



DAVID Y. IGE
GOVERNOR

THOMAS WILLIAMS
EXECUTIVE DIRECTOR

KANOE MARGOL
DEPUTY EXECUTIVE DIRECTOR

**STATE OF HAWAII
EMPLOYEES' RETIREMENT SYSTEM**

November 4, 2022

Addendum No. 2

To

REQUEST FOR PROPOSALS

Real Assets Investment Consultant

RFP 2022-06

Issued October 3, 2022

OFFERORS:

In accordance with Administrative Overview, Section VI. Of the Request for Proposals (RFP), the Employees' Retirement System of the State of Hawaii (ERS) is providing the following responses to questions from potential offerors:

- 1) QUESTION: What is the current expected investment pacing for 2023-2026? If you can provide, how much to be allocated by each of the four sectors: real estate, infrastructure, timber and farmland?

RESPONSE: The current expected pacing for 2023-2026 is still ‘to be determined’ and it will depend on future annual strategic/pacing plans and Asset/Liability (A/L) studies. Approved total real assets pacing for CY 2023 is a \$550 million target (\$325M-\$775M range), approximately 7-10 funds. The current long-term strategic asset allocation targets (% of ERS Total Fund) are 15.5% for Real Assets (6.0% core real estate, 4.5% non-core real estate, 1.75% timber, 1.5% agriculture, 1.75% infrastructure). The next A/L study is expected to be completed in 2023. We expect the real assets pacing going forward to be significantly less than it was the past few years, as we've already increased the real assets allocations closer to targets.



**Employees' Retirement System
of the State of Hawaii**

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- 2) QUESTION: How many LPAC memberships does ERS have?

RESPONSE: ERS is currently on the LPAC for ~18 active real assets funds (~13 Full/Voting seats, 5 Observer/Non-Voting seats).

- 3) QUESTION: Approximately how many LPAC meetings per year would the consultant be expected to attend? Are these generally in-person or telephonic?

RESPONSE: The majority of LPAC's typically meet one time per year, with a minority of funds having a second LPAC meeting (and some funds have zero LPAC meetings). In 2021 there were approximately 19 LPAC meetings, and we'd expect a similar amount (approximately 20-22) LPAC meetings/year going forward. These LPAC meetings are generally a mix of in-person and/or telephonic (depending on if the manager offers a telephonic/virtual option). In certain instances, when ERS has a full/voting seat and when in-person attendance is required (but ERS staff can't attend in-person), it may be possible for consultant (when attending LPAC meeting in-person as ERS's attendee/representative) to get some travel costs paid for/reimbursed by the underlying real assets fund where ERS is an LPAC member (depending on the underlying fund LPA/agreement with the manager).

- 4) QUESTION: Does ERS have direct real estate holdings (i.e. not held in a fund or separate account)?

FEE

RESPONSE: No, ERS does not have any "direct" real estate holdings that are not held in a fund or separate account. ERS does have one core real estate separate account, managed by an external manager (where ERS wholly owns individual properties/assets in the separate account).

- 5) QUESTION: What is the fee for the expiring Real Assets consulting contract with the incumbent?

RESPONSE: Year 1: \$267,000
 Year 2: \$274,000
 Year 3: \$284,000
 Year 4: \$291,000
 Year 5: \$296,000
 Year 6: \$302,000

- 6) QUESTION: Can you please provide the reason for the issuance of this RFP?

RESPONSE: Current consultant contract will be expiring; our practice is to go out to market every few years for a new search.

- 7) QUESTION: What is the biggest investment-related issue the Board is currently facing?

RESPONSE: Achieving our assumed investment return of 7% as consistently as possible so that the ERS stays on its path to full funding.

- 8) QUESTION: Can you please provide the current fee being paid for real asset investment consulting services?

RESPONSE: Year 1: \$267,000
Year 2: \$274,000
Year 3: \$284,000
Year 4: \$291,000
Year 5: \$296,000
Year 6: \$302,000

- 9) QUESTION: Please can you define the role of Real Assets in Hawaii Employee Retirement System's overall portfolio?

RESPONSE: See Investment Policy Statement (IPS) on ERS's website for details:
<https://ers.ehawaii.gov/investments/program>

- 10) QUESTION: When do you anticipate the next review of your Strategic Asset Allocation?

RESPONSE: The next Asset/Liability (A/L) study is expected to be completed in 2023.

- 11) QUESTION: Will the development of a 5-year Strategic Plan for Real Assets be part of the deliverables for the first 6-months?

RESPONSE: The Real Assets Strategic/Pacing plan is usually presented at the annual ERS Investment Summit (in July). If a new consultant is selected (starting in July), making that July timing would be unlikely, so we'd expect to delay it and do it as soon as possible after that (yes, likely within the first 6-months).

- 12) QUESTION: How many Managed Accounts are currently held in the current Real Asset portfolio and with whom?

RESPONSE: ERS currently has two real assets separate accounts; one core real estate separate account and one timber separate account. See ERS website for details on publicly disclosed holdings: <https://ers.ehawaii.gov/investments/holdings> Only fund level info is disclosed (not underlying individual assets contained in those accounts).

- 13) QUESTION: Regarding VI Scope of Services - Please confirm if the "review will incorporate budget and management plans for the individual properties, as well as proposed acquisitions and dispositions for the succeeding year" is accurate, as this seems unusual for a consultant role.

RESPONSE: Yes, it's accurate. The separate account manager creates the plan for the separate account, the consultant reviews it.

14) QUESTION: Regarding the Manager Search Q1 - should the years referred to be more recent than 2014 and 2015?

RESPONSE: See Amendment #1 dated November 4, 2022 to this RFP.

15) QUESTION: Please can you share an example recommendation memo for a Real Asset investment?

RESPONSE: This is confidential and not available to be shared publicly.

16) QUESTION: How many commitments do you expect to make to Real Estate and Real Assets strategies going forward?

RESPONSE: The current expected pacing for 2023-2026 is still 'to be determined" and it will depend on future annual strategic/pacing plans and Asset/Liability (A/L) studies. Approved total real assets pacing for CY 2023 is a \$550 million target (\$325M-\$775M range), approximately 7-10 funds (real estate \$350M target, 5-6 funds; other real assets \$200M, 2-4 funds). The current long-term strategic asset allocation targets (% of ERS Total Fund) are 15.5% for Real Assets (6.0% core real estate, 4.5% non-core real estate, 1.75% timber, 1.5% agriculture, 1.75% infrastructure). The next A/L study is expected to be completed in 2023. We expect the real assets pacing going forward to be significantly less than it was the past few years, as we've already increased the real assets allocations closer to targets.

17) QUESTION: Please can you provide a breakdown of the number of funds in timber, infrastructure, agriculture/farmland for the past 3 years?

RESPONSE: See ERS website for details on publicly disclosed holdings: <https://ers.ehawaii.gov/investments/holdings> Only fund level info is disclosed (not underlying individual assets contained in those accounts).

18) QUESTION: Please can you provide a sample confirmation memo? This relates to "Assist with monitoring of capital calls and distributions and providing confirmation memos to ERS".

RESPONSE: Yes, a confirmation memo is required for each capital call and/or distribution as part of operational monitoring responsibilities. See attached "Sample Capital Call Memo Redacted". See Exhibit A.

19) QUESTION: In relation to performance reporting, page 29: "What categories are tracked in your performance measurement system? Provide the specific characteristics unique to each category, as well as concise definitions. Is the property level information used for both direct and commingled fund analysis?". Please could you clarify what is required? Are you looking for segmentation of performance by categories?

RESPONSE: Nothing further to add/clarify. Please answer question as currently stated, as best as possible.

20) QUESTION: Does Hawaii Employee Retirement System have a back office provider? If so, which provider do you use? It is unclear to us whether this RFP is designed to include back office services.

RESPONSE: ERS has a custodian (BNY Mellon) and internal ERS Accounting & Administration teams (in addition to other consultants and service providers).

21) QUESTION: Are we required to complete the excel questionnaire in addition to the full written response? We ask as we see no mention of the excel document in main RFP document.

RESPONSE: Yes.

22) QUESTION: Can you share the fees that the ERS pays to its current real assets consultant(s)?

RESPONSE:

Year 1:	\$267,000
Year 2:	\$274,000
Year 3:	\$284,000
Year 4:	\$291,000
Year 5:	\$296,000
Year 6:	\$302,000

23) QUESTION: Can you share your expectations regarding future real assets investments over each of the next 3-5 years (in dollars and in # of funds the ERS plans to commit annually broken down by real estate and other real assets)?

RESPONSE: The current expected pacing for 2023-2026 is still 'to be determined' and it will depend on future annual strategic/pacing plans and Asset/Liability (A/L) studies. Approved total real assets pacing for CY 2023 is a \$550 million target (\$325M-\$775M range), approximately 7-10 funds (real estate \$350M target, 5-6 funds; other real assets \$200M, 2-4 funds). The current long-term strategic asset allocation targets (% of ERS Total Fund) are 15.5% for Real Assets (6.0% core real estate, 4.5% non-core real estate, 1.75% timber, 1.5% agriculture, 1.75% infrastructure). The next A/L study is expected to be completed in 2023. We expect the real assets pacing going forward to be significantly less than it was the past few years, as we've already increased the real assets allocations closer to targets.

24) QUESTION: Should bidders provide a redacted copy of our submission to assist with potential FOIA requests?

RESPONSE: No.

25) QUESTION: With regard to providing references for clients with over \$5 billion, does this refer to the client's total plan assets or the consultant's RA assets under advisement for that client?

RESPONSE: Total plan assets.

26) QUESTION: Is the RA consultant expected to present to the board 8x per year in person? What is the timing of these board meetings? Are they in conjunction with board meetings of any other asset class (e.g., PE)?

RESPONSE: Four (4) times per year in person to Board Investment Committee is the expectation. The other Four (4) times to the full Board will probably remain virtual and will be relatively brief. The consultant is expected to present quarterly performance reports to the Board and to attend an annual education conference (usually held the second or third week of July).

Yes, the real assets consultant's quarterly reports, are usually in conjunction with board meetings where other consultants (general consultant, private equity consultant) present.

27) QUESTION: Can you provide the most recent quarterly performance evaluation report?

RESPONSE: See Exhibit B.

28) QUESTION: With regard to scope item: "Portfolio return calculation will include individual property returns for separate accounts." Does this mean that if a separate account has 50 properties, the consultant will track those properties as 50 separate line items rather than one line item (i.e., the separate account)?

RESPONSE: Yes.

29) QUESTION: With regard to scope item: "Assist with monitoring of capital calls and distributions and providing confirmation memos to ERS". Can you provide a sample of the confirmation memo and if not, more information on what this memo entails? Is the consultant required to write a confirmation memo for each portfolio cash flow?

RESPONSE: Yes, a confirmation memo is required for each capital call and/or distribution as part of operational monitoring responsibilities. See attached "Sample Capital Call Memo Redacted". See Exhibit A.

30) QUESTION: How many RA separate accounts is the ERS invested in?

RESPONSE: Two. One core real estate separate account and one timber separate account.

31) QUESTION: How many RA LPACs is ERS a member of?

RESPONSE: ERS is currently on the LPAC for ~18 active real assets funds (~13 Full/Voting seats, 5 Observer/Non-Voting seats).

32) QUESTION: Approximately how many RA GP/manager consents/voting requests have you processed in each of the last 4 years?

RESPONSE: Voting/consent request tracking data is not available prior to May 2020. From May 2020 to Oct 2022, there's been ~22 consent/voting requests, that the consultant has assisted with: ~6 LPAC and ~16 GP/manager (non-LPAC). These are estimates only.

33) QUESTION: Approximately how many RA LPAC consents/voting requests have you processed in each of the last 4 years?

RESPONSE: Voting/consent request tracking data is not available prior to May 2020. From May 2020 to Oct 2022, there's been ~22 consent/voting requests, that the consultant has assisted with: ~6 LPAC and ~16 GP/manager (non-LPAC). These are estimates only.

34) QUESTION: How many LPAC meetings has the current consultant attended on behalf of the ERS in each of the last 4 years?

RESPONSE: LPAC meeting tracking data prior to 2019 (and 2022) is not available. Approximately 7 LPAC meetings in 2019, 5 in 2020, and 16 in 2021. These are estimates only.

35) QUESTION: How many of the LPAC meetings are in person versus virtual on an annual basis? Are virtual LPAC meetings acceptable?

RESPONSE: The majority of LPAC's typically meet one time per year, with a minority of funds having a second LPAC meeting (and some funds have zero LPAC meetings). In 2021 there were approximately 19 LPAC meetings (split of in-person vs. virtual is not available), and we'd expect a similar amount (approximately 20-22) LPAC meetings/year going forward. These LPAC meetings are generally a mix of in-person and/or telephonic (depending on if the manager offers a telephonic/virtual option). Telephonic/virtual attendance is acceptable, if available. In certain instances, when ERS has a full/voting seat and when in-person attendance is required (but ERS staff can't attend in-person), it may be possible for consultant (when attending LPAC meeting in-person as ERS's attendee/representative) to get some travel costs paid for/reimbursed by the underlying real assets fund where ERS is an LPAC member (depending on the underlying fund LPA/agreement with the manager).

36) QUESTION: With regard to scope item: "Develop, periodically review and recommend changes to a five (5) year Strategic Plan (including annual Strategic Plans and Pacing Plans) for the real assets investment program." The Investment Policy Statement ("IPS"), calls for an annual Strategic Plan - will the consultant be required to provide a five-year Strategic Plan each (1) year or every 5 years?

RESPONSE: Real assets strategic/pacing plans are conducted and approved annually, and they also include a 5 year strategic/pacing forecast in them (updated 5 year strategic/pacing plan every 1 year).

37. QUESTION: Can you provide detail on the current number of ERS' individually managed accounts and number of underlying individual assets contained in those accounts as of the most recent date available?

RESPONSE: ERS currently has two real assets separate accounts; one core real estate separate account and one timber separate account. The core real estate separate account currently has 16 properties/assets and the timber separate account has 6 properties/assets. See ERS website for details on publicly disclosed holdings: <https://ers.ehawaii.gov/investments/holdings> Only fund level info is disclosed (not underlying individual assets contained in those accounts).

38. QUESTION: Could you confirm that the awarded real asset investment consultant will be subject to the Hawaii General Excise Tax?

RESPONSE: Please refer to page 7 of the Request for Proposal, XIX. Requirements for Doing Business in the State of Hawaii. You may also check with the State of Hawaii, Department of Commerce and Consumer Affairs Business Registration, this is the link to their website:

<https://cca.hawaii.gov/breg/about-the-business-registration-division-business-registration-branch/>



Thomas William
Executive Director

EXHIBIT A

Sample Capital Call Memo_Redacted

Memorandum

To: Employees' Retirement System of the State of Hawaii

From:

CC:

Date:

Re:

Recommendation

Please find below the details of a recent capital call notice received from █

Fund	Capital Call Amount	Wire Date
█	\$ █	█

The capital call amount of \$ █ should be sent to the appropriate wiring instructions as provided by the manager by █. █ has reviewed the capital call and manager methodology and recommends that HERS proceed with funding. Please advise if you have any questions or concerns.

Wiring instructions have been verified against previous capital calls and █ notes that there have been no changes in the wiring instructions.

Regards,

█

Disclaimer: The data presented in this memo has been obtained from the investment manager. █ has compared this information to the investment managers' reported distribution and believes the information to be accurate. █ has not conducted additional audits and cannot warrant its accuracy or completeness.

