Real Estate Investment Management and Derivatives

This presentation explores the principles and tools used in real estate investment management, focusing on performance attribution, benchmarking, and evaluation techniques specific to private property investments.

Property-Level Investment Performance

Individual Property Dispersion

Individual property investments can perform dramatically differently from market averages.

Manager's Challenge

Investment managers must identify "winners" and avoid the worst "losers" in the property market. Try and beat The blue line in the graph to the right.

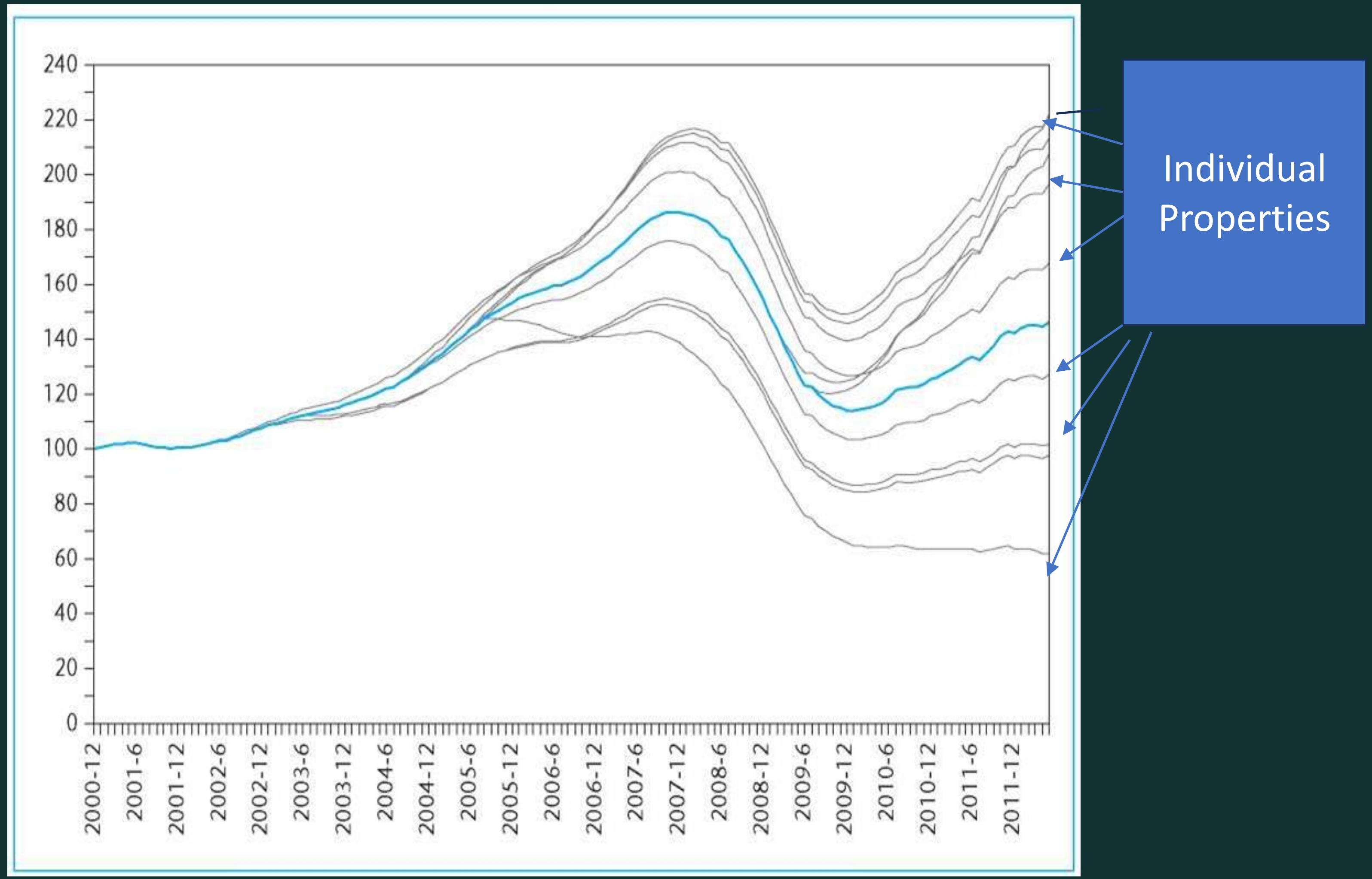
Performance Range

Properties can end up 50% below or above aggregate index values.

