



# Climate Change Resilience REIT

Investing sustainable and profitable into the insurance of natural hazards

## INVESTMENT THESIS

By **overcoming the home bias** most REITs are prejudiced by, the Climate Change Resilience (CCR) REIT enables **both institutional and retail investors** to mitigate risks due to **natural hazards** imposed by climate change, while financially distressed homeowners gain access to insurance and safe housing.

- By acquiring properties mainly from **financially distressed homeowners** in exchange for equity ownership and cash, CCR enables individuals **lacking insurance opportunities** to obtain financial compensation for assets facing natural hazards while simultaneously taking measures **to protect their homes** against said risks, offering them long-term housing security ownership in resilient equity
- Portfolio structure combines **yielding returns that REIT investors have become accustomed to** and a **decreased risk exposure** by investing in properties located in areas that are **exposed to statistically low correlated natural hazards**

## PROBLEM: CLIMATE CHANGE-INDUCED RISKS

Due to climate change, properties are increasingly exposed to natural hazards, imposing a huge threat to both investors and homeowners in affected areas:

**5x** increase in damages caused to US private properties by natural disasters

**10.6m** housing units are exposed to very **high risk of house destruction**

**85%** of properties at risk in US are **underinsured against natural disasters**

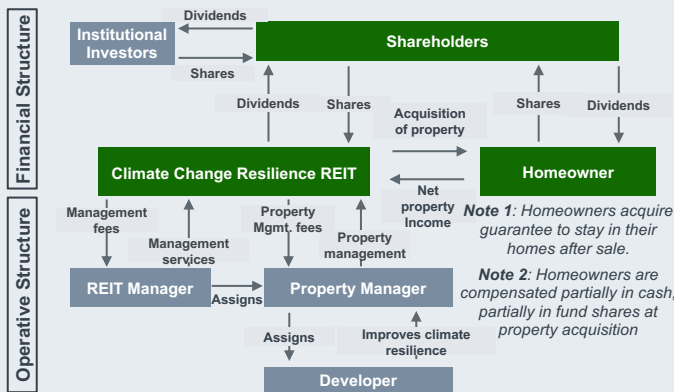
### For Investors:

Real Estate Investment Trusts (REITs) tend to select their portfolios **based on geographic proximity** – this phenomenon is known as the home bias. A **lack of geographical distribution** of assets, thus homogenous exposure to natural hazards, can therefore harm **risk-adjusted returns** of REIT investors.

### For Homeowners:

**Property value losses** and **declining property insurance opportunities** leave homeowners with **no chance to hedge against hazards**. They now face the realistic possibility that their home (**that often is their only wealth-building asset**) gets destructed without them receiving financial compensation at all. This poses a **severe threat to their financial security**.

## FINANCIAL AND OPERATIVE STRUCTURE



Note: Trustee and lending parties are not illustrated in the structure to preserve the overview

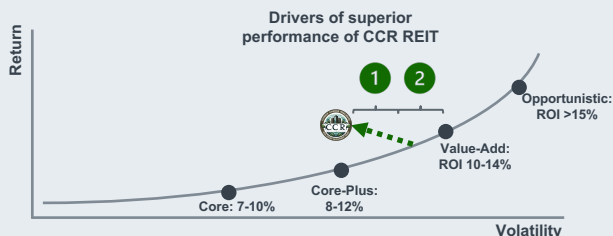
## FACT- AND TERMSHEET

Offering details	Public placement of 10 Mio shares at \$15 REIT itself is not publicly traded
Use of proceeds	Acquiring properties and taking measures to protect assets against natural hazards
Asset composition	Residential Real Estate Assets with a price of up to \$1mn
Property improvement costs	2.5% - 10% per asset, financed by collected investment capital
Expected yield	Average annual dividend yield of 3.5% - 6%
Payout process	90% of net income to be distributed to shareholders over five-year average
Targeted investors	Institutional investors and prior homeowners in the U.S., incentivized by capital gains and dividends

Potential Partners: FEMA, J.P.Morgan, BRIDGEWATER, Morgan Stanley

## SOLUTION OVERVIEW: CCR REIT

The CCR REIT addresses the introduced challenges by acquiring properties with (1) **minimally correlated hazard risks**, (2) **improving the properties' climate change resilience**, (3) **offering "tenancy for life" back to homeowners** (4) **distributing superior risk-adjusted returns to tenants** (as illustrated below). This allows homeowners to **remain in their (now more resilient) properties** and, at the same time, provides investors with **superior risk-adjusted returns on a positive impact investment**.



