Urban Climate 25 (2018) 9–21

Contents lists available at ScienceDirect

Urban Climate

journal homepage: www.elsevier.com/locate/uclim

Practices and pitfalls of competitive resilience: Urban adaptation as real estate firms turn climate risk to competitive advantage

Hannah M. Teicher

Department of Urban Studies and Planning, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139, USA

ARTICLE INFO

Keywords:
Adaptation
Resilience
Climate governance
Private sector
Urban politics
Growth coalition

ABSTRACT

Coastal cities on the U.S. East Coast are emerging hotspots of global sea level rise as well as increasingly attractive real estate markets. In this context, proactive real estate firms are engaging in various strategies for flood risk management. Analyzing firms' urban adaptation practices, this paper builds on theories of growth coalitions and climate change imaginaries, identifying forms of resilience that promote an ascendant competitive resilience regime. The most proactive firms treat resilience as a competitive advantage to be gained through self-reliant or networked adaptation. As firms act to limit financial exposure and protect their assets, the resulting piecemeal, competitive resilience further accentuates uneven risk and uneven development. While it may hold short-term promise, this approach contributes to larger trends in neoliberal urban governance, threatening to undermine the potential for more transformative regional adaptation. However, given municipal resource constraints, it could become a common and damaging form of urban adaptation.

1. Introduction: converging sea level rise and real estate hotspots

As centers of commercial and industrial activity, immigration, and finance, coastal cities in the U.S. have historically played a key economic role. While these cities have attracted real estate capital for decades, if not centuries, they have been buoyed by renewed interest since waterfront revitalization took hold in the 1960s and 70s (Desfor and Laidley, 2011; Heeg, 2011; Hill, 2013; Leary and McCarthy, 2013). In an economy increasingly characterized by “jobs chasing employees,” revitalized waterfronts, attractive to the millenials and creatives who live, work and play there, attract commercial real estate investment. However, in a changing climate, more severe storms, more intense precipitation, and sea level rise magnify the risk of flooding in these same cities. While some flooding will be of headline grabbing magnitude, “nuisance flooding” may have an equal impact as stormwater systems are taxed beyond capacity and insufficient seawalls are routinely overtopped (Melillo et al., 2014; Sweet et al., 2014).

Organizations ranging from Risky Business, co-founded by Henry Paulson,[1] to the UN's newly formed R!SE Alliance have been sounding the alarm that the exposure to climate risk could be devastating for business, including commercial real estate. Operating in more measured tones, though equally alarming, leading climate scientists have noted the high level of asset exposure in the U.S. Currently, North America has the highest value of exposed assets globally,[2] a situation exacerbated by the relative lack of flood defenses in comparison to other high income countries such as the U.K., Japan, and the Netherlands (Hallegatte et al., 2013; Hanson et al., 2011). By 2030, average annual losses from storm damage along the Eastern Seaboard and Gulf of Mexico could reach $35 billion (Bloomberg et al., 2014).

E-mail address: hteicher@mit.edu.

[1] Secretary of the Treasury in the George W. Bush administration from 2006 to 2009.

[2] Though asset exposure in Asia is projected to surpass North America by the 2070s.

https://doi.org/10.1016/j.uclim.2018.04.008
Received 19 January 2017; Received in revised form 23 April 2018; Accepted 26 April 2018

While every major American city has formalized the need for climate change mitigation and adaptation in some capacity, this effort is constrained to paper planning and piecemeal implementation except in those cities galvanized by major storms (Bierbaum et al., 2013; Lee and Painter, 2015; Romero-Lankao, 2012). In New York and New Orleans, federal, state, and local agencies have made post-disaster investments in large (though potentially still inadequate) flood infrastructure projects. But proactive funding for super-levees, raised districts, or "room for the river" projects common in Northern Europe and Japan is entirely lacking in the U.S. (Hill, 2013).

In the absence of a concrete, coordinated public response to flood defense, the real estate industry might be expected to take note of flood risks for existing buildings, specifically potential losses communicated in clear financial terms. This is especially urgent for existing assets that will be increasingly vulnerable if left in their current condition. However, in the real estate and broader financial industry, real estate is perceived as a stable investment, an obvious choice for retirement funds and sovereign wealth funds as well as a safe harbor for global capital (Armstrong, 2013; CBRE Global Investors, 2015; Green-Morgan et al., 2013; Schreckinger, 2014). In conventional real estate market assessments, climate risks barely register. Climate change is still treated as a niche issue, addressed in conferences, reports, and special meetings focused on sustainability or more recently resilience.[3] It is compartmentalized as a trend real estate professionals might choose to heed, much like big data (Kelly and Warren, 2015).