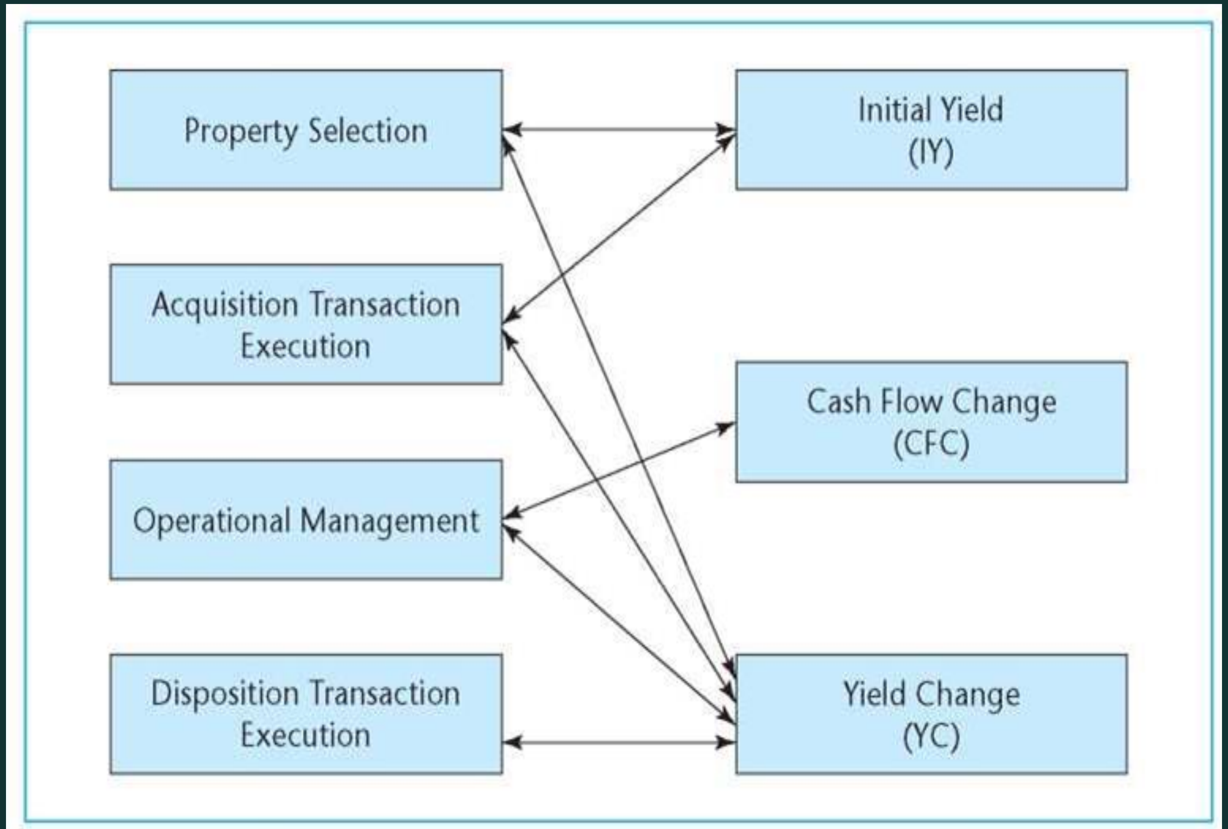
Statistical Perspective

Property-level performance dispersion appears random in time, direction, and magnitude.

Individual Property Returns Compared to the Blue Line Aggregate Average



Four Fundamental Property Management Responsibilities



Property Selection

Picking "good" properties (bargains as found)

Acquisition Execution

Skillful negotiation and due diligence

Operational Management

Property marketing, leasing, tenant servicing, expense management

Disposition Execution

Timing, finding the right buyer, negotiation

These four responsibilities directly relate to the three IRR attributes: Initial Yield (IY), Cash Flow Change (CFC), and Yield Change (YC).

