Flexibility & Conversions in New York City's Housing Stock: Building for an Era of Rapid Change

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OVERVIEW

• The COVID-19 pandemic triggered a sharp fall in demand for commercial space in New York City, with the stickiness of the work-fromhome model preventing a rebound as the crisis receded. Meanwhile, demand for residential space swiftly recovered, driving sales prices above pre-pandemic levels.

• Given these market dynamics, the authors consider the feasibility of converting commercial space to apartments as a means of expanding the city's housing stock and improving housing affordability.

• If 10 percent of the city's office and hotel spaces were repurposed, the authors estimate that 75,000 homes could be created—equivalent to a 2 percent increase in the city's housing stock, or four times the average annual number of new homes completed in the city in the past decade.

• Such conversions, however, would have to overcome considerable obstacles, including a slew of regulatory barriers. Allowing greater flexibility in building uses could help facilitate these shifts. For American cities, the only thing that seems certain about the twenty-first century is its unpredictability. The first two decades of the century have already been a roller coaster for cities, especially New York. The century opened with the September 11 attacks, fueling worries about the impact of terrorism on the future of cities. Those fears were quickly overtaken by concerns about over-dependence on the financial industry in the wake of the Great Recession and then anxiety about climate change after Superstorm Sandy. The most recent challenges to New York City are the COVID-19 epidemic and the work-from-home trend that it spurred, which threatens the vitality of the city's commercial centers. Even after the pandemic becomes endemic, it is hard to imagine that demand for office space and hotels will return to previous levels. The city's retail sector has meanwhile suffered a secular decline as the popularity of e-commerce has grown. And yet, but for a few short periods after the September 11 attacks and the start of the COVID-19 epidemic, residential demand has remained robust throughout these crises.

Given these shifting market conditions, conversions of commercial space into apartments may be a critical tool for

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adaptation. Among other things, conversions could offer a modest but important tool for increasing the overall housing supply—thereby helping to improve housing affordability—and also for creating a stock of very low-cost homes, along the lines of single room occupancy (SRO) units. However, regulatory barriers currently limit how many potential conversions will occur and push those conversions toward the construction of luxury rather than affordable housing.

Could the office buildings of Midtown Manhattan create the next generation of lofts? Should the future of New York City include more mixed-use districts that include office space and hotels, as well as a new brand of homes in converted commercial buildings? And can such conversions provide a meaningful path to increasing the supply of market-rate and affordable housing alike? These questions go well beyond the scope of this paper.

Rather, our objective is to understand the potential scope of such conversions, to identify the barriers that might inhibit them, and to call for regulatory flexibility, where appropriate, to enable the built environment to adapt as demand shifts, in both predictable and unpredictable ways. Such reforms might include reducing the distinction between short- and long-term uses, rethinking the separation of uses embedded in the city's zoning code, and considering a new subsidy tool to encourage the creation of affordable homes through conversions.

1. Changing Demand and the Need for Flexibility

The COVID-19 pandemic dealt a significant blow to New York City's commercial districts, as COVID-related shutdowns compelled businesses to allow nonessential employees to work from home. More than two years since mandatory shutdowns were instituted, the temporary flexibility employers provided is proving to be sticky and may potentially be triggering more permanent shifts in demand, as office workers have become accustomed to the ease and flexibility of working from home and some firms have used remote work to shed costs. A New York City Partnership survey of 160 major employers in New York City in spring 2022 found that only 38 percent of their employees were coming to work on a typical day (Partnership for New York City 2022). Nor do businesses expect a full return to the office.¹ The employers surveyed by the New York City Partnership projected that the percentage of workers in the office would rise, but only to about half by September 2022, and 22 percent of the surveyed employers anticipated reducing their footprint (Partnership for New York City 2022). Some of this reduction in office space was driven by businesses planning to shift operations out of the city altogether, likely to suburban locations. The survey found that 8 percent of businesses anticipated reducing their head count in New York City, mostly because of the high cost of doing business in the city. But the vast majority of businesses surveyed expected to continue to operate in New York City, albeit under hybrid work arrangements. Of course, many workers, especially those earning less, do not have the luxury of working from home. But in office-focused commercial neighborhoods, such as New York City's central business districts, the impact could be considerable. Indeed, the working-from-home trend poses a particular and longer-term threat to New York City's commercial sector, which has thrived on dense agglomerations of activity (Duranton and Handbury, this volume).

