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Permalink

<https://escholarship.org/uc/item/0r53h7pw>

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Publication Date

2022-01-25



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Building Up the “Zoning Buffer”

Using Broad Upzones to Increase Housing
Capacity Without Increasing Land Values



JANUARY 2022

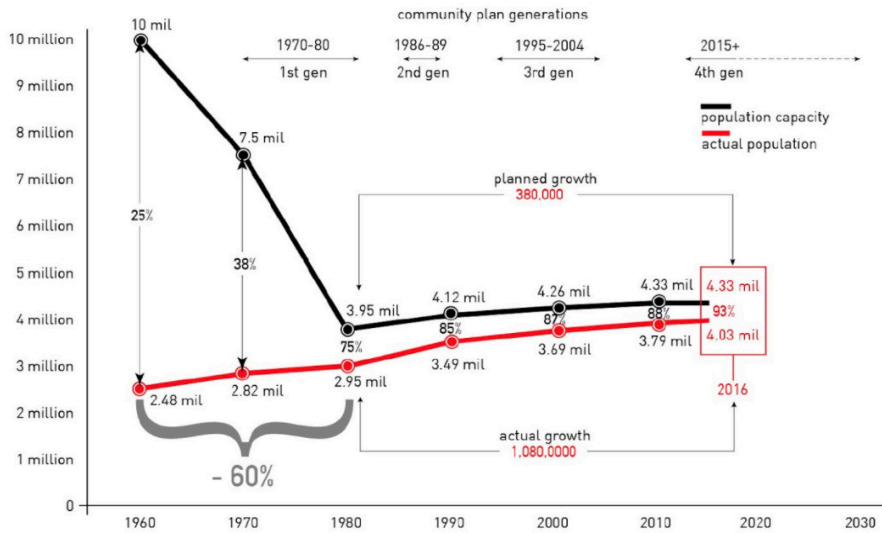


Abstract

U.S. cities spent much of the middle and late 20th century reducing capacity for new housing through extensive downzoning, leading to a shortage of homes and rising prices in high-demand locations. To combat this, many cities and states are now reversing course and upzoning to allow higher-density housing, usually in targeted locations such as individual neighborhoods or corridors. While these targeted upzones have increased housing production in some cases, they have also led to higher land prices that erode the affordability of new homes. In this paper I introduce the concept of the “zoning buffer” — the gap between the existing housing stock and the maximum number of homes allowed by current zoning — and describe how it affects land values and ultimately the production and affordability of housing. When upzoning produces a large zoning buffer, land values should not increase substantially because land with redevelopment potential is no longer scarce; property owners lack the leverage to demand more from a developer than a typical homebuyer. These properties can transact at lower prices, delivering lower-cost housing to residents. When zoning buffers remain small, upzoning will result in land value increases that are largely captured by incumbent property owners. I argue that improved housing affordability at a city-, metro-, or region-wide scale can only be achieved through “broad upzoning,” defined here as zoning changes that allow at least moderate density (roughly 6-10 units) on a large share of parcels (at least 25%-50%). With zoning reform receiving more attention across the country, policymakers should prioritize broad upzoning over other strategies that may be unlikely to improve long-term affordability.

Figure 1.

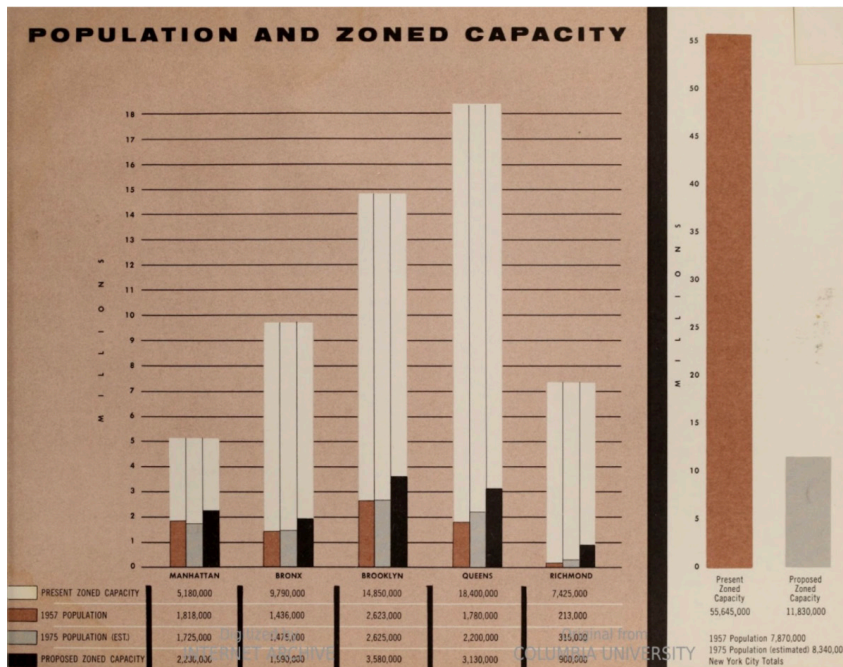
City of Los Angeles zoning capacity and population, 1960-2030.



