



NCREIF/CREFC Open-end Debt Fund Aggregate

Presented to Homer Hoyt Institute
May 16, 2024



Why create an “index” for private commercial real estate debt funds investing in real estate?

- **\$6.5T** U.S. Institutional investment in commercial real estate
- **Private real estate debt accounts for 49%** of institutional capital invested in U.S. real estate.
 - 22% public debt, 16% private equity & 13% public equity
- There is no private debt fund level index to benchmark performance.
- Managers, investors, consultants, etc. need and want a fund level private debt index.

Source: Pension Real Estate Association (PREA) 2021



Benefits of a debt fund “aggregate”

- “Aggregate” of open-end debt funds with various styles ranging from Core to Value-add
- Will enhance investors’ interest & understanding of the rewards and risk of private real estate debt funds.
- Increase availability and transparency of data to support existing debt investments and to evaluate debt fund performance.
- Potentially increase capital allocations to debt fund products.
- “Aggregate” is the first step in the process of creating a style/strategy- based index or benchmark, like NFI-ODCE.



Benefits of a future fund level index

- Debt equivalent of NFI-ODCE
- Representative of an investable universe
- Actual limited partner returns experienced for certain strategies / styles of investing, therefore a good benchmark
- Includes the effects of leveraging investments
- Include fees and costs associated with investing
- Attribution of fund returns once loan level data is collected
- Loan level data can also be presented for the types of investments being made by funds during various market cycles

The open-end debt funds aggregate...



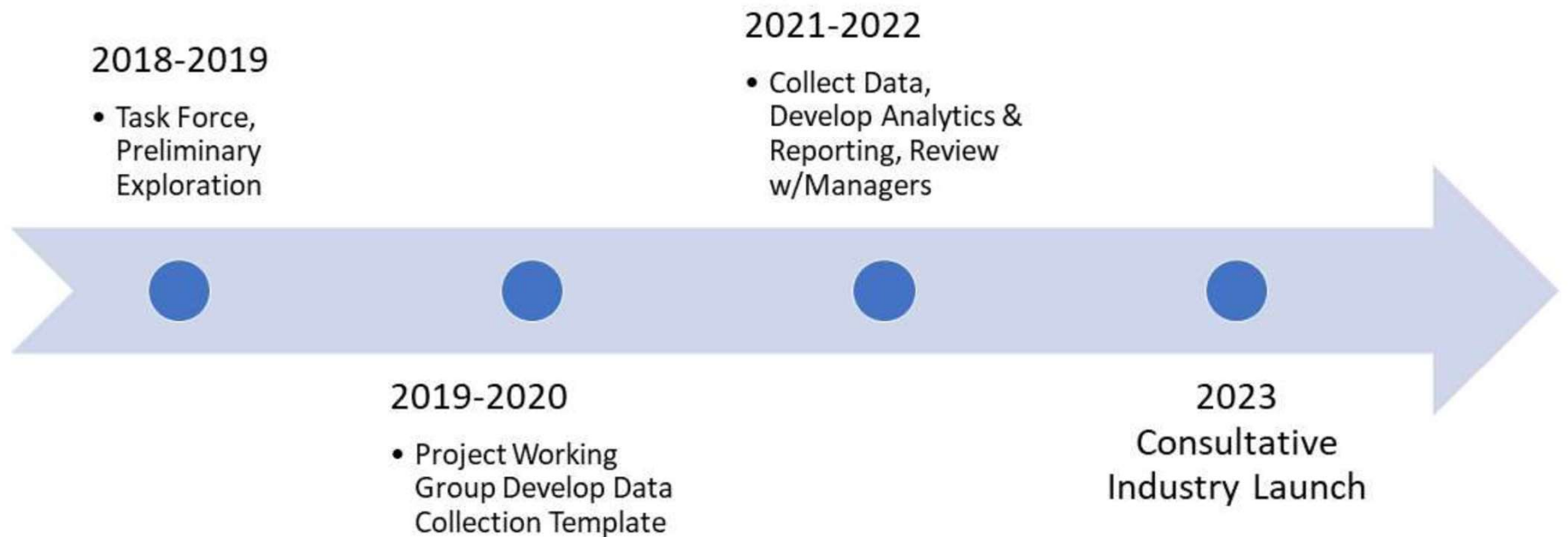
- Is a work in progress.
- Contains open-end funds with various strategies and styles ranging from core to value-add.
- Is NOT an INDEX or a BENCHMARK, yet.
- Metrics are equal-weighted (for now).
- Individual fund metrics will NEVER be revealed.
- Is a project by the industry for the industry.
- Furthers NCREIF's and CREFC's mission.

NCREIF and CREFC

- NCREIF is a member-driven, not-for-profit association that improves private real estate investment industry knowledge by providing transparent and consistent data, performance measurement, analytics, standards and education.
- CREFC is the trade association for the commercial real estate finance industry. CREFC promotes liquidity, transparency, and efficiency in the commercial real estate finance markets. It does this by acting as a legislative and regulatory advocate for the industry, playing a vital role in setting market standards and best practices, and providing education for market participants. Member firms include balance sheet and securitized lenders, loan and bond investors, private equity firms, servicers, and rating agencies, among others.
- NCREIF/PREA Reporting Standards. Debt Fund Reporting Manual is in progress.