EXHIBIT B



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Employees' Retirement System of the State of Hawai'i First Quarter 2022 Real Estate Performance Review

PROPRIETARY & CONFIDENTIAL

August 2022

HIER Client Team Biographies – Chae Hong, Jack Dowd, and Trevor Dodds



Chae Hong

- Partner in Townsend's real estate investment consulting group
- Leads consulting assignments for a select number of real estate retainer and project clients
- Has over 20 years of professional experience, including 23 years of institutional real estate experience of which 15 years has been in real estate consulting
- Previously Chae held senior real estate positions at RREEF, Callan Associates, and Cliffwater
- B.A. in Political Science from the University of California, Los Angeles
- M.B.A. in real estate and finance from the University of California, Los Angeles



Jack Dowd, CFA

- Vice President in Townsend's real estate investment consulting group
- Supports consulting assignments for a select number of real estate retainer and project clients
- Has over 12 years of professional experience, including 3 years of institutional real estate experience of which 3 years has been in real estate consulting
- Previously Jack worked for Capital Group and First American Financial
- B.A. in Business Administration with a focus on Accounting from the University of St. Thomas in St. Paul, MN
- Jack is a holder of the right to use the Chartered Financial Analyst® designation



Trevor Dodds

- Analyst in Townsend's real estate investment consulting group
- Supports consulting assignments for a select number of real estate retainer and project clients
- Previously Trevor worked for Hall Capital Partners
- B.S. in Business Administration with an emphasis in Finance from San Diego State University



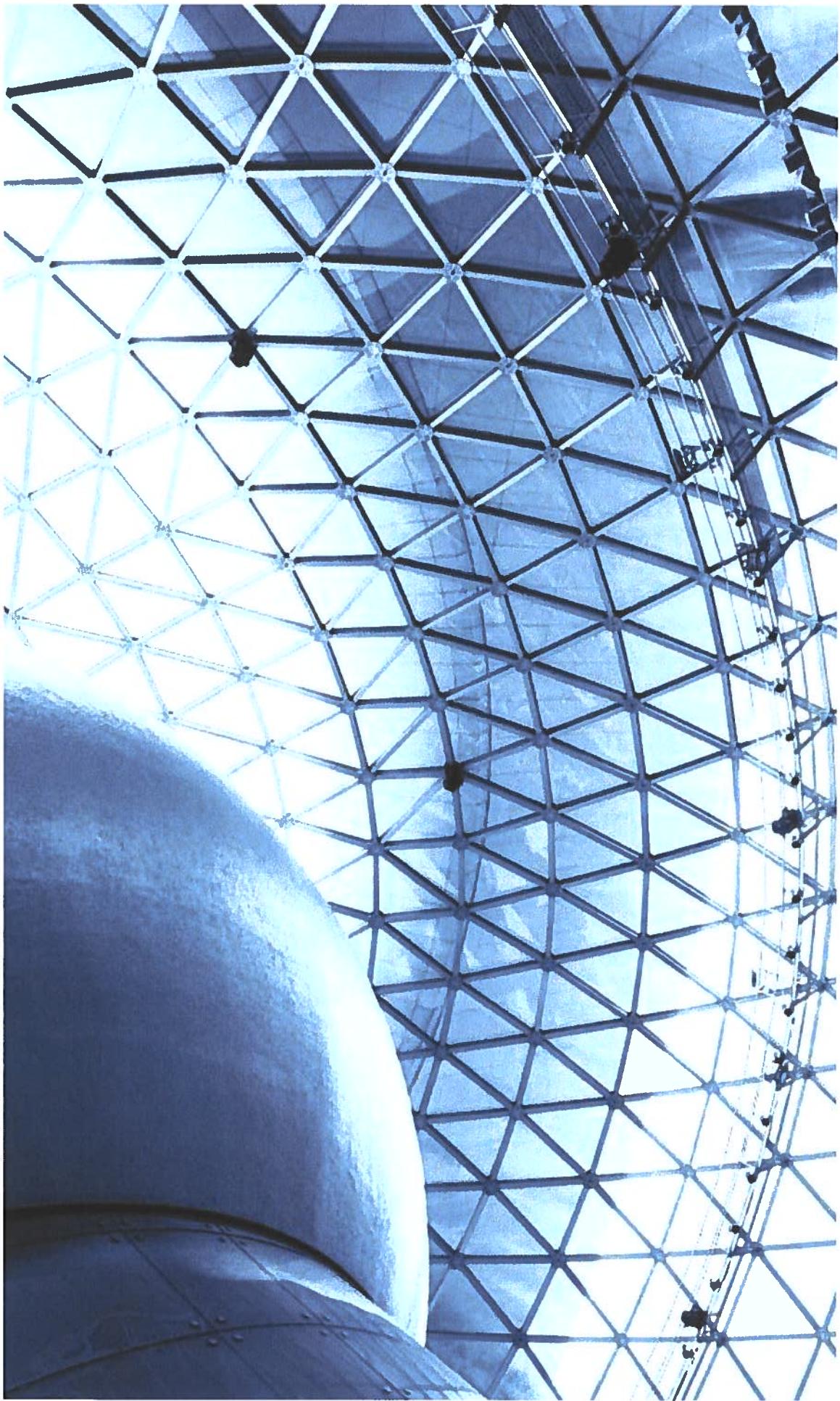
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TOWNSEND.
GROUP
an Aon company

A. Executive Summary



Real Assets Markets Performance and Overview

As of 03/31/2022

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	7.4	7.1	28.5	27.3	11.3	10.3	9.9	8.9	10.9	9.9	9.9
NCREIF Property Index "NPI"	5.3		21.9		9.6		8.5		9.6		9.6
NCREIF Farmland Property Index "NFI"	2.6		9.7		5.9		6.2		9.6		9.6
NCREIF Timberland Property Index "NTI"	3.2		11.8		4.7		4.1		5.6		5.6

- The NFI-ODCE trailing one-year return now stands at 27.3% net. NFI-ODCE returns have recovered above long-term expectations of 7.0% to 9.0% gross due to the robust recovery of the Global economy following the COVID-19 pandemic.
- The NCREIF Farmland Index ("NFI") returned 2.6%, down from the prior quarter. Row crops drove performance with a returns of 4.4%, while permanent crops returned 0.1%.
- The NCREIF Timberland Index ("NTI") returned 3.2% for the quarter and 11.8% for the trailing one-year return. The quarterly return was driven by appreciation, while the 1-year was driven by a combination of income and appreciation. Regionally, the Northeast was the NTI's top performer while the South lagged for the quarter.

Total Real Asset Portfolio Funding Status and Composition

	As of March 31, 2022	HIERS' Portfolio \$ in Millions
Number of Investments	67	
Active Investments	53	
Liquidated Investments	14	
Number of Active GP Relationships	24	
Total Commitments	3,676.4	
Unfunded Commitments	855.5	
Total Paid-In Capital	3,762.4	
Total Distributions	3,650.8	
Net Asset Value	2,104.2	
Gross Asset Value	3,827.6	
Total Exposure	2,959.6	
DPI	1.0x	
TVP	1.5x	
Since Inception IRR	8.7	
<i>*Active and Liquidated</i>		

	PORTFOLIO COMPOSITION TO TARGETS (%) (As of 03/31/2022)			
	Target (Range) Total Fund	Actual Funded Total Fund	Target (Range) Real Assets	Actual Funded Real Assets
Strategic Asset Allocation				
Total Real Estate	10.50	8.02	n/a	85.3
Core	6.00 (3.10 - 15.50)	3.88	40 (20 - 100)	41.2
Non-Core	4.50 (0.00 - 7.75)	4.14	30 (0 - 50)	44.0
Timber	1.75 (0.00 - 3.88)	0.84	10 (0 - 25)	8.9
Agriculture	1.50 (0.00 - 3.88)	0.10	10 (0 - 25)	1.1
Infrastructure	1.75 (0.00 - 4.65)	0.44	10 (0 - 30)	4.8
Other Real Assets	---	0.00	---	0.0
Total Real Asset	15.50 (5.00 - 25.00)	9.40	100	100.0

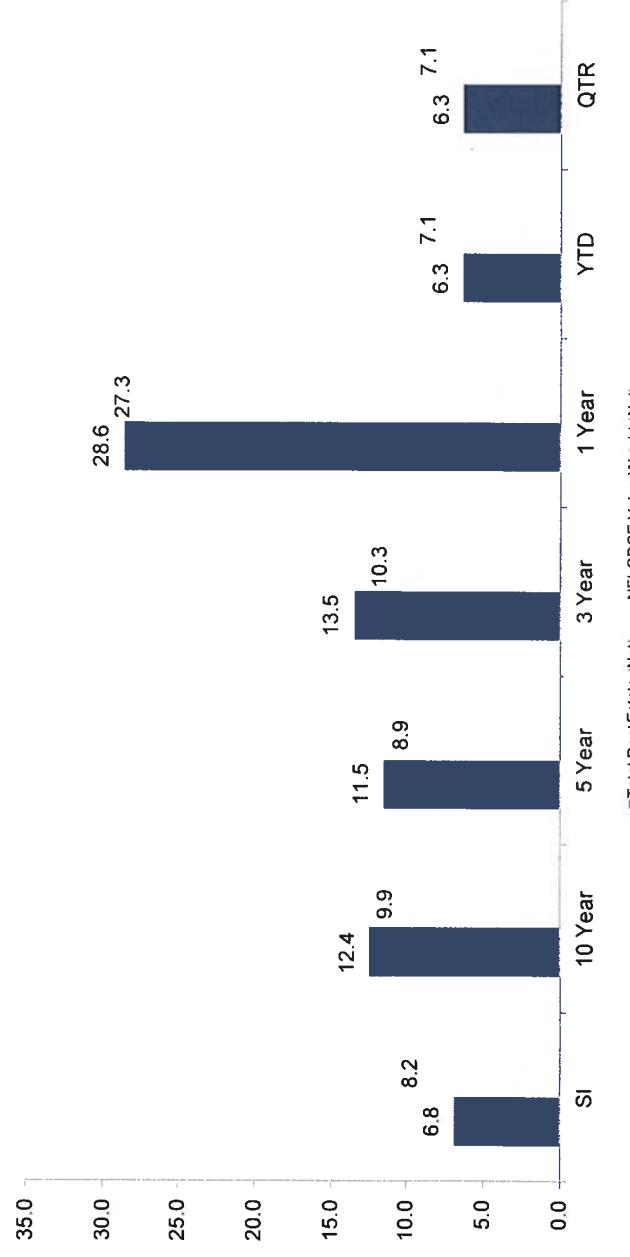
- Recent infrastructure, agriculture, and real estate commitments should help the portfolio continue to move towards its target allocation irrespective of liquidating investments.
- In general, the portfolio is in compliance with its Statement of Investment Policy with the following exceptions:
 - Timber exceeds the largest asset as a percent of Timber maximum due to Hancock's sale of a large property in December 2017 for roughly \$36M.

HIER'S Real Estate Performance Summary

As of 03/31/2022

	Returns (%)	Inception	10 Year	5 Year	3 Year	1 Year	YTD	Quarter
		INC APP TGRSTNET						
Real Estate								
Total Real Estate	7.1 1.0 8.1 6.8	6.4 8.0 14.8 12.4	5.7 8.2 14.3 11.5	5.4 10.6 16.5 13.5	6.1 27.2 34.5 28.6	1.1 6.3 7.4 6.3	1.1 6.3 7.4 6.3	
NFI-ODCE Value Weight	6.4 2.8 9.2 8.2	4.5 6.2 10.9 9.9	4.1 5.6 9.9 8.9	4.0 7.1 11.3 10.3	4.0 23.8 28.5 27.3	0.9 6.4 7.4 7.1	0.9 6.4 7.4 7.1	

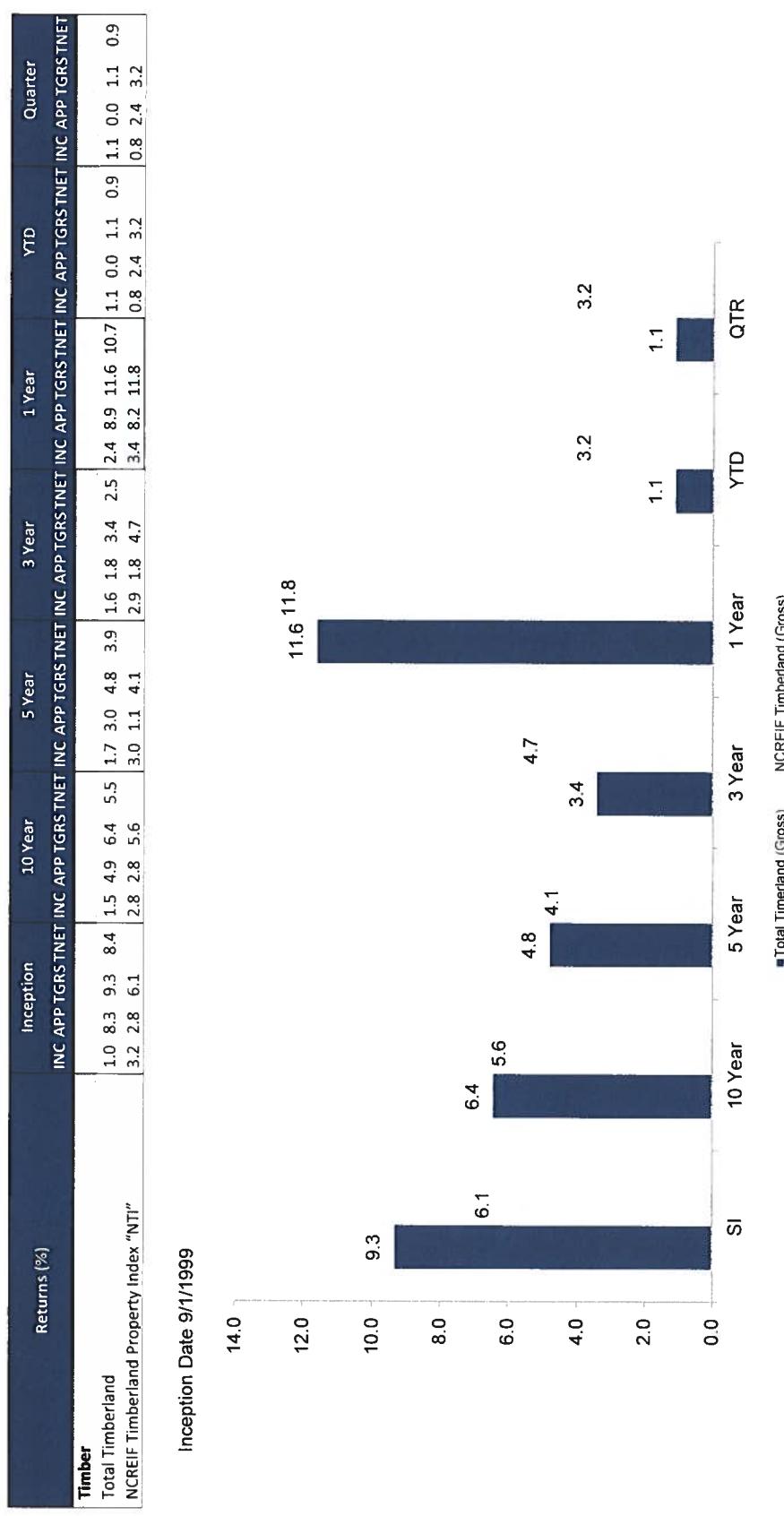
Inception Date 9/1/1993



- The table shows the time-weighted returns for HIER'S Total Real Estate.
- Overall, the portfolio is performing well, outperforming the NFI-ODCE Index on a net of fee basis over all measurement periods with the exception of quarter, year to date, 1-year, and since inception.
- The real estate portfolio has generated an 8.7% net IRR and 1.5x net equity multiple since inception.

