



How to use CRREM for transition risk assessment and strategic planning

CRREM Explained: Part 2



CRREM
CARBON RISK REAL ESTATE MONITOR

CRREM Explained: Part 2

Reshaping how real estate risk is understood, priced, and managed

Understanding the nuance is essential for investors seeking to protect long-term value

CRREM is still often interpreted as a simple climate scorecard: an asset is either aligned with the Pathway or it is not. While intuitive, this binary view misses the deeper value of the framework. In reality, transition risk unfolds gradually and unevenly across assets, markets, and investment horizons. CRREM was designed to help the real estate sector navigate this.

By comparing asset performance against science-based carbon and energy pathways, it provides forward-looking insight into when properties may face tightening regulation, investor demands, or tenant needs. For long-term investors such as pension funds, these signals are critical. Transition risk is not simply short-term volatility — it is a structural financial risk that affects income stability, capital expenditure, cost of debt, and exit pricing over the life of an investment.

This piece explores how CRREM can be used as a practical framework for comprehensive transition risk assessment and mitigation planning. Rather than treating alignment as a pass-fail test, we show how CRREM outputs can inform deeper strategic analysis: contextualizing performance against investment objectives, identifying mitigation routes, and supporting decisions that preserve value over time. Used this way, CRREM becomes not just a measurement tool, but a guide for managing transition risk in real estate portfolios.

Practical application. This piece focuses on how to use CRREM to assess transition risk and inform strategic asset planning and portfolio decisions in line with fiduciary duties.



How transition risks materialize in real estate

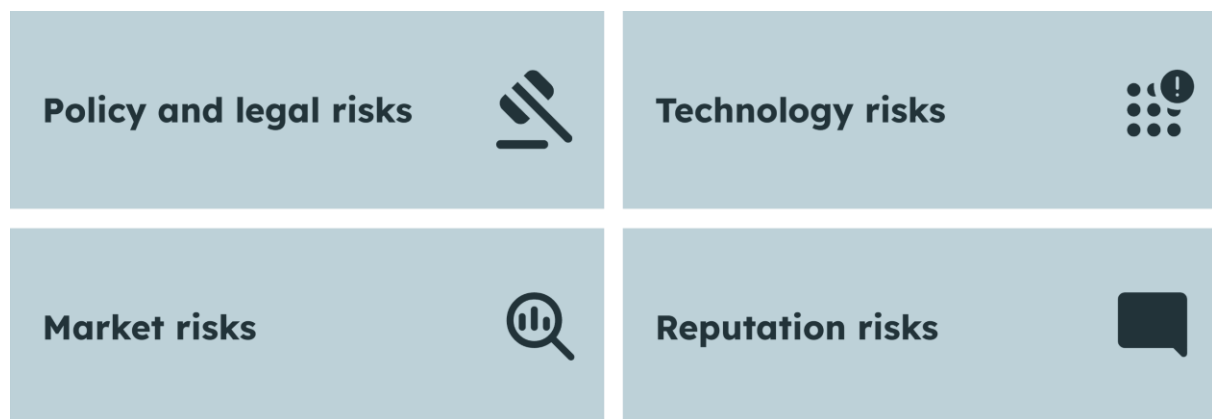
Policy, technology, market, and reputation risks

Transition risk is increasingly becoming a balance-sheet issue for the real estate sector. In a recent survey by Deepki among 250 real estate asset managers representing approximately €250 billion in AUM, 94% acknowledged exposure.

As the global economy shifts toward lower-carbon systems, changes in policy, technology, and market expectations are beginning to affect real estate economics. By comparing assets against the CRREM Carbon and Energy Use Intensity (EUI) Pathways, investors can identify where assets may face rising regulatory pressure, increasing retrofit requirements, or changing tenant expectations. These insights allow investors to translate risk signals into strategic responses, whether through mitigation investments, adjusted hold strategies, or risk pricing.

For a fixed, capital-intensive asset class like real estate, this forward visibility is particularly valuable. Buildings cannot be repositioned overnight; upgrades must be sequenced with lease cycles, financing conditions, and capital planning. Early identification of transition risk therefore provides the lead time needed for a measured, value-preserving response.

