



How to Fend Off Land Speculation

CLIMATE CHAOS IS AFFECTING PEOPLE EVERYWHERE AROUND THE WORLD, including in the United States, and it is far past time to do something about it. To avert the most catastrophic impacts of this global crisis, we must transition to net-zero emissions by 2050 by investing in clean energy, electrifying our transportation, improving the energy efficiency of buildings, and removing greenhouse gases from the atmosphere.

The transition to net-zero emissions will require unprecedented changes in land use and encumber similarly unprecedented investments. For example, MIT estimates that it would take eight million acres of land to meet the 2050 electricity demands of the United States with photovoltaics—that's only three times the land area of all golf courses in the country, 40 percent of the total area of rooftops, or 16 percent of land area covered by major roadways. While we do not anticipate meeting all electrical power needs this way, these comparisons give us a chance to calibrate the challenge and our expectations about whether we can meet it. We can.

As to how we'll pay for it, the global consulting firm McKinsey recently estimated that the transition to net-zero emissions would cost around \$275 trillion (about three times the global GDP) in public and private investment in new energy and land use systems over the next three decades, an increase of \$3.5 trillion annually from current spending. For comparison, in today's dollars, we spent around \$500 billion over six decades to build the U.S. Interstate Highway System, around \$180 billion to rebuild OECD countries in the two decades after World War II, \$675 billion to fund the New Deal in the 1930s, and \$850 billion for the American Recovery Act in

the decade after 2009. In other words, our additional annual investments will exceed the total of all these "once in a generation" undertakings, each of which took a decade or more to complete. But unlike those projects, this effort calls for significant private contributions to supplement unparalleled public investment.

Whenever we've encountered intractable financial challenges—like the infrastructure investment needed to serve two billion new urban dwellers in the next three decades—I've always responded with the same four words: the answer is land. Since our inception more than 75 years ago, the Lincoln Institute has obsessed over how land gets its value. In the last few years, we've tracked an exponential increase in interest in the potential of land value capture—the public recovery of the share of land value attributable to public actions. Places as diverse as Seoul, Korea, and São Paulo, Brazil, have shown how land value capture can pay for essential but seemingly insurmountable infrastructure needs. We know that investing in decarbonization can increase the value of land, and that the public can then recover a share of this value to pay for the investment itself.

But while the public sector strives to capture its rightful share of publicly generated land value, private landowners are walking away with even bigger spoils by arbitraging information, something that arguably exerts greater power in determining the value of land. Whether and how policy makers respond to the connection between information and land values will have a huge bearing on how much it will cost to reach net-zero carbon emissions by 2050, and how we pay for it. Which brings us to a slightly different



Hsinchu and other cities in Taiwan have used a land value increment tax, or LVIT, to counter land speculation. Credit: Sean Pavone via iStock/Getty Images Plus.

land-based financing tool that is proving effective in countering land speculation and could yield even more revenue than capturing publicly generated values: the land value increment tax (LVIT). Before we delve into that tool, let's explore the issue it's meant to address.

Whether and how policy makers respond to the connection between information and land values will have a huge bearing on how much it will cost to reach net-zero carbon emissions by 2050, and how we pay for it.

Information lies at the root of private land value capture, often called naked speculation, which has financed land development for centuries. Everyone knows the three biggest determinants of land value: location, location, location. The salient information for land speculation is advance knowledge of what will happen in specific locations. In the 1960s, the

Walt Disney Company used shell companies to secretly purchase 27,000 acres of Central Florida swampland at an average cost of \$200 per acre to build its Walt Disney World resort. Disney needed only 10,000 acres for the development, but it knew that news of its investment would drive up land prices for the whole region. The company kept its intentions under wraps to capture the land value increment for itself, while it also negotiated with the State of Florida for unprecedented private control of development on its lands. (That agreement is now in peril due to political conflicts with the state.) Once the future development was announced, the same land was valued at \$80,000 per acre, a tidy windfall of more than \$2 billion on an investment of just over \$5 million. Disney leased the extra land to cover the costs of expanding its attractions to include the EPCOT center, among other things.

The climate crisis and the prospect of mass extinctions have opened a whole new area of land speculation. Reports like the Intergovernmental Panel on Climate Change's *Climate Change and Land*, which painstakingly documents both

positive and negative climate impacts on land around the globe, are like catnip to investors looking to acquire land that will benefit from climate change. Land with privileged access to scarce resources like water, higher ground for those retreating from rising seas, or critical habitats targeted for conservation are prime targets for speculators. Ironically, environmental advocates unintentionally fuel speculation by producing detailed analytics to guide conservation efforts or to build the political will to promote climate resilience, only to see private investors use the data for profit.

Leaving ethical considerations aside for a moment, the practical implications of land speculation are devastating. Conserving land to address the climate crisis or mass extinctions is already an expensive proposition. As Christoph Nolte, a social-environmental data scientist at Boston University, notes, the \$4.5 billion Great American Outdoors Act of 2020 was designed to provide sufficient funding to protect the habitat for all endangered species in the United States. By his estimates, the funding will protect only 5 percent of the needed land, because land values are already much higher than estimated.

Every dollar gained by land speculators represents an additional dollar of public, private, or philanthropic investment that will be needed to protect critical habitat or mitigate the climate crisis. If policy makers are serious about mitigating climate change or conserving land and water resources, they cannot allow private investors to stay 10 steps ahead of the public.

There is one easy way to prevent the astronomical windfalls of land speculation. Among the many effective land policy instruments we've studied, the land value increment tax (LVIT)—a well-known and well-tested tool—is best for

minimizing land speculation. A tax on realized unearned gains in land values, the LVIT has been applied at rates as high as 90 percent in places like Taiwan, where the tax now ranges from 40 to 60 percent. The revenues generated by the LVIT can be invested in climate resilience or habitat protection, ensuring that increases in land value are used for public benefit. Other land policies, like limitations on foreign ownership of land that minimize international speculation, are good supplements to the LVIT.

The revenues generated by the land value increment tax can be invested in climate resilience or habitat protection, ensuring that increases in land value are used for public benefit.

Mitigation of the climate crisis and the prevention of mass extinction will require unprecedented changes in land use across the globe. In past issues I've discussed ambitious efforts to protect 30 percent of Earth's land and water resources by 2030 and half of the planet by 2050. We'll also need to transform the landscape to accommodate climate migrants and renewable energy production. Without proactive measures to minimize the impact of private land speculation, we will bankrupt the public weal and drain philanthropic coffers before we can make a dent in reducing global warming or protecting any species—including *homo sapiens*. It is hard enough to build the political will to tackle existential threats. Why would we unwittingly allow others to inflate the cost of our efforts for their own private windfalls? We already know the remedy we need to chill land speculation—an aggressive LVIT. Can we summon the courage to use it? □

A version of this article first appeared in *Public Finance* magazine, the journal of the London-based CIPFA (Chartered Institute of Public Finance and Accountancy).

Zhubei, Taiwan. Credit: Ren-Shiang Ye via iStock/Getty Images Plus.