Project Timeline



Next Steps: Definitions of Styles, Loan Level Data Collection, Closed-end/SA collection

Project Working Group

- Clarion Partners, Nuveen, Principal, UBS
- CREFC, NCREIF

ad hoc participation

- | | | |
|--|---|---|
| <ul style="list-style-type: none">• Managers<ul style="list-style-type: none">• ARES Management• Trawler Capital Management• Walton Street Capital | <ul style="list-style-type: none">• Investors<ul style="list-style-type: none">• CalSTRS• Griffin Capital• NYSTRS• Oregon State Treasury | <ul style="list-style-type: none">• Consultants & Others<ul style="list-style-type: none">• Altus Group• AON• Bard Consulting• Chatham Financial• Situs AMC |
|--|---|---|

2018 Task Force

AON, Clarion Partners, CBRE Global Investors, CREFC, Heitman, INVESCO, Mesa West, Met Life, NCREIF, PGIM, Principal, Quadrant RE Advisors, TH Real Estate, UBS, Voya

Participating funds



Manager Name	Fund Name
Ares Management	Ares Open-end Debt Fund - Levered
Ares Management	Ares Open-end Debt Fund - Unlevered
Barings LLC	Barings Real Estate Debt Income Fund, LP
CIM Group	CMMT Partners, L.P.
CrossHarbor Capital Partners	Strategic Debt Income Fund
Heitman	Heitman Core Real Estate Debt Income Trust, L.P.
Invesco Real Estate	Invesco Commercial Mortgage Income - U.S. Fund, L.P.
MetLife Investment Management	MetLife Commercial Mortgage Income Fund

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Manager Name	Fund Name
Nuveen Real Estate and PCCP, LLC	Core-Plus Real Estate Debt Fund LP
PGIM Real Estate	PGIM Real Estate U.S. Core Debt Fund
PGIM Real Estate	PGIM Real Estate U.S. Debt Fund, L.P.
Sound Mark Partners	Sound Mark Horizons Fund, LP
Third Point Private CRE Credit LLC	Third Point Private CRE Credit Fund LP
UBS Realty	Trumbull Property Income Fund
Voya Alternative Asset Management LLC	Voya Commercial Mortgage Lending Fund L.P.
Walton Street Capital	Walton Street Real Estate Debt Core Fund, L.P.



Quarterly reports – three versions

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Membership Report

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Public Snapshot

NCREIF / CREFC Open-end Debt Fund Aggregate

as of December 31, 2023

(\$millions)	Current Quarter	1 Year Trailing
Total Gross of Fee Return	0.27%	3.2%
Loan Investments at Fair Value	\$36,877	
Number of Loans	644	
Number of Active Funds	16	

Balance sheet



BALANCES (\$millions at fair value)