The Task Force on Climate-related Financial Disclosures has identified four major categories of transition risk — policy and legal, technology, market, and reputational risks (see Appendix 1 for real estate examples). Together, these channels explain how the low-carbon transition can translate into concrete financial impacts for property investors.



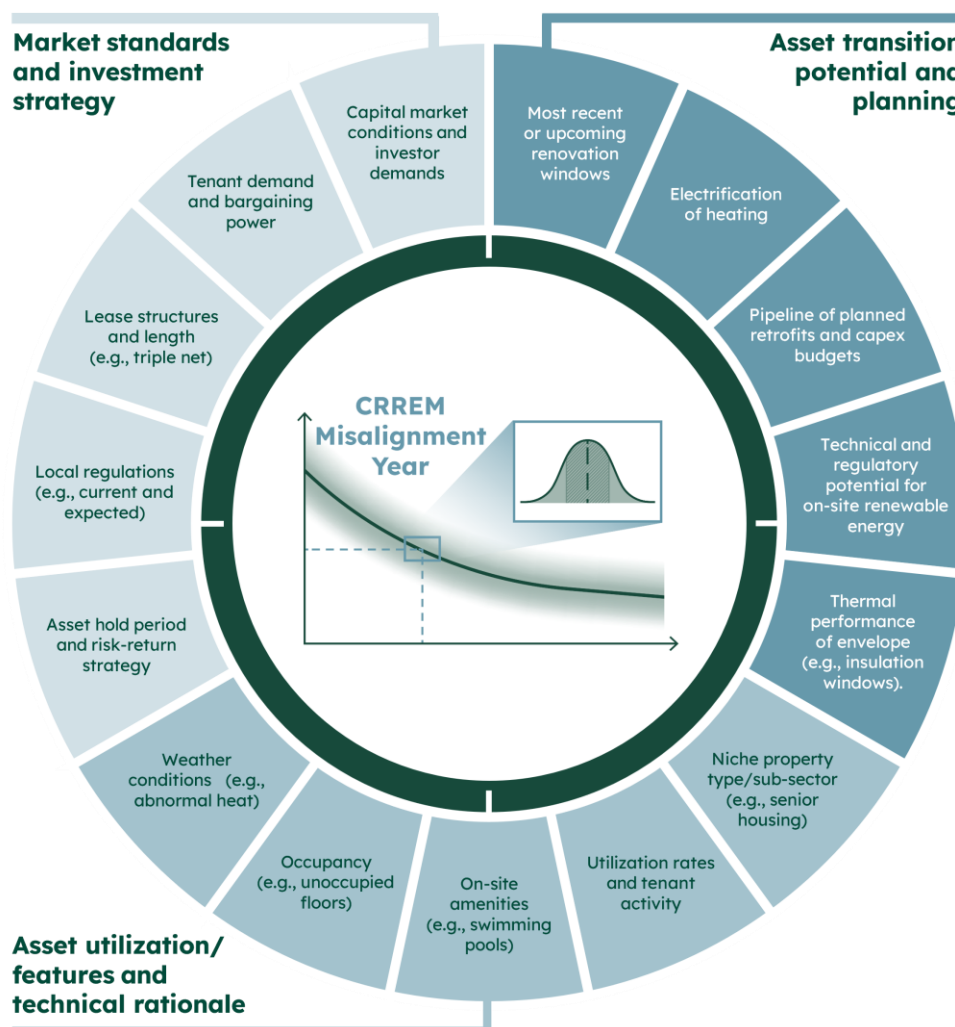
Task Force on Climate-related Financial Disclosures. (2017). Recommendations of the Task Force on Climate-related Financial Disclosures.

Interpreting CRREM performance in context

For a transition risk assessment to be meaningful, CRREM performance must be evaluated through multiple lenses. For institutional investors, fund managers, and lenders, the real power of CRREM lies not in a single metric, but in the strategic conversations it enables — about the timing of upgrades, capital allocation, and long-term risk management.

