



Transition Risk IDENTIFICATION AND IMPACT ASSESMENT PROCESS.

With the property sector accounting for nearly 40% of global CO₂ emissions, Patron Capital realizes that real estate decarbonization is key to achieving global climate goals. In recent years, there has been a growing awareness that the real estate faces significant transition risks as economies decarbonize.

PCA global strategy prioritizing on retrofitting and refurbishment of existing property stocks is key for the decarbonization process.

Increasing capacity for on-site renewable energy production is the other critical strategy for existing and also new constructions.

Climate risks are an essential discussion point in ESG global strategy.

Decarbonization is critical to mitigate these climate risks, but the large-scale economic changes required by a low-carbon transition will introduce significant 'transition' risks. In real estate sector, much attention has been paid to extreme weather events and other climate-driven consequences (physical risks), but transition risks must also be considered.

Potential transition risks include:

- Rising costs due to the pricing-in of carbon emissions (through carbon taxes and pricing schemes).
- Market effects.
- Technological disruptions.
- Legal liabilities.
- Energy efficiency and other regulations, and
- Reputational risks.

All of which can impact property values.

Patron Capital Advisors has put in place this policy to proactive manage of real estate transition risks as is essential in the face of rising regulatory expectations around emissions and energy efficiency and growing concerns about climate change from real estate market participants.

The key elements of PCA transition risk identification and impact assessment process are :

- Use during the DD stage suitable methods to identify, assess and manage these transition challenges.
- CRREM by providing the Carbon Risk Real Estate Monitor (CRREM) tool, which uses a downscaling approach to break down decarbonization targets to regional and sectoral levels (resulting in country and use-type decarbonization pathways) is the critical tool in this process.

PCA uses the CRREM tool to effectively identify, measure and manage real estate transition risks.

Transition risk is a topic of strategic relevance for PCA as energy efficiency regulations and carbon pricing schemes are gaining prominence around the world.



As the low-carbon transition accelerates, there is a growing risk of stranded assets and write-downs from properties that fail to meet market expectations and regulatory requirements.

To limit the global temperature rise to 1.5°C, the world must reach net-zero GHG emissions by 2050.

PCA supports this global climate goal by setting net-zero targets.

For these targets to be effective the following elements are essential:

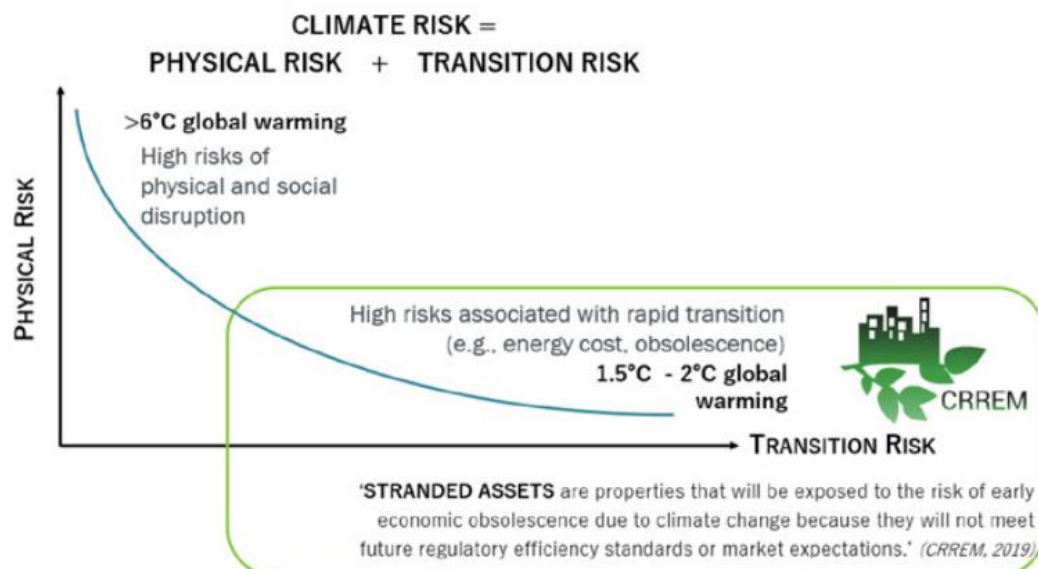
- Data transparency.
- Appropriate metrics and management support.
- Special focus must be placed on operational GHG emissions, since most buildings that will exist in 2050 have already been built.
- Aggressive retrofitting and refurbishment within the existing property stock is a strategic priority for PCA.
- On-site renewable energy production offers great potential for further improvement of the GHG profile of assets.