The soft commercial real estate market reflects this expectation. Assessed values of office buildings fell by an average of 17 percent citywide between 2020 and 2022 and by 23 percent in

Manhattan's office districts. Perhaps surprisingly, the reductions were nearly identical across Class A and Class B properties, though we do see somewhat smaller reductions in the assessed value of trophy buildings and also in commercial districts in Brooklyn and Queens.

It also seems unlikely that business travel will quickly return to previous levels, as many firms may have come to appreciate virtual meetings as a far less expensive substitute for in-person gatherings. Thus, even as COVID-related travel and meeting restrictions lift, the demand for hotel rooms and large meeting spaces seems likely to remain depressed. While tourism seems on track for a stronger recovery, in cities like New York that have traditionally enjoyed high volumes of business travel, hotels are likely to see reduced demand for many years. The lingering threat of the pandemic may also lead more travelers to opt for renting private homes through short-term rental platforms rather than hotels, to the extent that regulators allow such rentals.

The retail sector has meanwhile suffered a longer-term secular decline as e-commerce continues to surge and people spend less at brick-and-mortar retail establishments. Online sales in the United States rose from just \$5 billion in 1998 to \$571 billion in 2019, then skyrocketed to \$815 billion in the first year of the pandemic (Brewster 2022). E-commerce accounted for more than 14 percent of total sales in the first quarter of 2022 (FRED 2022). While retail will continue to adapt to e-commerce by enhancing the customer experience, investing in strategies to complement online purchasing (Gramling, Orschell, and Chernoff 2021), and converting to uses that require an in-person presence, such as restaurants and bars, personal care establishments, and urgent care clinics, there is likely to be less demand for traditional retail spaces going forward. The geography of that demand may also shift, with increases in residential neighborhoods and decreases in commercial districts as more office workers spend weekdays at home.

Alongside what seems to be a long-term decline in demand for office, hotel, and retail space, demand for residential space in New York has rebounded to pre-pandemic levels. Residential rents recovered to first-quarter 2020 levels in the summer and fall of 2021, and median home sale prices were about 17 percent higher in each of the city's five boroughs in the fourth quarter of 2021 than they were in the fourth quarter of 2019. It appears that many people want to live in New York City, even when they don't have to regularly go to an office in the city. As urban amenities return, demand may increase further. Indeed, it is possible that the demand for urban neighborhoods will actually grow as more people working from home hunger for interaction outside the home (Brooks 2021; Ellen and Hempstead 2002).

In light of these market dynamics, the conversion of commercial space to apartments could be a critical tool to increase the stock of housing to meet residential demand and improve housing affordability.² Certainly, there are likely to be individual buildings that are ripe for such conversion. In some cases, as with hotels, commercial buildings could feasibly be turned into subsidized affordable housing, including as supportive or SRO housing. Indeed, some of the most prominent early supportive housing developments in New York City were previously SRO hotels.

In contrast, the conversions of many large office buildings would likely be targeted to higher-income households. Their large floor plates encourage the development of larger luxury apartments, while their tall heights, concentration in expensive central neighborhoods, and lack of individual kitchens and bathrooms increase conversion costs. Still, there are older and smaller office buildings that could be converted to more modestly sized and priced apartments. Further, even if office conversions produce higher-end homes, the creation of those homes can still help to make more lower-priced homes available in the future. Most of today's affordable housing was yesterday's new market-rate housing. Buildings depreciate and become less expensive over time (Rosenthal 2014). Even in the short run, the creation of new market-rate homes can expand the availability of affordable housing through a process of chain migration (Mast 2021). As higher-income households move into the new units, they vacate their previous homes, opening new options for another household, which will, in turn, vacate its original home (and so on), ultimately making more units available in lower-rent neighborhoods.

Conversions of nonresidential space have long shaped New York City's housing stock. Back in the 1970s, as demand for manufacturing space fell, New York City saw many industrial spaces converted into residential lofts in neighborhoods like Soho and Tribeca. Many of these conversions initially happened illegally but have since been legalized, and a recently approved rezoning aims to regularize these units further (allowing non-artists who own artist-restricted lofts to pay a fee to convert them to legal residences). There were challenges to converting these older manufacturing buildings to residential spaces, but such conversions produced many new homes. This type of loft conversion also helped create vibrant, mixed-use, neighborhoods both in New York City and in cities across the country.

Likewise, programs that encouraged the conversion of office space to residential use are often celebrated for revitalizing Lower Manhattan. In the 1990s, Lower Manhattan's older building stock had become unattractive to office tenants, and vacancy rates in the overwhelmingly commercial neighborhood stood at around 20 percent. A set of zoning changes and financial incentives, including tax abatements for the conversion of office towers to mixed or residential uses, led to the conversion of more than 10 million square feet of space (New York City Independent Budget Office 2018). While the neighborhood lacks economic diversity, and it is not clear whether these incentives were necessary to spark the transition into a mixed-use, 24-hour neighborhood, there is substantial agreement that this transition has made Lower Manhattan a more resilient and lively neighborhood, for office workers and residents alike.

