 2005 to September 30, 2011 the benchmark was a composite index consisting of 80% NPI and 20% Dow Jones U.S. Select Real Estate Securities Index. Prior to the change on October 1, 2005, the portfolio's benchmark was a composite consisting of 80% Dow Jones U.S. Select Real Estate Securities Index and 20% NPI.
- NCREIF changed the basis of diversification for the NFI ODCE from NREA to GRE effective 1Q20.