Source: 35 community plans, census data, and historical reports; used with permission of Greg Morrow.

Figure 2.

New York City population, current zoning capacity, and proposed zoning capacity in 1957.



Source: *Rezoning New York City: a guide to the proposed comprehensive amendment to the zoning resolution of the city of New York.*

When zoning capacity exceeds population by a wide margin, reductions to the cost of construction will benefit people looking to buy or rent a home. When capacity exceeds population by a narrow margin, cost reductions will benefit people who own land.

vacant plot of land and build a home on it for a total cost of \$400,000; there's no shortage of opportunities to do so. The new homes are just as good as the older homes, if not better, so the price of older homes will also fall: No one will pay \$600,000 for them anymore. People selling older homes will need to adjust their price closer to \$400,000 if they hope to find a buyer. In places where the capacity for new homes exceeds the current population by a wide margin, when someone discovers how to build housing less expensively the beneficiaries are people looking to buy (or rent) a home.²

But what if there are only a few vacant parcels in the town? Housing can be built more cheaply, but there are only a small number of sites where it's possible to build. Many people want to build a home on these sites (it being such a good deal), so the land price is bid up above its original value of \$300,000. In fact, the price of vacant land gets bid all the way up to \$500,000. Why? We've established that the new homes are just as good as the existing homes, and we know based on the town's average new home value that there are at least some people willing to pay \$600,000 for the combination of land and a house — they're already doing it. If only a small number of homes can be built, the few people willing to spend top dollar will pay \$500,000 for the vacant parcels, and no land will be left over for anyone else. In places where the capacity for new homes exceeds

2 The U.S. has traditionally relied on large quantities of vacant land on the suburban fringe — sprawl development — to preserve the affordability of new housing, but this is associated with substantial environmental costs and doesn't address the need for urban housing.

land cost per buildable unit. At a construction cost of \$300,000 per unit, developers could build triplexes for \$500,000 each.

But once again, because these parcels are in short supply and demand is high, their price rises to ensure that homes built on them meet or exceed the price of existing homes in the neighborhood⁵ — the price of the upzoned parcels will increase to roughly \$900,000, or \$300,000 per buildable unit. The landowners hold all the cards, and they’ll capture the value of minor zoning reforms before any home-seekers can benefit.

In our second scenario, the town upzones much more extensively, allowing triplexes on 50% of its parcels, which is enough to double the number of homes in the city. There’s land zoned for higher density everywhere; the right to build more is no longer a precious commodity.⁶ A property owner with an upzoned parcel can sell their home for \$600,000 to another homebuyer, as they could prior to the upzoning. But can they sell for \$900,000 — \$300,000 per developable unit — as in the first scenario? The answer is no, they cannot.

The owner can’t sell for \$900,000 because their neighbor will happily sell to a developer⁷ for \$800,000, which is less than \$900,000 but more than any homebuyer would pay. The developer can comfortably outbid the homebuyer at that price, and there’s no reason to pay more. Half the town’s parcels are zoned for triplexes, after all, so as a developer there’s no need to pay much more than a homebuyer would: If they lose this bid, there are plenty of other properties to choose from. And if one neighbor is willing to sell for \$800,000, another will probably accept a price of \$700,000 — again well above what a homebuyer would pay, ensuring that a developer will win the bid, but

5 In reality, the triplex units are probably smaller, share some walls with their neighbors, and have less outdoor space compared to the single-unit detached homes in the neighborhood, so they would naturally cost less to build and rent or sell for less. For the purposes of this thought experiment we can ignore this additional benefit of upzoning. The fact remains that land value will be captured by incumbent property owners to the extent possible.

