

The Key Takeaways

Limited alignment among physical risk scores from different providers

Translating climate science into real estate in nascent phase

Climate risk *is being priced* but not uniformly or consistently.

Increased disclosure from climate providers in method and VaR needed

How do Physical Risk Analytics Measure Climate Risk

- Climate risk is forward looking / catastrophic (insurance) risk is backward looking
- High level of uncertainty in climate risk
 - Hazards included/excluded, data source, property level (physical and financial), resilience measures (on and off site), RCP and time horizon.
- Physical Risk vs VaR
- VaR
 - What is Value (market, replacement, damage, delta in value)?
 - What non-financial metrics should we include (capital stack, lease type, insurance, etc.)?
 - Should climate risk analytics provide VaR?

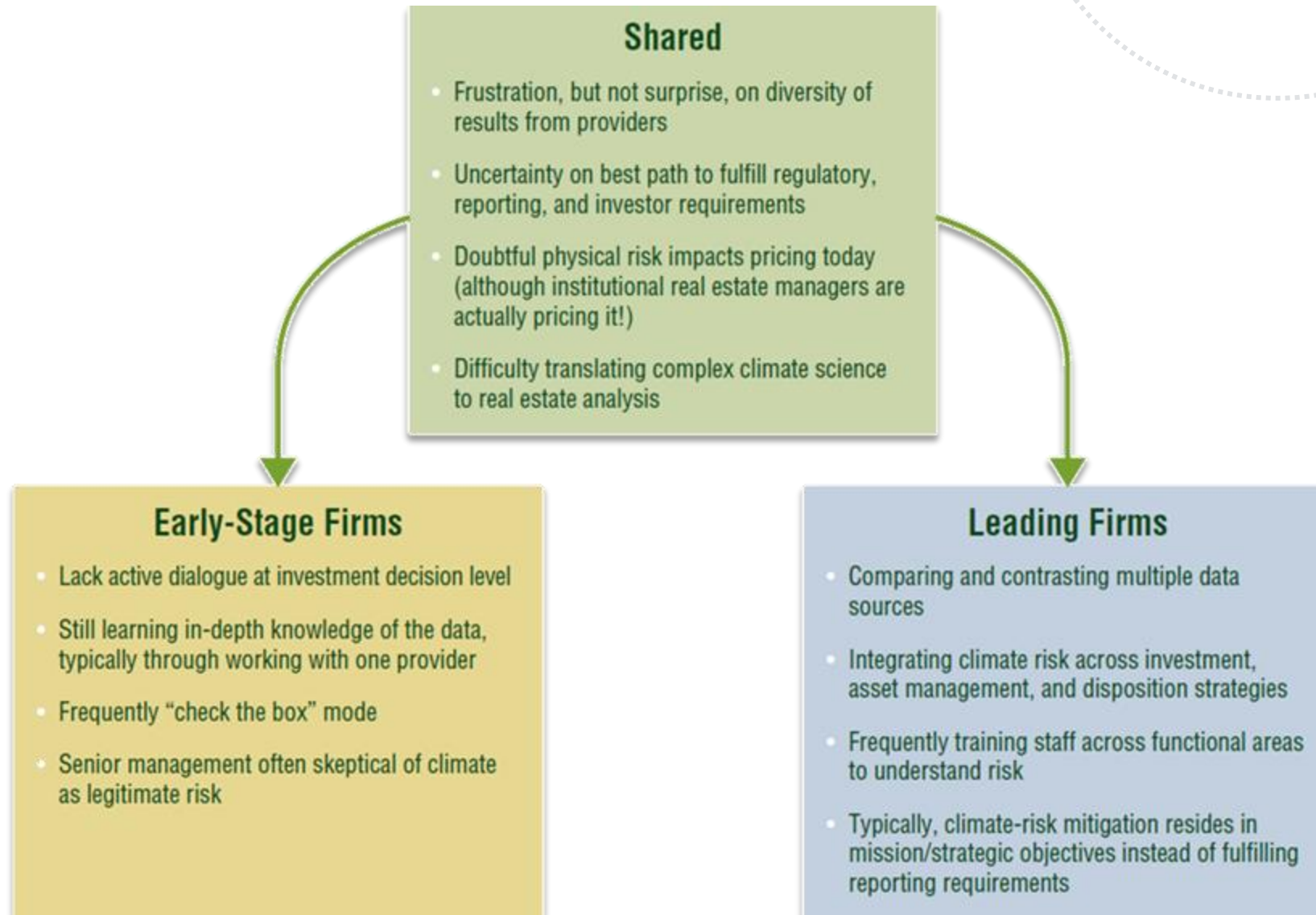
Limited Consensus on Asset Risk

Key Areas of Variation across Physical Climate-risk Analytics Providers

Variations across Providers among Overall Physical Risk

Asset	State	Vendor A	Vendor B	Vendor C
A	CA	High	Very low	Low
B	DC	Medium	Very low	Low
C	FL	Low	Medium	Very low
D	IL	Medium	Very low	High
E	NY	Very high	Low	Medium
F	TX	Medium	Very low	Low
G	VA	Medium	Very low	None

- Identification of hazards included or excluded
- Data description and source(s)
- Nature of model
- Inclusion of property-level information: physical and financial
- Government, municipal, and asset-level risk mitigation considerations
- Scenario analyses, time, and baseline assumptions



Improved Decision Making

STEP 1

Does my provider's report meet my strategic objectives?

- Do they satisfy my investment process and business decision-making needs?
- Do they satisfy my regulatory reporting requirements (SEC, SFDR, etc.)?
- Do they satisfy my voluntary reporting requirements (TCFD, UNPRI, etc.)?
 - Are all hazards I want to evaluate covered?
 - If no, specialty providers may still be useful for specific risks, but be sure to capture everything you need.

STEP 2

Do the provider's services meet my needs?

- Does the selection of RCPs and time scenarios align with my strategic objectives, reporting, and risk assessment needs?
- Treat physical risk assessment as a strategic risk, incorporate into real estate life cycle.
- Does my provider's risk assessment include municipal and governmental risk mitigation measures?
 - If so, what have they incorporated?
 - If not, how are you addressing this issue?

Improved Decision Making

STEP 3

Does my provider generate my value at risk?

- If so, how do they define VaR? Understand the assumptions, including property- level hazard mitigation, valuation metrics, and tail risk.
- Consider whether your real estate firm prefers to separate risk assessment and VaR. When using your provider's physical climate- risk data, make sure the assumptions are understood to model VaR internally.

STEP 4

Are risk assessments from multiple providers congruent? [If multiple providers are used.]

- Expect inconsistency, develop a plan to address it, and understand each provider's strengths/weaknesses.

STEP 5

Is physical risk assessment integrated with your acquisition, development, financial reporting, and asset and portfolio management teams?

- Depending where on the continuum your firm is, consider an internal task force, educational content development, or external consultants.
- Physical risk should be considered on par with financial, tenant, and the host of risks firms mitigate every day.

Improved Decision Making

- Real Estate firms:
 - Be strategic!
 - Understand your data (hazards, sources, RCP, etc.)
 - Identify your needs then communicate your needs
 - Integrate climate risk (physical and transition!) into your full life cycle analysis (acquisition through disposition).
- Climate Risk Analytics firms:
 - Be transparent!
 - Understand what your client needs—don't assume you know.
- In partnership
 - Develop standards
 - Agree on VaR (CVaR)
 - Have perspective
 - Climate analytics frequently serve all industries!
 - Real estate firms have unique operational/reporting needs

Q&A

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