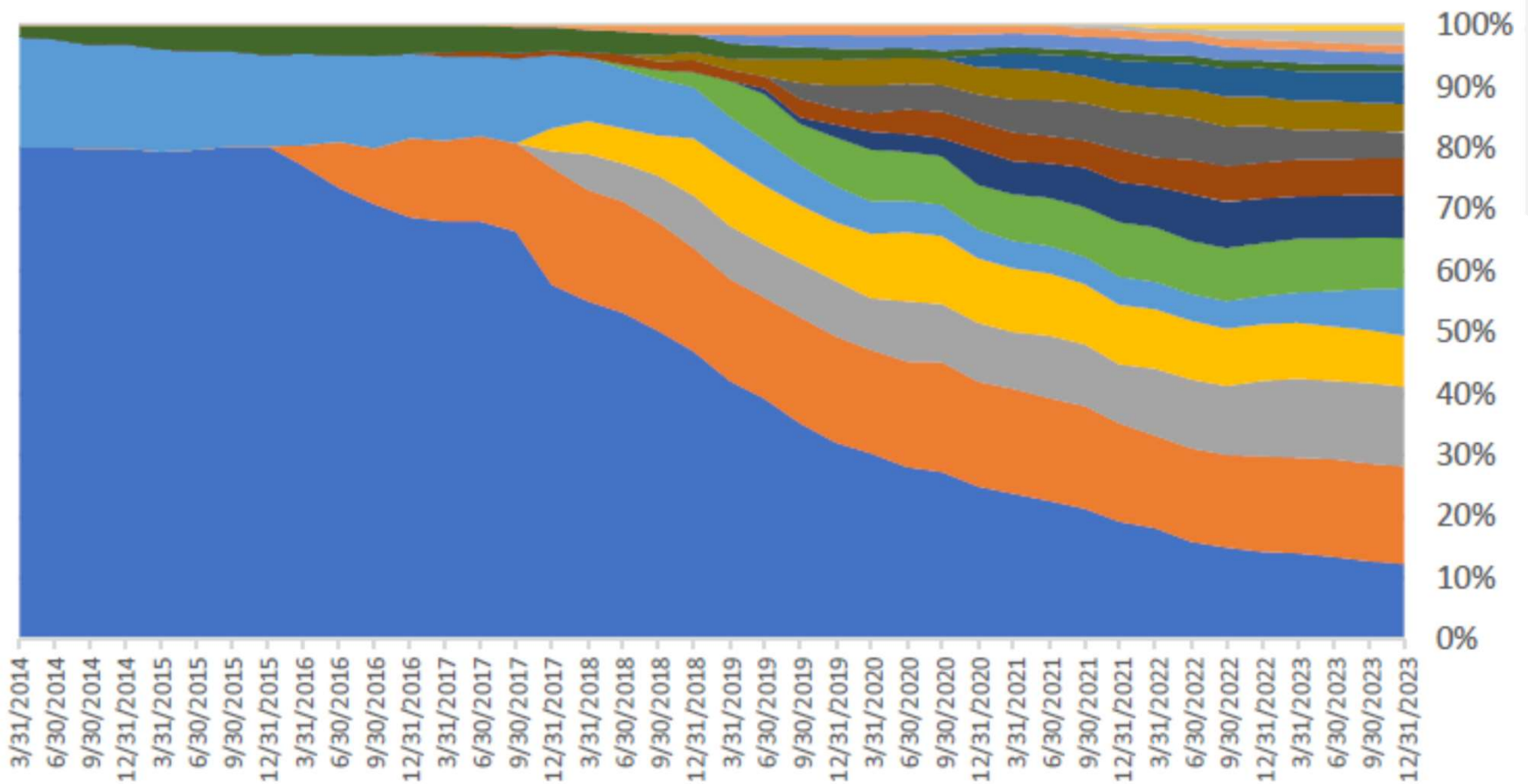
as of Quarter-end

Cash	\$854
Loan Investments	\$36,877
Total Assets	\$38,751
Debt Payable	-\$18,090
Financial Leverage (debt pay / tot assets)	46.7%
Net Assets	\$19,242
Contributions (quarter activity)	\$892
Distributions & Redemptions (quarter activity)	-\$771
Fund Count	16

