

December 2021



Real Assets Portfolio Review

PUBLIC

Sally Haskins

Senior Vice President

Jan Mende

Senior Vice President

Lauren Sertich, CAIA

Senior Vice President

Agenda

- Market Overview
- Real Estate
 - Performance Review
- Infrastructure
 - Performance Review
- Glossary of Terms
- Disclosures



Market Overview

U.S. Private Real Estate Market Trends

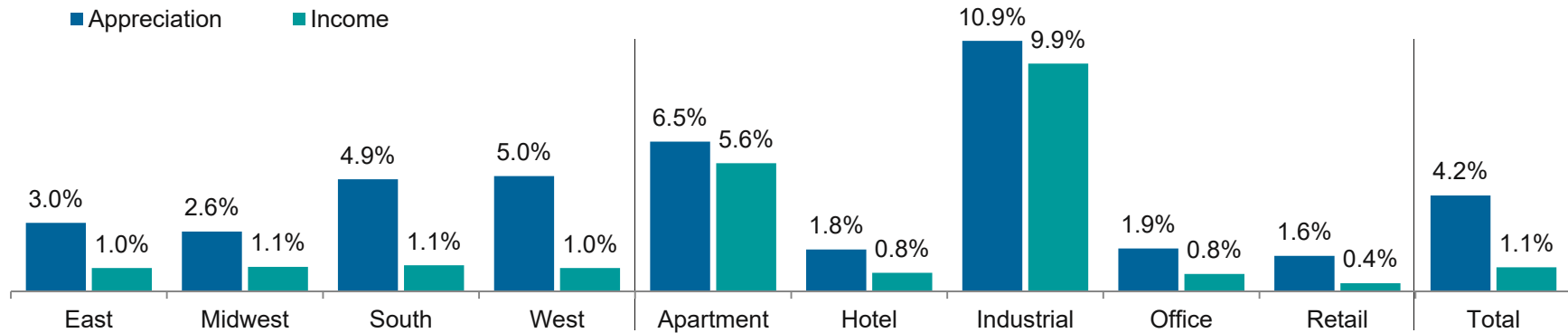
Continued strong performance across the asset class

Strongest gains for ODCE in history

- ODCE posted best return ever in 3Q21; Industrial the best performer.
- Income returns were positive except in Hotel and Retail sectors.
- Appraisers are pricing in a recovery due to strong fundamentals in Industrial and Multifamily.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios.
- Niche sectors self-storage and life sciences continued to be accretive.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	6.4%	13.6%	6.1%	6.6%	8.9%
Income	0.8%	3.1%	3.1%	3.2%	3.6%
Appreciation	5.6%	10.4%	2.9%	3.3%	5.2%
NCREIF Property Index	5.2%	12.2%	6.7%	6.8%	9.0%
Income	1.1%	4.2%	4.4%	4.5%	4.9%
Appreciation	4.2%	7.7%	2.3%	2.3%	3.9%

NCREIF Property Index Trailing One-Year Returns by Region and Property Type



Source: NCREIF, ODCE return is net

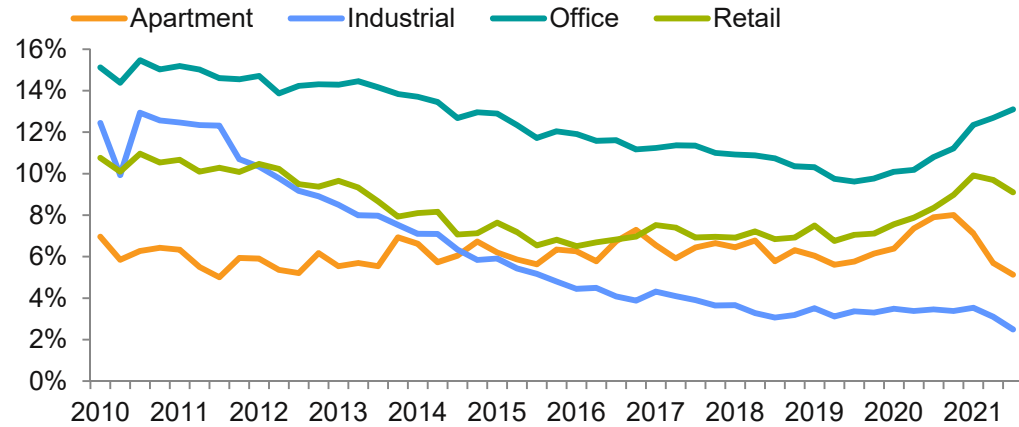
U.S. Private Real Estate Market Trends

Signs of recovery in retail (3Q21)