Property-Level Performance Attribution

Diagnostic Purpose

Helps managers understand property-level sources of performance results.

Benchmarking

Compares performance with appropriate cohort of similar properties over same period.

Insight Generation

Reveals strengths and weaknesses in property management approach.

Accountability

Sets expectations within investment management organization.

Property-Level IRR Attributes Example

Analysis of 42 institutional real estate investments compared to NCREIF benchmarks revealed. Average value = $51 US Million.

42

Properties

Randomly-numbered institutional properties analyzed

10.3

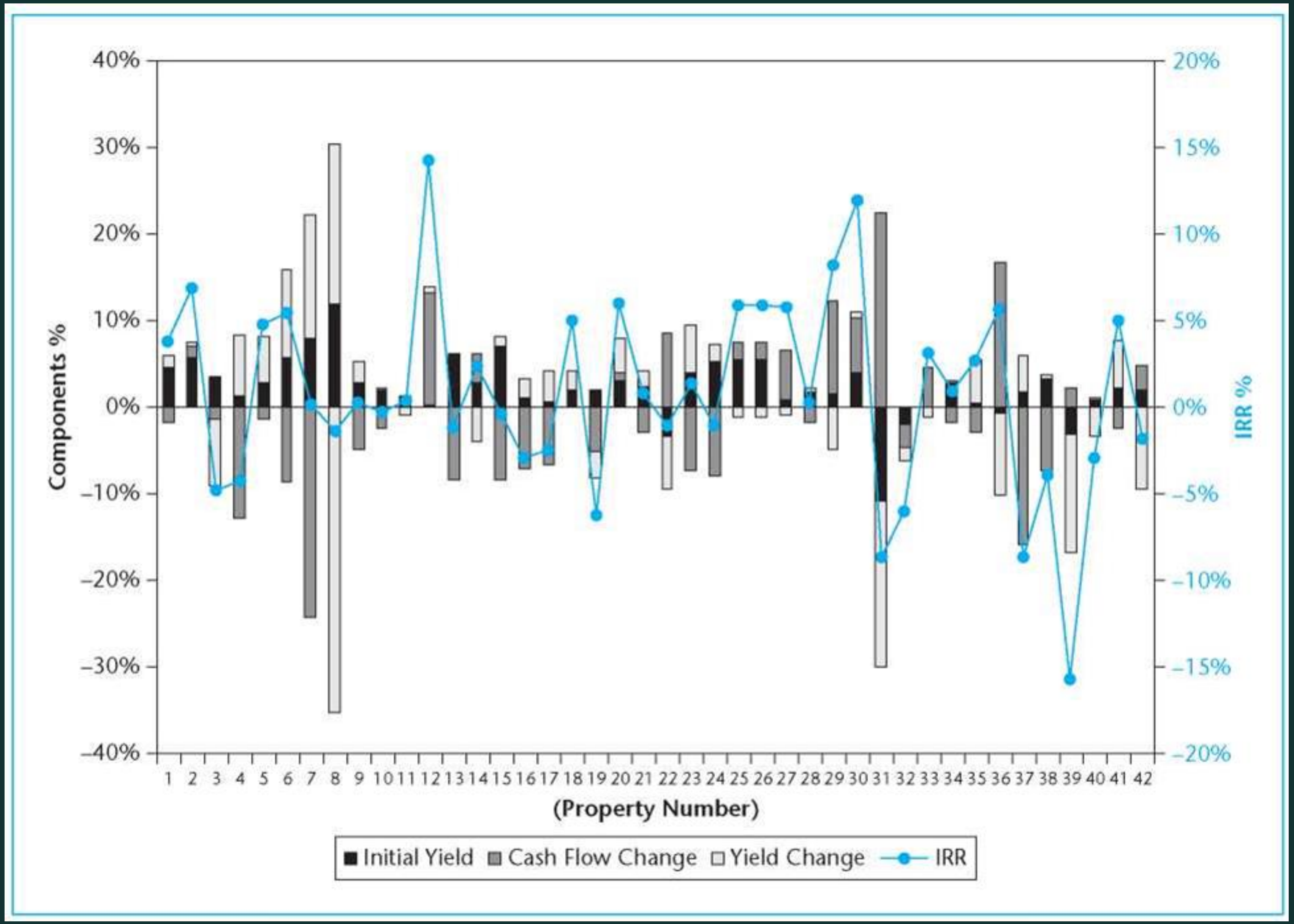
Years

Average holding period across properties

5.64%

Performance SD

Standard deviation of differential performance



Key Findings from Property-Level Analysis

Initial Yield Strength

Relatively stable and favorable initial yield performance across investments suggests effective acquisition capabilities.