Compared with demolition and new construction, conversions can take less time, cost less money, produce a lower environmental impact, and provoke less "not in my backyard" (NIMBY) opposition. At least some of the NIMBY objections to new housing concern the height, bulk, and design of new buildings, which existing residents charge are often out of character and scale with the existing community. To the extent that new housing is created through the conversion of structures that already exist, community opposition should be reduced. Further, conversions typically take place in commercial districts with relatively few neighbors and even fewer lower-income residents; so fears about new homes and residents triggering gentrification will generally be limited.

Yet there are barriers to such changes in use. Economists have written volumes about the cost of NIMBYism and regulatory barriers that limit the construction of new housing. The existing research has focused almost exclusively on restrictions on physical structures, focusing on how regulations limit buildings' height and density and ultimately the amount of space that can be built. The research shows that such restrictions constrain developers' ability to construct new buildings in response to increases in demand, leading to higher prices and rents and reductions in welfare (Glaeser, Gyourko, and Saks 2005; Gyourko and Molloy 2015; Glaeser and Ward 2009; Saks 2008; Hilber and Vermeulen 2016; Turner, Haughwout, and van der Klaauw 2014). The existing research has paid far less attention to use zoning, or the regulatory barriers that limit how owners can *use* their properties. Such usage rules were in fact one of zoning's primary functions originally, with the stated legal purpose being to separate uses and protect residential communities from noxious

TABLE 1 Estimated Distribution of Floor Space

Building Square Footage

Borough	Office	Hotel	Retail	Storage, Factory, and Other Commercial
Brooklyn	87,367,796	6,439,666	73,834,345	242,576,601
Bronx	45,163,047	1,744,003	31,613,572	117,432,910
Manhattan	474,614,379	64,305,817	105,718,585	225,257,141
Queens	49,210,534	10,021,548	59,532,944	225,590,954
Staten Island	13,134,382	626,144	15,426,060	35,219,046
Total	669,490,138	83,137,178	286,125,506	846,076,652

Sources: New York City Department of City Planning (DCP) MapPluto 21v4; NYU Furman Center.

Note: Hotel area is calculated as total building area less retail, office, other commercial, and residential area.

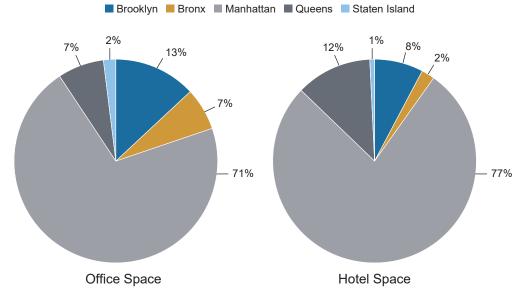
uses (Hirt 2014). Such separation was arguably important when it meant separating homes from polluting factories. As is the case with many static regulations, however, technological changes and shifts in market conditions make many of those original justifications far less compelling.

Insofar as land use regulations constrain the ability to convert properties from one use to another, they may impede cities from reinventing themselves and adapting for the next era of city life. Today, conversions may help cities like New York adapt to a market transformed by two years of a pandemic—the focus of this paper. Tomorrow, it may be climate change (or something entirely unexpected) that necessitates a more flexible approach to regulating the city's buildings. More than ever, policymakers need tools to help make the building stock more flexible and adaptable, or at least to remove obstacles that hinder such adaptation.

2. Conversion Opportunities in New York City

Table 1 shows the estimated distribution of interior space in New York City by sector, based on data from the Primary Land Use Tax Lot Output (PLUTO) data set created by the New York City Department of City Planning. At the end of 2021, we estimate that the city had 3.5 billion square feet of residential space, 669 million square feet of office space, 83 million square feet of hotel space, 286 million square feet of retail space, and another 846 million square feet of storage, factory, and other space.

