

Decarbonising and Securing Households Under Climate Threat: What Tools, and Whose Futures?



<https://apnews.com/article/0d260a9ec44545458ab1f25b6f969a5a>

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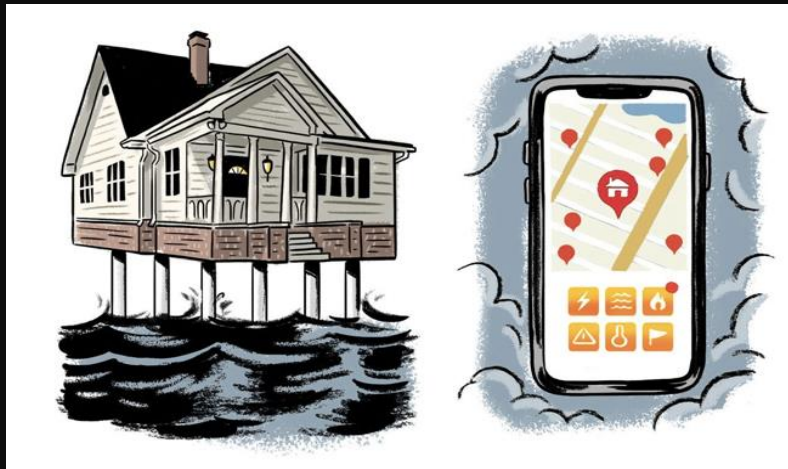


Introduction

- Climate change as threat to future—and present—housing values
- Financing protection through *climate value capture (CVC)*?
- Two emerging pathways for CVC financial innovation
 - Property Assessed Clean Energy (PACE) loans
 - Property insurance-linked securitization (ILS)
- Converging geographies of rollout: the view from Florida
- Deepening tensions and contradictions

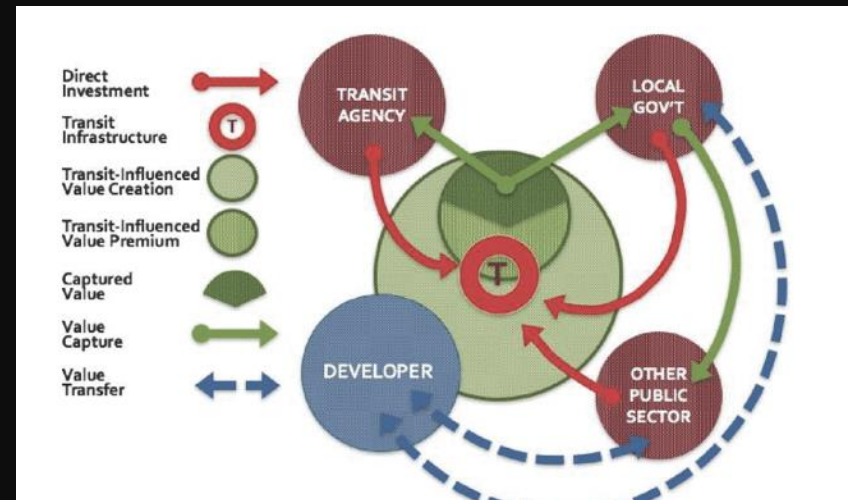
Financing protection through *climate value capture (CVC)*?

- Emerging climate response strategies
 - Home retrofits: ‘climate proofing’ at individual building level (e.g., ‘distributed energy resource’ solutions, ‘hurricane hardening’) → can be decarbonization + resilience
 - Expanded institutional risk management: new insurance capitalization techniques & schemes, risk screening & disclosure, changing asset investment patterns



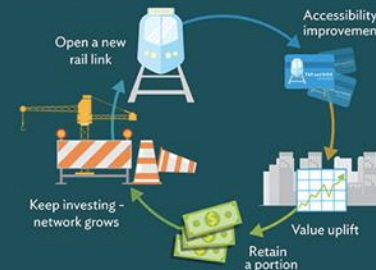
- Who is financing in the United States & how?