Cash Flow Impact

Cash Flow Change (CFC) was the strongest determinant of whether properties beat their benchmarks.

Top Performers

All top nine performers had positive CFC components relative to benchmark.

Improvement Opportunity

Properties generally not as effectively managed as benchmarks regarding ongoing cash flow during holding period.

Portfolio-Level Performance Attribution

Allocation

How capital is distributed across market segments

- Property types (office, retail, etc.)
- Geographic regions
- Broader "macro" decisions

Selection

Which specific properties are chosen

- Individual asset choices
- More "micro-level" decisions
- Includes operational management

Interaction

Combined effect of allocation and selection

- Nonlinear relationship
- Cross-product effect
- Difficult to attribute precisely

Portfolio Attribution Example: Bob vs. Sue

Weights	Bob	Sue
Industrial	90%	10%
Office	10%	90%
Returns	**Bob**	**Sue**
Total portfolio	9.20%	9.70%
Industrial properties	9.00%	7.00%
Office properties	11.00%	10.00%

Sue outperformed Bob by 50 basis points overall, despite Bob's superior selection performance, because Sue's allocation to better-performing office properties dominated.

Quantifying Performance Attribution

Conditional on Manager Selection

Allocation: +2.40%

Selection: -1.90%

Total: +0.50%

Conditional on Manager Allocation

Allocation: +160%

Selection: -1.10%

Total: +0.50%

Unconditional (Most Logical)

Allocation: +160%

Selection: -1.90%

Interaction: +0.80%

Total: +0.50%

The unconditional approach provides the most logical quantification by separating the pure effects from the interaction effect.

Investment Performance Evaluation

Quantitative Metrics

Average returns over 3-5 year periods compared to benchmarks and peer groups.

Peer Universe

Competing managers with similar specialties, focus, and objectives.

Performance Range

Typically shows 5th to 95th percentile range with middle quartiles highlighted.

Evaluation Outcome

Determines rehiring, incentive fees, or potential replacement of managers.

Benchmarks in Private Real Estate

No Passive Index Possible

Private real estate requires active operational management of properties.