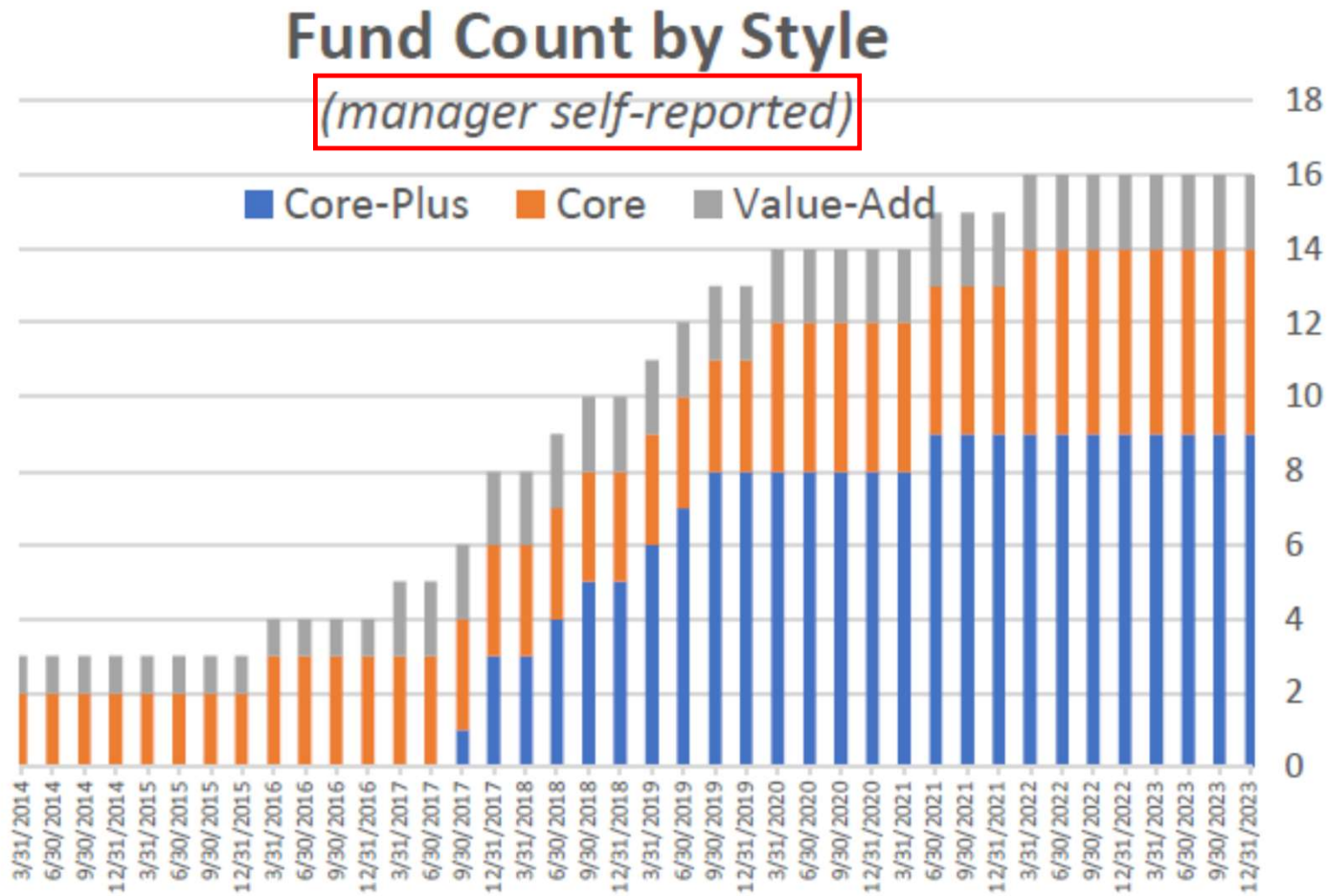
PBO is \$37.5

Fund sizes

All Funds NAV% of Aggregate



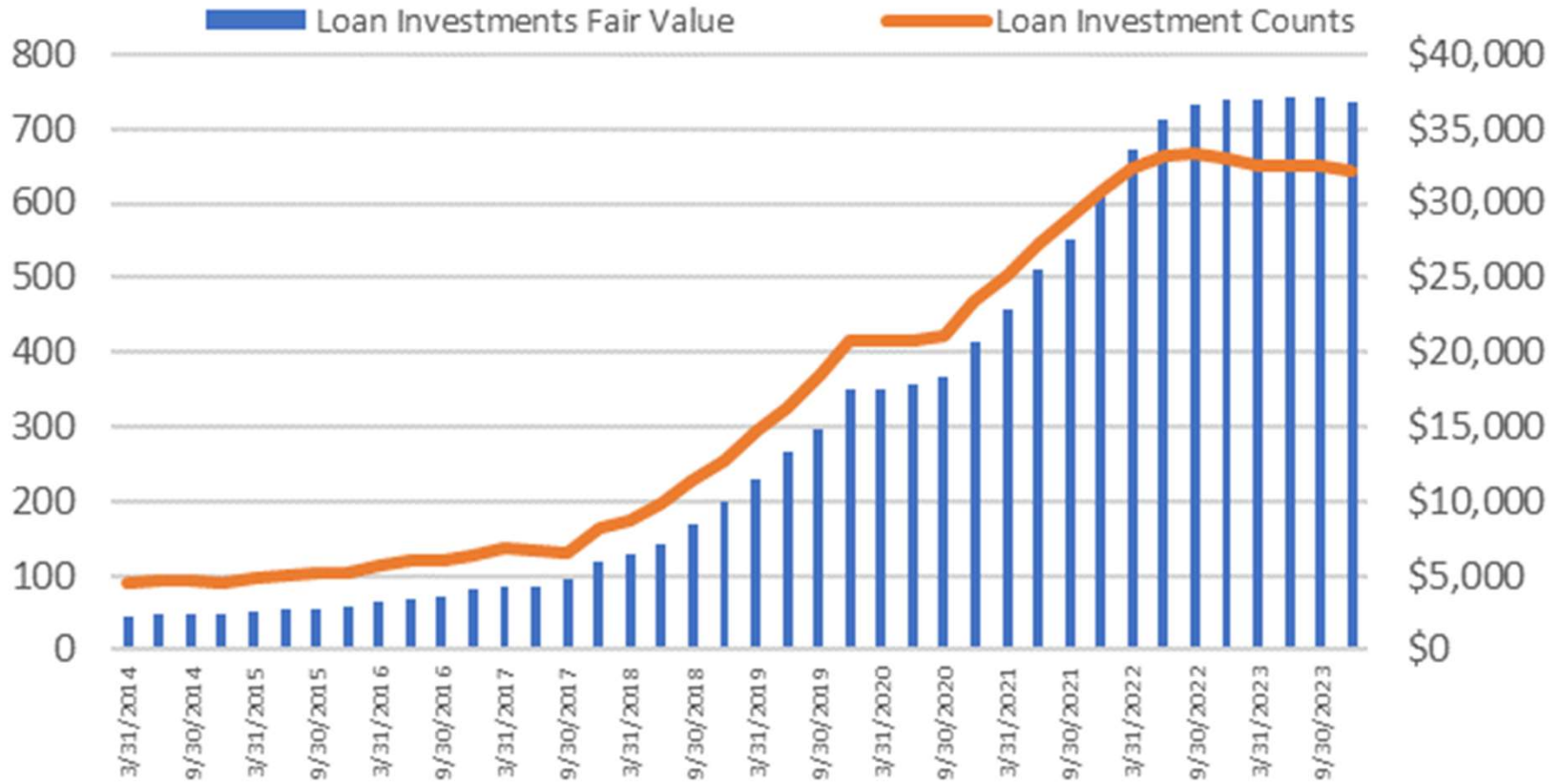
Fund styles



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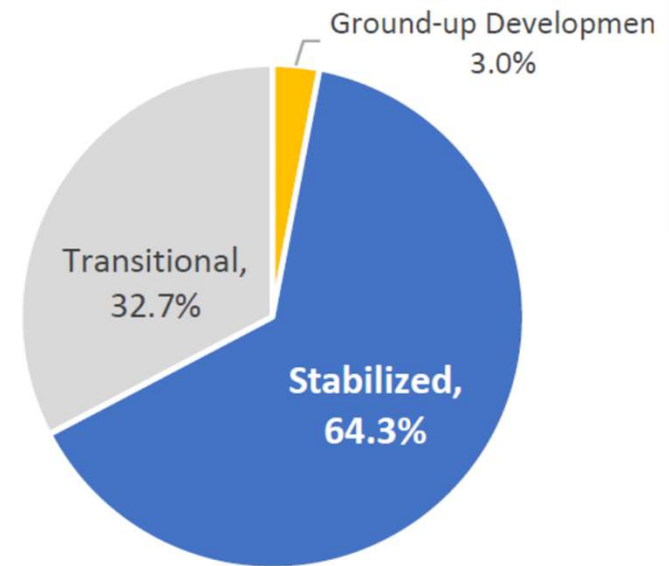