6 This is a small town, remember, so a doubling of capacity may be sufficient to meet future demand. Cities or regions with greater demand will likely require a larger zoning buffer, closer to the 300% or more found in pre-1960s New York and Los Angeles.

7 “Developer” is defined loosely here. The universe of people who can afford to develop a property with a 10-unit building is much larger than the number that can build a 50- or 200-unit building, and includes people we might not traditionally think of as developers, such as those working in highly paid professional fields such as law and medicine, local non-profits and cooperatives, small business owners, etc.

Affordability and the Availability of Land

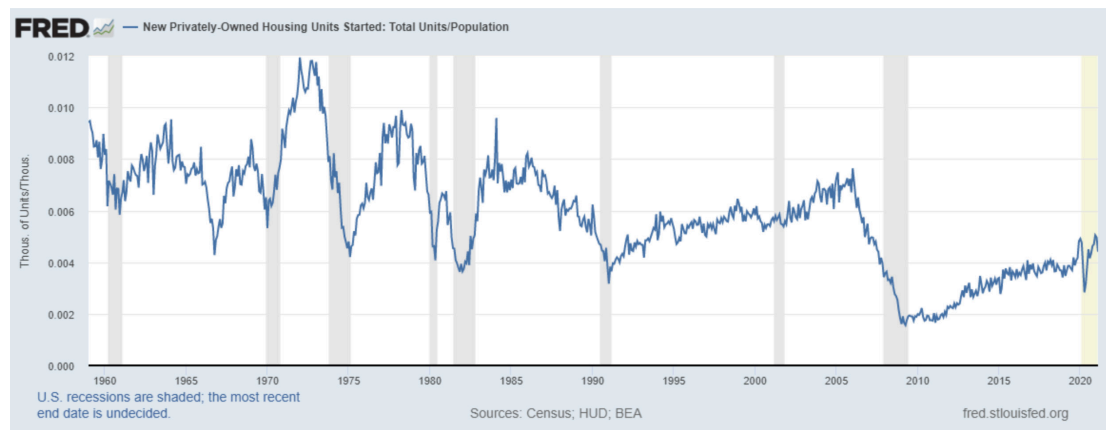
In high-demand cities, improving housing affordability depends on the widespread availability of land on which redevelopment is legal and feasible.

Today, and perhaps *only* during the past 50 to 75 years of human history, the demand for developable parcels exceeds the supply in many U.S. cities. This is not a consequence of increased developer demand: Adjusted for population, the U.S. now builds less than half as many homes each year as it did in the 1960s.⁹ It's a result of reduced capacity — of zoning, which was invented in the early 1900s and became increasingly restrictive over the ensuing decades. What was once abundant is now scarce, not primarily because of physical, demographic, or economic changes, but because of prohibitions on the legal right to build more homes on most urban parcels.

So long as this artificial land scarcity persists, our cities will continue to provide insufficient housing. Prices will keep rising, or at best they will hold at current levels, unaffordable to too many households. We can continue to upzone modestly, barely keeping up with population growth, or we can devise increasingly clever and inexpensive ways to build homes — or we can do both — but the result will be the same: Property owners will capture the benefits of these changes at the expense of renters and homebuyers.

Figure 3.

Per capita new housing unit starts (privately owned only) in the U.S., 1959-present.



9 Population growth has also slowed, so we may not need to build the same amount of housing as we did in the past (though the scarcity and high cost of housing likely limits population growth by reducing birth rates). In any case, rising prices, overcrowding, long commutes, and demographic shifts such as the rise of one-person households all point to a housing shortage.

for approximately 50% to 100% above their pre-upzoning value.¹⁰ That price represented a considerable windfall for the property owners who sold their homes. In December 2021, Carmel submitted a proposal to replace the 16 single-family homes with 455 apartments, including 52 for extremely low-income households. The low-income units were generated through a value capture (or public exaction) mechanism; they were the condition for building that volume of market-rate units.

We can interpret this outcome through at least three perspectives.