Peer Group Indices

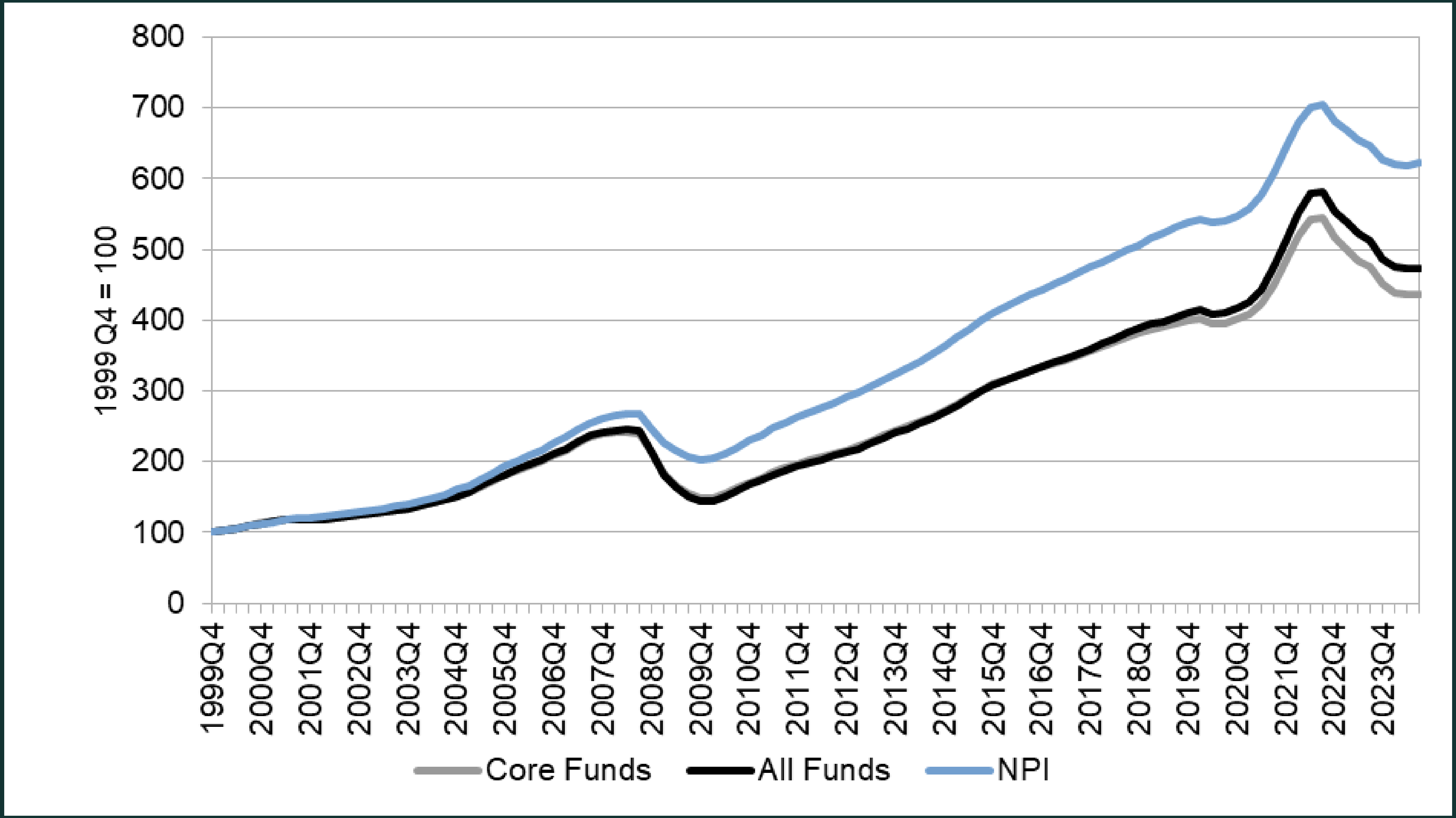
NCREIF and MSCI/IPD indices reflect performance of most private real estate managers.

Property vs. Fund Level

Property-level indices track underlying assets; fund-level indices track investor experience.

Benchmarks represent the average of "alternatives" an investor could have achieved with different managers.

Fund Performance Comparison (2000-2023)



Leverage Impact on Fund Performance

Market Upswing

Property values rise from 100 to 150. Fund has 33% LTV ratio ($100 equity, $50 debt).

Market Crash

Property values fall by one-third to 100. Fund loses half its equity value, now at 50% LTV.

De-Leveraging

Fund raises $17 in new equity to pay down debt to $33, returning to 33% LTV.

Partial Recovery

Property market recovers to 125, leaving fund with $92 equity and $33 debt.

Result: Property-level TWR is -4%, while fund-level TWR is -6.5%, 250 basis points lower due to leverage timing.

Risk-Adjusted Performance Attribution

Risk Consideration

Traditional attribution analysis assumes manager's portfolio has same risk as benchmark.