CRREM outputs should therefore be viewed as a starting point, not a conclusion. They provide a standardized, science-based reference that signals when an asset's trajectory begins to diverge from a pathway. But the strategic relevance of that signal depends on context, including the asset's investment horizon, capital expenditure plans, market positioning, and broader portfolio strategy.

Interpreted in this way, CRREM becomes a framework for structured decision-making. It helps investors determine whether an asset's projected performance supports its investment thesis, what mitigation actions may be required, and over what timeframe those actions should be implemented.



Positioning assets to achieve their investment objectives

CRREM can serve as a strategic positioning tool, ensuring each asset remains aligned with its investment thesis, fund mandate, and exit profile. By assessing when an asset may diverge from the CRREM Pathways, managers can determine whether its projected performance supports the intended return strategy.

Used this way, CRREM informs hold-refurbish-divest decisions, capital allocation, and exit timing. This analysis must be anchored in the asset's investment thesis and market context:

- **What are the investment objectives for this asset or portfolio?** (e.g., income stability, value creation, opportunistic repositioning, long-term hold)
- **How does performance against the CRREM Pathways affect the ability to meet those objectives?** (if at all)
- **What is the appropriate strategic response?** (and over what timeframe)

A near-term CRREM Misalignment Year may conflict with a core income strategy but be entirely acceptable within a value-add repositioning plan, a strategic lens, not a pass/fail test.

Preparing for a successful exit

Positioning an asset for exit requires anticipating how buyers will underwrite transition risk. Whether the CRREM Misalignment Year falls near, mid, or long term shapes buyer appetite, pricing, and exit liquidity. As a globally consistent indicator, CRREM supports a common language at the transaction table.

In using CRREM to prepare for a successful exit, an investor may ask:

- **How will the target buyer pool price the CRREM results into its underwriting?** (if at all)
- **What transition capex is required to meet buyer expectations?** (and is it value-accretive)
- **Does the asset warrant that capex investment?** (or is an early exit rational)
- **How do retrofit timing and execution affect buyer appetite?** (if at all)



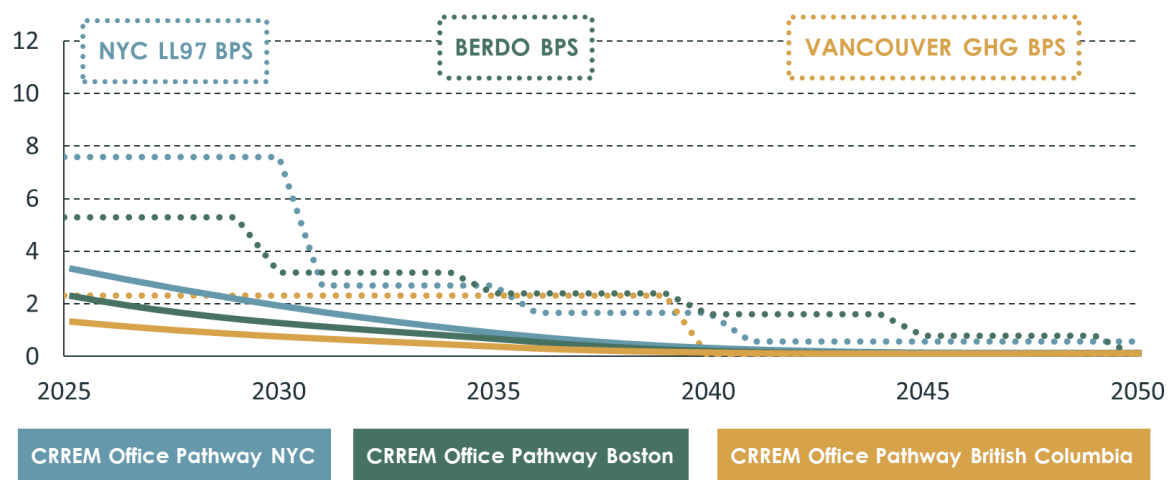
Signalling risks within a healthy lead time

By comparing assets against the CRREM Pathways, investors gain early visibility on which properties may require upgrades or face regulatory pressure, a forward signal that supports deliberate capital planning rather than reactive intervention.