HIER'S Timber Performance Summary

As of 03/31/2022

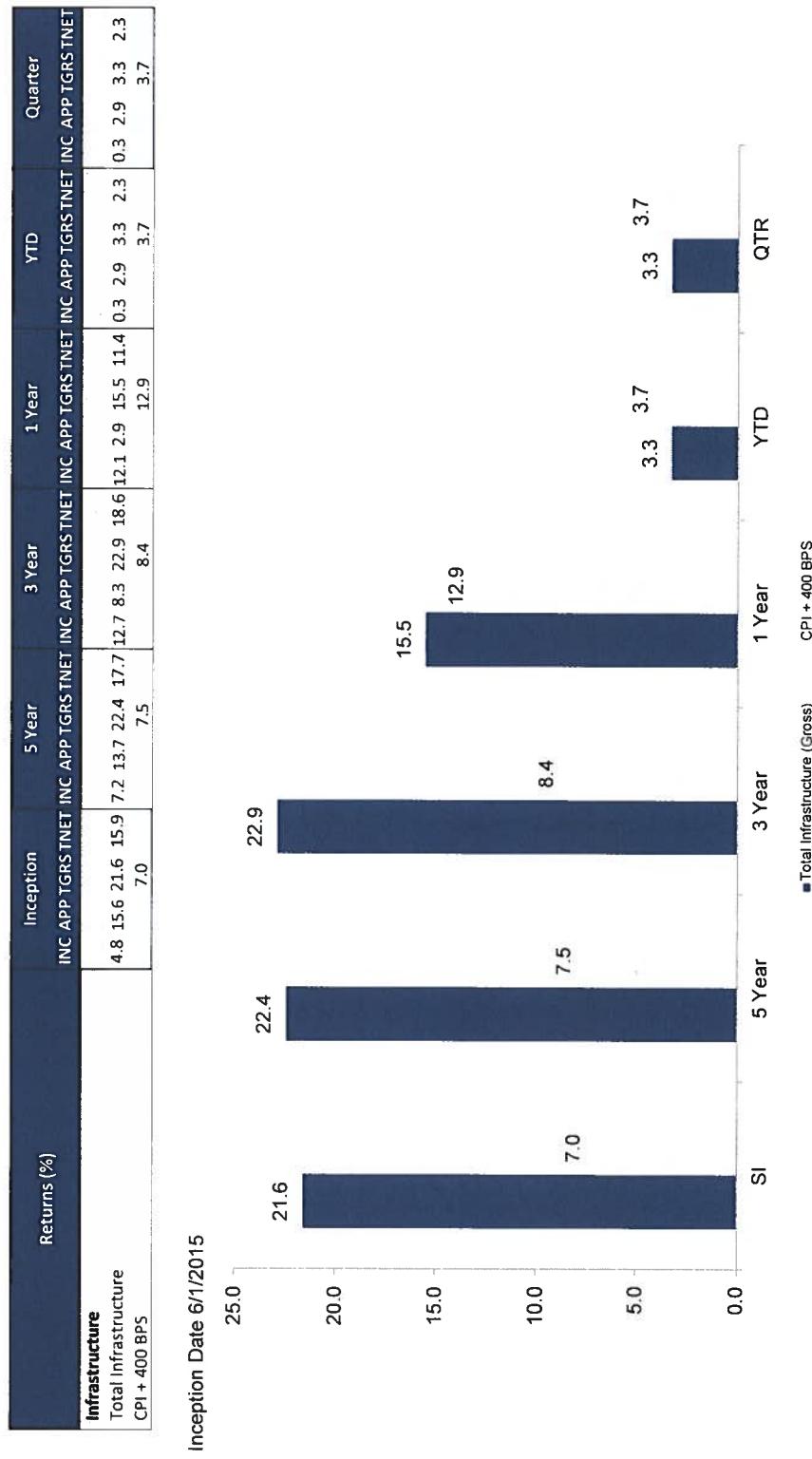


- The table shows the time-weighted returns for HIER'S Timberland.
- Over longer-term periods the portfolio is outperforming the NTI Index on a gross of fee basis, while underperforming slightly on a quarter, year-to-date, 1-year, and 3-year basis.
 - The near-term underperformance is due to a lack of appreciation. This appreciation is often captured in the 4th quarter when properties are re-appraised.
- The timber portfolio has generated an 8.1% net IRR and 2.6x net equity multiple since inception.

The information provided is from the ERS's custodial bank and/or its consultants and has not been provided or approved by any of the Funds' General Partners or members.

HIER'S Infrastructure Performance Summary

As of 03/31/2022

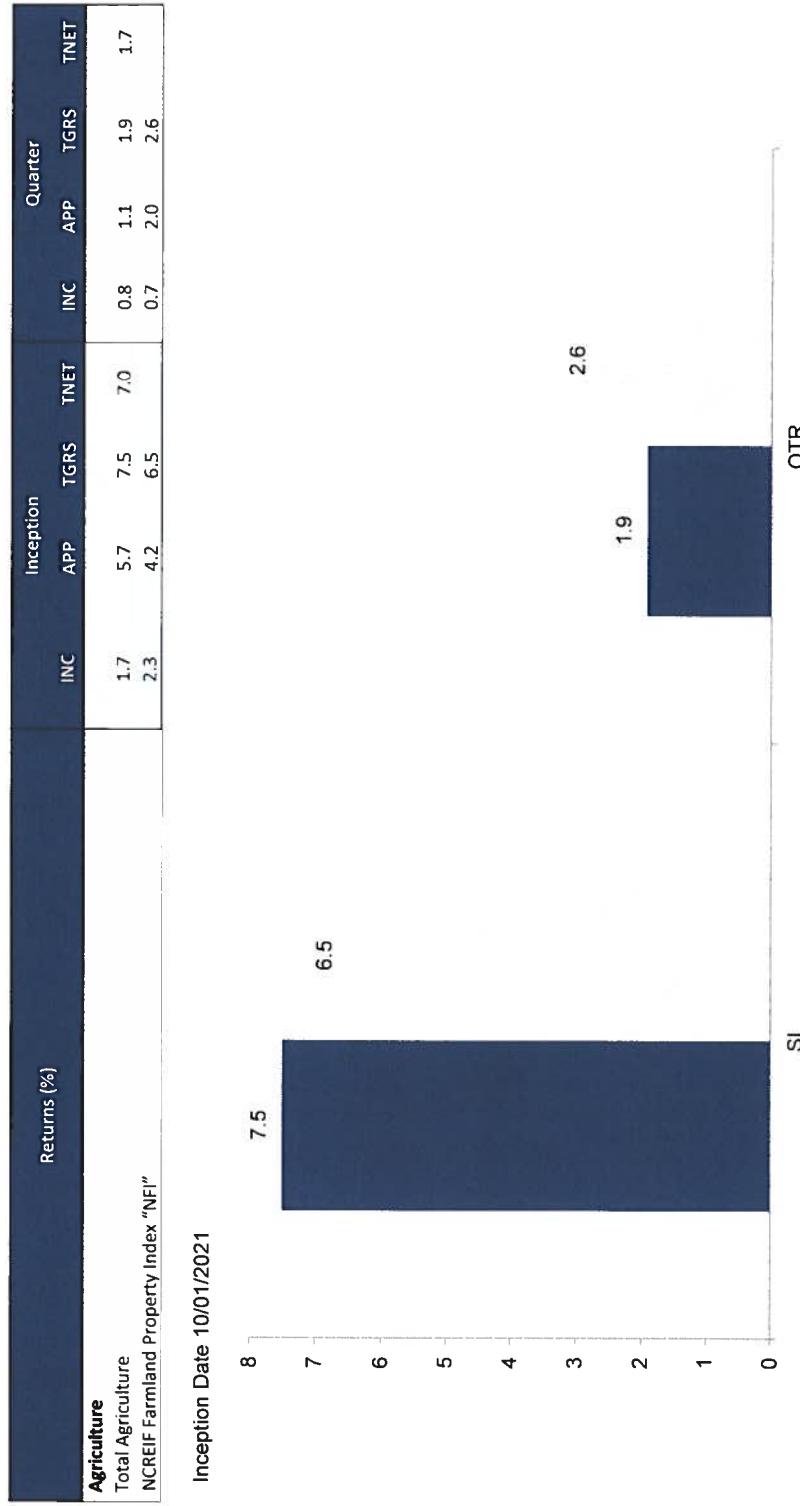


- The table shows the time-weighted returns for HIER'S Infrastructure.
- Overall, the portfolio is performing well, outperforming the CPI + 400 BPS benchmark on a gross basis over-all long-term measurement periods. The portfolio has underperformed slightly in during the quarter and year-to-date periods.
- The infrastructure portfolio has generated an 16.2% net IRR and 1.5x net equity multiple since inception.

The information provided is from the ERS's custodial bank and/or its consultants and has not been provided or approved by any of the Funds' General Partners or members.

HIERs Agriculture Performance Summary

As of 03/31/2022



- The table shows the time-weighted returns for HIERs' Agriculture .
- Overall, the portfolio has slightly under performed during the last quarter while outperforming since inception.

HIERS' Real Estate & Real Asset Portfolio Highlights

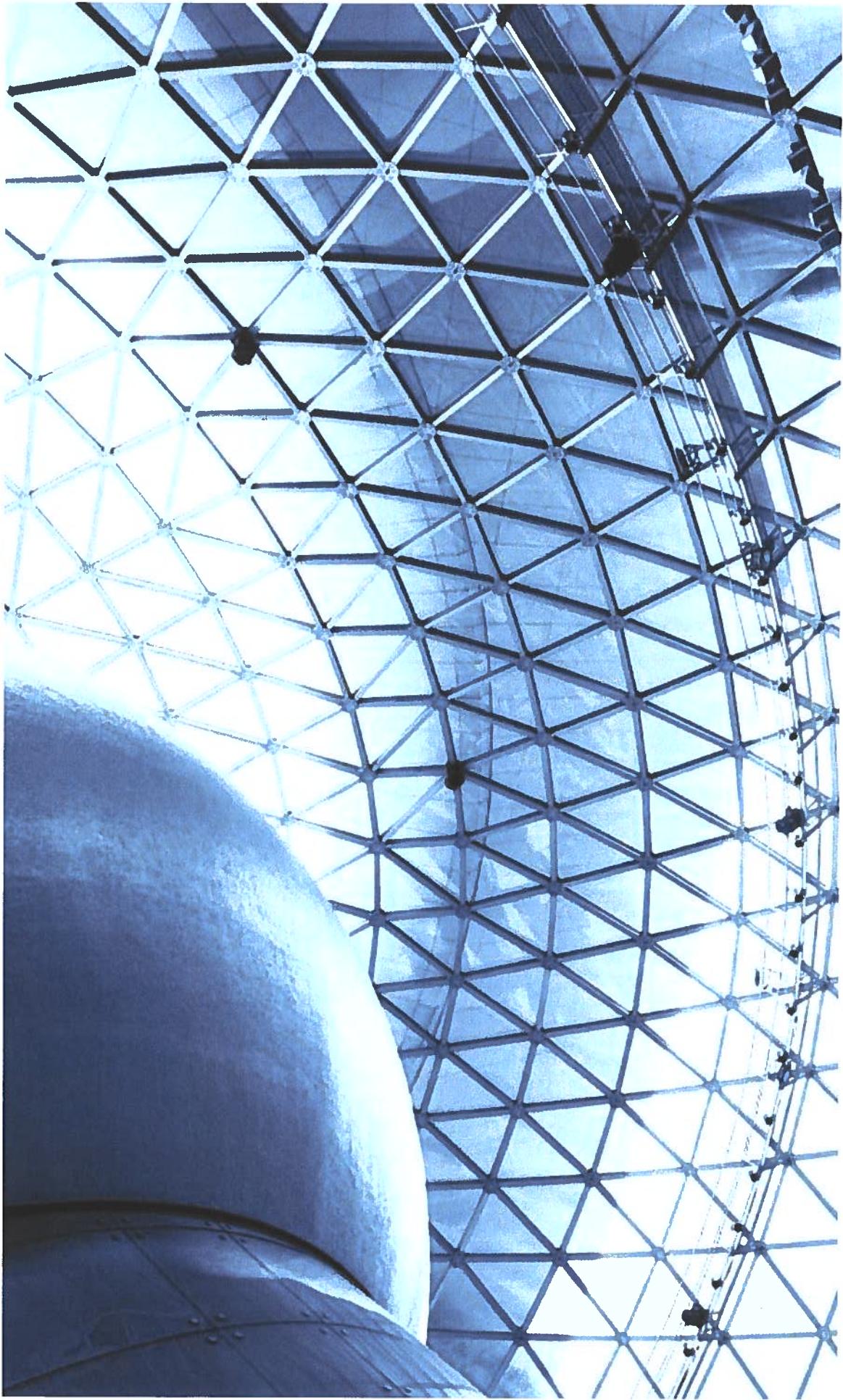
- During Q1 2022 and subsequent to quarter end, five new commitments were approved:
 - An open-ended U.S. Diversified Real Estate Fund (\$220 million)
 - A closed-end diversified U.S. Value-Add Fund (\$50 million)
 - A closed-end diversified Asia Opportunistic Fund (\$50 million)
 - A closed-end diversified U.S. Value-Add Fund (\$50 million)
 - A closed-end diversified U.S. Opportunistic Fund (\$50 million)

Significant Events



- On July 1, 2022, a Key Person to a closed-end value-added senior housing fund took a new position within the firm, triggering a Key Person Event. A new Key Person was nominated to replace the outgoing Key Person. Ultimately, Townsend recommend providing consent to the substitution of Key Person for this fund.

B. Market Overview



United States Real Estate Market Update (1Q22)

General

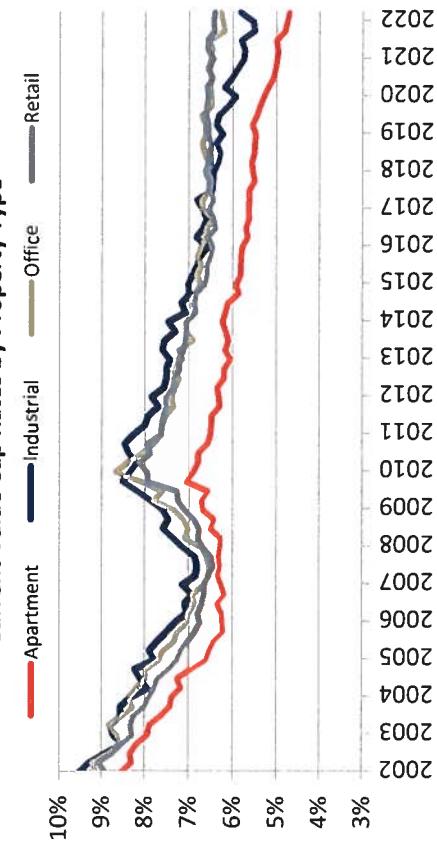
- Townsend witnessed a robust recovery across the US economy and US real estate markets in 2021, with a continuation through the first quarter of 2022. The post-pandemic economic recovery has remained generally on track; however, an array of headwinds have emerged including rising interest rates, persistent inflation, various geopolitical events, and widespread global supply chain struggles. Equity markets retraced from December 2021's all-time highs, as a result of tightening Federal Reserve policy and market volatility. In 1Q22, The S&P 500 produced a gross total return of -4.6%. The MSCI US REIT index also cooled off following a strong 2021, posting a gross return of -4.1%.

- After multiple quarters of GDP growth, U.S. GDP decreased at an annualized rate of 1.5% in first quarter 2022, attributable to decreased federal, state and local government spending, and decreased exports. As a result of the atrocities of the Russian-Ukraine war, prolonged lockdowns in Shanghai, and a rise in protectionist measures, commodity pricing has skyrocketed, in lockstep with inflation. The Federal Reserve continues to view the overall economy as strong, despite, noting an anticipated slowing of growth in early 2022.

Commercial Real Estate

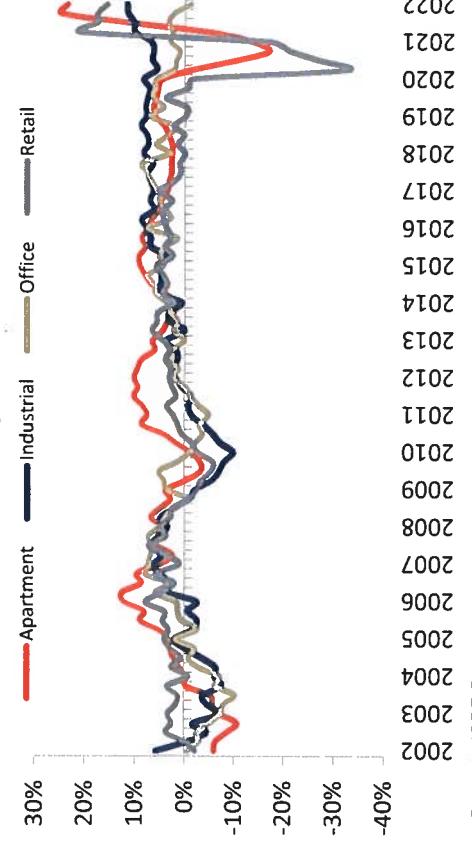
- Through the first quarter of 2022, total CRE transaction activity for the quarter was up 56% YoY, with annual transaction activity up 125% YoY. In 1Q22, deal volumes across all sectors moderated from a historic high in fourth quarter 2021. Transaction volume has been the strongest in the apartment and industrial sectors.
- Transaction cap rates (5.0%) expanded significantly during the quarter, to the tune of 76 bps. This increase comes after a -81 bps quarter-over-quarter decrease in 4Q21. Current valuation cap rates increased for industrial (+30 bps) and office (+3 bps). While both the apartment (-10 bps) and retail (-3 bps) property sectors experienced slight cap rate compression.
- NOI growth has substantially diverged between property sectors due to the impacts of COVID-19. Retail NOI has expanded substantially (+16%) YoY as the sector continues to recover from decreased rent collections and retailer shutdowns. Apartment sector fundamentals remain strong, as many millennials seek out a more opportune time to purchase their first home. Apartment NOI expanded (+23%) YoY.
- 10-year treasury bond yields steepened to 2.3% during the quarter, an increase of 80 basis points over year-end 2021. Economists expect rates to move modestly higher throughout 2022.