Sector Risk Differences

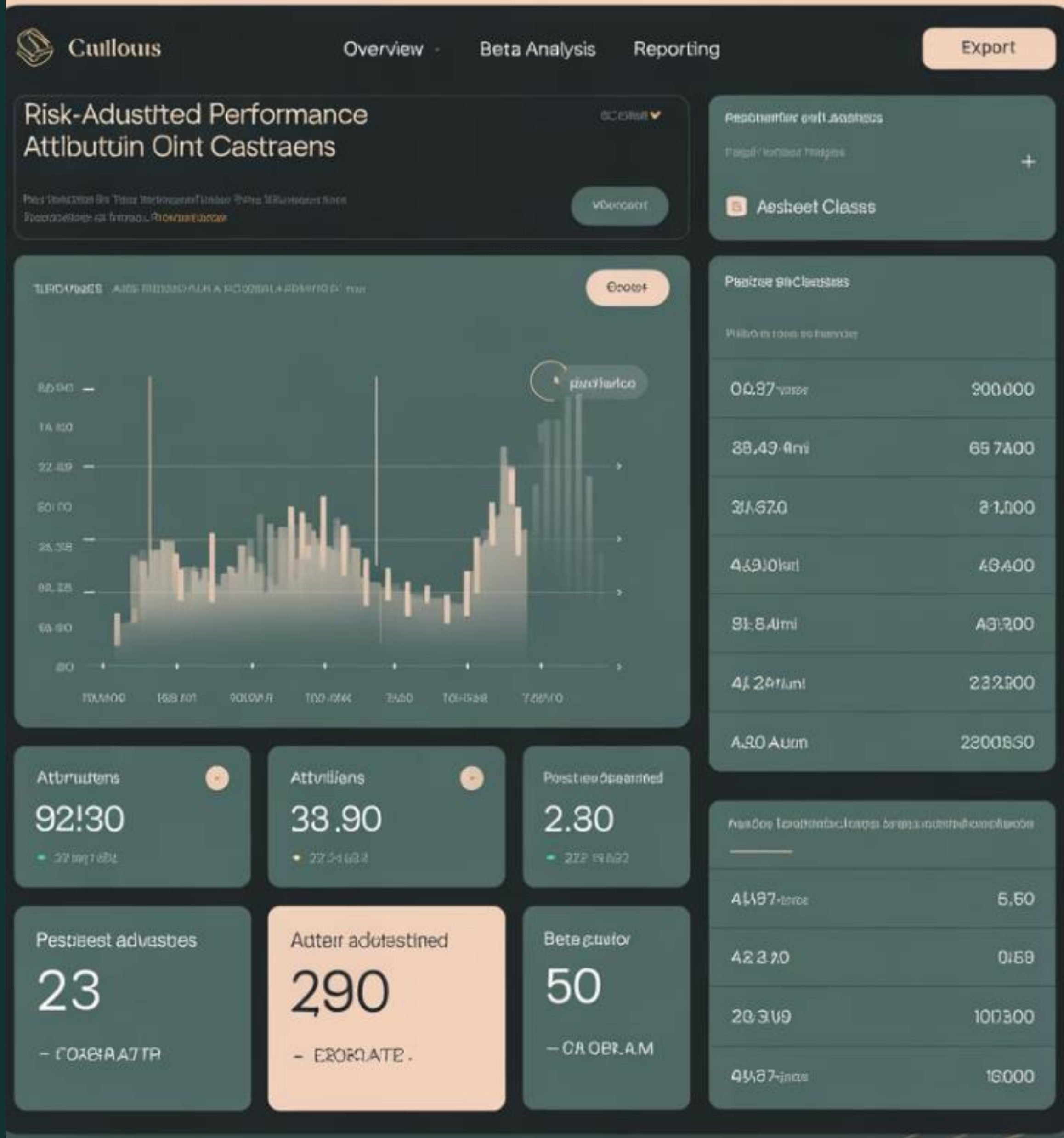
Some sectors are riskier than others, affecting apparent selection or allocation decisions.

