

Decarbonization for CRE

Fundamentals

June 2024

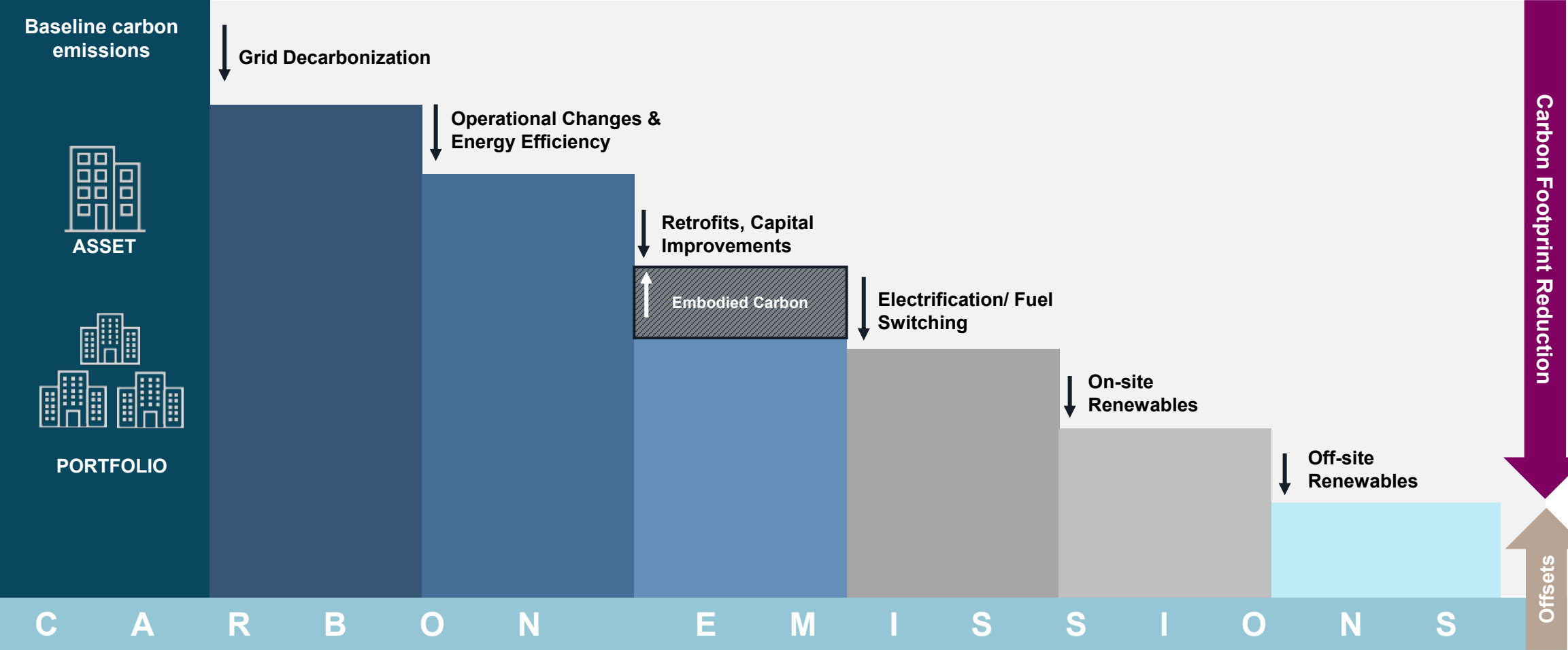


Brenden McEneaney

Senior Vice President

brenden.mceneaney@jll.com

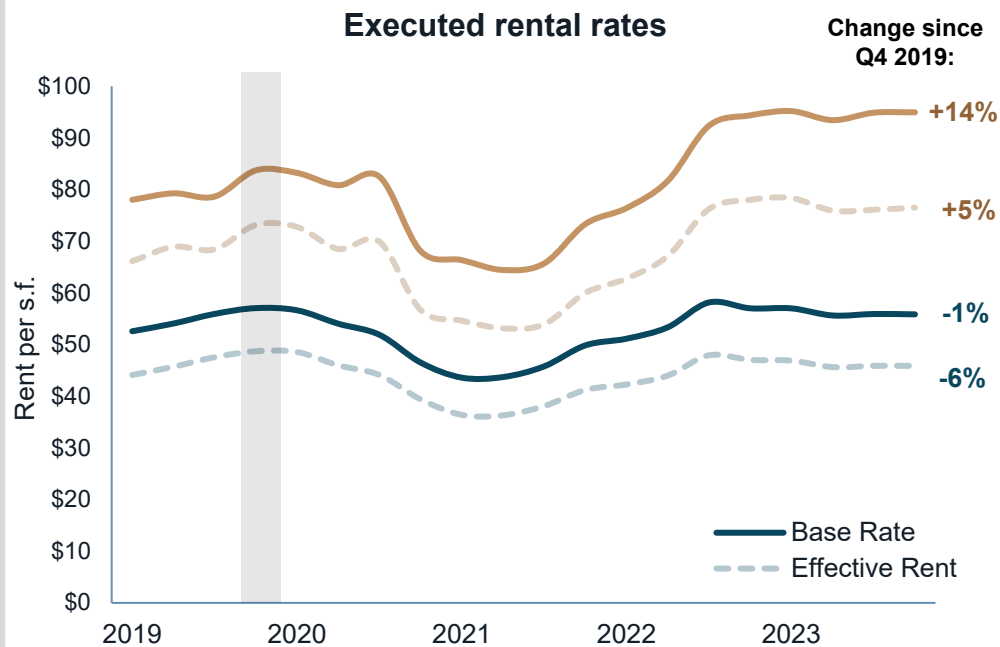
Decarbonization Priorities



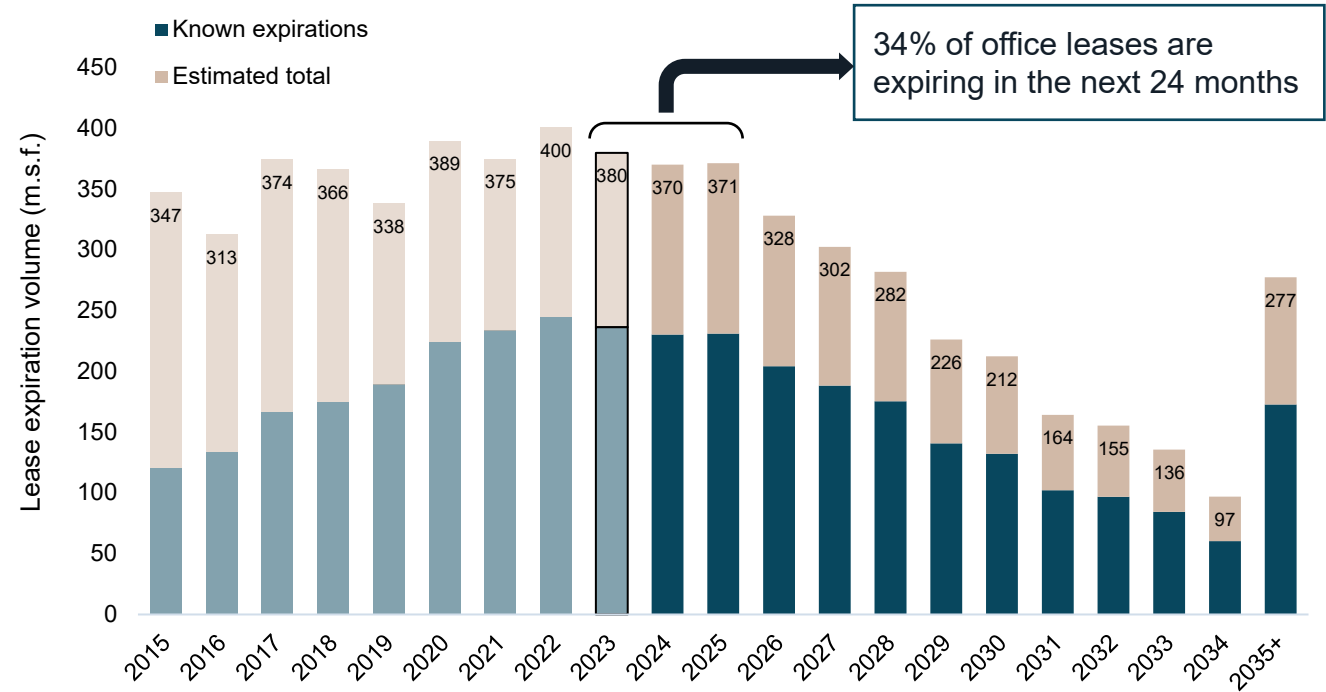
Context and Market Dynamics

INCREASING FLIGHT TO QUALITY

- High vacancy across major markets, however, demand for high quality spaces is still on the rise
- Pipeline is down 57% since 2019 as deliveries are not being replaced by new projects
- Record-high rents for Trophy and Class A offices
- “More for less” continuing