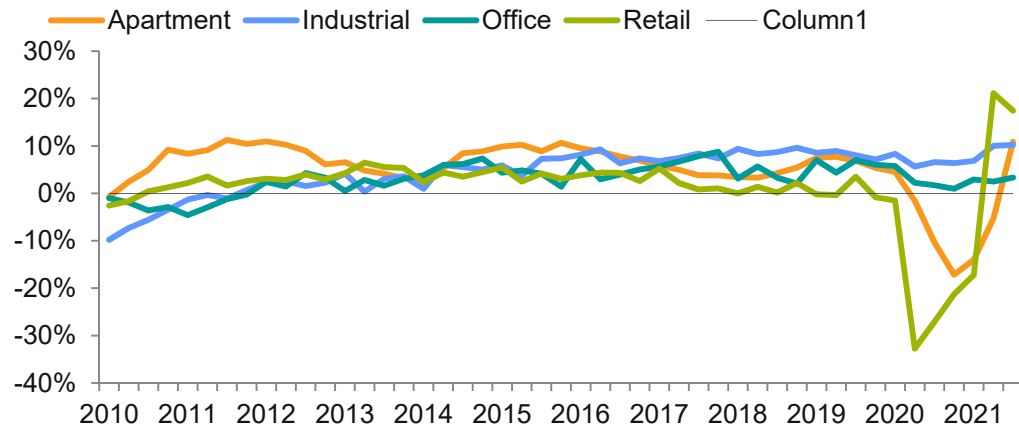
Compression in vacancy rates

- Vacancy rates kept compressing in Industrial and Multifamily as demand continued.
- Net operating income remained negative for Retail but the recovery continue; pent-up demand was evident through foot traffic in retail centers.
- 3Q21 rent collections have stabilized across all sectors.
- Demand outpaced supply as new construction of preleased Industrial and Multifamily occurred.