Asset-level decarbonization must be sequenced with lease cycles, permitting timelines, and capital availability, constraints that cannot be addressed through rushed interventions.

Emission standard

(kgCO₂e/ft²/year)



Managing and mitigating transition risks in real estate investments

The old valuation textbook is no longer enough

Forecasting capex used to be straightforward: equipment reaches end of life, replace it. Now, rising energy and carbon requirements are rewriting the playbook. Investors must anticipate proactive upgrades to meet regulatory and market expectations. The CRREM Pathways provide the standardized reference needed to price transactions and plan capital expenditure that reflects future transition costs.



Three overarching approaches to managing transition risks

01. Integration into investment valuation

This approach ensures investors are appropriately compensated for transition risk. Sophisticated buyers increasingly price in upgrade costs, yet a gap often remains between appraised values and transaction prices.

Traditional investment models rarely account for capex required to meet future energy-efficiency and decarbonization standards. A [survey](#) by New York University shows strong consensus that climate risks are underpriced in real estate, with “not enough” outweighing “too much” by 67 to 1. CRREM helps the market price these risks legitimately and consistently. This growing recognition is reflected in Professional Standards: [INREV](#) and [RICS](#) explicitly reference performance against the CRREM Pathways as a key material indicator.

02. Active transitioning and improvement planning

When transactions are appropriately priced, the budget for transitioning assets to future standards is more readily available.

Targeted investments in energy efficiency and low-carbon technologies mitigate value erosion and often create additional value. Since real estate models are based on operating metrics such as NOI or EBITDA, income benefits are directly reflected in investment values — higher rents, lower energy costs, and avoidance of non-compliance penalties. According to the [2025 REALTORS® Commercial Sustainability Report](#), hard costs are the most influential sustainability consideration in buy and lease decisions, with 70% of respondents indicating that utility and operating costs matter most.

03. Asset disposal and earnings crystallization

Selling may be appropriate where transition risks are foreseeable but business conditions preclude active transitioning. Early identification enables divestment before risks fully materialize, reducing portfolio-level exposure.

This approach transfers risk to the buyer, unless they also price in expected capex. Less sophisticated buyers may unknowingly overpay. We expect this gap to narrow as transition risk identification becomes more standardized, with the CRREM Pathways increasingly functioning as a global reference that makes transition risk visible between transacting parties.



Direct vs. indirect investor approaches to managing transition risk

Direct and indirect investors differ in access to asset-level data, portfolio scale, and control over asset decisions, resulting in different levels of resolution when managing transition risk.

In institutional real estate, pension funds typically invest indirectly (as LPs), while fund managers operate as direct investors (GPs) with day-to-day asset control.

These structural differences shape how transition risk can be managed by different investor types:

DIRECT investors

E.g., GPs, REITs

can influence retrofit timing, leasing strategy, financing structures, and disposal decisions. With this control, they are well-positioned to manage transition risk operationally, embedding it directly into asset-level business plans and DCFs. Their typically smaller, concentrated portfolios also allow them to closely track and respond to the specific regulatory frameworks in each market where they hold assets.

INDIRECT investors

E.g., LPs, Fund investors, REIT investors

typically lack asset-level control and rely on reporting, mandates, and manager selection to influence outcomes. Their transition risk management toolkit centers on mandate design, capital allocation, engagement, incentive structures, and portfolio-level pricing mechanisms. With highly-diversified global portfolios, they are generally unable to monitor every local regulatory framework in detail, and therefore often rely on global proxies or aggregated metrics to assess and price transition risk across their holdings.

Recognizing these differences ensures that expectations around transition risk, and the tools used to price it, are aligned with actual governance rights, data availability, and decision-making authority.

Where to integrate transition risks in valuation models

The resolution of available data and certainty of financial impact and timing should determine the resolution of pricing integration.

Higher-resolution information = higher-resolution pricing integration

When granular asset-level data is available, transition risk should be integrated directly into cash flow projections and exit assumptions within the DCF — pricing risk where it crystallizes:



01. RENTAL INCOME & VACANCY

- Adjust rental growth assumptions if CRREM performance may impact tenant demand or leasing velocity.
- Model higher vacancy or longer void periods for assets exposed to regulatory tightening or tenant energy efficiency demands.