Current Value Cap Rates by Property Type



Source: NCREIF

4 Qtr Rolling NOI Growth



Source: NCREIF

United States Property Matrix (1Q22)



	INDUSTRIAL	MULTIFAMILY	OFFICE	RETAIL
In 1Q22, industrial properties were the highest returning sector at 11.0% and outperformed the NPI by 563 bps.	<ul style="list-style-type: none"> The apartment sector delivered a 5.3% return during the quarter, underperforming the NPI by 8 bps. 	<ul style="list-style-type: none"> Transaction volume in the first quarter of 2022 decreased to \$63 billion, resulting in an increase of 56% year-over-year. Transaction volume for the sector is near historical levels. This volume continues to make multifamily the most actively traded sector for the eighteenth straight quarter. Cap rates remained steady at 3.6% quarter-over-quarter, decreasing 15 bps year-over-year. Multifamily cap rates remain at the lowest level observed in years, driven by continued increases in valuation. 	<ul style="list-style-type: none"> The industrial sector turned in NOI growth of 11.7% over the past year. NOI continues to reach all time highs for the sector. Vacancy decreased by 173 bps year-over-year to 1.8%. Vacancy in the sector decreased 30 bps from last quarter, reaching all-time historic lows. E-commerce continues to drive demand across the sector. Industrial cap rates compressed approximately 100 bps from a year ago, to 3.4%. Industrial overall fundamentals still top all property sectors. 	<ul style="list-style-type: none"> As of 1Q22, the retail sector delivered a quarterly return of 2.3%, underperforming 307 bps below the NPI. Transaction volumes totaled \$19 billion in the first quarter, increasing 102% year-over-year. Single asset transactions accounted for just over 79% of all sales volume for the quarter. Cap rates have expanded approximately 10 bps within the sector over the last year, to 5.1%. Current valuation cap rates compressed quarter-over-quarter by 20 bps due to valuation adjustments made across the sector in general. NOI growth slightly decreased, 2.0% 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 increased over the quarter by 10 bps, and down 90 bps over the past year to 9.0%. 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.
Transaction volumes decreased to \$34 billion in the first quarter of the year, resulting in a 50% increase year-over-year. Individual asset sales increased 18% year-over-year, while portfolio purchases turned in a year-over-year volume increase of 33%. At \$34 billion, the industrial sector decreased by \$44 billion quarter-over-quarter.				
The industrial sector turned in NOI growth of 11.7% over the past year. NOI continues to reach all time highs for the sector.				
Vacancy decreased by 173 bps year-over-year to 1.8%. Vacancy in the sector decreased 30 bps from last quarter, reaching all-time historic lows. E-commerce continues to drive demand across the sector.				
Industrial cap rates compressed approximately 100 bps from a year ago, to 3.4%. Industrial overall fundamentals still top all property sectors.				
In 1Q22, industrial properties were the highest returning sector at 11.0% and outperformed the NPI by 563 bps.	<ul style="list-style-type: none"> The apartment sector delivered a 5.3% return during the quarter, underperforming the NPI by 8 bps. 	<ul style="list-style-type: none"> Transaction volume in the first quarter of 2022 decreased to \$63 billion, resulting in an increase of 56% year-over-year. Transaction volume for the sector is near historical levels. This volume continues to make multifamily the most actively traded sector for the eighteenth straight quarter. Cap rates remained steady at 3.6% quarter-over-quarter, decreasing 15 bps year-over-year. Multifamily cap rates remain at the lowest level observed in years, driven by continued increases in valuation. 	<ul style="list-style-type: none"> The industrial sector turned in NOI growth of 11.7% over the past year. NOI continues to reach all time highs for the sector. Vacancy decreased by 173 bps year-over-year to 1.8%. Vacancy in the sector decreased 30 bps from last quarter, reaching all-time historic lows. E-commerce continues to drive demand across the sector. Industrial cap rates compressed approximately 100 bps from a year ago, to 3.4%. Industrial overall fundamentals still top all property sectors. 	<ul style="list-style-type: none"> As of 1Q22, the retail sector delivered a quarterly return of 2.3%, underperforming 307 bps below the NPI. Transaction volumes totaled \$19 billion in the first quarter, increasing 102% year-over-year. Single asset transactions accounted for just over 79% of all sales volume for the quarter. Cap rates have expanded approximately 10 bps within the sector over the last year, to 5.1%. Current valuation cap rates compressed quarter-over-quarter by 20 bps due to valuation adjustments made across the sector in general. NOI growth slightly decreased, 2.0% 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 increased over the quarter by 10 bps, and down 90 bps over the past year to 9.0%. 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.

Sources: Real Capital Analytics, Green Street, NCREIF

Global Real Estate Market Update (1Q22)

- Diminishing operational uncertainty, robust demand and abundant liquidity led global investment activity to a strong start to 2022. More capital being put into the market than any other first quarter (\$280B, 33% increase from 1Q21). Unfortunately, this surge was quelled in relation the geopolitical consequences of war between Russia and Ukraine. The conflict has contributed to rising commodity prices in conjunction with inflation, and lower expectations of economic growth overall.
- That notwithstanding, The US was at the forefront of this growth in deal volume improving 76% YOY. This was led by its multifamily sector, being the world's largest single property market. The Asia Pacific market had inverse results with deal pipelines dissipating. China's zero-Covid policy, which put some of the country's largest cities into complete lockdown, has played a part.

Global Total Commercial Real Estate Volume - 2021 - 2022

	\$ US Billions	Global Total Commercial Real Estate Volume - 2021 - 2022			% Change Q1 22 - Q1 21	Full Year Ending Q1 2022	Full Year Ending Q1 2021	% Change Full Year
		Q1 2022	Q1 2021	% Change				
Americas	169	96	75%	855	356	140%		
EMEA	81	78	4%	444	308	44%		
Asia Pacific	126	144	-13%	865	824	5%		
Total	375	318	18%	2164	1488	45%		

Source: Real Capital Analytics, Inc., Q1' 22

- Following a serious downturn during the peak of the pandemic, the hotel industry is trending towards a recovery. The lowering of travel restrictions has seen global air traffic up 115% YOY as of February 2022. This has reflected in transaction activity with purchases totaling \$18B 1Q22 and in the last 12 months doubled its volume from the previous year.

- Given the low interest rate environment, the weight of capital targeting real estate will likely continue to increase as investors search for yield. While the industrial, residential and healthcare sectors are taking the lion's share of allocated capital, core offices and niche sectors like student/senior living are beginning to garner more investor interest despite facing occupancy challenges in 2021.

- Buoyant buyer demand boosted by strong investment fundamentals has continued to drive investment activity across the Multifamily asset class globally, continuing its momentum into Q122. Despite a modest decline in quarterly volumes year-over-year in EMEA, activity remained well above historic first quarter norms. While inflationary pressures and rising construction costs suggest some headwinds, the sector remains one of the most favored across the regions.

- Inflation points have reached record levels in the U.S. and Europe prompting a shift in Fed policy. While inflation is forecast to stay high through most of 2022, it is expected to moderate thereafter. In the U.S., the price effects of supply chain disruptions are expected to subside over the coming quarters, with continued higher rents and wages countering these deflationary factors, which is expected to keep overall inflation at higher levels than pre-COVID through 2023.

- The industrial sector continues to exhibit the strongest performance globally, spurred by tenant demand driven by an acceleration in e-commerce and supply chain reorientation. Inventory shortages resulting in supply chain reorientation is expected to continue to shift demand to emerging markets(e.g., Vietnam, India, Mexico). Additionally, supply chain bottlenecks have led to shipping and port delays and shifted incremental demand to inland port and more rail- dependent locations.

Sources: Jones Lang LaSalle Research, Cushman & Wakefield, Real Capital Analytics, Inc., CBRE

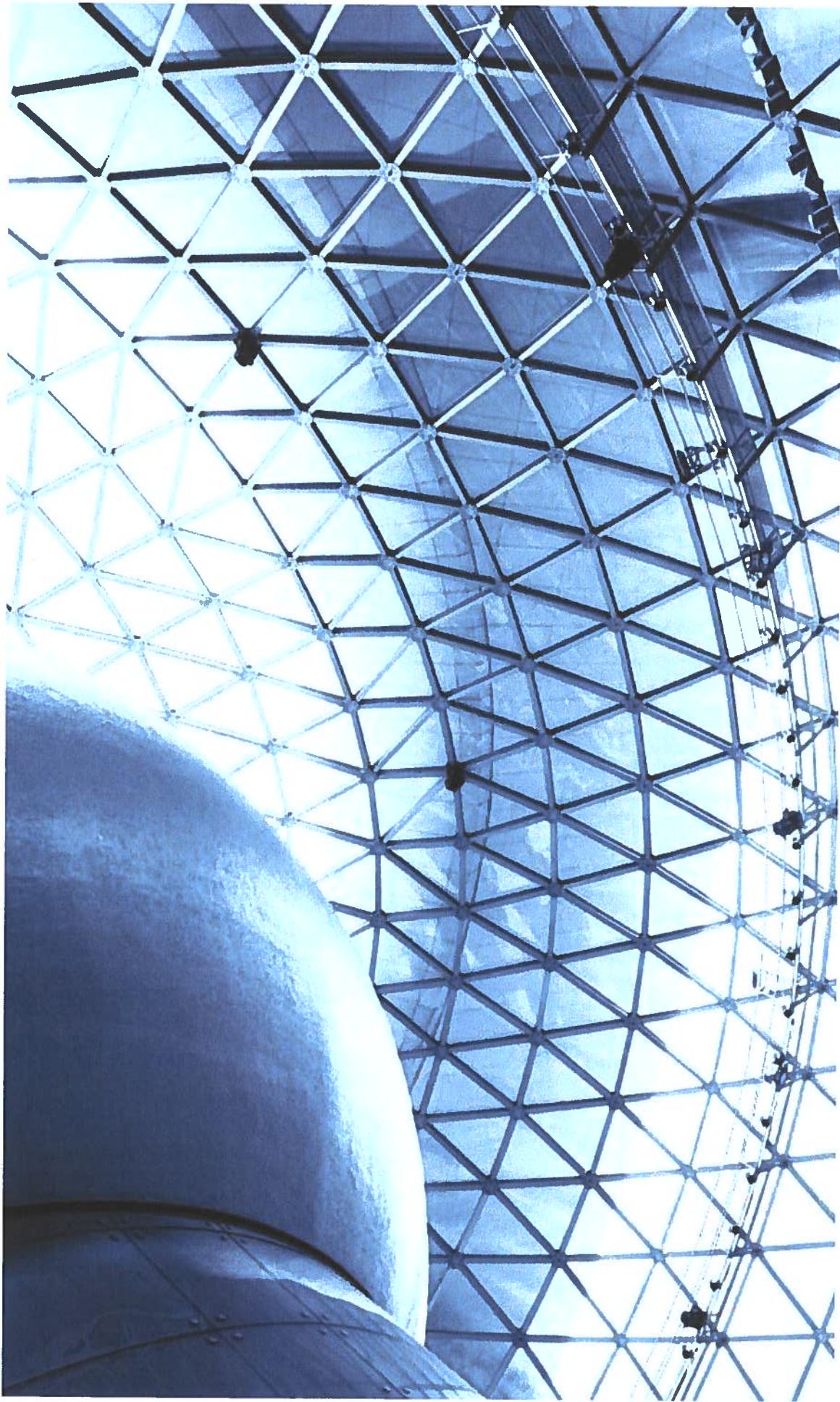
Global Outlook - GDP (Real) Growth % pa, 2022-2024

	Global Outlook - GDP (Real) Growth % pa, 2022-2024			
	2022	2023	2024	2024
Global	5.9	4.3	3.6	
Asia Pacific	4.4	4.6	4.4	
Australia	4.1	2.8	2.5	
China	4.5	5.2	5.1	
India	8.7	7.3	6.5	
Japan	1.8	1.8	1.1	
North America	2.7	2.0	1.9	
US	2.6	2.0	1.9	
Middle East	4.1	4.4	4.5	
European Union	3.0	2.1	2.0	
France	2.7	1.8	1.7	
Germany	1.8	2.3	2.0	
UK	3.7	1.2	1.7	

Source: Bloomberg

C. Real Estate Portfolio

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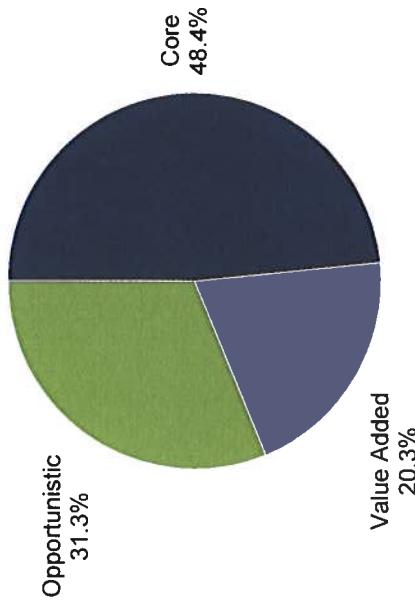


Real Estate Portfolio Funding Status and Composition

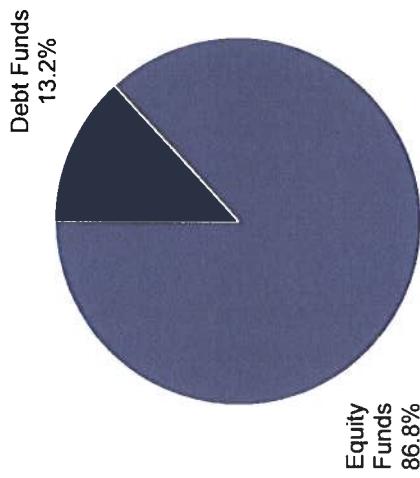
Portfolio Overview As of March 31, 2022 \$ in Millions	
Number of Investments	60
Active Investments	46
Liquidated Investments	14
Number of Active GP Relationships	21
Total Commitments	3,234.7
Unfunded Commitments	664.3
Total Paid-In Capital	3,483.4
Total Distributions	3,405.0
Net Asset Value	1,795.5
Gross Asset Value	3,423.4
Total Exposure	2,459.9
DPI	1.0x
TVPI	1.5x
Since Inception IRR	8.7

PORTFOLIO COMPOSITION TO TARGETS As of March 31, 2022		
	Target	Unfunded Commitments + Funded (NAV)
Core Real Estate	6.0	4.2
Non-Core Real Estate	4.5	6.8
Leverage (max)	50.0	N/A

**Style Diversification by Net Asset Value
as of March 31, 2022**



**Structure Diversification
As of March 31, 2022**



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Core Real Estate Portfolio Funding Status & Returns

As of 03/31/2022

	Funding Status (\$)						Market Value					
	Investment	Commitment	Funded	Unfunded	Capital	Market	Market	+ Unfunded	Market Value	DPI	Equity	
	Vintage Year	Amount	Amount	Commitments	Returned	Value (%)	Value (%)	Commitments	LTV (%)	IRR	Multiple	
Core												
	1993	700,000,00	1,145,733,389	61,795,832	988,670,822	868,458,803	48.4	37.8	35.1			

Returns (%)	Quarter			1 Year			3 Year			5 Year			10 Year			Inception			TWR			Calculation			Net	DPI	Equity
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	TNET	Inception	Calculation	Net	DPI	Equity	
Core	1.3	7.0	8.2	7.5	5.8	29.8	36.8	32.9	5.8	10.1	16.3	14.9	5.7	6.8	12.8	11.5	5.7	7.0	12.9	11.8	7.5	6.5	4Q93	8.0	0.9	1.6	
NFI-ODCE Value Weight	0.9	6.4	7.4	7.1	4.0	23.8	28.5	27.3	4.0	7.1	11.3	10.3	4.1	5.6	9.9	8.9	4.5	6.2	10.9	9.9	9.2	8.2	4Q93				

Notes

Traditional performance measurement time weighted returns are depicted for the core portfolio as core real estate portfolios use of time weighted returns is a commonly accepted practice.