Vacancy by Property Type



Rolling 4-Quarter NOI Growth by Property Type

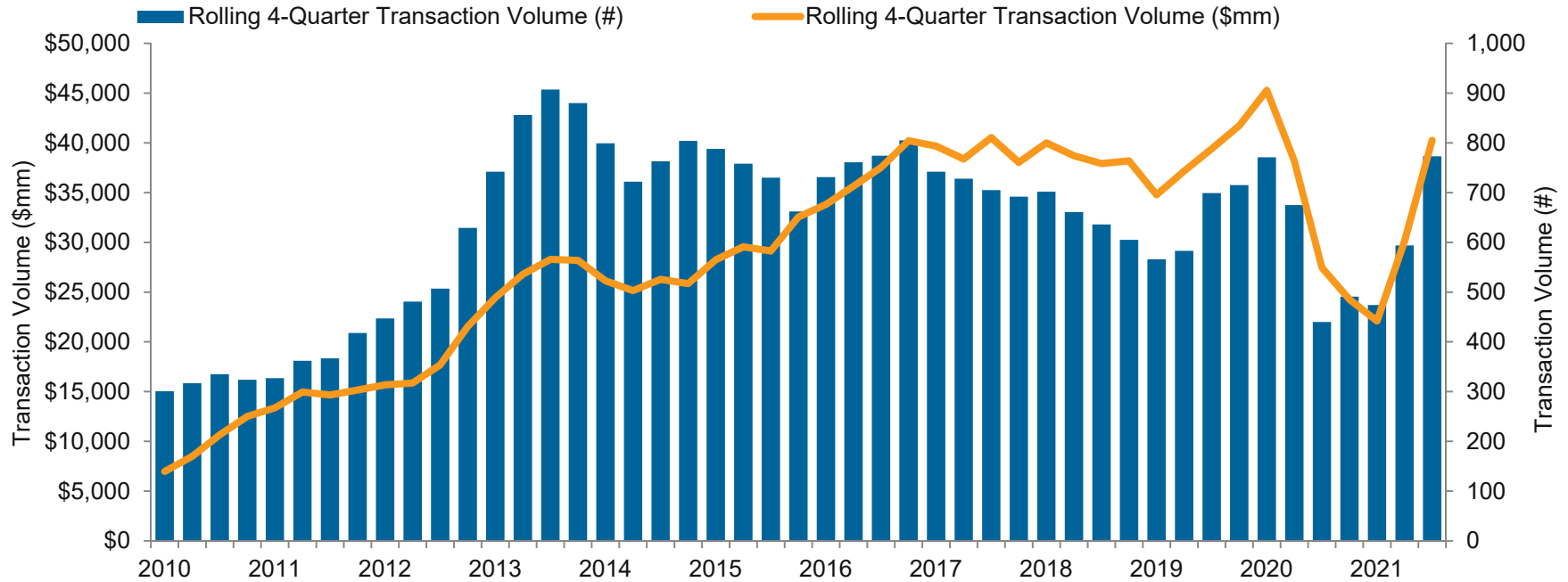


Source: NCREIF

U.S. Private Real Estate Market Trends

Pricing and transaction volumes increased in 3Q21

NCREIF Rolling 4-Quarter Transaction Totals

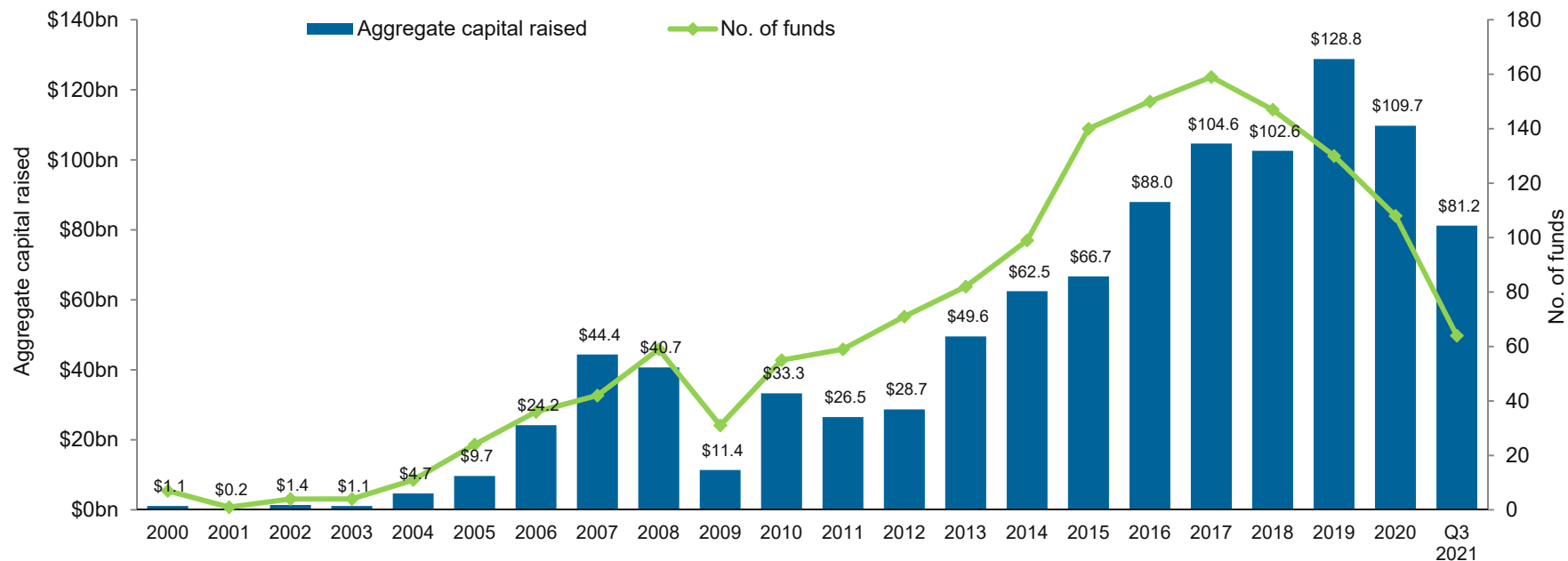


- Transaction volume increased quarter over quarter led by Multifamily and Industrial assets with strong credit tenants, which are trading at higher values than pre-COVID-19 levels.
- Callan believes the pandemic is causing a re-pricing of risk across property types. Property types with more reliable cash flows are experiencing cap rate compression due to the demand for logistics facilities coupled with the housing shortage.

Source: NCREIF

Infrastructure Fundraising

The variety of infrastructure fund strategies and structures continues to increase



- Fundraising continues to be strong for the mega-funds, which are targeting fund sizes in excess of \$5 billion.
- The closed-end fund market continues to expand, with infrastructure debt, emerging markets and sector-specific strategies (e.g., communications and renewables).
- The open-end fund market is increasing, with several new strategies coming to market in 2020/2021/2022.
- In 2020-2021 assets with guaranteed/contracted revenue or more inelastic demand patterns (e.g., renewables, telecoms, and utilities) fared better than assets with GDP/demand-based revenue (e.g. airports, seaports, midstream-related).
- An increasing number of funds focused on ‘NetZero’ and other energy transition strategies have been launched.

Source: Preqin



Real Estate Performance Review

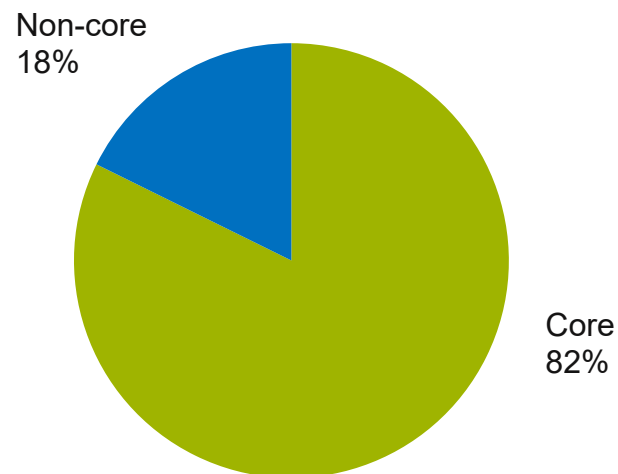
Real Estate Portfolio Summary

June 30, 2021

- CTPF’s market value is slightly under the target allocation, but within the range of 6% to 12%. Dividends are being reinvested into core funds (except JPMorgan and UBS).
- Unfunded commitments include: Basis Investment Group Real Estate Fund II, GreenOak US Fund III, Heitman Value Partners IV, Longpoint Fund I, Long Wharf VI, Oak Street Seeding Fund II, TA Realty XII, Longpoint II, Newport Capital Partners III, and Heitman Value Partners V.
- Portfolio is well positioned with 82% of the market value in funds that pursue “Core” strategies with income producing properties.