02. OPERATING EXPENDITURE

- Incorporate rising energy costs, carbon pricing exposure, or compliance penalties.
- Model increased maintenance or operational costs required to maintain minimum performance standards.

03. CAPITAL EXPENDITURE

- Explicitly schedule retrofit capex required to extend the CRREM Misalignment Year as aligned with the asset's investment strategy.
- Phase investments in-line with lease events and refinancing windows.
- Stress-test timing delays or cost overruns.

04. FINANCING ASSUMPTIONS

- Reflect potential pricing benefits from green or sustainability-linked financing, for which CRREM is often referenced.
- Conversely, model tighter lending terms or reduced LTVs for assets with near-term or past CRREM Misalignment Years.

05. EXIT YIELD / TERMINAL VALUE

- Adjust exit cap rates to reflect anticipated market repricing of transition risk at sale.
- Model differential liquidity between CRREM Aligned and Misaligned assets.
- Consider residual capex requirements beyond the hold period that a buyer would likely price in.

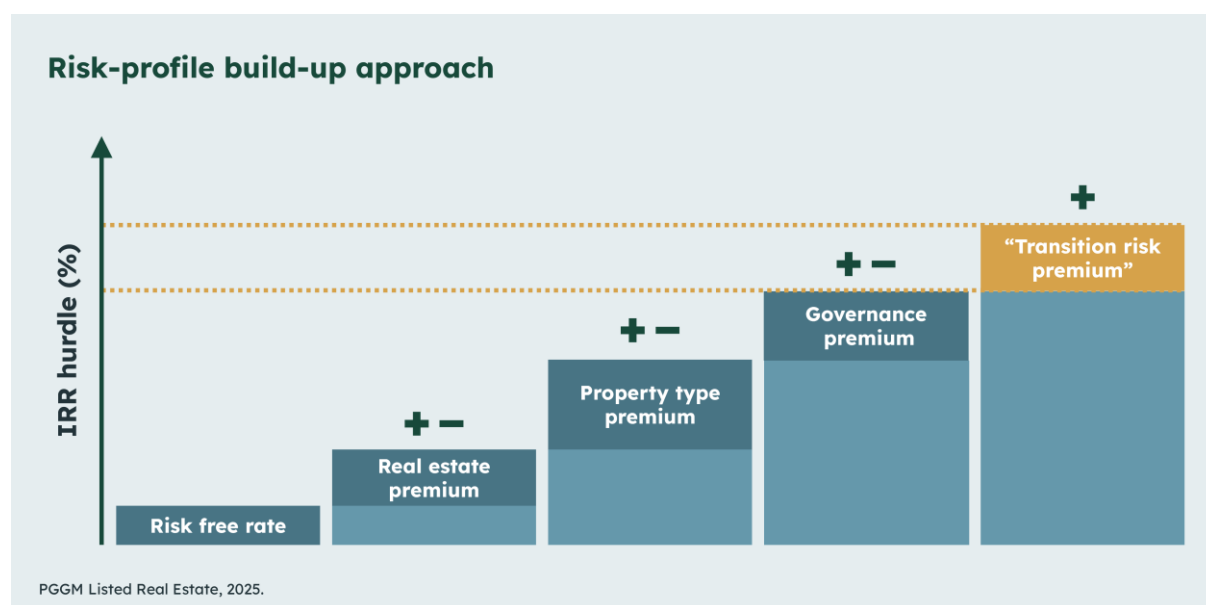
What about upward adjustments to DCF inputs? The examples above focus on downward adjustments, reflecting the risk-based framing of this guidance. However, the converse also holds: transition dynamics can create value-accretive opportunities that justify upward revisions. Assets that are demonstrably positioned ahead of regulatory tightening, or capable of attracting sustainability-driven tenants and green financing may warrant stronger rental growth assumptions, lower exit yields, or reduced risk premiums. In this sense, transition analysis is not solely a downside protection exercise — it can also support the identification and pricing of competitive advantage, liquidity premiums, and enhanced exit optionality.