Core: Stable properties that generate single digits returns; Core-Plus: Stable assets with exceptions (age, condition, creditworthiness) generating expected returns Value-Add: Assets with some issues that need fixing (vacancy, location, renovation); Opportunistic: Distressed assets, extreme turnaround situations, generate >15% annualized returns

**1 Selection of properties with minimally correlated hazard risks**

- Analysis shows **serially minimally correlated hazard risk factors** across the US (see heat map below).
- These insights **allow hazard risk diversification** by acquiring properties which are exposed to contrasting risk factors.

Note: Lighter colors indicate lower correlation

**2 Measures to improve climate resilience of properties**

- Hazard risks for acquired properties are further minimized by **improving resilience against natural disasters** with **development measures** after property acquisition
- Measures include (non-exhaustive):
  - Construction reinforcement** (e.g., installation of impact-resistant anchoring to withstand storms)
  - Vegetation management** (e.g., planting fire-resistant vegetation and creating firebreaks)
  - Flood risk mitigation** (e.g., by installing flood vents and sump pumps to prevent water accumulation in basements)

## IMPACT ASSESSMENT: MAKE HOMEOWNERSHIP SAFE, RESILIENT AND SUSTAINABLE

### Main impact target and dimensions of impact measurement

**11 SUSTAINABLE CITIES AND COMMUNITIES**

**Protection of affected homeowners** by transfer of climate risks. Maintenance investments further limit property destruction and mitigate potential valuation losses

**Maintaining impact on real estate markets** in regions affected of climate disaster risk and thereby mitigating severe climate-induced capital outflows

**Mitigating property destruction**

**>500** Home properties upgraded to ensure proper hazard resilience standards

**Enhance life for settled tenants**

**100%** Of tenants to remain in "their" houses, avoiding squeeze them out

**Reducing valuation losses**

**>\$1mn** Mitigated property value destruction due to measure implementation

**Fostering climate resilience**

**>\$22k** Average investment per property for mitigation of climate hazard impact

### Secondary impact generation and SDG contribution

**13 CLIMATE ACTION**

**Strengthened climate disaster resilience of REIT portfolio**

- Increasing energy-efficiency and disaster resilience of properties contributes to reduction of Greenhouse-Gas
- Targeting highly vulnerable regions limits social and economic impact of climate change to affected regions

**15 LIFE ON LAND**

**Enhanced biodiversity and the sustainable use of land, water, and electricity**

- Maintenance measures ensure enhanced quality of life in affected areas and strong fostering of biodiversity
- Mitigation of climate-induced relocations contributes to sustainable use of land, water and electricity

## REGULATION & DISCLOSURE

Alongside mandatory compliance with its financial obligations, the CCR REIT will also comply with the guidelines of the **Global Real Estate Sustainability Benchmark (GRESB)** and the **Task Force on Climate-related Financial Disclosures (TCFD)** by voluntarily publishing the recommended financial and non-financial information.



### What to disclose

- Governance
- Strategy
- Risk management
- Metrics & targets
- ESG-related property risk exposure

### Reason for disclosure

Disclose ESG-related risks and opportunities on a **property level**



- Governance
- Strategy
- Risk management
- Metrics & targets

Disclose ESG-related **financial** risks and opportunities on entire **REIT level**

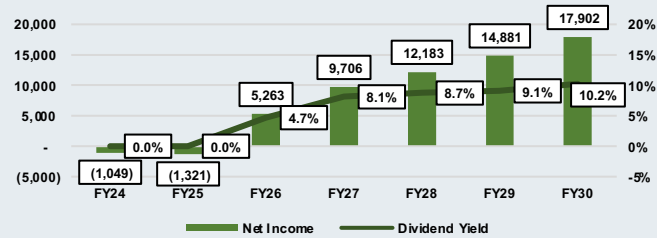
The disclosure of climate risk information both at property level and at financial level for the entire REIT will **increase the credibility of the REIT's climate resilience**.