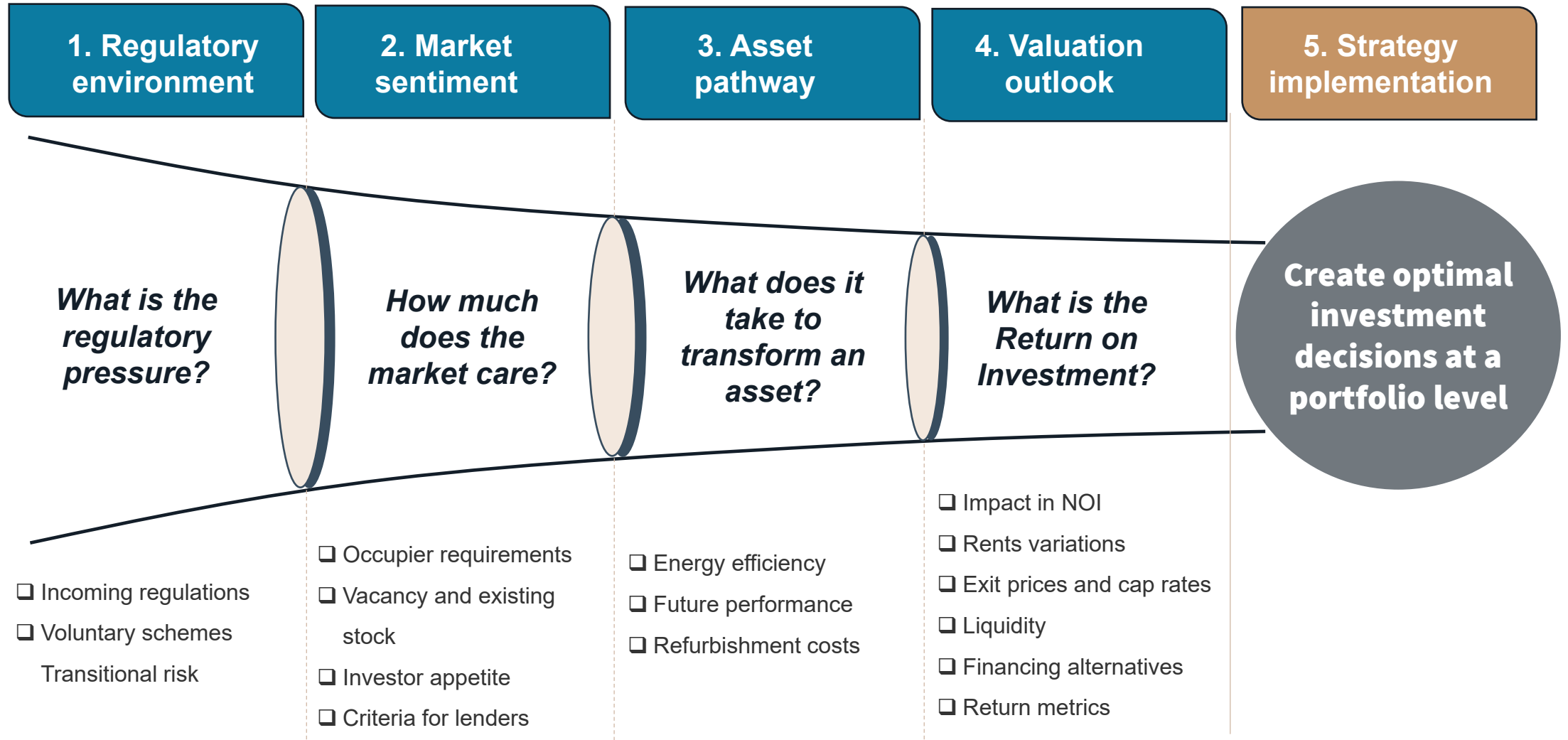
Expiration volume by year



Reduction in deal sizes

- ✓ **22%** cut in footprint for relocations, along with 10% drop in term length
- ✓ For renewals, **11%** cut in footprint, along with 13% drop in term length
- ✓ Short-term leases signed during the pandemic are coming to an end