	\$ Millions	(%)
CTPF Total Plan Assets	\$13,145.27	100.0%
Real Estate Target	\$1,183.07	9.0%
Plan's Real Estate Market Value	\$1,120.80	8.5%
Unfunded Commitments	\$192.55	1.7%
Market Value & Unfunded Commitments	\$1,313.35	10.2%

Real Estate Market Value

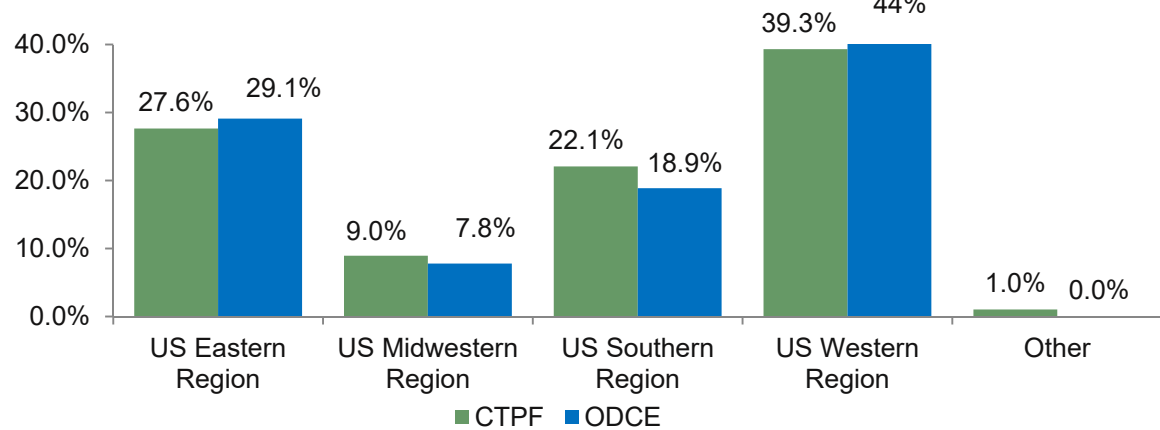


Real Estate Portfolio Diversification

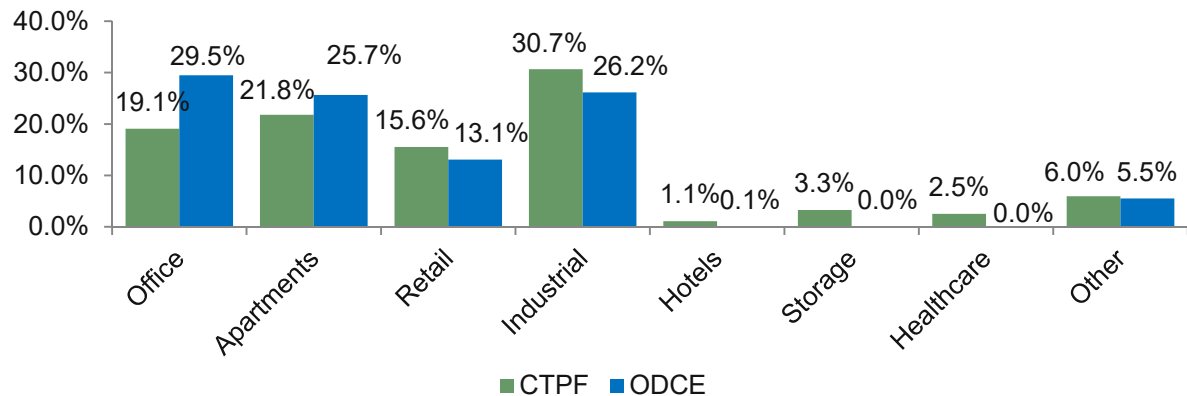
June 30, 2021

- The real estate portfolio is primarily located in the U.S. with 2% in Non-U.S. markets including the United Kingdom, India, Japan, Canada, and Mexico.
- Four core property types comprise 87% of the portfolio. Hotels, storage, healthcare and other comprise 13%. Property Types in Other include mixed use, for sale residential, student housing, land, manufactured homes, and parking. ODCE does not break storage and healthcare out from Other.
- Diversification will shift as new commitments are called and old funds sell properties.