- VC tools are business-as-usual for ‘financialized’ urban governments & growth machines
- CVC finance → established VC tools adapted to solve climate-proofing’s ‘financing gaps’
- ...but in may structurally depend on *further* financial innovations to ‘save’ insurance (e.g., insurance linked securitization)



WHAT IS LAND VALUE CAPTURE?

Land Value Capture (LVC) is a way of ensuring that benefits generated by infrastructure projects, including increases in property value, help fund those projects.



HOW LVC WORKS:

- Infrastructure triggers rise in land value
- Value-addition is retained
- Proceeds are used to fund infrastructure projects

Arguments and Supporting Literature

- These two 'sides' of CVC accomplish interrelated tasks...but these internal relations are underexplored
- Failures in coordinating rollouts have consequences, amid other deepening tensions:
 - Inherit legacies of the subprime crisis, for homeowners and urban finance (e.g., Aalbers 2012, Peck and Whiteside 2016, Knuth 2019, Fields and Raymond 2021, Ponder 2021)
 - Worsening climate pressures on insurance regimes (e.g., Elliott 2021, Taylor and Weinkle 2020)
 - Structural failures in 'entrepreneurial' (Harvey 1989) urban finance models (e.g., Taylor 2020, Shi 2020, Cox 2022)

Two emerging pathways for CVC finance

Property-Assessed Clean Energy (PACE) loans

- Finance residential energy efficiency or rooftop solar 'improvements'
- Run through local gov'ts w/partners → special districts & property tax bills (off-balance sheet conduit bonds, poss. securitized)
- Property liens repaid via energy savings
- Speculative: add home value & protect against devaluation



Residential PACE

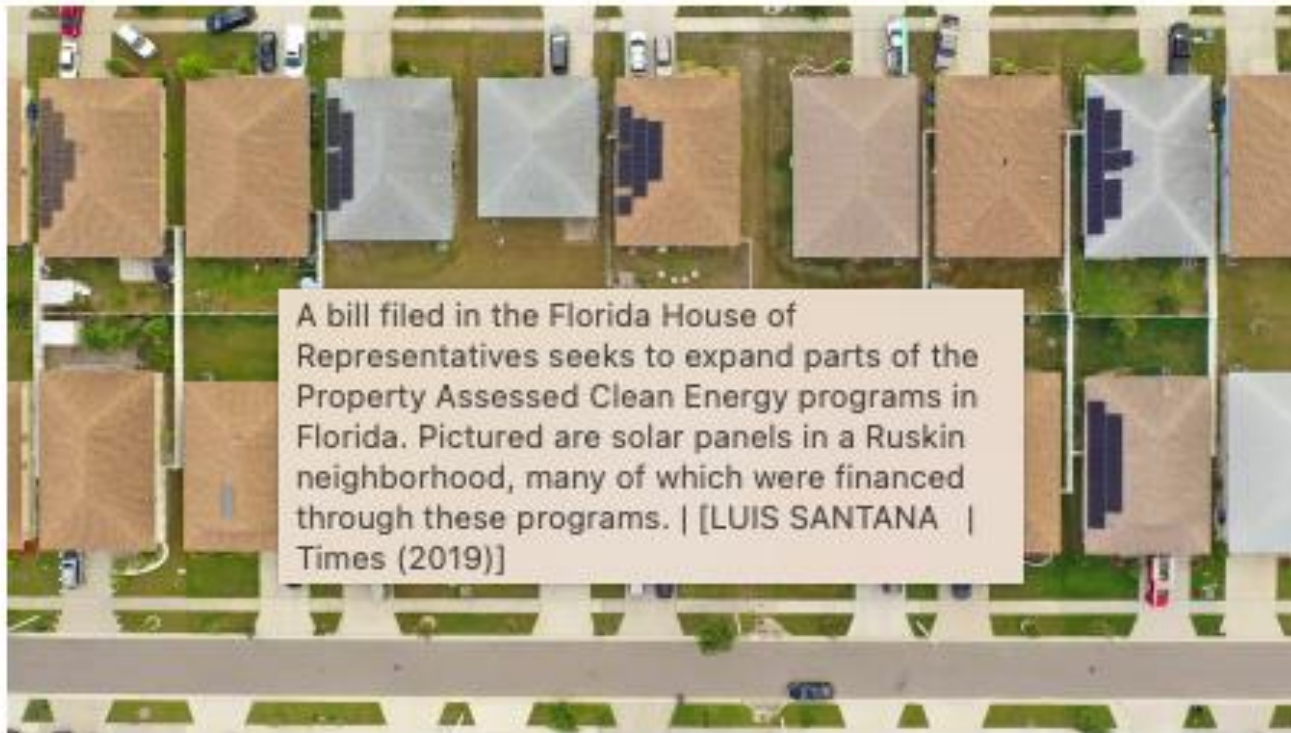
- Conflictual US rollout post-subprime crisis → FHFA ruling against in 2014 stalled momentum
- Florida state gov't authorized local gov'ts to create PACE districts in 2010 (F.S. § 163.08) → growing 2010s usage (again w/conflicts)