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Non-Core Real Estate Portfolio Funding Status & Returns

As of 03/31/2022

	Funding Status (\$)		Investment Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	LTV (%)
Value Added Opportunistic		2007	690,000,000	458,166,305	277,207,427	262,121,762	365,228,506	20.3	26.1	56.8
Non-Core	2010	935,466,821	671,617,341	325,301,182	373,127,861	561,858,964	31.3	36.1	53.4	
Total Real Estate	2007	1,625,466,821	1,129,783,646	602,508,609	635,249,623	927,087,470	51.6	62.2	54.7	
	1993	2,325,466,821	2,275,517,035	664,304,441	1,623,920,445	1,795,546,273	100.0	100.0	47.5	

Returns (%)	Quarter			1 Year			3 Year			5 Year			Inception			TWR Calculation			Net IRR Inception			DPI			Equity Multiple			
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET
Opportunistic																												
Value Added Opportunistic	1.7	4.1	5.8	4.8	7.9	24.1	33.4	26.9	6.2	7.9	14.4	10.9	6.3	6.8	13.3	10.3	12.4	9.1	4Q07	12.0	0.6	1.4						
Non-Core NFI-ODCE Value Weight + 100 BPS	0.5	6.7	7.1	5.5	5.3	25.5	31.8	23.8	4.4	13.9	18.8	13.6	6.0	13.8	20.4	14.0	29.2	20.3	3Q10	18.2	0.6	1.4						

Notes

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

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Real Estate Portfolio Performance Detail - By Vintage Year

As of 03/31/2022

Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
1993	500,192,122	915,584,142	61,795,832	884,420,011	714,143,705	39.8	31.5
1998	396,044,323	600,390,425	0	1,005,597,099	0	0.0	0.0
2005	163,356,017	188,612,663	0	211,017,965	4,640,167	0.3	0.2
2006	44,076,949	155,537,689	0	165,208,579	0	0.0	0.0
2007	50,000,000	47,250,000	0	62,207,941	0	0.0	0.0
2008	100,000,000	96,425,631	0	148,517,448	0	0.0	0.0
2009	0	0	0	0	0	0.0	0.0
2010	40,000,000	25,764,542	0	35,150,534	0	0.0	0.0
2011	77,671,438	72,669,810	1,196,864	118,123,267	2,164,099	0.1	0.1
2012	102,391,304	99,416,660	7,556,021	144,648,507	18,236,885	1.0	1.0
2013	20,000,000	15,139,876	0	19,526,122	0	0.0	0.0
2014	0	0	0	0	0	0.0	0.0
2015	212,300,000	200,713,422	32,088,180	176,762,055	96,787,138	5.4	5.2
2016	180,000,000	179,755,045	17,317,610	158,384,153	73,034,010	4.1	3.7
2017	160,000,000	141,162,943	32,856,133	83,221,359	117,863,152	6.6	6.1
2018	464,782,610	413,324,706	71,989,239	135,032,962	405,831,044	22.6	19.4
2019	240,000,000	133,455,515	121,723,272	23,666,938	151,171,037	8.4	11.1
2020	295,992,907	146,645,552	174,856,779	23,130,870	158,198,639	8.8	13.5
2021	140,000,000	45,548,624	99,956,336	10,429,525	46,487,488	2.6	6.0
2022	50,000,000	6,000,000	44,000,000	0	6,988,909	0.3	1.8
Total Portfolio (including Current & Historical Activity)		3,234,745,548	3,483,397,245	664,304,441	3,405,045,335	1,795,546,273	100
						100	100

*Includes liquidated funds

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Real Estate Portfolio Performance Detail - By Vintage Year (Cont.)

As of 03/31/2022

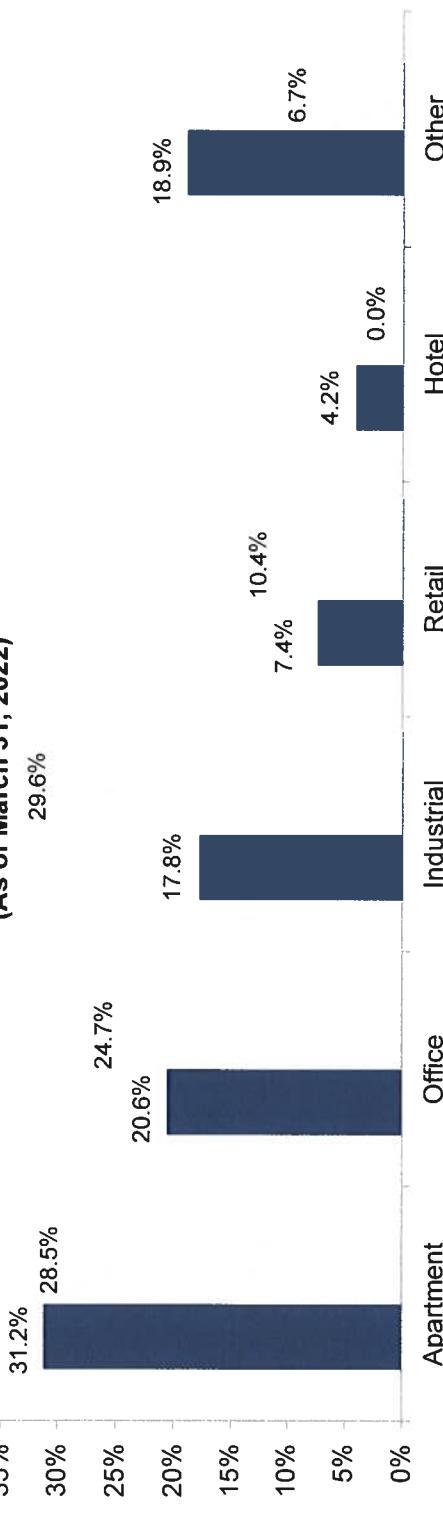
Investment Vintage Year	Quarter				1 Year				3 Year				5 Year				Inception				TWR Calculation Inception		Equity Multiple	
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP		
1993	1.2	8.6	9.8	8.9	5.2	38.9	45.5	40.5	5.3	13.0	18.8	17.4	5.0	7.5	12.8	11.7	7.8	6.9	4Q93	8.3	1.0	1.7		
1998	-2.0	-2.0	-2.7	-0.4	-3.0	-3.0	-1.2	-26.7	-27.2	-27.2	5.3	-12.3	-7.6	-7.9	0.7	0.0	-28.6	-29.2	3Q98	8.6	1.7	1.7		
2005	-154.9	50.2	-24.6	-20.9	0.0	-22.9	-42.1	-35.2	0.0	-17.6	-30.7	-25.6	-8.5	-7.2	1Q07	3.5	1.1	1.1	1.1	1.1	1.1	1.1		
2006	2007	2008	2010	2011	2012	2013	2015	2016	2017	2018	2019	2020	2021	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	
7.5	4.8	-2.9	-4.7	-9.5	3.8	-5.6	-5.5	-1.1	4.1	3.3	1.0	20.1	14.9	3Q11	27.3	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
5.7	24.6	31.6	24.3	8.3	-3.6	4.7	2.7	10.9	-3.3	7.7	5.2	15.5	11.4	3Q12	16.9	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
5.1	8.8	14.2	10.2	6.7	3.1	9.9	8.0	6.7	4.8	11.8	9.5	11.9	8.5	2Q13	8.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
2.7	2.2	-0.6	20.4	19.7	17.5	0.4	10.2	10.6	8.9	1.5	10.5	12.0	9.6	11.9	9.2	3Q14	9.8	0.9	1.4	1.4	1.4	1.4	1.4	1.4
2.6	2.4	5.6	18.8	25.1	20.2	6.0	9.1	15.5	12.5	5.1	16.9	23.1	17.7	23.1	17.7	2Q15	8.8	0.9	1.3	1.3	1.3	1.3	1.3	1.3
3.7	3.7	9.7	12.8	23.4	18.3	7.5	8.4	16.4	12.4	7.5	15.7	11.3	2Q16	8.8	0.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3		
3.7	4.8	3.7	9.7	12.8	23.4	18.3	7.5	8.4	16.4	12.4	-6.0	27.3	19.7	-9.3	19.7	-9.3	2Q17	12.4	0.6	1.4	1.4	1.4	1.4	
9.1	9.7	7.2	2.0	58.7	61.5	43.7	2.7	30.6	33.9	27.7	21.6	14.3	1Q20	17.6	0.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
0.6	8.7	9.3	7.9	2.7	5.2	2.1	7.3	6.5	5.2	57.5	52.7	3Q21	39.1	0.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		
0.2	16.6	16.4	11.2							16.4	11.2	1Q22	16.7	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2		

*Includes liquidated funds

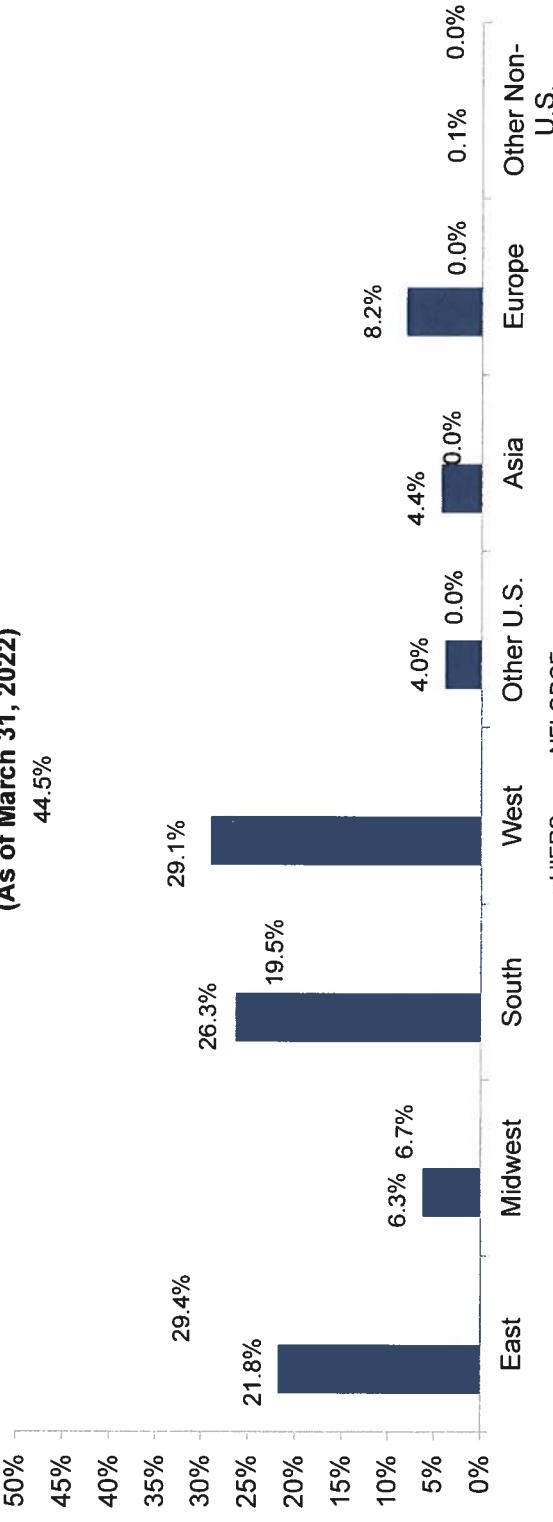
The information provided is from the ER's custodial bank and/or its consultants and has not been provided or approved by any of the Funds' General Partners or members.

Real Estate Portfolio Diversification

**Property Type Diversification
(As of March 31, 2022)**



**Geographic Type Diversification
(As of March 31, 2022)**

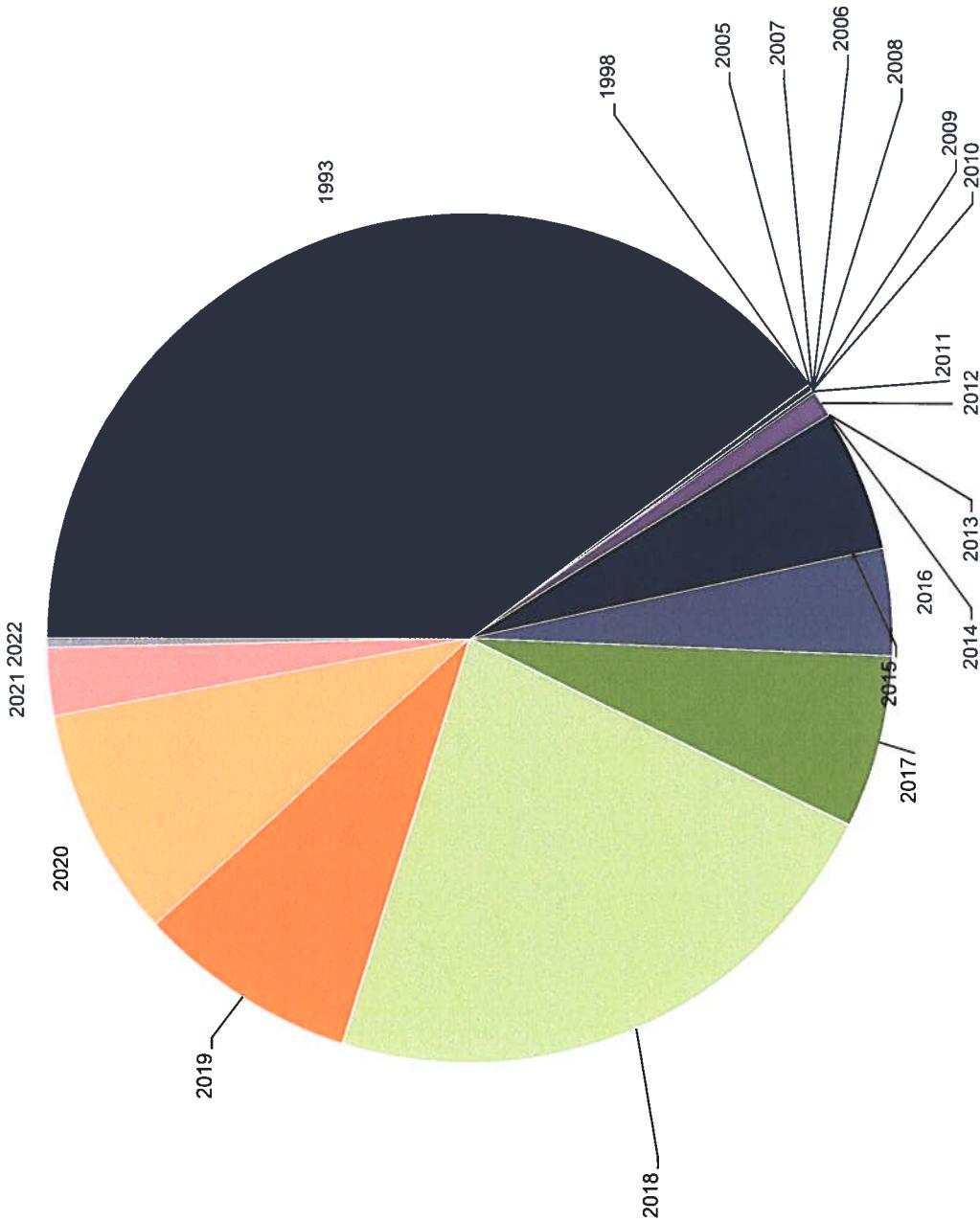


- NCREF changed the basis of diversification for the NFI ODCE from NREA to GRE effective 1Q20
 - Other Property Types are comprised of student housing, self storage, senior housing, health care, and land, along with non-traditional property types
- The information provided is from the ER's custodial bank and/or its consultants and has not been provided or approved by any of the Funds' General Partners or members.