Integrating transition risk into the DCF mirrors how value erosion occurs in practice: through cash flow disruption, higher capital intensity, or yield expansion. CRREM outputs, contextualized against asset strategy, become inputs to underwriting rather than standalone metrics.

Lower-resolution information = lower-resolution pricing integration

Where only qualitative assessments or portfolio-level data are available, transition risk can be reflected through discount rate adjustments or higher IRR hurdles — pricing transition exposure without requiring precise forecasts of timing or magnitude.



Directional signals can justify adjustments to underwriting assumptions, exit cap rates, or risk premiums. Even qualitative assessments of transition preparedness and regulatory exposure can be sufficient to begin pricing transition risk. Waiting for granular certainty risks delaying value-relevant decisions.

This is increasingly reflected in market practice.

Research by [Harvard Business Review](#) shows investors and managers are adopting a more pragmatic, risk-first approach: treating transition risk like any other financially material factor rather than a standalone sustainability consideration. Placing it in this broader financial context improves internal consistency in pricing decisions, reduces the risk of over- or under-pricing relative to comparable investments, and helps executives prioritize and report on transition risks more effectively.



Putting CRREM to work

Transition risk has moved from the periphery of real estate investment to a core consideration in underwriting, capital planning, and portfolio strategy. As regulatory frameworks tighten, technologies evolve, and market expectations shift, the financial implications of the low-carbon transition are becoming increasingly tangible for real estate investors.

The most sophisticated market participants no longer treat transition risk as a values-driven commitment or a compliance exercise. Instead, it is approached as a financially material risk that must be understood, priced, and actively managed. This requires credible risk identification, transparent trade-offs, and investment strategies that reflect the long-term realities of the transition.

CRREM provides the globally standardized framework to support this shift. By translating climate transition dynamics into asset- and portfolio-level insights, it enables investors to identify risks early, evaluate mitigation options, and make informed decisions that protect long-term value. As the market continues to evolve, CRREM will continue to support investors with practical approaches to integrating transition risk into assessment, underwriting, and investment strategy.

Disclaimer: This document is intended for professional investors and should only be used for informational purposes. It is not investment advice or a recommendation. Investment managers should exercise their own judgment and conduct appropriate due diligence before making any investment decisions.



Appendix 1: Real Estate Transition Risk Examples

Transition risk	Impact on real estate
Policy and legal risks Climate-related litigation claims and policies that limit emissions or promote climate adaptation	• Carbon regulations and pricing mechanisms for buildings, such as New York City’s Local Law 97, Boston’s BERDO, or emission-based pricing under trading schemes like the EU ETS2 • Stricter energy efficiency laws or EPC requirements such as UK’s Minimum Level of Energy Efficiency’ standard (EPC band E) • Missed opportunities for increased build-to-plot ratios, e.g., Hong Kong’s Buildings Ordinance • Zoning and land-use reforms • Fines for noncompliance with ESG disclosure standards • Litigation for climate adaptation and mitigation failure
Technology risks New technology can disrupt or displace existing systems	• Subsidy phase-outs for carbon-intensive and less efficient heating, ventilation, and air conditioning (HVAC) systems • Legacy system vulnerabilities such as critical spare parts shortages • Renewable energy technologies are making fossil fuel-based energy sources economically obsolete
Market risks Climate-related changes in supply and demand for real estate and related financing	• Value erosion and limited rental growth/reversion potential for carbon-intensive or energy-inefficient assets (due to total cost of occupancy); risk of market obsolescence • Increased financing costs resulting from higher required returns (e.g., IRRs) and stricter bank green lending frameworks
Reputation risks Climate-related changes in customer or community perceptions	• Due to scarce real estate energy and carbon data across many contexts, investment decisions are still often driven by manager skill and reputation • Fund divestment or mandate termination driven by ESG positioning, e.g., BlackRock losing a Dutch pension fund mandate in 2025 over ESG stance • Increased transparency exposing non-resilient companies to greater stakeholder and civil society pressure regarding the impacts of their business activities