The retrofitting strategy from existing building stock requires significant investment from PCA. It is PCA duty to ensure that these investments are not only viable from a financial perspective, but also have net efficiency and emissions benefits.

PCA focuses on:

- Refurbish and reuse' instead of 'demolish and rebuild'.
- Renewable energy procurement and increases in on-site renewable energy production (e.g., use of solar, wind power and heat pumps).
- The below figure from CRREM shows the correlation between physical and transition risks.

Figure 1: Transition risk vs physical risk



Source: CRREM 2022.

Most common transition risks and its impact are defined in the following chart by CRREM.



Table 1: Examples of transition risk and impacts on real estate

Transition Risk	Impact on Real Estate
<p>Declining market attractiveness Declining attractiveness of submarkets due to increased vulnerability and exposure to higher costs</p>	<ul style="list-style-type: none"> ▪ Lower demand (investor and tenants) ▪ Lower competitive advantage by increasing energy costs for properties with high-energy intensities] ▪ Reduced asset values may lead to a depressed market environment ▪ Decreasing market values
<p>Increasing regulation Legislation focused on climate change—e.g., disclosure of climate risks, stricter building standards, CO₂ pricing, carbon credits, etc.</p>	<ul style="list-style-type: none"> ▪ Tax increases, e.g. CO₂ tax ▪ Decrease in subsidies for certain technologies ▪ Additional costs from reporting requirements ▪ Additional investment costs to bring the real estate portfolio in line with national laws ▪ Enforced rules that properties can only be rented if they meet a certain energy standard
<p>Risks to reputation and market positioning Stakeholder demand for real estate companies where climate risks are included in the investment calculation</p>	<ul style="list-style-type: none"> ▪ Loss of reputation if action is too late or if no action is taken ▪ Reputational risks for companies, that do not sufficiently consider ESG topics in their strategy

Source: CRREM 2022.

To properly identify and manage transition risks, clear goals and building specific decarbonization trajectories are needed. It is important to take into consideration the fundamental differences between different property types.

PCA strategy to identify and manage transition risks is based in the following points:

1. Achieve transparency about one’s own status quo regarding essential KPIs.
2. Define a clear strategy as to how targets can be met.
3. Set a clear financial budget to implement necessary energy retrofits across the portfolio or the new development and refurbishment projects.
4. Clearly commit to decarbonization and broader ESG goals and ensure PCA teams are given the skills to deliver the commitments
5. Collecting tenant data:
 - a. A collaborative approach is needed
 - b. Stranding risk and its potential impact on an asset’s value is a function of all the emissions of the property (the so-called ‘whole building approach’).
 - c. In the case of investment properties, these emissions might be partly controlled by tenants (tenant space) and only to an extent by PCA (common areas and shared services).
 - d. PCA will work with its tenants and other service providers (e.g., energy suppliers) to avoid data gaps.
 - e. A whole property view is key to avoid investment risks. During the DD process when acquiring an asset and during management is critical to have a complete set of data.
 - f. Implementation of green procurement manuals.
 - g. Use of green leases to intensify data exchange.