## RISK MANAGEMENT

Risk	Description	Mitigation
<b>Climate Risk</b>	<ul style="list-style-type: none"> <li>• Risk matrix based on historical data</li> <li>• Wrong climate risk assessment biases investment decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous assessment of risk matrix performance</li> <li>• Iterative adaptation to climate impacts impacting risk matrix</li> </ul>
<b>Investment Risk</b>	<ul style="list-style-type: none"> <li>• Imperfect valuation of target properties impacts returns</li> <li>• Insufficient evaluation of tenants and resulting rent cashflows</li> </ul>	<ul style="list-style-type: none"> <li>• Robust due diligence process and valuation framework to identify attractive properties</li> <li>• Homeowner background check</li> </ul>
<b>Policy Risk</b>	<ul style="list-style-type: none"> <li>• Increasing unpredictability of policymaking in USA</li> <li>• Political polarization yields difficult policy environment</li> </ul>	<ul style="list-style-type: none"> <li>• Constant monitoring of ongoing policy discussions</li> <li>• Proactive exchange with relevant government entities</li> </ul>
<b>Monitoring Risk</b>	<ul style="list-style-type: none"> <li>• Monitor asset portfolio status and latent investment needs</li> <li>• Failure to set up proper monitoring process</li> </ul>	<ul style="list-style-type: none"> <li>• Proper monitoring process following best-practices</li> <li>• Establishing dedicated portfolio management team</li> </ul>
<b>Impact Risk</b>	<ul style="list-style-type: none"> <li>• Converting homeowners to tenants puts their wealth at risk</li> <li>• Eliminating wealth-building opportunity for homeowners</li> </ul>	<ul style="list-style-type: none"> <li>• Re-distribution of trust gains to tenants for financial participat.</li> <li>• Payment of properties partially in cash, partially in fund shares</li> </ul>

## CASHFLOW PROJECTIONS

Development of Net Income and Dividend Yield



in USD 000's	FY24	FY25	FY26	FY27	FY28	FY29	FY30
<b>Revenues</b>							
Rental Income	1,997	8,896	19,237	24,423	29,673	34,844	39,192
<b>Total revenues</b>	<b>1,997</b>	<b>8,896</b>	<b>19,237</b>	<b>24,423</b>	<b>29,673</b>	<b>34,844</b>	<b>39,192</b>
<b>Expenses</b>							
Property and maintenance	799	2,669	2,886	2,442	2,967	2,788	2,156
Real estate insurance	300	1,334	2,886	3,663	4,451	5,227	5,879
Property management	20	89	192	244	297	348	392
Depreciation	936	1,390	1,603	1,696	2,061	2,420	2,578
General and administrative	2,396	1,067	1,539	1,221	1,484	1,742	1,960
<b>Impairments</b>							
<b>Total Expenses</b>	<b>(4,450)</b>	<b>(6,549)</b>	<b>(9,106)</b>	<b>(9,267)</b>	<b>(11,259)</b>	<b>(12,524)</b>	<b>(12,964)</b>
<b>Operating Income</b>	<b>(2,454)</b>	<b>2,346</b>	<b>10,132</b>	<b>15,156</b>	<b>18,414</b>	<b>22,319</b>	<b>26,228</b>
Interest expenses	1,456	3,618	4,656	5,132	5,844	6,969	7,775
Taxes	(52)	49	213	318	387	469	551
<b>Net Income</b>	<b>(1,049)</b>	<b>(1,321)</b>	<b>5,263</b>	<b>9,706</b>	<b>12,183</b>	<b>14,881</b>	<b>17,902</b>

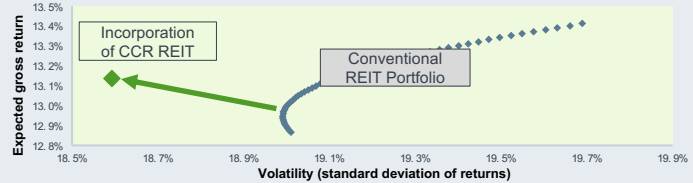
**Key Assumptions:** Dividend payout ratio >90% required by IRC Section Section 857(a)(1); Monthly rental income 2% of property purchase price according to Smart Asset; Rental income growth of 4% (Average US rent inflation over the past 90 years is 4.21% according to TradingEconomics); Maintenance 35%, but higher in the beginning (reflecting implementation of measures) according to Investopedia; Occupancy Rate around 85%, less in the first years, more towards the end according to Apartment Loans; Average tax rate equal the corporate tax rate of 21% is assumed (no additional state tax) following PwC; Gross annual depreciation rate equals 3% of purchase price (Real Estate Finance rule of thumb)