Geographic Diversification



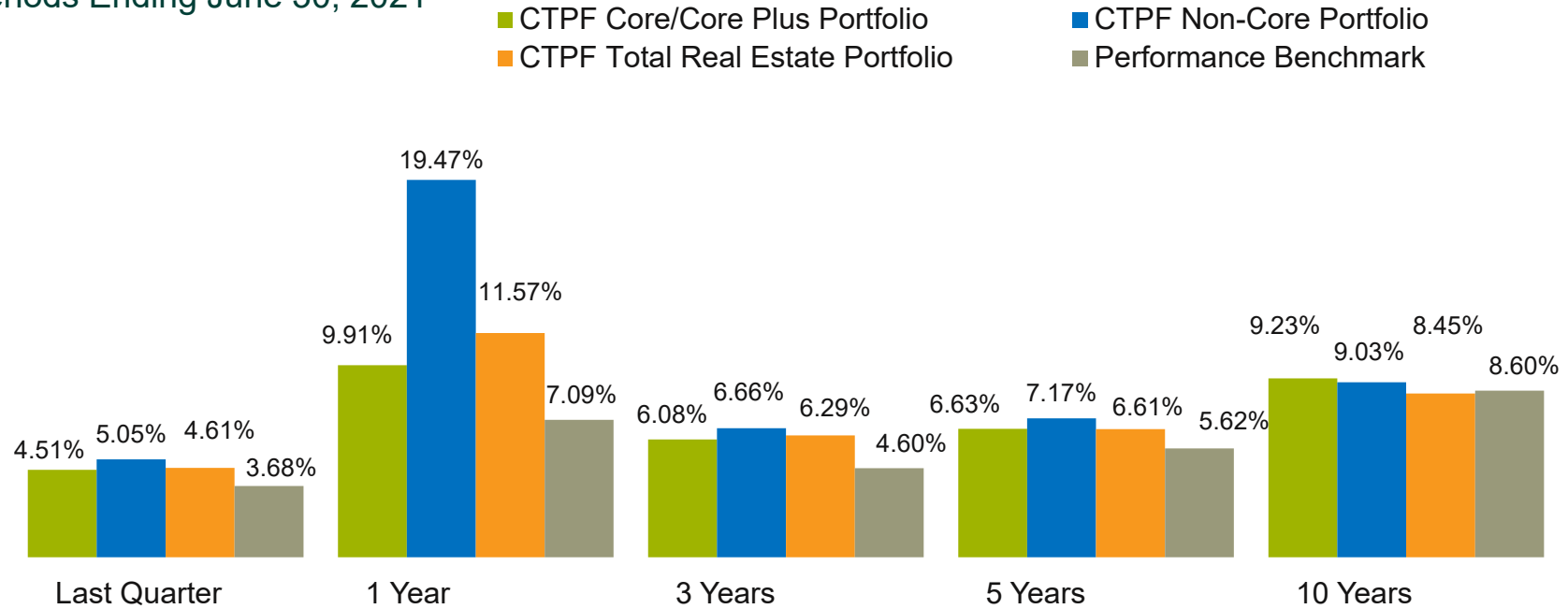
Property Type Diversification



Note: Subtotals reflect actual weights, not the sum of rounded weights shown.

Core/Core Plus and Non Core Real Estate Returns

Periods Ending June 30, 2021



- Four funds in the Core/Core Plus Portfolio outperformed the benchmark in the quarter: LaSalle Property Fund, Lion Industrial Trust PRISA II and PRISA SA. Industrial properties continue perform well, as it has done in spite of the pandemic. Given that, Lion Industrial Fund was the best overall performer. BREDS High Grade Debt Fund was the weakest performer, largely due to relatively stable performance in 2020 in comparison to write-downs taken by real estate equity funds.
- The Non-Core Portfolio performance continued to improve as valuations normalized as transaction activity picked up pace. GreenOak Fund III had strong performance during the quarter due to improvements at hospitality and multifamily properties. Funds with high industrial exposure (e.g. TA Realty and Longpoint) outperformed as these assets experienced appreciation and income.
- The strong one year performance reflects overall market recovery from the initial pandemic-related write-downs in 2020.

Performance numbers in this presentation are based on quarterly data collected from CTPF investment managers and calculated by Callan beginning in the fourth quarter of 2015. Quarterly performance history prior to the fourth quarter of 2015 was calculated and provided to Callan by the previous consultant, The Townsend Group. Benchmark is the NFI-ODCE Value-Weight Index, a time-weighted return Index with an inception date of 12/31/1977. The Index is comprised of 33 open-end commingled funds, in which 23 are still actively investing. Full definition is contained in the Appendix.



Infrastructure Performance Review

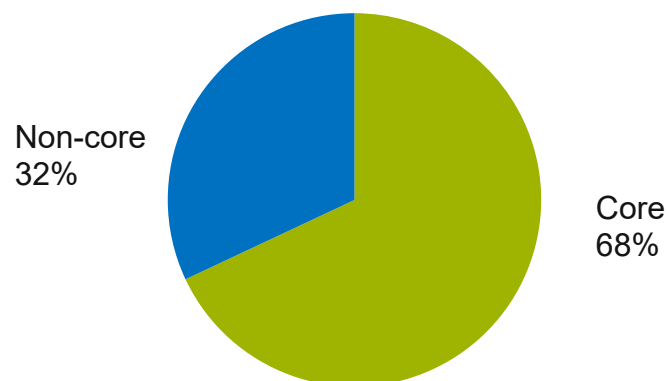
Infrastructure Portfolio Summary

June 30, 2021

- Infrastructure comprised 1.6% of the total portfolio on a market value basis compared to a target of 2%, and range of 0-4%.
- CTPF made its first infrastructure investments in 2008 and 2009: one core fund and two non-core funds.
- In the past four years, CTPF has made commitments to five additional funds: two core funds and three non-core funds.
- Unfunded commitments include Brookfield Infrastructure III and IV, JLC Fund I, and Macquarie Infrastructure Partners V

	\$ Millions	(%)
CTPF Total Plan Assets	\$13,145.27	100.0%
Infrastructure Target	\$262.91	2.0%
Plan's Infrastructure Market Value	\$207.99	1.6%
Unfunded Commitments	\$40.84	0.3%
Market Value & Unfunded Commitments	\$248.83	1.9%