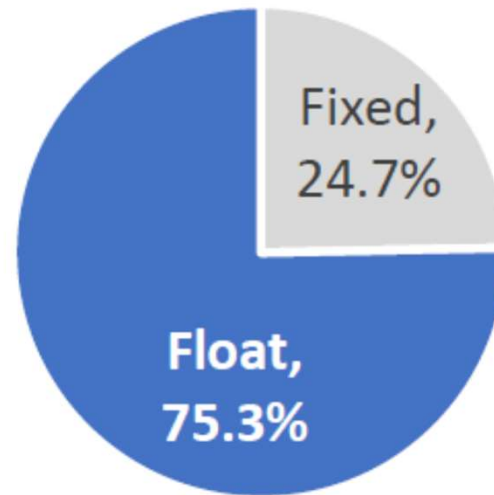
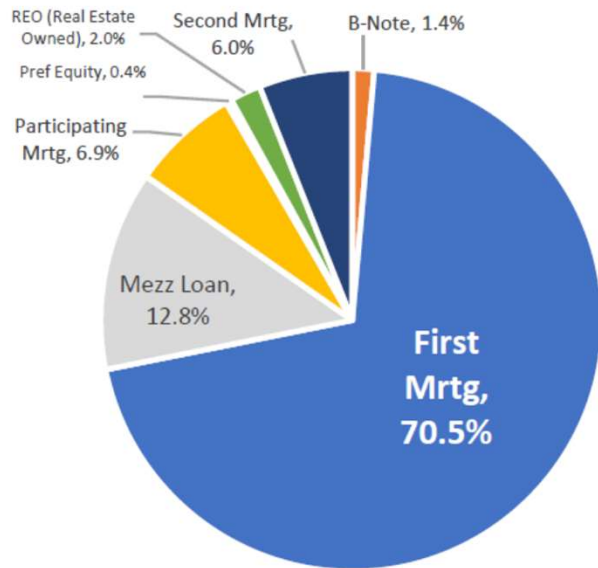
Loan Investments



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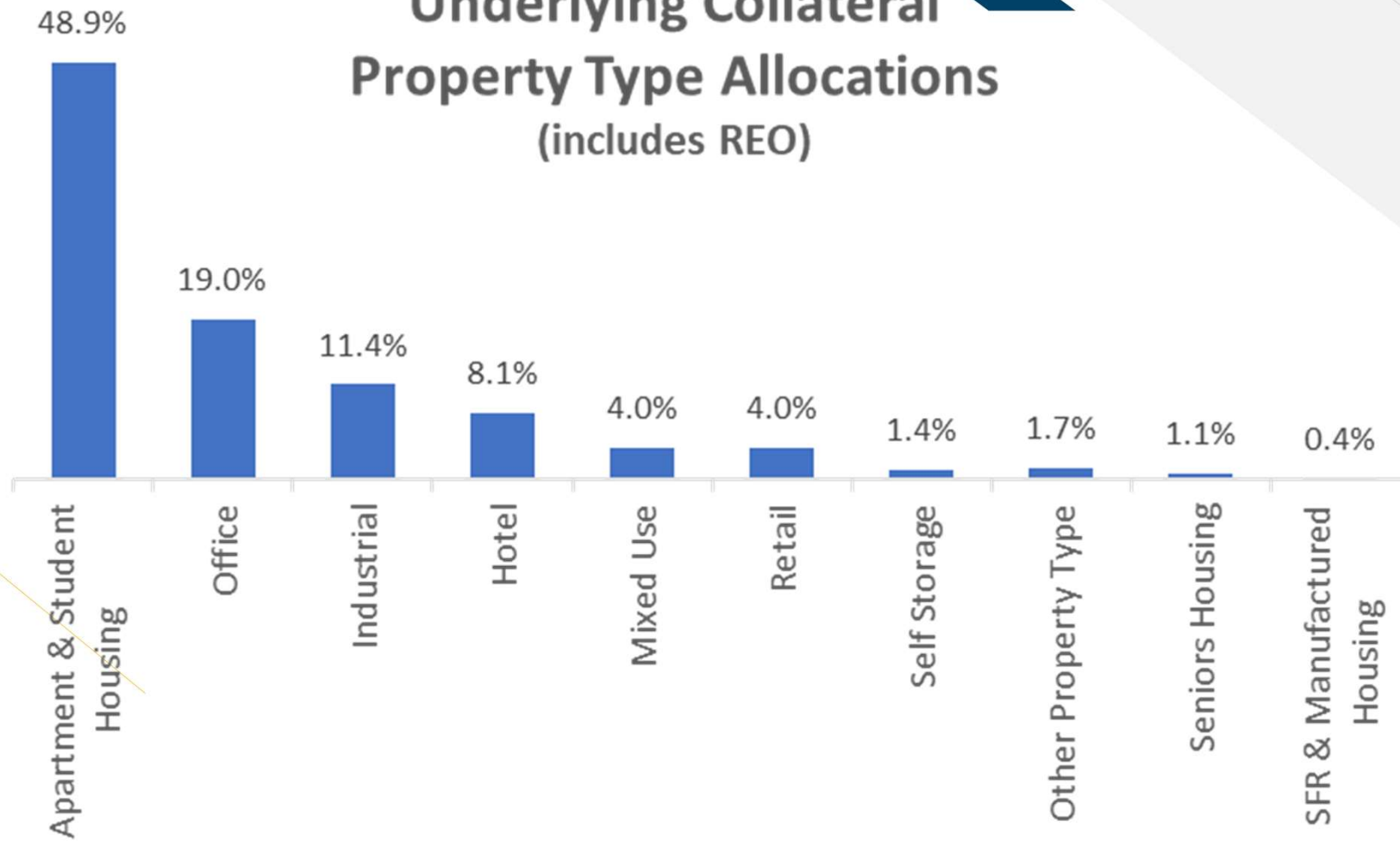
Loan investment characteristics