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Real Estate Portfolio Diversification



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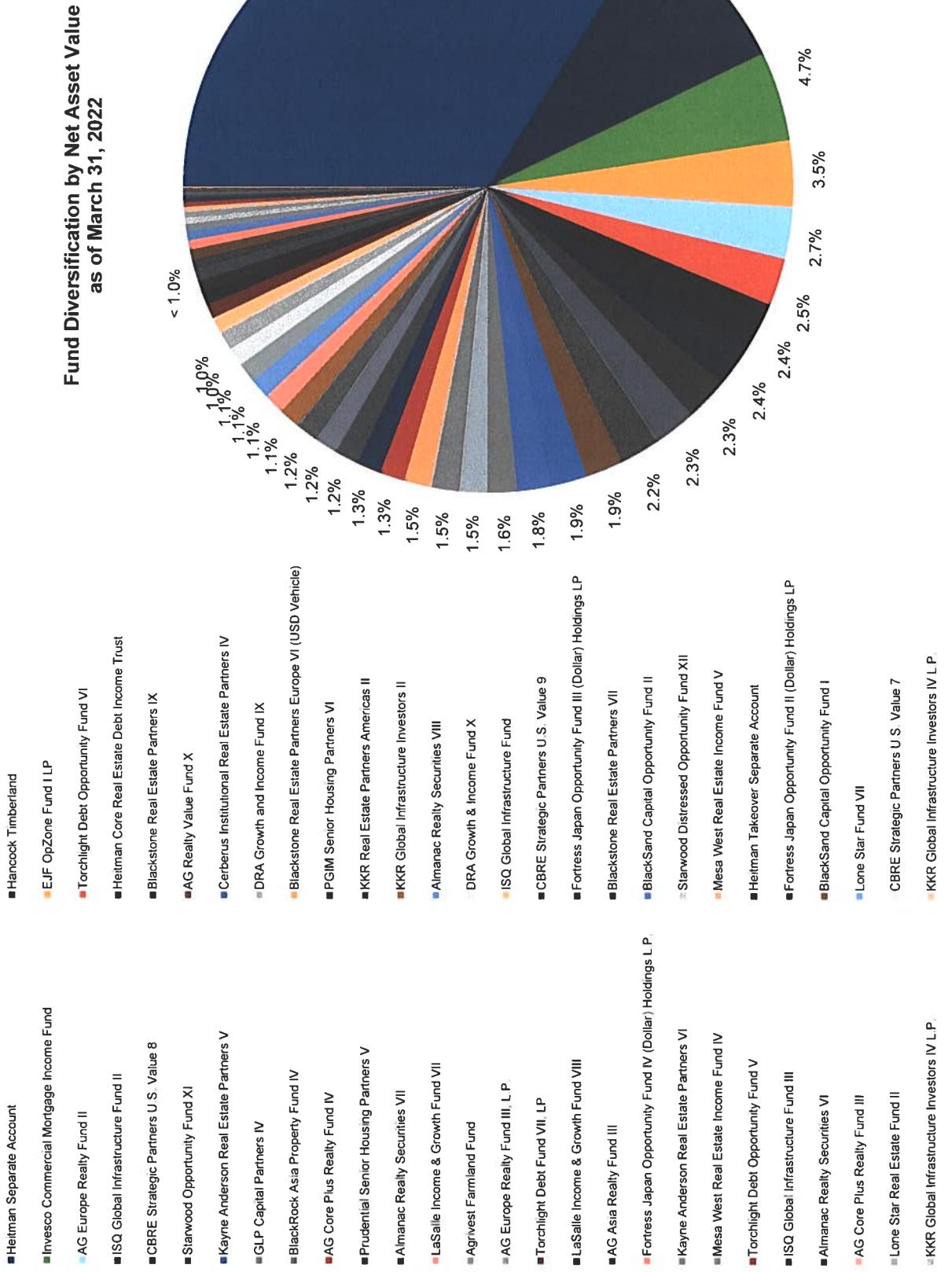
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Real Estate Portfolio Asset Management Fee and Carried Interest Analysis

As of 03/31/2022

Partnership Name	Current Quarter Management Fees	YTD Management Fees	Current Quarter Carried Interest	YTD Carried Interest
Core	-923,930	-923,930	5,377,382	5,377,382
Value Added	-1,472,627	-1,472,627	1,803,515	1,803,515
Opportunistic	-1,921,797	-1,921,797	6,485,749	6,485,749
Total Current Portfolio	-4,318,354	-4,318,354	13,666,646	13,666,646

Real Asset Fund Diversification

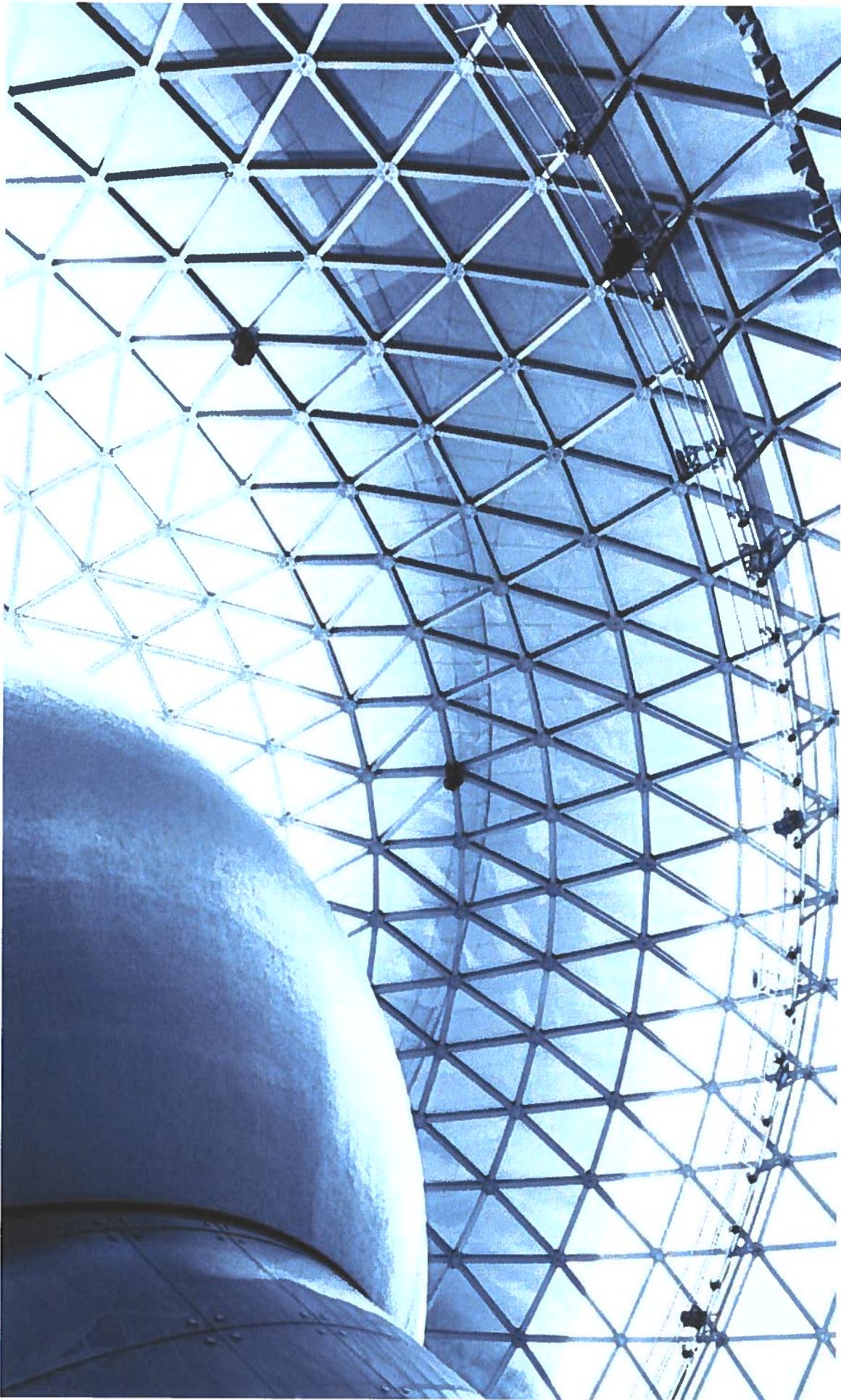


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D. Infrastructure Portfolio

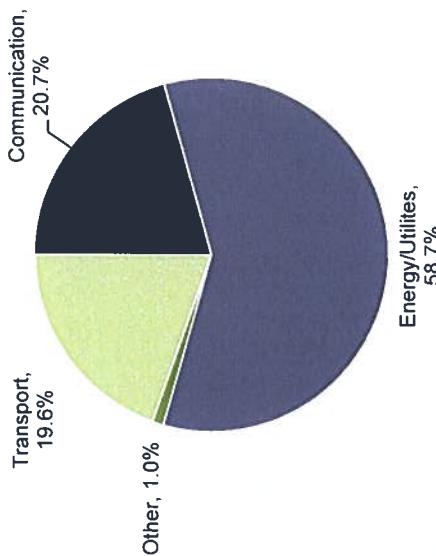


Portfolio Funding Status and Infrastructure Portfolio Composition

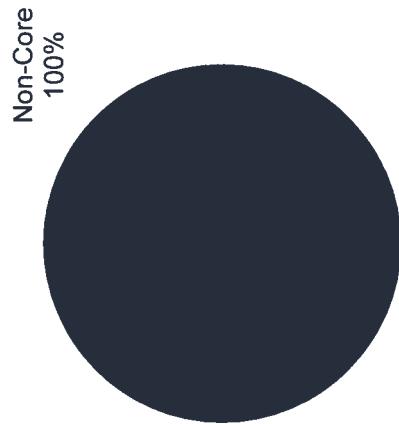
Portfolio Overview As of March 31, 2022 \$ in Millions	
Number of Investments	5
Active Investments	5
Liquidated Investments	0
Number of Active GP Relationships	5
Total Commitments	211.7
Unfunded Commitments	112.2
Total Paid-In Capital	128.5
Total Distributions	93.0
Net Asset Value	97.5
Gross Asset Value	192.6
Total Exposure	209.6
DPI	0.7x
TVPI	1.5x
Since Inception IRR	16.2%

PORTFOLIO COMPOSITION TO TARGETS As of March 31, 2022		
	Target	Unfunded Commitments + Funded (NAV)
Infrastructure	1.75	0.9
Leverage (max)	N/A	N/A

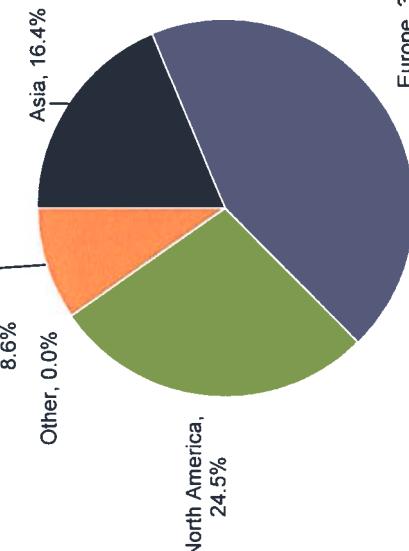
**Industry Diversification by Value
As of March 31, 2022**



**Style Diversification by NAV as of
March 31, 2022**



**Geographic Diversification by Value
As of March 31, 2022**



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Infrastructure Performance

As of 03/31/2022

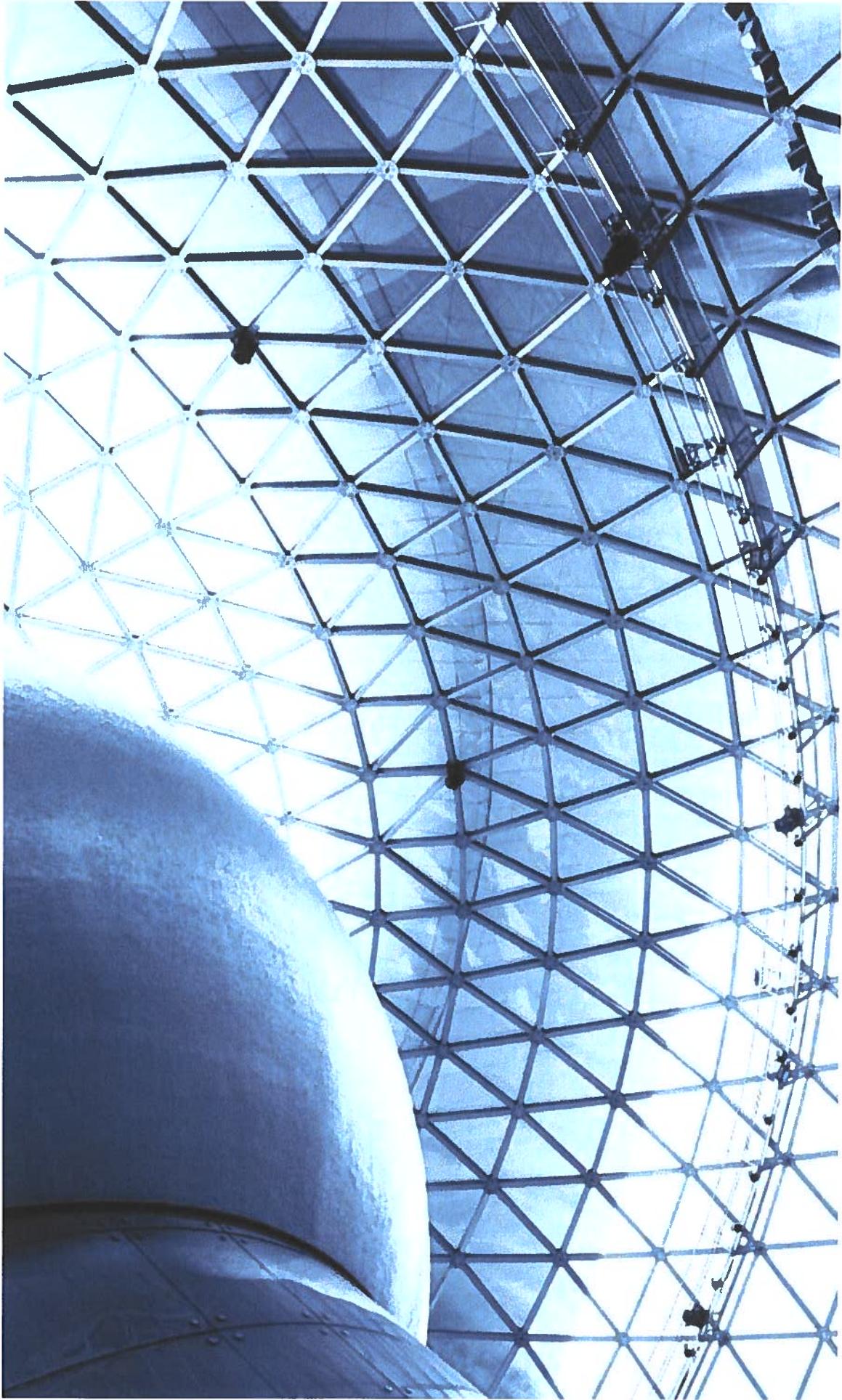
Funding Status (\$)	Investment Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value (%)	Market Value + Unfunded Commitments (%)	LTV (%)
Non-Core Infrastructure							
	2015	211,650,000	128,451,174	112,151,207	93,037,901	97,465,038	100.0
							49.4

Returns (%)	Quarter	1 Year	3 Year	5 Year	Inception	TWR Calculation	Net IRR	DPI	Equity Multiple
	INC APP TGRS TNET								
Non-Core Infrastructure	0.3 2.9 3.3 2.3 12.1 2.9 15.5 11.4 12.7 8.3 22.9 18.6 7.2 13.7 22.4 17.7 21.6 15.9								
CPI + 400 BPS	3.7	12.9	8.4	7.5	6.5	3Q15	16.2	0.7	1.5