Beyond Technical Pathways

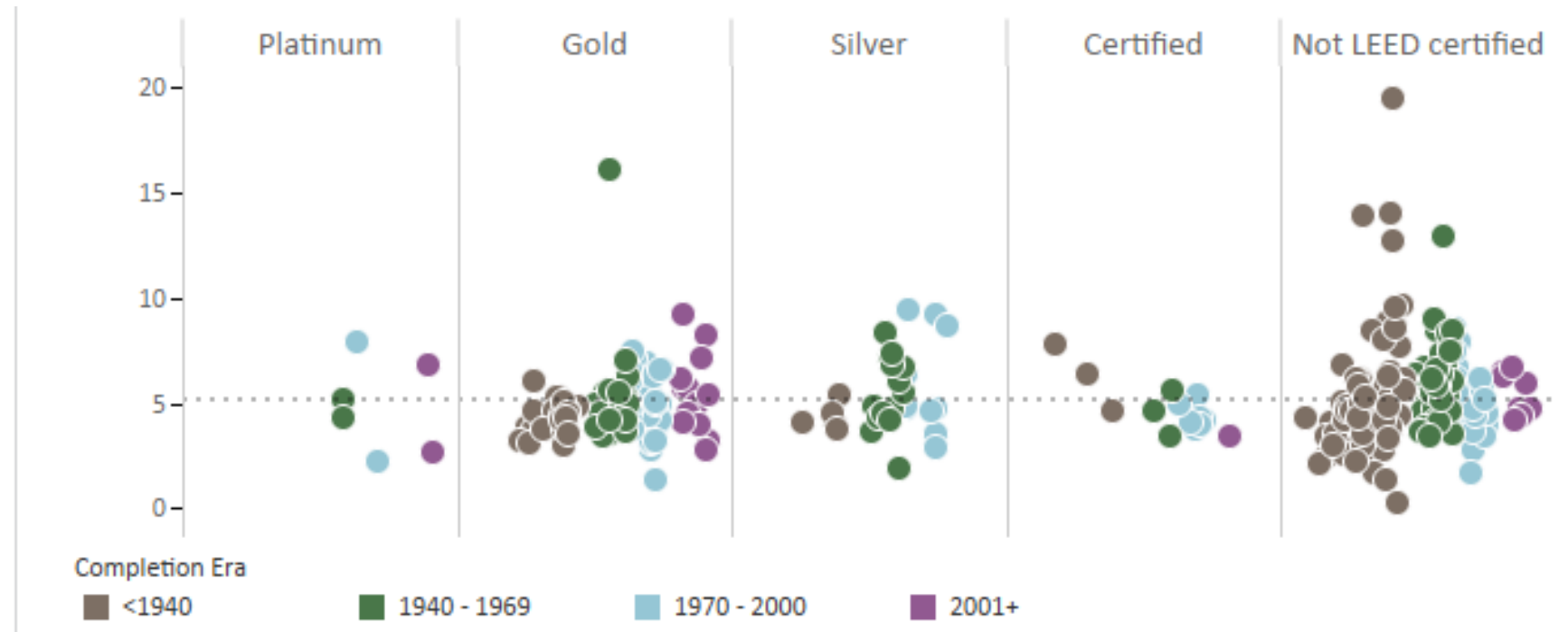


Green certifications do not guarantee lower emissions

Certifications still drive value, and they address a broad range of sustainability topics

But they are not sufficient as a proxy for low-carbon performance

Emissions Intensity (kgCO₂/sf)
by LEED Certification, New York City example



Study includes Class A office buildings, 100k sf +
Market covered: New York City
Source: NYC OpenData, JLL Research