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Underlying Collateral Property Type Allocations (includes REO)





LOAN INVESTMENT METRICS

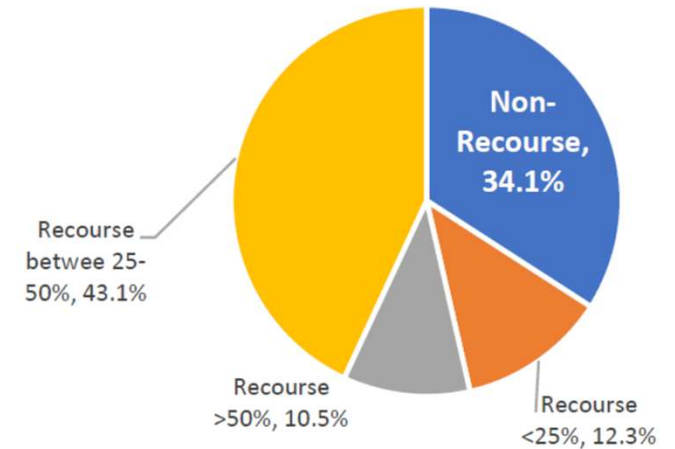
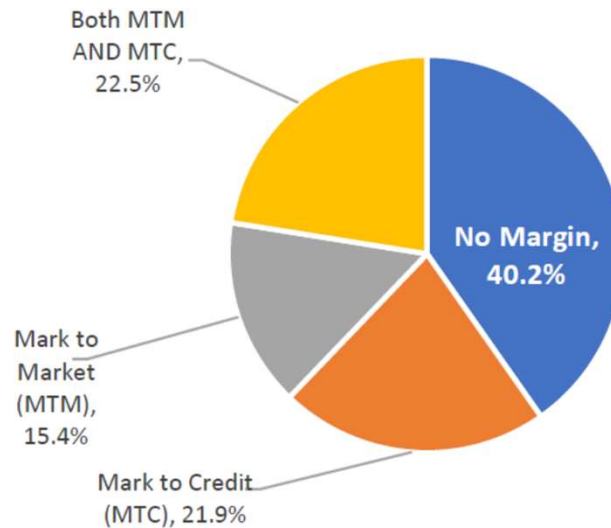
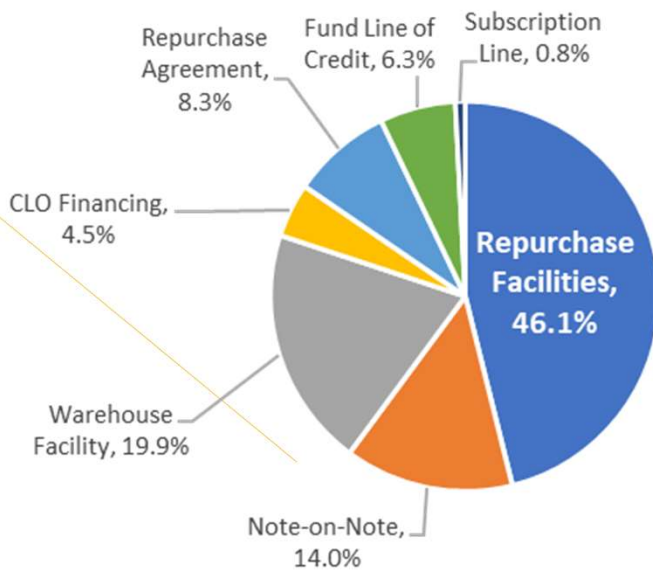
All-in Rate-Loan Investments (annualized)	8.8%
Wgt Avg Remaining Term (x/extensions)	2.1 yrs
First\$Risk LTV% (attach point of sub loans)	55.3%
Last\$Risk LTV% (detach point of sub loans)	74.7%
DSCR (NOI / [interest + principal])	1.0x
Debt Yield Annualized (noi / loan balance)	7.1%
Future Fundings % of Principal Outstanding	5.2%
# of Loan Investments	644

[metrics are equal-weighted across ALL funds]

Debt payables



Quarter-end	All Funds (Unlev & Lev)	Only funds w/ Leverage
12/31/2023	37.9%	50.6%



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Returns



RETURNS (fund level)