Other critical element is the transition risks analysis is the Embodied carbon of retrofits:

- Ensuring that energetic retrofits have a positive impact on climate.
- We are working on using the CRREM tool to ensure that energetic retrofit measures are not only viable from a financial point of view, but also from a climate perspective.
- For existing building stock, it is essential to evaluate if the cumulated operational carbon savings after a decarbonization intervention are greater than the one-off (embodied) GHG emissions from the retrofit itself, therefore ensuring a net positive environmental benefit.

The construction of a new commercial property generates approximately 1,000 kgCO₂ e/ m² of embodied emissions (LETI 2020). This means that a new office building or shopping centre with even the best energy certificate starts its lifecycle with a huge carbon footprint. Simply constructing highly efficient or even 'zero-energy' buildings cannot deliver decarbonization.

To Manage Transition Risk in Real Estate is essential to emit as little CO₂ as possible during construction and, even better, to be able to continue to use existing buildings through conversion or revitalization—in other words, to extend the economic life of property and reduce its carbon footprint during operation.

For this purpose, PCA conducts life cycle assessment (LCA) in the DD stage or during the operations of their portfolio. The methodology is standardized in ISO 14040/14044 and includes the emissions created by a process or product, from cradle to cradle. In general, the use of less GHG-intense, and ideally climate-neutral, building components is also necessary in modernization. This implies less steel, less cement, more wood, and technical solutions with on-site renewable energy production

PCA also, aims in an urban context, to connect to a public district heating network which is decarbonized, or will become so over time.

As part of the integrated process to identify , asses and manage transition risks PCA implements the following strategies in their projects:

- Energetic retrofits:
 - Whenever possible, increase the use of energy sources with low future emission factors (e.g. electricity, district heating).
 - Consider renewable energy procurement and an increase in on-site renewable energy production (e.g. use of solar-power, wind or heat-pumps).
 - Reduce buildings' energy demand (e.g. with automatic lighting, automatic reduction of ventilation, heating according to the number amount of people in the building, greater use of natural light).
 - Carry out deep-energetic retrofits (replacement of old technical equipment, new insulation etc.).
 - Use energy-management systems such as smart metering to control and monitor whole-building energy consumption.
 - Explore 'green leases' to identify incentives for reducing consumption together with tenants and to improve transparency for exchanging data.
 - Work on tenant behaviour by providing tenant manuals and training sessions.
 - Develop and design concepts that extend the lifecycle of the building.



- Renewable energy:
- Renewable energy production on site can reduce transition risk.
 - Increased use of renewable energy is recommended (e.g. use of solar-power, wind or heat-pumps).
 - Renewable energy production on site will reduce net energy demand and GHG intensity of properties.
 - Own energy consumption can be (partially) met with renewables generated on site.
 - Surplus renewables produced can be sold to the grid. Exporting on-site produced energy reduces the asset's net energy demand.
 - Lowering the GHG intensity of the property, brings other benefits including higher security of supply.
 - Producing energy on site will also reduce exposure to further increases in energy prices from the grid and therefore has a positive impact on the asset's risk profile.

As a conclusion PCA identifies, assesses, and manages transition risk with the following main points:

1. Beliefs: The roadmap should begin with a clear ESG policy and net-zero commitment.
2. PCA sets and enforces clear goals and targets regarding decarbonization (aligned with the SBTi and CRREM).
3. Assess carbon exposure: PCA analysis the opportunities and existing buildings portfolio using CRREM and other tools
4. PCA implements carbon risk mitigation measures:
 - A carbon reduction plan or roadmap should is established, including a timeline, budgets and well-defined measures to ensure that targets are achieved.
 - These plans are linked to operational asset management and PCA's climate goals are linked to incentives for those employees involved in implementation.
5. Transparency: Maximum transparency is ensured regarding the assessed data and the carbon status quo of the asset/portfolio.
6. Monitoring the status and changes to the goals articulated in relation to the real estate portfolio (e.g., through a regular update of CRREM pathways).