Market Value

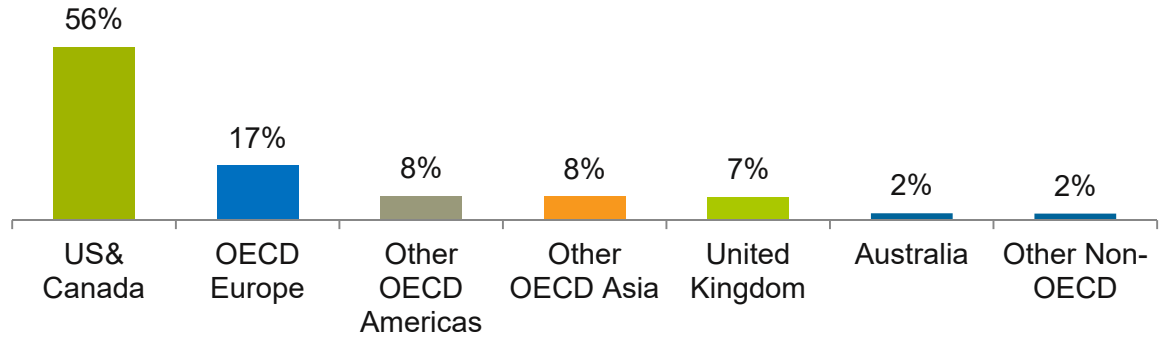


Portfolio Diversification Based on Market Value

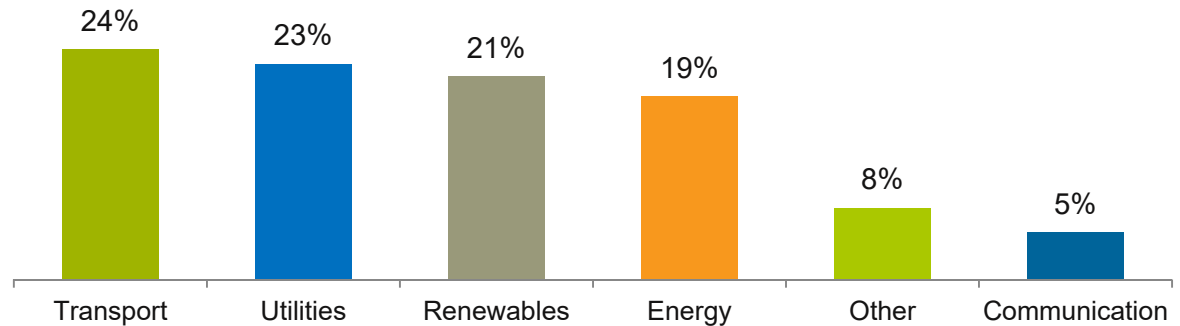
June 30, 2021

- Majority of portfolio in developed markets.
- Non-OECD* includes investments in Brazil (data centers, transport, renewables and utilities), as well as renewables in India and China.
- Other OECD Americas includes investments in countries such as Mexico.
- Other OECD Asia includes investments in Japan.
- Utilities, transport, renewables and energy together comprised 86% of the portfolio.
- Sector 'other' includes social infrastructure, waste and oil storage investments.

Geographic Diversification



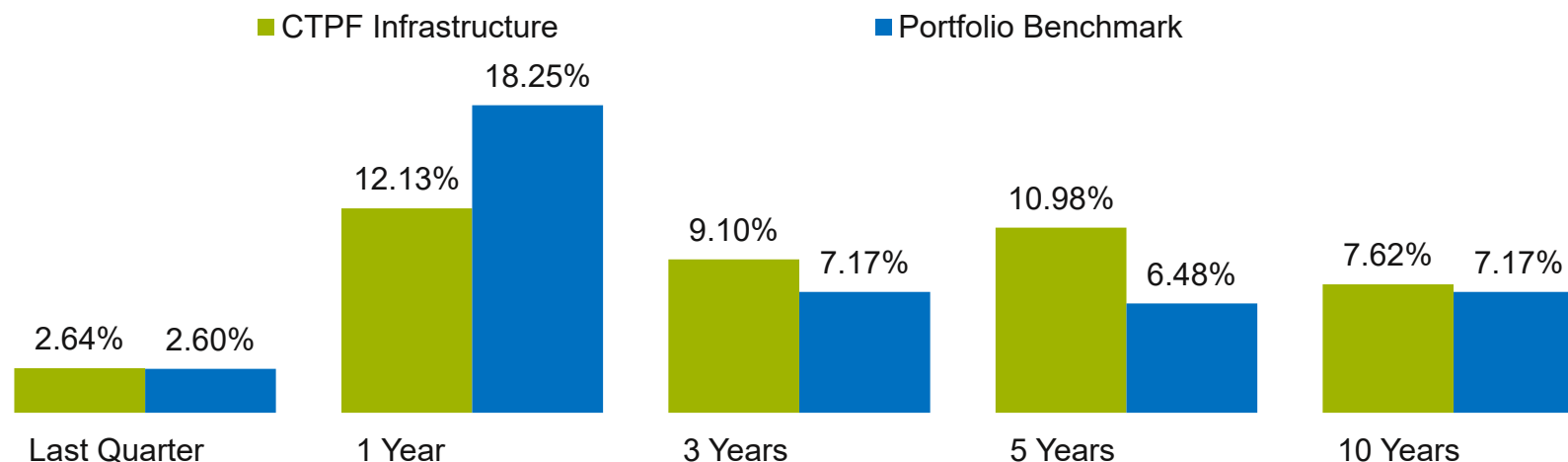
Sector Diversification



*Organisation for Economic Co-operation and Development ("OECD"): 36 member countries that represent circa 80% of world trade.