## MITIGATION MEASURES BENEFIT-COST ANALYSIS

**Costs associated to measures** taken to improve the **earthquake and wildfire resilience** of acquired properties return an estimated **ROI of 300%**, whereas measures against **flooding or strong wind** are expected to **5x the initial investment**

Hazard	Counter Measures	Estimated Cost	Benefit-Cost Ratio
	<ul style="list-style-type: none"> <li>▪ Reinforcement through seismic retrofitting</li> <li>▪ Securitization of gas and water lines</li> </ul>	USD 8-25k USD 5-11k	<b>4x</b>
		<ul style="list-style-type: none"> <li>▪ Base elevation above expected flood level</li> <li>▪ Installation of flood vents and sump pumps</li> </ul>	USD 9-21k USD 5-9k
		<ul style="list-style-type: none"> <li>▪ Reinforcement of the structural integrity</li> <li>▪ Installation of storm shutters</li> </ul>	USD 9-18k USD 2-5k
		<ul style="list-style-type: none"> <li>▪ Installation of fire-resistant materials</li> <li>▪ Construction of fire-resistant barriers</li> </ul>	USD 5-35k USD 4-12k

## SIMULATION OF DIVERSIFICATION EFFECT



## TARGET MARKET AND SCALABILITY

### Initial market entry

Initially, **investment activities of CCR are focusing on the USA** as the country provides ideal conditions to set up a climate risk diversified REIT in the private housing market:



Exposure to different climate risks enables proper risk diversification across entire country



Large and heterogenous pool of homeowners affected by climate risks and demand to sell affected properties



Liquid housing market ensures active deal flow and is supported by reliable law enforcement system



No currency and other risks associated with investments in developing countries; no need to hedge currency risks

### Targeted climate risks for initial market entry

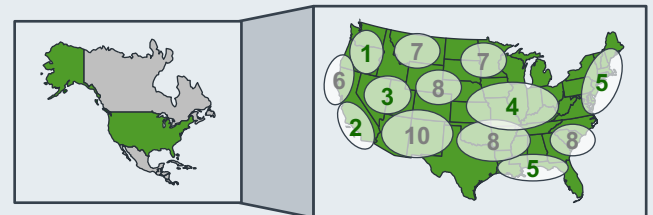
- |                            |                    |                           |
|----------------------------|--------------------|---------------------------|
| <b>1</b> Volcanic Activity | <b>3</b> Wildfires | <b>5</b> Coastal Flooding |
| <b>2</b> Earthquakes       | <b>4</b> Tornadoes |                           |

### Expansion phase 1: Transforming the US market

- Expansion of investment activities to **new regions in USA** and targeting **additional climate risks** (see below)
- Inclusion of new climate risks enables the realization of further diversification benefits and improved resilience of REIT performance against occurrence of climate disasters

### Additional targeted climate risks for expansion phase 1

- |                     |                     |                    |
|---------------------|---------------------|--------------------|
| <b>6</b> Landslides | <b>8</b> Avalanches | <b>10</b> Droughts |
| <b>7</b> Cold Waves | <b>9</b> Ice Storms |                    |



### Expansion phase 2: Create global impact on safe & affordable housing



- Foundation of sub-funds to implement investment strategy in Canada and countries of the European Union (incl. the United Kingdom, Switzerland and Norway)
- Similar exposure to diversified climate risks and a reliable real estate investment market within the same regulatory environment

### Impact generation along expansion phases

	Sustainable Safe & affordable housing	Financial Annual net income of REIT
<b>Market Entry</b>	> 1'000 Individuals	5.4mn USD
<b>+ Expansion 1</b>	> 6'000 Individuals	32.6mn USD
<b>+ Expansion 2</b>	> 27'000 Individuals	88.4mn USD