Risk Adjustment Method

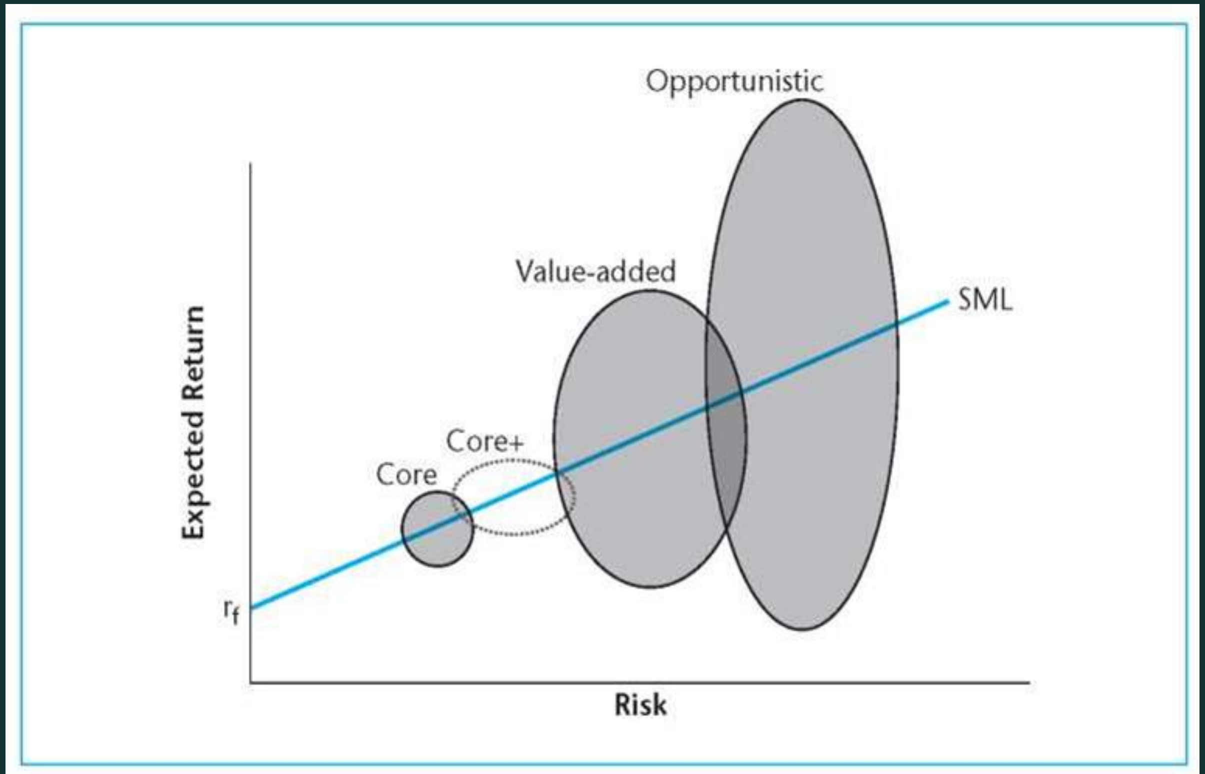
Using beta as risk measure, sectors should be adjusted to same risk level before attribution analysis.

Performance Context

Managers may outperform by allocating to riskier sectors or underperform with less risky portfolio.



Real Estate Investment Styles



Core

Stabilized properties, low leverage (20-30% LTV), lower returns but less risk.

Value-Added

Properties needing leasing or turnaround, moderate leverage (50% LTV), higher returns.

Opportunistic

Development, distressed assets, high leverage (50-70% LTV), highest risk and return targets. We see the widest range of performance.

Investment styles define types of assets and management policies, especially regarding financial leverage use.

Core-Plus: Expanding the Traditional Core

Traditional Core Mind-Set

- Long leases
- Credit tenants
- Inflation-protected lease clauses
- Minimal near-term capex
- Low operational intensity
- Gateway city locations
- Traditional sectors only

"New" Core Mind-Set

- Income resilience and growth potential
- Low sensitivity to economic cycles
- Market conditions pass inflation to rents
- Predictable long-term capex
- Established operating model
- Locations with long-term liquidity
- Any sector meeting core criteria

Performance Metrics by Investment Style

Core & Value-Add Funds

Use time-weighted returns (TWRs) based on holding period returns (HPRs).