Infrastructure Portfolio Performance

Periods Ended June 30, 2021



- Infrastructure is a developing asset class and as of today, there is no industry standard benchmark for private infrastructure investors. The benchmark is public-markets based and reflects public markets performance volatility in the past year.
- Seven of the nine infrastructure funds had positive performance in Q2 2021. The two funds with negative performance during the quarter were JLC Fund I and Macquarie Infrastructure V – both are in the investment period J-curve.
- CTPF has outperformed the benchmark over the longer term (3 Year, 5 Year and 10 Year).

In the fourth quarter of 2017, the annualized 8% infrastructure benchmark was replaced with the FTSE Developed Core Infrastructure 50/50 Index.



Glossary of Terms and Disclaimer

Definitions

Style Groups

Total Real Estate DB: The Total Real Estate Funds Database consists of both open and closed-end commingled funds managed by real estate firms that report to the Callan Database.

Open-End Real Estate: The Open-End Real Estate Database consists of all open end real estate funds that report to the Callan Database.

Real Estate Value Added: The Real Estate Value Added Database consists of all real estate funds that manage to a value add strategy and report to the Callan Database.

Real Estate Opportunistic: The Real Estate Opportunistic Database consists of all real estate funds that manage to a value add strategy and report to the Callan Database.

REIT Global DB: The REIT Global Database consists of products investing in global equity real estate through portfolios consisting primarily of equity Real Estate Investment Trusts (REIT). The Database is comprised of returns for both separate account composites and commingled vehicles.

*The above groups are based on time-weighted returns.

Vintage Year Database Groups: The Vintage Year Groups are comprised of all funds that report to the database with the initial drawdown taking place in the labeled year. These groups are based on IRRs derived from the cash flows submitted to the Callan Database.

Indices

Stylized Index: Weights the various style group participants to be comparable to the investor portfolio holdings for each period.

NAREIT Equity Index: This is an index of Equity Real Estate Investment Trust returns reflecting the stock value changes of REIT issues as determined through public market transactions.

The NFI-ODCE Value-Weight Index is a time-weighted return Index with an inception date of 12/31/1977. The Index is comprised of 33 open-end commingled funds, in which 23 are still actively investing. Inclusion within the Index requires (a) minimum of 80% of net fund assets invested in the multifamily, retail, industrial, office, or hotel property type, (b) maximum of 20% of net fund assets invested in real estate debt or private/public company equity, (c) at least 80% of net assets invested in properties with a minimum occupancy of 60%, (d) no more than 70% of real estate net assets invested in a single property type or region, (e) maximum of 40% leverage, and (f) at least 95% of net real estate assets invested within the U.S. market.

Definitions

Terms

Beginning Market Value: Value of real estate, cash and other holdings from prior period end.

Contributions: Cash funded to the investment for acquisition and capital items (i.e., initial investment cost or significant capital improvements).

Distributions: Actual cash returned from the investment, representing distributions of income from operations. **Withdrawals:** Cash returned from the investment, representing returns of capital or net sales proceeds.

Ending Market Value: The value of an investment as determined by actual sales dollars invested and withdrawn plus the effects of appreciation and reinvestment; market value is equal to the ending cumulative balance of the cash flow statement (NAV).

Unfunded Commitments: Capital allocated to managers which remains to be called for investment. Amounts are as reported by managers.

Remaining Allocation: The difference between the ending market value + the unfunded commitments and the target allocation. This figure represents dollars available for allocation.

Core: Direct investments in operating, fully leased, office, retail, industrial, or multifamily properties using little or no leverage (normally less than 30%).

Value-Added: Core returning investments that take on moderate additional risk from one or more of the following sources: leasing, re-development, exposure to non-traditional property types, the use of leverage.

Opportunistic: Investments that take on additional risk in order to achieve a higher return. Typical sources of risks are: development, land investing, operating company investing, international exposure, high leverage, distressed properties.

Non Core: Includes both value added and opportunistic strategies

Vintage Year: Year of first drawdown

Definitions - Performance

Capitalization rate: Commonly known as cap rate, is a rate that helps in evaluating a real estate investment. $\text{Cap rate} = \text{Net operating income} / \text{Current market value (Sales price) of the asset}$.

Net operating income: Commonly known as NOI, is the annual income generated by an income-producing property after taking into account all income collected from operations, and deducting all expenses incurred from operations.

Real Estate Appraisal: The act of estimating the value of property. A real estate appraisal may take into account the quality of the property, values of surrounding properties, and market conditions in the area.

Income Return (“INC”): Net operating income net of debt service before deduction of capital items (e.g., roof replacement, renovations, etc.)

Appreciation Return (“APP”): Increase or decrease in investment's value based on internal or third party appraisal, recognition of capital expenditures which did not add value or uncollectible accrued income, or realized gain or loss from sales.

Total Gross Return: The sum of the income return and appreciation return before adjusting for fees paid to and/or accrued by the manager.

Total Net Return: Total gross return less Advisor fees reported. All fees requested (asset management, accrued incentives, paid incentives). No fee data is verified.

Inception Returns: The total net return for an investment or portfolio over the period of time the client has funds invested. Total portfolio Inception Returns include returns from investments no longer held in the current portfolio.

Net IRR: IRR after advisory fees, incentive and promote. This includes actual cash flows and a reversion representing the LP Net Assets at market value as of the period end reporting date.