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E. Timber Portfolio

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GROUP
an Aon company



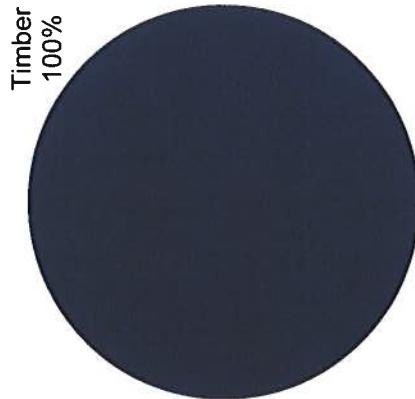
Hancock Timber Separate Account

As of 03/31/2022

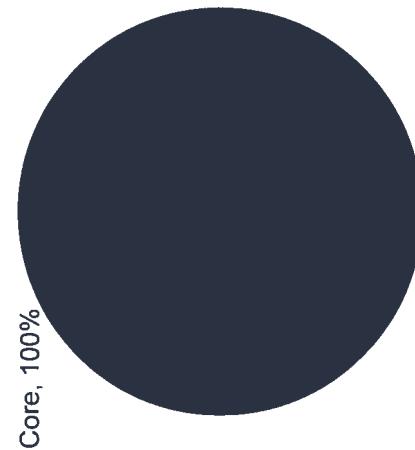
	Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	LTV (%)
Timber Hancock Timberland							152,418,680	188,675,147	100.0	100.0

Returns (%)	Quarter	1 Year			3 Year			5 Year			10 Year			Inception					
		INC APP	TGRSTNET	INC APP	TGRSTNET	INC APP													
Timber		1.1	0.0	1.1	0.9	2.4	8.9	11.6	10.7	1.6	3.4	2.5	1.7	3.0	4.8	3.9			
Hancock Timberland		-2.2				1.1				-1.6		0.4				5.5	9.3		
Net Real TWR		0.8	2.4	3.2		3.4	8.2	11.8		2.9	1.8	4.7	3.0	1.1	4.1	2.8	5.6	3.0	
NCREIF Timberland Property Index "NTI"																7.2	4Q99	4Q99	8.1
																		1.2	2.6

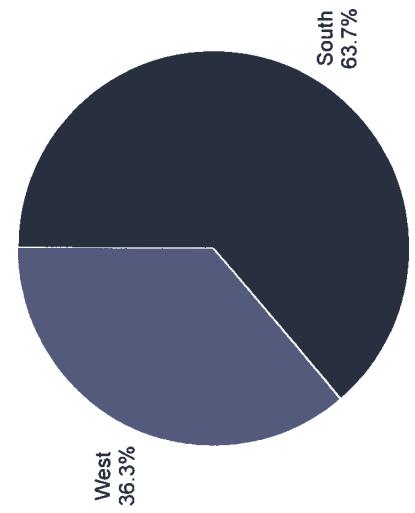
Property Type Diversification
(As of March 31, 2022)



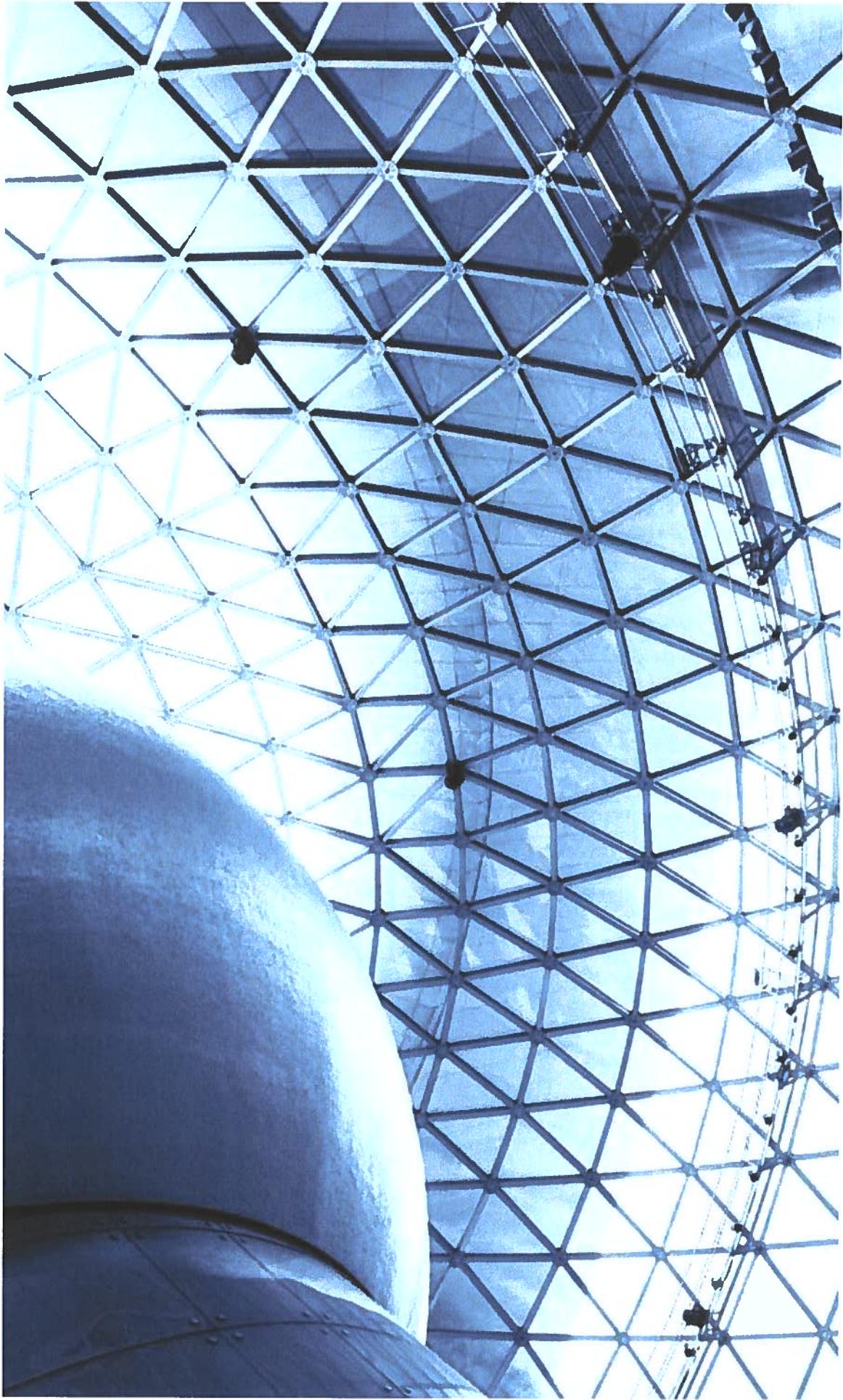
Style Diversification by NAV
(As of March 31, 2022)



Geographic Type Diversification
(As of March 31, 2022)



F. Agriculture Portfolio

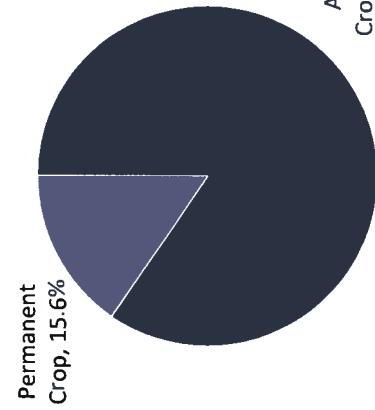


Portfolio Funding Status and Agriculture Portfolio Composition

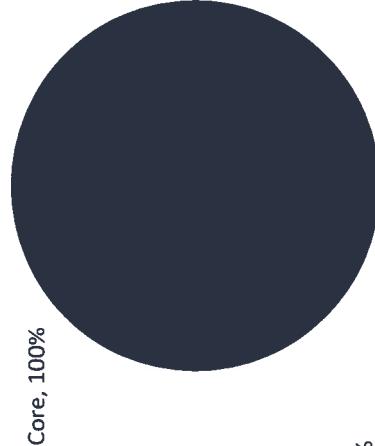
Portfolio Overview As of March 31, 2022 \$ in Millions	
Number of Investments	1
Active Investments	1
Liquidated Investments	0
Number of Active GP Relationships	1
Total Commitments	100.0
Unfunded Commitments	79.0
Total Paid-In Capital	21.3
Total Distributions	0.3
Net Asset Value	22.5
Gross Asset Value	22.5
Total Exposure	101.5
DPI	0.0
TVPI	1.1x
Since Inception IRR	7.0

PORTFOLIO COMPOSITION TO TARGETS As of March 31, 2022			
	Target	Unfunded Commitments + Funded (NAV)	Funded (NAV)
Agriculture	1.50	0.5	0.1
Leverage (max)	N/A	N/A	0.0

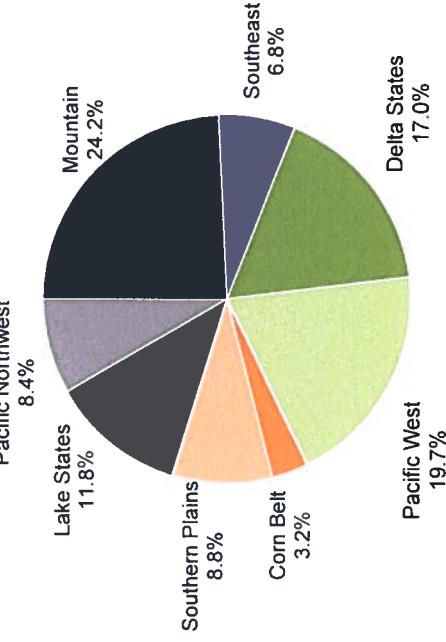
**Property Type Diversification
(As of March 31, 2022)**



**Style Diversification by NAV
(As of March 31, 2022)**



**Geographic Type Diversification
(As of March 31, 2022)**



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Agriculture Performance

As of 03/31/2022

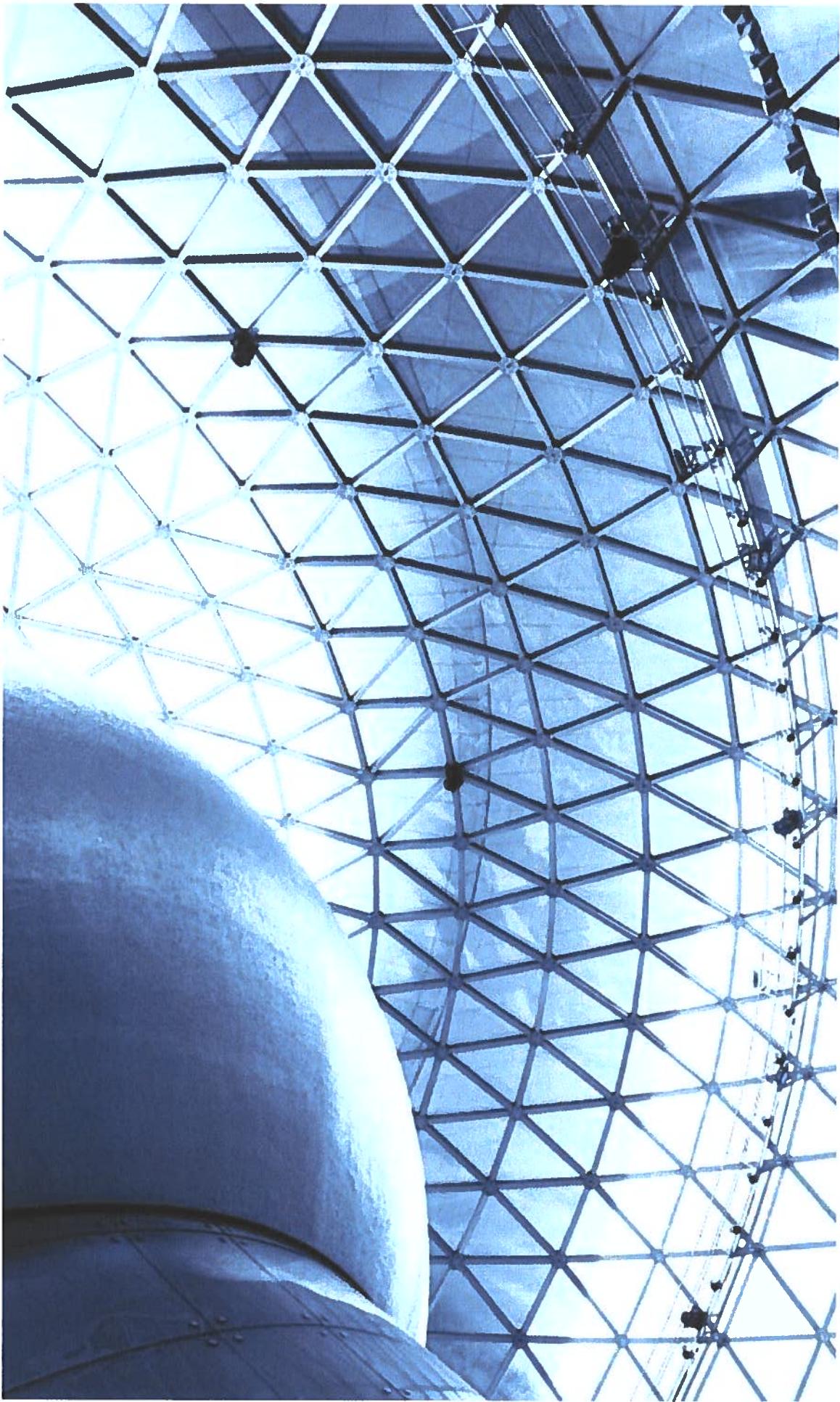
	Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	LTV (%)
Core Agriculture		2021	100,000,000	21,327,677	79,000,000	327,677	22,467,374	100.0	100.0	0.0

Returns (%)	Quarter			Inception	TWR Calculation	Net IRR	DPI	Equity Multiple	
	INC	APP	TGRS	TNET	TGRS	TNET	4Q21	7.0	0.0
Core Agriculture	0.8	1.1	1.9	1.7	7.5	7.0	4Q21	7.0	0.0
NCREIF Farmland Property Index "NFI"	0.7	2.0	2.6	11.0			4Q21		

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G. Lowe Separate Account

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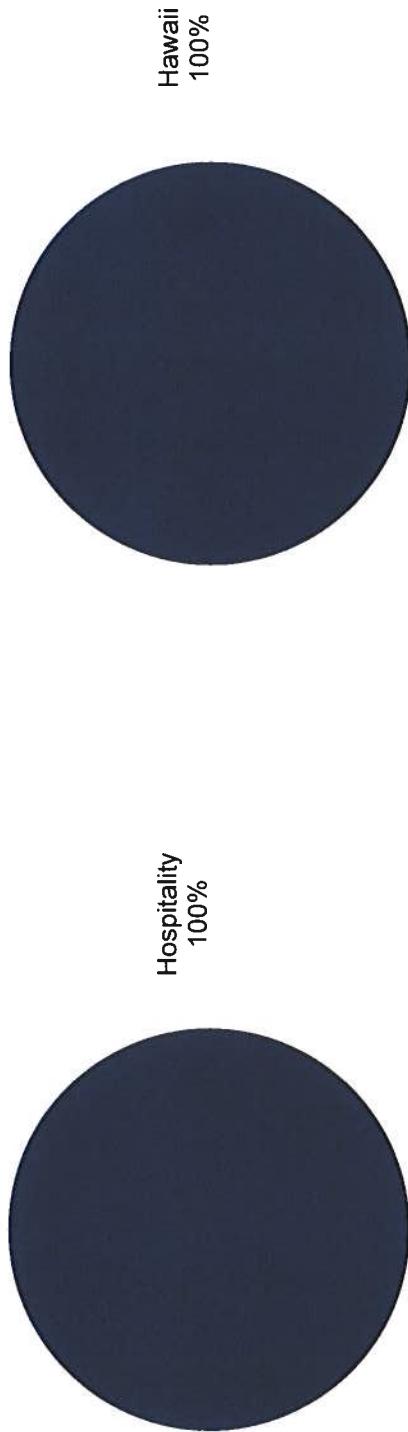
Lowe Separate Account

As of 03/31/2022

Funding Status (\$)	Investment Commitment Amount	Vintage Year	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%) + Unfunded Commitments (%)	LTV (%)
Lowe Separate Account	2015	26,968,105	28,930,056	0	32,038,016	472,758	100.0	100.0

Returns (%)	Quarter	1 Year	3 Year	5 Year	Inception	TWR	Net Calculation	Net IRR	DPI	Equity Multiple
	INC APP TGRS TNET									
Lowe Separate Account	-0.8 0.0 -0.8 0.8 1.4 71.1 72.8 63.7	-3.0 23.0 18.8 16.4	-0.5 13.2 12.4 10.8	9.5 8.4	1Q15	2.0	1.1	1.1		