“A failure of value capture”

One way to interpret the Bundy Triangle case is as a failure of value capture design. Planners underestimated the value that their upzoning would unlock and they failed to capture enough of it, and as a result the property owners captured it instead. If planners had captured all or most of the value, the price of the homes sold after the upzoning would be closer to the price of those sold before. A better-designed policy might have required additional deed-restricted units, reducing the windfall to property owners and increasing the number of affordable units built on properties that are redeveloped (though this requires the government to know how much land values will change in response to a zone change). There is some merit to this perspective, for reasons discussed below it can easily be taken too far and do more harm than good. Critically, value capture policies also implicitly assume that housing prices will remain high forever: If they fell, profits earned on the sale or rental of market-rate units would no longer be sufficient to subsidize losses on deed-restricted units.

“Windfalls are a price worth paying”

Another interpretation is that the windfalls paid to the homeowners were a worthwhile trade — perhaps even a necessary one — for the increased production of housing and the benefits that new housing brings. If the value of their properties did not increase as a result of the zone changes,

10 For evidence the upzoning was responsible for the higher prices, we can compare 2318 Amherst Ave, sold in July 2018 (about 15 months before the upzoning), to the six properties immediately to the north, sold in 2020 and 2021 — shortly after the upzoning went into effect. The home at 2318 Amherst Ave sold for \$2 million, while the others sold for \$3.25 million. All parcels are the same size, and five of the six \$3.25 million properties were sold in February 2020, less than two months after the new plan was adopted. Home prices in Los Angeles did not increase by 60% in the 17 months between these sales; the upzoning was responsible for the higher prices. Carmel Partners also purchased eight of the nine homes (seven of the eight parcels) on the block bounded by Amherst Ave, Expo Alley, Bundy Dr, and Tennessee Ave.

Suppose instead that the city required more deed-restricted affordable units as a condition of development: 18% rather than 11%. This would yield five income-restricted units per demolished house. If each deed-restricted apartment costs \$400,000 to build, excluding land costs, the higher requirement should reduce the developer’s bid on each property by approximately \$800,000. The developer can now offer only \$2.45 million per home. If all 16 homes still sell, the net result will be 455 homes, of which 82 are income-restricted — a clear win for value capture. But the lower price means that not every home will sell, and/or that some of the homes sold won’t go to developers. So what if the developer is able to buy only half of the homes? At most, the project would include only 228 units, with 41 for low-income households. If those eight homes aren’t on contiguous parcels, the project might shrink even further or not get built at all.

There’s good reason to believe the latter outcome is more likely. Aside from the hassle of moving, there are also substantial tax implications. When they sell their homes, homeowners pay capital gains on profits over \$250,000 (for singles) or \$500,000 (for couples), and in California, because of Proposition 13, many homeowners would see a sharp increase in their annual property tax assessment if they moved, even if it was to a similar home. An offer of \$1 million or \$1.5 million above the property’s pre-upzoning value might justify these costs — it did for most of the Bundy Triangle homeowners, with the exception of the homeowner at the corner of Tennessee Avenue and Bundy Drive. An offer of only \$300,000 or \$500,000 over the previous value would not be enough for many homeowners. If they didn’t already plan to move, they would very likely — and very rationally — choose to stay. A sale at that price could leave them in a worse financial position than where they started. Over time, many of the properties would eventually sell or be redeveloped, but the city might have to wait another five, 15, or 30 years for it to happen. Given this alternative, one interpretation of what happened at Bundy Triangle is that windfalls for incumbent landowners, while not ideal, nevertheless represent a better outcome than pushing value capture to the limit, and risking no value being captured at all.

This interpretation has more merit, but like the first scenario, it implicitly concedes that potential development sites will remain in short supply. Because of that scarcity, every parcel that goes undeveloped is a blow to the city’s housing supply and affordability. But what if potential development sites weren’t scarce?

“With broad upzones, there are no windfalls to capture”

The third interpretation is to reject the assumption of persistent scarcity inherent to the previous positions — to recognize that land values for the Bundy Triangle properties increased not only because more homes can be built there, but because so few homes can be built elsewhere. I argue that this is the interpretation that will lead to the best long-term outcomes for housing affordability.

time, windfalls are not required to spur redevelopment because the number of eligible parcels sold each year far exceeds the number needed to provide enough new housing.

A large zoning buffer allows properties with redevelopment potential to transact at lower prices, ultimately delivering lower-cost housing to residents. And because homes can be built at lower cost, they can also be produced in greater quantities: More people can afford a \$450,000 home than a \$600,000 home. In the long run, windfall- and value capture-based approaches both fail to improve affordability, but for slightly different reasons. Windfalls fail because potential savings on land costs are fully captured by landowners. Value capture fails because potential savings are transformed into small quantities of income-restricted units, with any excess value devolving to landowners.