Even if demand for office and hotel space remains depressed, we don't expect to see wholesale conversions of the stock. Rather, commercial rents and hotel room rates will fall, and the market will get closer to an equilibrium. Where rents fall low enough, though, property owners will find the costs of converting to residential space worthwhile. Research suggests that many office workers will settle into three-day-per-week in-office schedules (Bloom, Han, and Liang 2022). This will not lead firms to reduce their footprints by a full 40 percent, though, given the realities



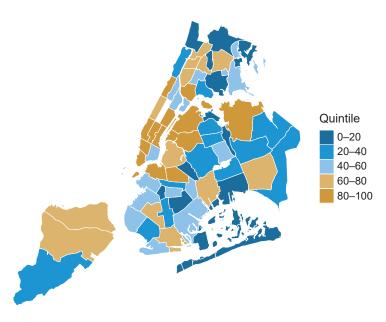


Sources: New York City Department of City Planning (DCP) MapPluto 21v4; NYU Furman Center.

of office layouts, the frictions of workers sharing space, and flexible schedules that mean that more than 60 percent of workers will likely be in the office on any given day. We assume a much more modest reduction of 10 percent. Assuming that 10 percent of office and hotel space was converted to residential space, this would produce another 75 million square feet of residential space. The current 3.5 billion square feet of residential space houses close to 3.5 million units. Assuming a similar average of 1,000 square feet per unit, the new space could produce another 75,000 homes. While this would only amount to a 2 percent increase in the city's housing stock, it amounts to four times the average annual number of homes completed in the city through new construction in the past decade. That would not be insignificant. And of course, it is possible that more of the commercial stock could be converted if workers and firms truly settle into a two-day-per-week in-office schedule. If one-third of hotel and office space were converted to residential use, for example, that could produce another 250,000 homes.

It is worth emphasizing that office and hotel space is not evenly distributed across the city's five boroughs. Chart 1 shows the geographic distribution of office and hotel space across the city. Both sectors, unsurprisingly, are concentrated in Manhattan, which boasts nearly 71 percent of the city's office space and 77 percent of its hotel space. Converting 10 percent of that 535 million square feet of Manhattan real estate could result in a 6 percent increase in residential space in the borough, concentrated in Midtown, which is currently one of Manhattan's least residential areas. This could represent a meaningful shift in the character of the neighborhood, one that would likely require additional changes. For example, such an increase might call for additional schools, grocery stores, and other residential amenities in Midtown, facilities that could potentially be incorporated into distressed retail spaces. Manhattan's dense transit infrastructure could surely support this additional population, since it was already successfully handling significant, and now reduced, commuting flows between Midtown and other parts of the metro area.

EXHIBIT 1 Total Office Square Footage By Community District



Sources: New York City Department of City Planning (DCP); NYU Furman Center. Note: Area is calculated as the sum of office area in any building, regardless of the primary use.

As noted above, these conversions are not likely to produce much affordable housing, absent government incentives, and some properties are not appealing targets for conversion to affordable housing under any reasonable incentive program. Could the market-rate housing they produce spark fears about gentrification? Exhibit 1 shows a map of office space concentrations across the city's community districts, indicating that central and Lower Manhattan boast the largest concentrations of space. The people living in and near these districts are overwhelmingly high income, and the low-income households that do live nearby reside in subsidized housing. Thus, any new homes produced in these areas should spark minimal fears about gentrification. Rather, the discussion about affordability should emphasize the price worth paying for integrating affordable units into these high-income neighborhoods. The office districts in downtown Brooklyn and Long Island City may be somewhat closer to lower-income neighborhoods, but generally these office districts have not seen the same decline in value. Between 2020 and 2022, market values of office buildings fell by an average of 10 percent in Long Island City and 14 percent in downtown Brooklyn, compared with average declines of 23 and 22 percent in downtown and Midtown Manhattan, respectively.

As a measure of the feasibility of commercial-to-residential conversions in the past, Table 2 shows the estimated number of residential units added over the past decade in New York City through conversions of nonresidential space, which we identified through job alteration filings. In total, just under 10,000 homes were created through conversions from office space, hotels, industrial space, institutional space, warehouses, and "other"

Job Type	Initial Occupancy	Proposed Occupancy	Units, Net Change
Alteration	Commercial	Residential	5,850
Alteration	Unknown/Miscellaneous	Residential	2,355
Alteration	Educational/Institutional	Residential	720
Alteration	Industrial	Residential	549
Alteration	Storage	Residential	511

TABLE 2 New Units by Initial Occupancy Type (2012-2020)

Net Change in Class A Units across Job Filings Where Occupancy Changes to Residential

Sources: New York City Department of City Planning (DCP) Housing Database 2020; NYU Furman Center.

spaces. Office buildings produced 5,850 homes. (We lack the complete data on conversions of hotel space needed to specify the number of homes created from hotels.) By contrast, roughly 140,000 homes were created through new construction, suggesting that about 4 percent of homes in New York during this period were created through conversions of office space.