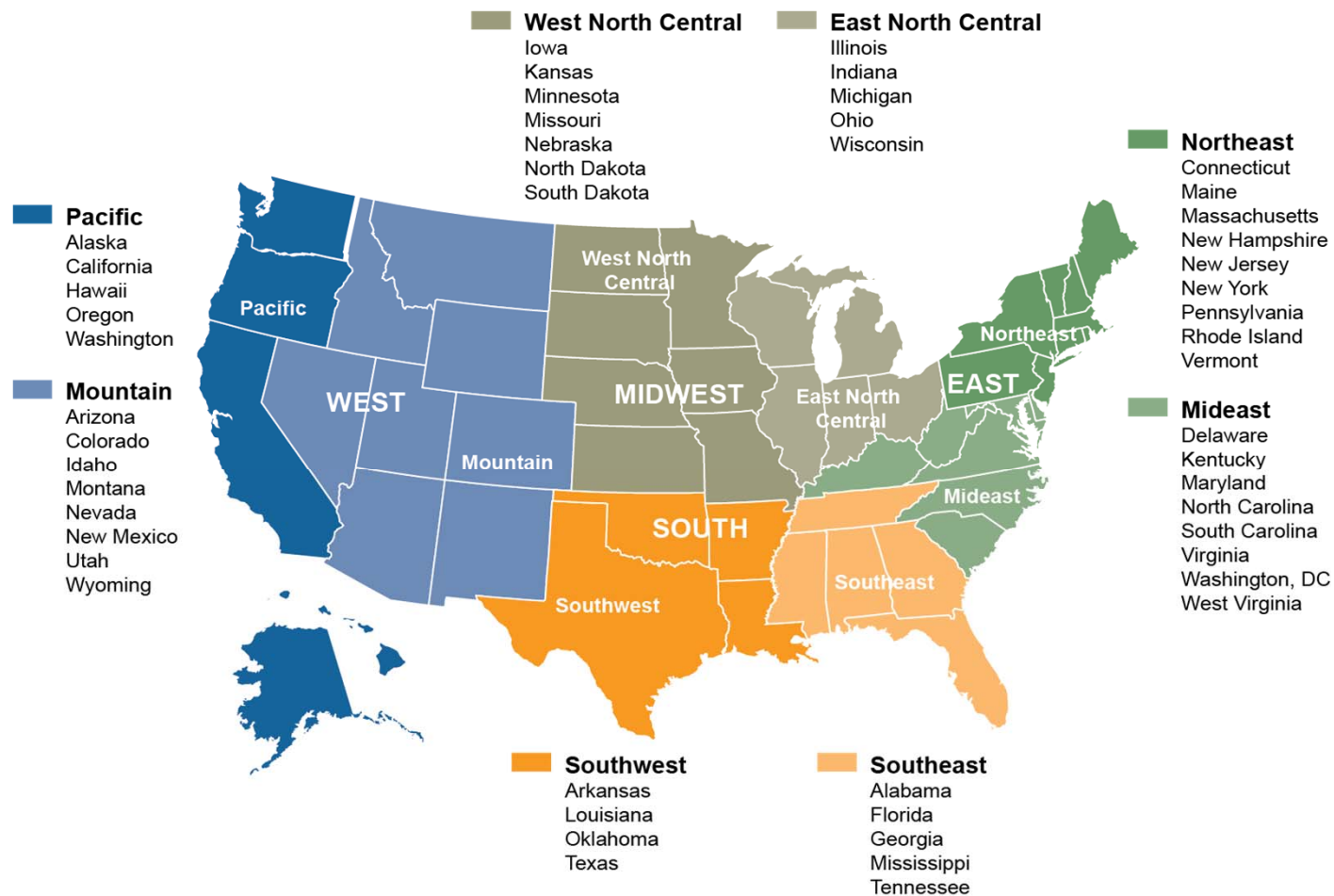
Equity Multiple: The ratio of Total Value to Paid-in-Capital (TVPIC). It represents the Total Return of the investment to the original investment not taking into consideration the time invested. Total Value is computed by adding the Residual Value and Distributions. It is calculated net of all investment advisory and incentive fees and promote.

DPI Multiple: The ratio of distributions paid to the investor divided by the amount of contributions paid by the investor. It is calculated net of all investment advisory and incentive fees and promote.

Sharpe Ratio: Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken. The risk of the portfolio is the Standard Deviation of the portfolio returns.

NCREIF Region Map

Geographic Regions and Divisions



Source: NCREIF

Disclaimers

This report is for informational purposes only and should not be construed as legal or tax advice on any matter. Any decision you make on the basis of this content is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation.

This report may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact.

Reference to or inclusion in this report of any product, service or entity should not be construed as a recommendation, approval, affiliation or endorsement of such product, service or entity by Callan.

Past performance is no guarantee of future results.

The statements made herein may include forward-looking statements regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties such that actual results may differ materially from these statements. There is no obligation to update or alter any forward-looking statement, whether as a result of new information, future events or otherwise. Undue reliance should not be placed on forward-looking statements.

Performance numbers in this presentation are based on quarterly data collected from CTPF investment managers and calculated by Callan Associates beginning in the fourth quarter of 2015. Quarterly performance history prior to the fourth quarter of 2015 was calculated and provided to Callan by the previous consultant, The Townsend Group.