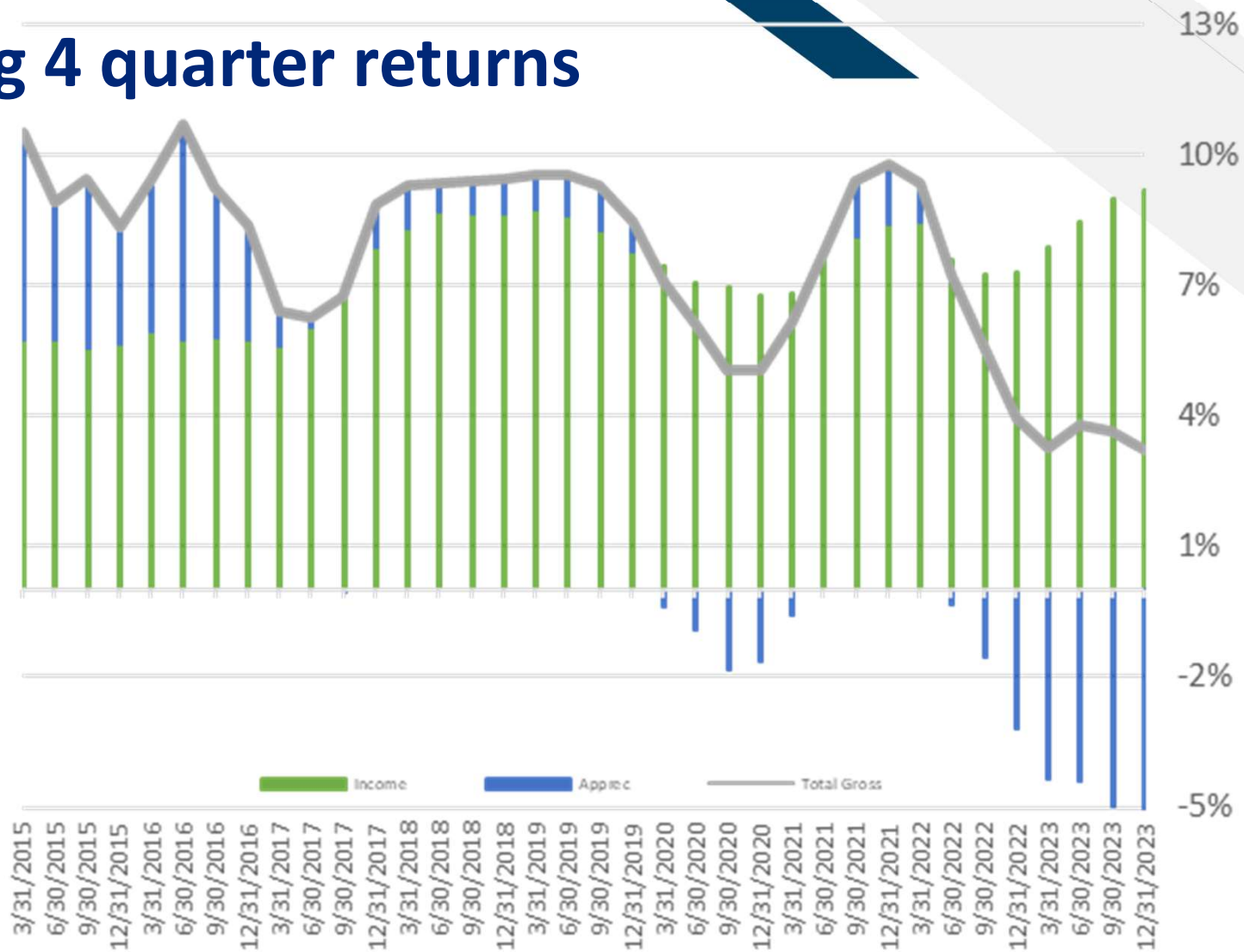
	Quarter-ended	1 yr	3 yr	5 yr	7 yr	10 yr
Income	2.26%	9.2%	8.3%	7.9%	8.0%	7.3%
Appreciation	-1.99%	-5.6%	-2.5%	-1.7%	-1.0%	0.2%
Total Gross of Fees	0.27%	3.2%	5.6%	6.1%	6.9%	7.6%
Total Net of Fees and Fund Costs	0.09%	2.4%	4.7%	5.1%	5.8%	6.1%
Fund Costs	-0.11%	<i>[returns available since 3/31/2014]</i>				

[returns are equal-weighted across ALL funds]

Above is subject to change & not to be used as an index or benchmark.

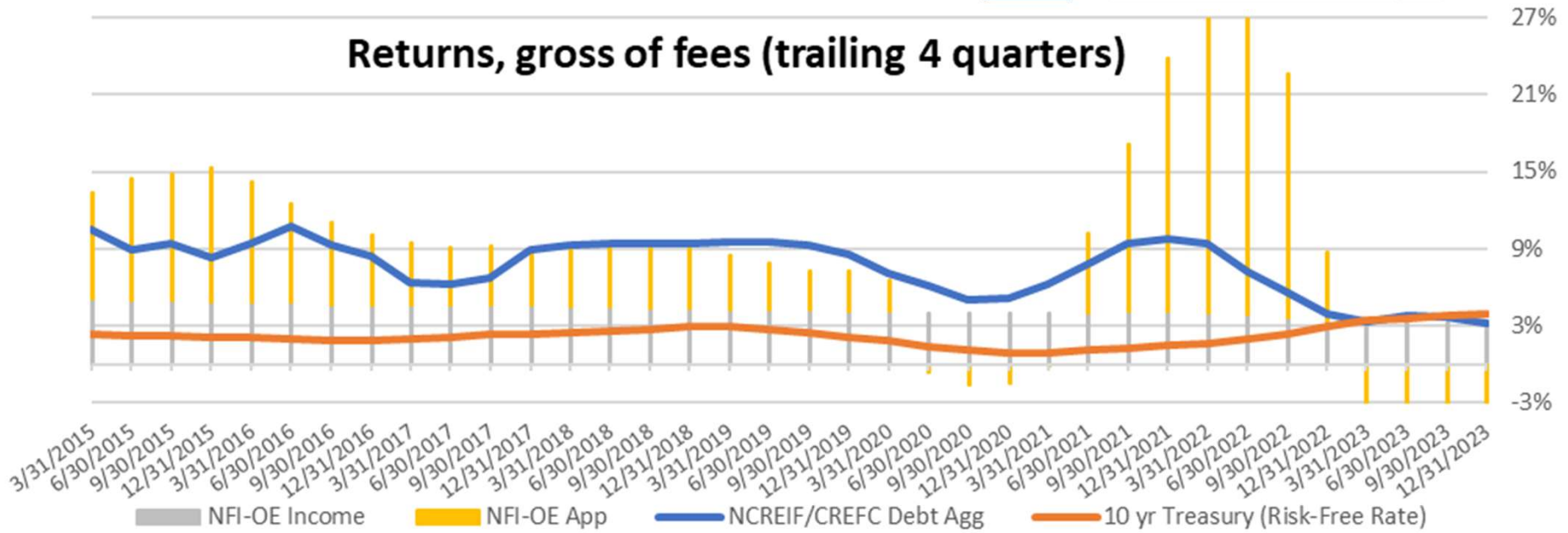
Please read "About the Aggregate" and the Disclaimer.