Florida bill seeks to expand PACE loan program

The bill outlines additional consumer protections, which consumer advocates say are weak.



Feb 2021: “A Florida lawmaker is seeking to expand a loan program that makes it easier for people to make their homes more energy efficient but leaves many saddled with debt payments they can’t afford.”



A bill filed in the Florida House of Representatives seeks to expand parts of the Property Assessed Clean Energy programs in Florida. Pictured are solar panels in a Ruskin neighborhood, many of which were financed through these programs. | [LUIS SANTANA | Times (2019)]

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| [LUIS SANTANA | Tampa Bay Times]

By **Malena Carollo** Former Times reporter

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Tampa Bay Times

Two emerging pathways for CVC finance

Property Insurance-Linked Securitization (ILS)

- Expands 'peak peril' coverage against tail catastrophe risks
- Used by public & private insurers, reinsurers
- Secondary markets aggregate, package, & on-sell premiums to investors
- Indirectly: secures residential mortgage finance and local property tax regimes



Property ILS

- Emerges post Hurricane Andrew ('92) & Northridge Earthquake ('94)
- Proliferation of ILS uses, but up to 2/3 all outstanding issuance is at least partially exposed to Florida hurricane risk, largely residential wind exposure

New value flows 'stacked' on homes

Streams of value-added, premium payments, loan repayments converge atop (& secure?) existing residential assets

Property lien pays off PACE loan for 2-30(!) years

PACE improvements then save \$ for ~home lifetime

+ add/protect home value *(specul. on shifting norms in low-carbon & adaptive construction)*



Homeowner pays annual property insurance premium

Property ILS renders home 'insurable' through its lifetime(?) (in practice: ~3-year coverage)

Secure property insurance enables ~30-year mortgage & repayment streams

Property taxes secure local gov't fiscal capacity & gov't borrowing (~30-year muni bonds)

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- **Temporal disjunctures:**

- Promised durability versus contingent reality of insurance coverage
- Differentiated inter-instrument time horizons create uneven vulnerability among players, places (who can/can't 'exit'?)

- **Spatial disjunctures in CVC's 'individuated and nested' approach:**

- 'Stacks' with opaque relational complexities between each level
- Falls apart if underlying asset is prematurely devalued
- With what consequences, when, where, for whom?

Findings to Date: Deepening Tensions and Contradictions in Florida



Deepening Tensions and Contradictions in Florida

- Florida's imperiled property state is a key 'lab' for CVC finance innovations, rollouts now converging
 - Existential physical climate risks
 - But real estate central to FL political economy → 'captured' state prioritizes real estate value-led growth & is acutely dependent on property taxes
 - Anxieties about climate-induced property disruption fueling financial innovation

- Growing indebtedness of properties, homeowners
- Structurally exclusive protections in a property state, re/inscribing inequity along racialized class & tenure divisions
- Entrepreneurial yet incomplete state financial ‘creativity’
 - More ambitious collective investments? E.g., Green New Deal models toward more ‘managerial’, collectively organized investment





Questions?

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