The potential conflict between real estate interests and sea level rise in coastal cities gives rise to the following research questions: 1. How do senior decision-makers in commercial real estate firms conceptualize flood risk? In more theoretical terms, in what ways do their conceptualizations of climate risk reflect larger climate imaginaries? 2. Further, what risk management practices do they employ? How do these practices articulate with the imaginaries involved and what forms of resilience do these imaginaries and practices co-construct?

In this study centered on real estate professionals and their interests within an urban setting, I rescale the concept of climate imaginaries within socioeconomic regimes from the national to the urban to illuminate the forms of resilience these firms adopt as they imagine and practice resilience. Examining how economic, and more specifically climate, imaginaries operate at the urban scale extends the explanatory power of this theoretical construct beyond national politics to an increasingly central scale of action for adaptation.

This analysis of forms of resilience at the local level may be particularly apt for analyzing the production of piecemeal urban resilience, a process that is inherently fraught with conflict over basic assumptions concerning the purpose and value of land use. As few cities have the resources of a New York or London to protect their economic interests from climate change, the consequences of piecemeal, private sector-led resilience will be increasingly important to understand. Understanding this ascendant competitive resilience regime, both theoretically and practically, will be critical to evolving land use planning for climate change adaptation in secondary cities.

2. Methods

2.1. Case selection: Boston, engaging the private sector to address sea level rise

A historic coastal city ranked in the top five for asset exposure to flooding and in the top ten for real estate markets in the U.S., Boston offers a representative case of competing climate change and real estate dynamics (Hallegatte et al., 2013; Kelly and Warren, 2015). The Hallegatte et al. data indicates that Boston could face average annual flood losses of US$237 million given current levels of flood protection. Unlike the other cities in the top five, Boston has not experienced a major storm, but did weather Hurricane Sandy's near miss; if Sandy hit just five hours earlier, at high tide, Boston would have been devastated like New York (Douglas et al., 2013). While major storms have directly impacted New York, New Orleans, Miami, and Tampa, the other cities in the top five, Boston only experienced minor flooding during Sandy. Active participants in Boston's resilience efforts, from city hall to The Boston Harbor Association, consistently emphasize this close call in their attempts to motivate a proactive response (Aiken et al., 2014; Quinn, 2014; Spector and Bamberger, 2013).

Like other American cities, Boston has undertaken formal public sector planning efforts, creating a *Climate Action Plan*.[4] The city is implementing small-scale infrastructure such as solar arrays to maintain fuelling stations, but large-scale infrastructure is only being discussed in speculative terms through ideas competitions and reports.[5] This is unlikely to change in the absence of a Sandy-scale disaster. However, Boston is also significantly enrolling the private sector, notably by forming a "Green Ribbon Commission" convening business, institutional and civic leaders to provide private sector support for implementation of the Climate Plan.[6] This commission is a unique organization which other cities look to as a model according to multiple interview respondents.

One of six working groups[7] in the Commission, the Commercial Real Estate group is comprised of leading property owners, and their work is coordinated by A Better City, a nonprofit formed in 1989 to advocate for business interests over the course of the Central

[3] The term 'resilience' can be problematic on multiple counts: it risks meaninglessness as another green buzzword or through becoming a cover for a neoliberal urban growth agenda (Davoudi et al., 2012). However, the term has become commonplace throughout business, government, the media and adaptation practice. Given that the term has currency within the real estate industry, I have chosen to use it here in an effort to capture the industry's own framing of the issue.

[4] The culmination of the city's triannual climate planning process to reduce GHGs and plan for adaptation.

[5] A limited sample of reports and related events include: Climate Ready Boston, Building Resilience in Boston, Designing with Water, Living with Water, Sea Level Rise and the Future of Coastal Cities, and Preparing for the Rising Tide.

[6] http://www.greenribboncommission.org/.

[7] The other working groups are the following: Health Care, Higher Education, Climate Preparedness, Greenovate Boston, and Transportation.