Opportunistic Funds

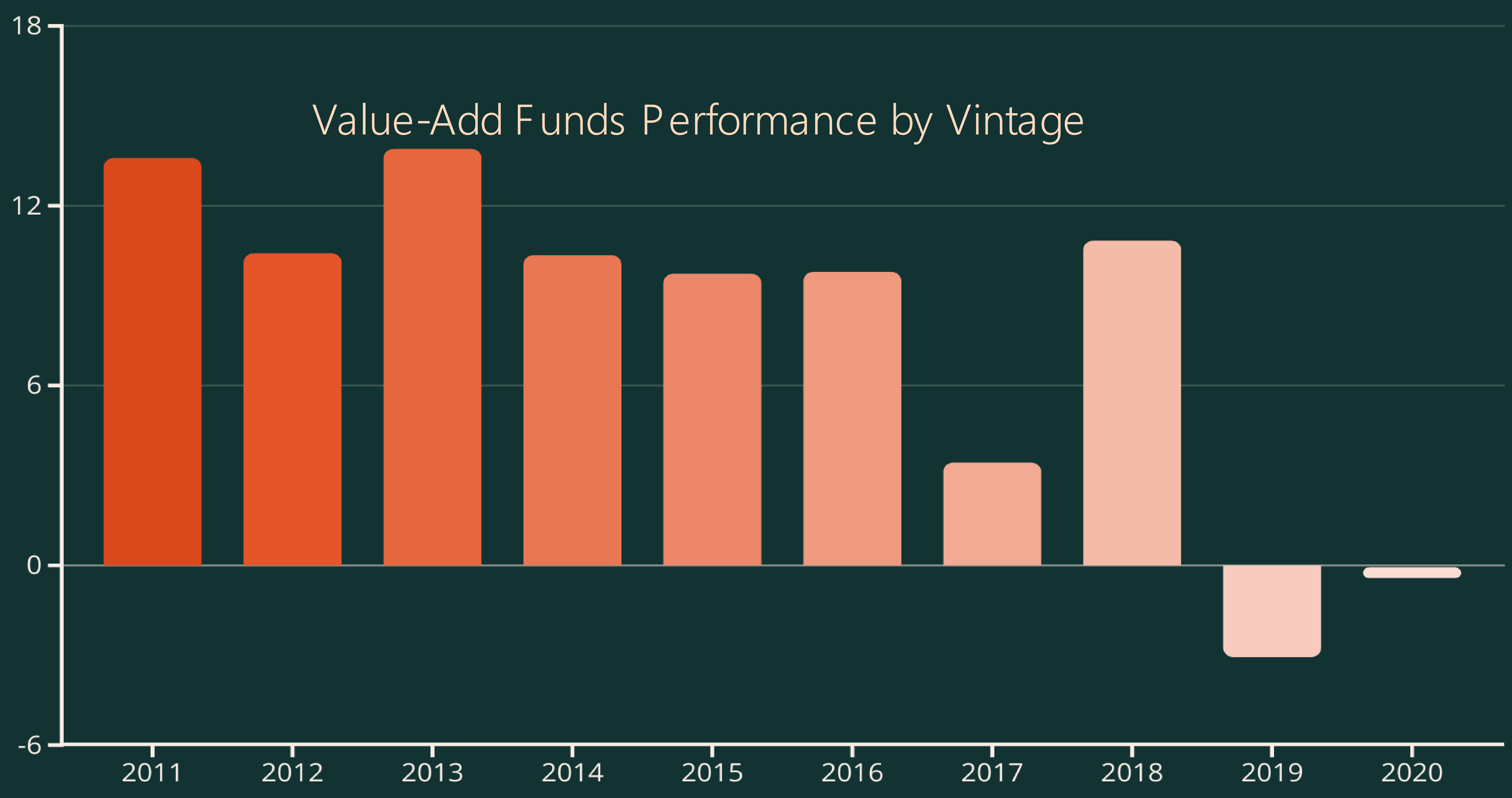
Use money-weighted returns (IRRs) like venture capital or private equity funds.

Capital Flow Control

TWRs appropriate when managers lack discretion over equity capital flow timing.

Vintage Year Importance

When using IRRs, must control for fund vintage year in benchmarking.



Covid and the office market impacts can be seen in funds started in 2019 and 2020.

Investment Style Characteristics

Investment styles exist on a spectrum from low risk/return (core) to high risk/return (opportunistic), with fuzzy boundaries between categories.

Key Takeaways

Performance Attribution

Breaks down returns into components to understand sources of performance.

Property Management

Four key responsibilities directly impact investment performance.

Benchmarking

Uses peer group indices rather than passive indices in private real estate.

Investment Styles

Core, value-add, and opportunistic styles require different performance metrics.