Value capture is especially poorly suited to creating long-term, marketwide affordability. First, as discussed above, capturing savings in the form of income-restricted units constrains the ability to build lower-cost market-rate units, reducing competition with existing houses and further propping up housing prices. In this way, value capture, like windfalls, also helps current property owners, though in a more diffuse manner. Second, value capture contains the seeds of its own destruction: If rents and sales prices ever did fall, developers would no longer earn enough from market-rate units to cross-subsidize losses on income-restricted units, and housing production would grind to a halt until prices returned to earlier levels. When prices rise, on the other hand, there is often pressure to increase inclusionary requirements — from 15% to 25%, for example — which puts a new, higher floor on the price of housing at which development is feasible. This ratcheting up of inclusionary requirements therefore coincides with a ratcheting down of overall housing production.

Implementing Broad Upzoning

When it comes to broad upzones and large “zoning buffers,” there are few modern examples from which to draw best practices. Those we have may shed some light, however, and general observations about housing policy and development feasibility may also be helpful.

To start with, upzones should be widespread but needn’t be all-encompassing. The case above assumes that all R1-, R2-, and RD-zoned parcels in Los Angeles are rezoned to allow 10-unit buildings, but 50% of these parcels is probably more than enough; ideally they would be the parcels located most proximate to jobs, transit, and other amenities and resources. If 25% of parcels were rezoned, then roughly 6,000 eligible parcels would sell each year, which is nearly enough to meet the city’s projected housing needs (close to 60,000 additional homes per year over the next eight years) without developing any other parcels in the city. In cities that represent

as serving outsiders rather than local residents (despite considerable evidence to the contrary), and don't enjoy the same political support as income-restricted units in many communities and advocacy spaces. Moreover, if new housing can be built less expensively, it's likely to drive down the price of existing housing, and this has the potential to trigger a political backlash from homeowners and landlords.

Conclusion

Planners in jurisdictions with limited vacant land can use one of three approaches to encourage housing production through zoning reform. The first relies on upzoning to create windfalls for property owners, which in turn may induce the sale and redevelopment of upzoned properties. The second also creates windfalls through upzoning, but uses value capture to redirect these windfalls toward purposes considered more beneficial to the public, such as income-restricted housing. Both strategies require modest or moderate upzoning such that the city's "zoning buffer" remains small. As a result, both strategies increase the cost of development (either through higher land prices or larger exactions), ensuring that new housing continues to be expensive to build and therefore limited in quantity. Value capture places even greater limits on housing production because it reduces the incentive for homeowners to sell to those who would redevelop their properties. In practice, most cities' zoning changes are a hybrid of these two approaches: imposing exactions to recapture some — but not all — of the increase to land values.

The third approach, rarely discussed but once commonplace, is to allow housing development that is substantially denser than existing land uses, and to allow it on many parcels, throughout the city. Rather than using financial inducements to promote the sale and redevelopment of land, these broad upzonings — and the large zoning buffers that characterize them — rely on an abundance of development opportunities to produce adequate housing. This abundance limits the market power of property owners, reducing or eliminating the land value increase that accompanies more concentrated upzones, and allowing for the development of lower-priced housing.

While ambitious, broad upzoning does have important selling points that could ease its adoption. For one, it benefits both market-rate and income-restricted housing developers, reducing costs and eliminating the perceived competition over available land between the two groups. Broad upzoning favors small-scale developers — the builders of "missing middle housing" who are more popular with the public than their larger, wealthier, more politically connected peers. Missing middle housing itself, such as courtyard apartments and three- and four-story apartment buildings, is also more welcome in many places than taller, denser developments. Renters and homebuyers across the housing market also benefit from broad upzoning, far outnumbering the

windfall recipients and housing lottery winners who benefit from our current approach. With lower housing prices, rent assistance and low-income housing construction subsidies could also benefit far more households.

Most importantly, broad upzoning represents a realistic strategy for improving housing affordability over time. At best, the other approaches can only promise that prices may not rise and a lucky few will win subsidized homes. In practice, even that promise has been only partially fulfilled, with prices continuing to rise year after year. Many of our favorite neighborhoods were built at a time when zoning buffers were large, capacity was widespread, and — not coincidentally — housing was affordable. We should learn from that history and adapt its lessons to the modern city.



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