CRE Investors and Strategies

May impact decarbonization decisions

“Flavors” of LP and Strategy give nuance to decarbonization pathways

	Core	Value Add	Opportunistic
Risk	Low	Medium	High
Target Return	9-12%	10-15%	>15%
Return Source (Income/Appreciation)	70/30	50/50	20/80
Hold Period (years)	>5	3-7	2-5
Leverage	0-50%	30-70%	50-80%
Description	High quality, long lease, fully occupied	Repositioning, upside potential, re-leasing	Development, distressed

Institutions	Asset Managers	Financial Services	Public/Non-Profits	Individuals
Corporations Governments Central Banks Family Offices Sovereign Funds	Mutual Funds ETFs Hedge Funds Private Equity Real Estate Credit Funds	Banks Broker-Dealers Financial Intermediaries Insurance Companies Financial Advisors Registered Investment Advisors	Pension Funds Local Governments Endowments Foundations Charitable Gift Programs	High-Net-Worth Individuals and Families

The Capital Stack

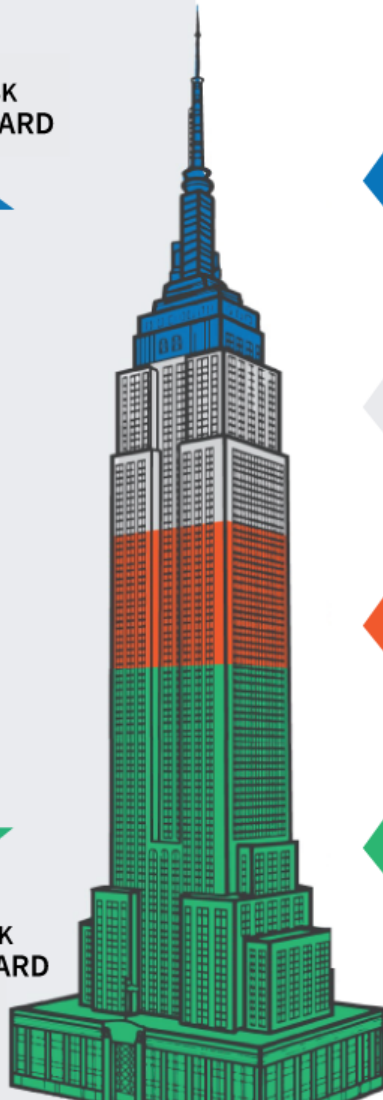
THE CAPITAL STACK

The “cap stack” details the sources of capital used to acquire and finance a real estate transaction.

HIGH RISK
HIGH REWARD



LOW RISK
LOW REWARD



COMMON EQUITY

An investor's money in a transaction that reflects basic ownership.

- Highest upside potential.
- Can receive cash flow distributions.
- Basic ownership interest with potential tax benefits.
- No collateral.
- Last to be repaid.
- Higher risk.

PREFERRED EQUITY

An investor's money that has certain benefits above basic ownership.

- Less upside than common equity.
- Higher yield than debt.
- Receives payments before common equity.
- Higher risk.

MEZZANINE DEBT

A secondary loan against the ownership of a property.

- Higher returns than senior debt.
- Secured by ownership shares of the property.
- Repaid after senior debt but before equity.
- Medium risk.

SENIOR DEBT

The primary mortgage on a property.

- No gains from appreciation.
- Fixed interest payments.
- Collateralized by the property.
- First to receive repayment.
- Lower risk.

One “Owner” but may own ownership interests.

Market factors alone can create problems

Decarbonization actions can unintentionally exacerbate them

Prioritizing Asset Cohorts

Achieving NZC

1. NZC achiever Never Strands and only light works needed
2. Fine tuner Strands between 2033-2050 and only light works needed
3. Fuel switch Strands between 2033-2050 and heat decarbonisation works needed
4. Turnarounder Strands between 2033-2050 and whole building retrofit needed
5. Off the mark Strands by 2033 and light retrofit works needed
6. Hard to align Strands by 2033 and either heat decarbonisation or whole building retrofit needed

Distribution in AUM and #asset

Stranding Year	Never	1. NZC achiever		
	Late (2033 - 2050)	2. Fine tuner	3. Fuel switch	4. Turnarounder
	Early (< 2033)	5. Off the mark	6. Hard to align	
		Light	Heat Decarb	Whole building
		Type of Retrofit		

Note: Data values are represented by X% and \$Xm (X%) X assets in the original image.

Thank you.



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