Trailing 4 quarter returns



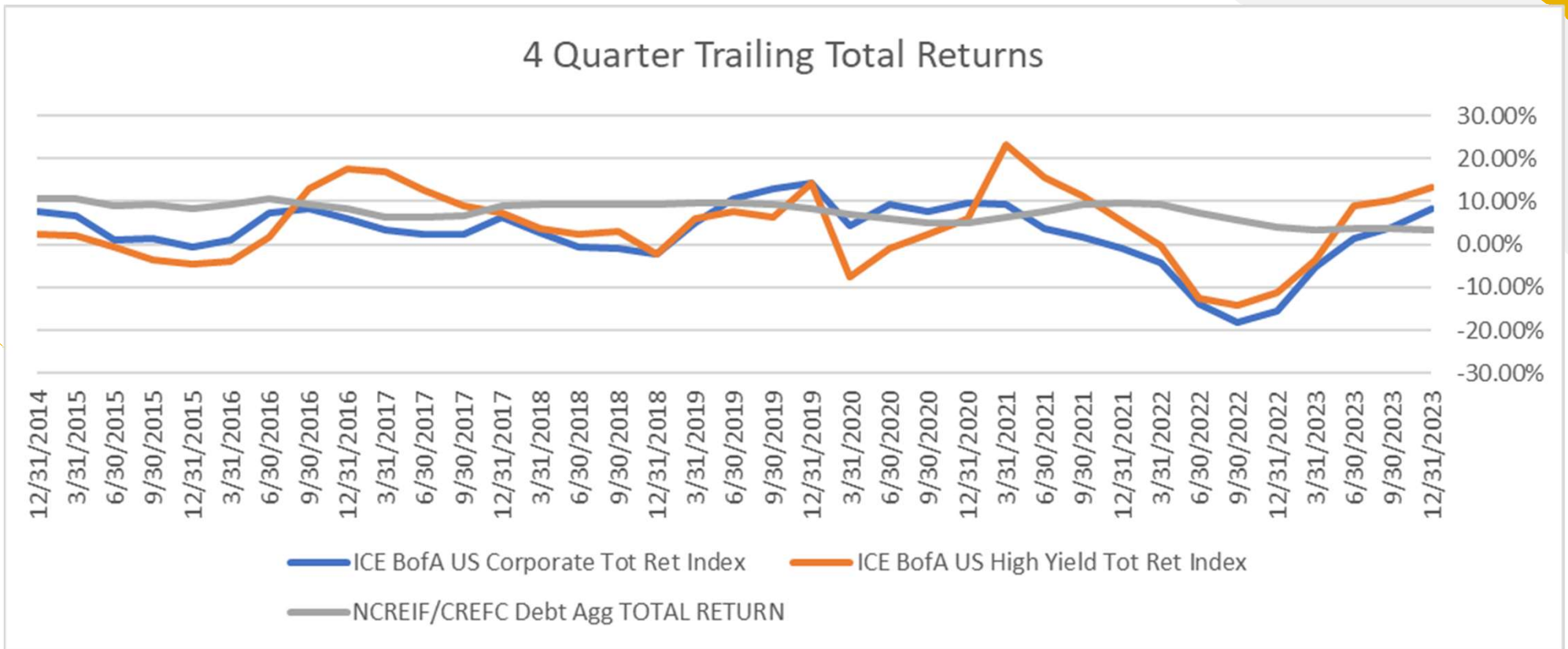
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Returns, gross of fees (trailing 4 quarters)



10 yrs analysis	NCREIF/CREFC Debt Agg	NFI-OE
Annualized Return	7.61%	8.20%
Avg Annl Excess Return	5.12%	5.83%
Std Dev Excess Return	1.7%	5.9%
Sharpe Ratio	3.0	1.0
<i>Correlation</i>	<i>0.62</i>	

Comparison to Third Party Benchmarks



Source: Ice Data Indices, LLC, ICE BofA US Corporate Index Total Return Index Value [BAMLCC0A0CMTRIV], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/BAMLCC0A0CMTRIV>, May 3, 2024.

Next Steps

- Style index/benchmark creation
 - Core-plus
 - Index inclusion policies
 - Valuation is critical -- types and frequency
- Refinement of certain metrics like DSCR
- Loan-level data collection
- Debt reporting manual (Reporting Standards)
- Closed-end / Separate account high level data collection





THANK YOU

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