Property Type Diversification
(As of March 31, 2022)



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H. Real Estate Separate Account Detail



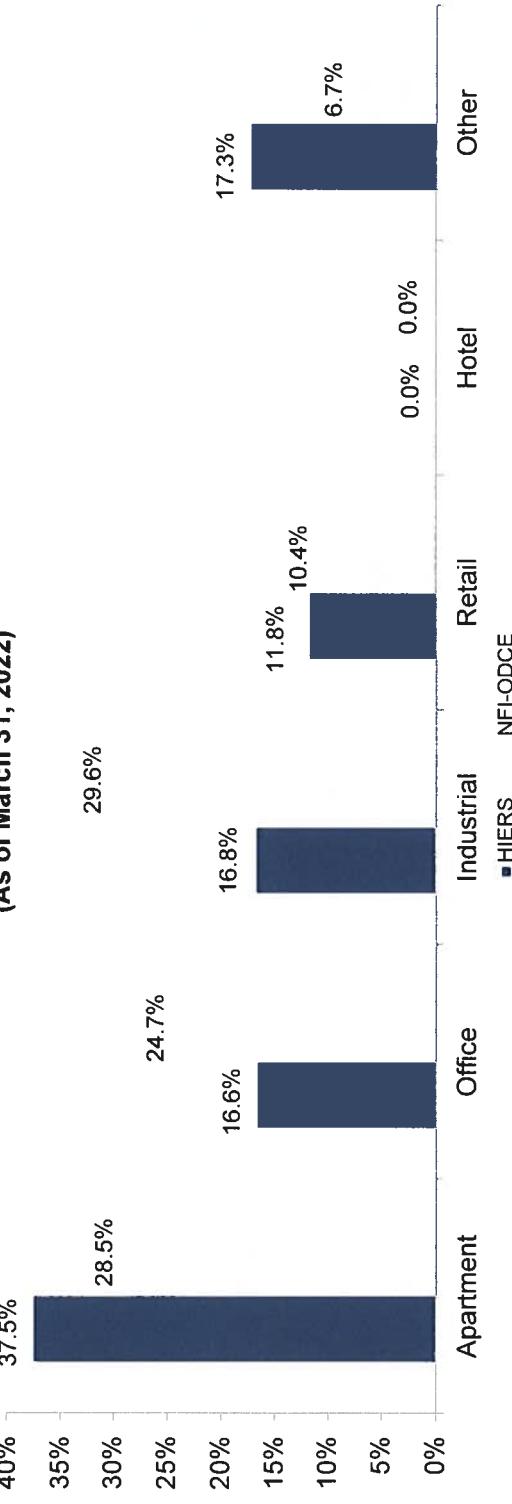
Hiers Core Separate Account Aggregate

As of 03/31/2022

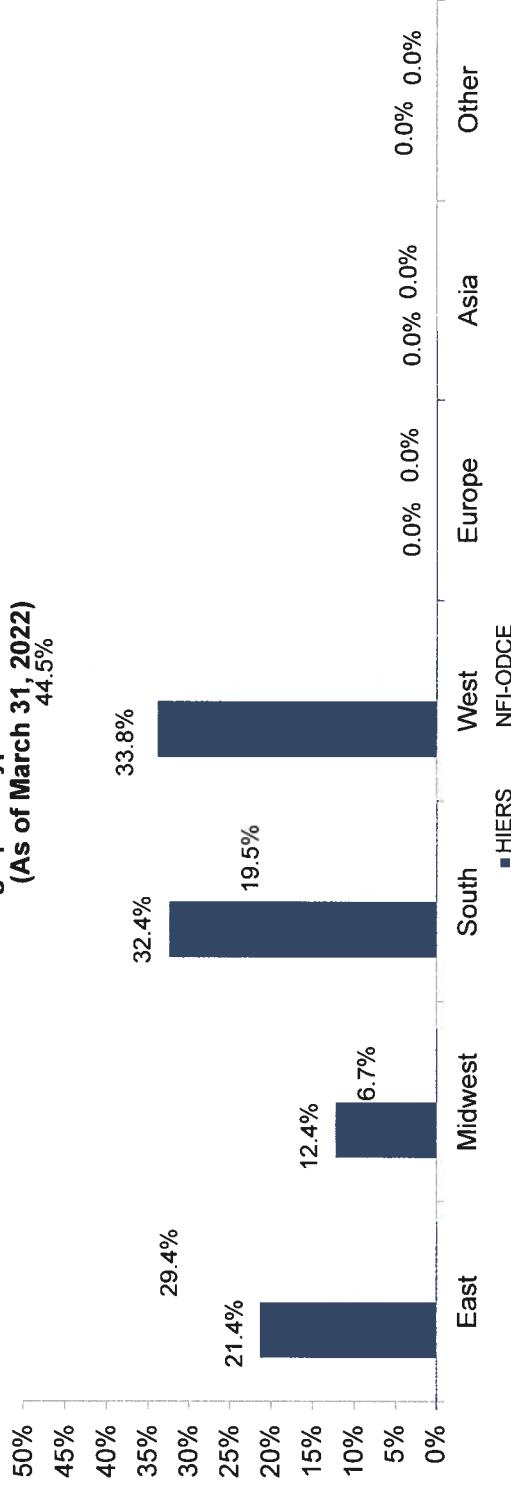
Returns (%)	Quarter			1 Year			3 Year			5 Year			10 Year			Inception			TWR								
	INC APP	TGRS	TNET	INC APP	TGRS	TNET	Calculation	Inception	TWR	Net Equity	IRR	Multiple															
Total Separate Accounts	1.2	8.5	9.7	8.8	5.1	38.6	45.1	40.1	5.2	12.1	17.8	16.3	5.1	7.7	13.1	11.9	5.3	9.8	15.4	14.2	6.7	0.8	7.5	6.6	4Q93	8.0	1.6
Net Real Total				6.0		31.0											8.4										
NFI-ODCE Value Weight	0.9	6.4	7.4	7.1	4.0	23.8	28.5	27.3	4.0	7.1	11.3	10.3	4.1	5.6	9.9	8.9	4.5	6.2	10.9	9.9	6.4	2.7	9.2	8.2	4Q93	8.0	1.6

Separate Account Aggregate Diversification

**Property Type Diversification
(As of March 31, 2022)**



**Geographic Type Diversification
(As of March 31, 2022)**



- NCREF changed the basis of diversification for the NFI ODCE from NREA to GRE effective 1Q20

- Other Property Types is comprised of self storage

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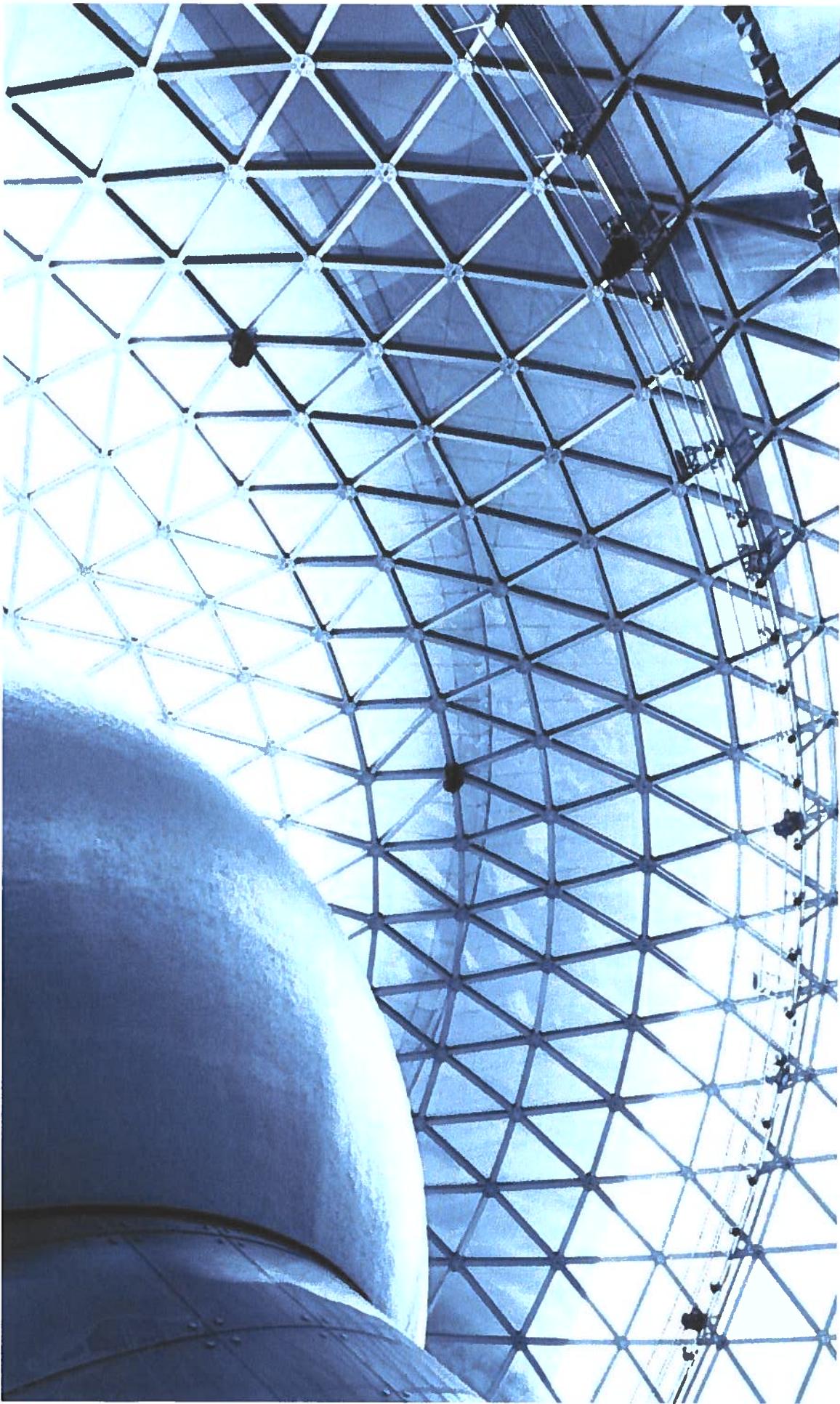
Heitman Separate Account

As of 03/31/2022

Returns (%)	Quarter				1 Year				3 Year				5 Year				Inception				TWR		Net		Equity	
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	Inception	Calculation	IRR	Multiple		
Heitman Separate Account																										
Investment Total	1.2	8.6	9.8	8.9	5.2	38.9	45.5	40.5	5.3	13.0	18.8	17.4	5.0	7.5	12.8	11.7	7.8	6.9	4Q93	8.3	1.7					
Heitman Separate Account w/o CFT	1.2	8.8	10.0	9.1	5.2	43.8	50.7	44.9	5.4	14.9	20.9	19.2	5.2	9.0	14.6	13.3	13.0	11.7	3Q00	11.3	1.9					

Returns (%)	Quarter				1 Year				3 Year				5 Year				Inception				TWR		Net		Equity	
	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET	Inception	Calculation	IRR	Multiple		
Heitman Takeover Separate Account																										
Investment Total	-2.0	0.0	-2.0	-2.0	-2.7	-0.4	-3.0	-3.0	-1.2	-26.7	-27.2	-27.2	5.3	-12.3	-7.6	-7.9	-1.0	-1.5	3Q05	-1.0	0.9					

I. Glossary



Glossary of Terms

- Catch-up – The provision that dictates how cash flows from the fund will be allocated between the investors and the manager in order for the manager to receive their performance fee. This allocation of cash flows occurs once the investors have collected their capital and preferred return
- Core – The most conservative institutional real estate investing style
- Core-Plus – A style whereby investments have a slightly higher level of risk and expected return than Core, primarily through use of leverage
- Custom Public Index – Currently the FTSE EPRA/NAREIT Global Developed REIT Index. Prior to July 2008, the benchmark was the Dow Jones U.S. Select REIT Index
- Development – The construction of buildings from breaking the ground through building completion. This may also include entitlement of the land and the pursuit of permits prior to construction
- DPI – Distributions to Paid In; the ratio of distributions from investments to total invested capital
- First Closing – The point at which a manager receives and executes the subscription documents and can begin drawing capital from investors
- Final Closing – The final date at which new investors can subscribe to a fund
- Internal Rate of Return (IRR) - A method of measuring the performance of a portfolio from inception through a particular point in time. This method weights returns according to the dollars invested at each point in time. Hence, this is known as dollar-weighted return. This is a better measure when the manager controls when dollars must be invested and is the most commonly used method of real estate performance evaluation; Gross IRR is gross of fee and Net IRR is net of fee
- NFI-ODCE – NCREIF Fund Index Open-end Diversified Core Equity Index is an index of investment returns reporting on both a historical and current basis the results of 24 open-end commingled funds pursuing a core investment strategy; underlying funds are leveraged with gross and net returns available
- NPI – NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only; it is reported unlevered and gross of fee
- FTSE-NAREIT Equity REIT – An unmanaged capitalization-weighted index of all equity real estate investment trusts
- FTSE EPRA/NAREIT Global REIT – An unmanaged market-weighted total return index, which consists of many companies from Global markets whose floats are larger than \$100 million and derive more than half of their revenue from property-related activities

Glossary of Terms (cont'd)

- Opportunistic – A style that is the riskiest form of real estate investing. The name derives from when such funds were formed after the early 1990s real estate market crash to take advantage of opportunities in unwanted properties. Such investments include ground-up development, highly-leveraged purchases, or transactions involving highly complicated legal or environmental situations
- Private Market Equivalent (PME) Analysis – The private market equivalent (“PME”) analysis seeks to answer the question of whether a portfolio’s non-Core investments are providing alpha over the lower-risk Core alternatives. Non-Core performance is best measured through dollar weighted performance metrics (i.e. IRR) while Core indices have traditionally been provided in time-weighted return (“TWR”) methodologies. The PME analysis converts the Core indices from TWRs to IRRs by taking the cash flows from the non-Core portfolio and making hypothetical investments into the Core indices. This exercise allows for a like-kind comparison on performance
- Policy Benchmark – Blended benchmark reflecting private and public nature of portfolio where private real estate benchmark is weighted 90% and public real estate benchmark is weighted 10%; private real estate benchmark is NFI-ODCE + 50bps, public real estate benchmark is Wilshire REIT 1Q1997 through 2Q08 and EPRA/NAREIT Global Developed Index from 3Q08 to present
- Pre-Specified Deals – Investments that are purchased for a fund before its final close. The assets are typically warehoused on a line of credit
- Promote (Carried Interest) – The performance fee a manager receives once the investors have received their return of capital and the preferred return (return promised by the manager)
- RVPi – Residual Value to Paid In; the ratio of the residual value of an investment to total invested capital
- Time-Weighted Return - A method of measuring the performance of a portfolio over a particular period of time. Effectively, it is the return of one dollar invested in the portfolio at the beginning of the measurement period. This is a better return measure when the manager does not control when the dollars must be invested
- TVPI – Total value to paid-in ratio; the ratio of total value from an investment, including distributions, to total invested capital
- Value-Added – A style that represents moderate-risk real estate. A manager typically increases the future value of the investment by undertaking activities such as leasing, improving an existing building, or taking some risk through operating intensive assets, such as hotels or self-storage
- Vintage Year – The year in which a fund has its final closing. Typically coincides with the year a fund begins making investments

Manager's Fees

Fund	Management Fee	GP Carry	Other Fee's
Core Funds	0.75% - 1.00% of the total capital contributions Or 6.75% of NOI	Preferred Return- 8% and/or 10%-15% of cash flows that exceed a fund specific benchmark	Acquisition Fee: 0%- 0.5% on gross acquisition costs
Value Added	0.5% - 1.5% on committed capital	Preferred Return- 8%-10% Carry- 15%- 20% Catch up- 50/50 (GP/LP) - 60/40 (GP/LP)	Acquisition Fee: 0%- 0.6%
Opportunistic	1.0%-1.75% on committed capital	Preferred Return- 8%-9% Carry- 20% Catch up- 50/50 (GP/LP) - 80/20 (GP/LP)	Acquisition Fee: 0%- 1.0%

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