At the current conversion rate, it would take over a century to convert 10 percent of the city's office space into residential homes. It is possible that conversions will speed up now that market conditions have changed, but understanding whether regulatory hurdles are slowing the pace of conversion is important.

3. Regulatory Barriers

3.1 Background: The Decreasing Flexibility of Land Use Law

While conversions remain an important and constant aspect of our land use system, land use law has become, over the long term, decreasingly accommodating of this sort of flexibility. As zoning codes and other land use regulations have become more detailed and more prescriptive, opportunities for quick and simple changes to land use have become scarcer. Take, for instance, the example of loft conversions mentioned earlier. In New York City, legalizing the residential use of abandoned warehouses and industrial spaces required the creation of an elaborate new regulatory apparatus—the Loft Law—with its own administering agency and system for adjudicating disputes, its own rules and regulations, and its own standards for regulating housing conditions and permissible rents (New York Multiple Dwelling Law 2022). The Zoning Resolution now provides a special category of use for joint living-work quarters for artists, which requires a process for official city certification of who qualifies as a working fine artist (New York City Department of City Planning 2022d). But a portion of this complication could have been avoided under an earlier land use regime. Prior to 1961, New York City (like all cities at zoning's inception) operated under a system of cumulative zoning, in which "lighter" uses, such as residential, were permitted in all districts that allowed heavier uses, such as commercial or industrial. After 1961, though, New York switched to a noncumulative system, in which industrial uses are generally prohibited in residential districts *and* residential uses are barred from industrial zones. Converting warehouses to livable lofts would not have been easy prior to 1961—many still lacked basic requirements for habitability, including heat and water—but the shift to a more prescriptive zoning system added an extra series of obstacles that would not have existed before.

The move toward noncumulative zoning is relevant to current conditions insofar as it prevents some hotels built in manufacturing districts from converting to residential use (it is not directly a barrier to office-to-residential conversions in New York City). But this is just one example of many in a shift toward a highly detailed and very prescriptive system of zoning regulations, especially in big cities like New York. The city's original 1916 comprehensive zoning regulation was fourteen pages long (as transcribed today) (City of New York Board of Estimate and Apportionment 1916); today, it runs to 3,476 pages, including appendices (New York City Department of City Planning 2022a). Each additional layer of detail reduces the likelihood that the standards under which a structure was originally built and used will be the same as those that apply to a potential new use.

For example, that original 1916 zoning code applied the same height regulations—and usually the same limits on lot coverage and setbacks—regardless of what use a building was put to. So long as the new use was permitted, a conversion usually would not require changes to the building's structure. Today, however, different standards apply to different uses. New York City hotels built with the required twenty-foot rear yard usually cannot easily convert to a residential use, which requires a thirty-foot rear yard, without chopping off a slice of the building (New York City Department of City Planning 2022c). In special districts, zoning can be so bespoke and prescriptive that uses and designs are planned down to the individual building level, leaving still less flexibility.

Often, the increasing complexity of the zoning code—and the concomitant difficulty of easily converting a building to a new function—reflects the increased capacity of urban planners to administer a complicated scheme and the growing number of social goals that zoning now attempts to promote, from encouraging the provision of fresh food to raising capital for accessibility improvements to transit. Even the most prescriptive schemes—districts that are essentially master-planned—have their own important advantages, including an ability to work with developers on site-specific frameworks that couldn't be applied broadly.

Other rigidities of land use law stem from reasonable efforts to manage transitions of regulatory standards over time. For example, zoning generally allows nonconforming uses to remain in operation, so long as they do not change dramatically thereafter. Many other building and housing codes similarly grandfather in certain conditions that would not be permitted in new construction. Doing so is often entirely reasonable: It acknowledges that new construction can be designed with modern regulations in mind, whereas existing uses cannot necessarily be easily (or fairly) brought into compliance. But as each of these codes is updated and strengthened over time, the gap between grandfathered uses and compliance can grow

significant, discouraging any change that would trigger new compliance requirements (Nash and Revesz 2007). For example, many have identified contemporary accessibility standards as an obstacle to converting hotels to residential use; the change of use would trigger costly upgrades that continued operations would not. It can be hard to make small changes to a building, including a change of use, without being required to undertake extensive changes. Each land use regime has its own mechanisms for managing the transitions from old to new regulatory requirements—some more carefully calibrated than others—but the incentive to avoid a change of use can still discourage many conversions.

In some instances, though, the inflexible nature of local land use laws is nearly impossible to justify. New York City's regulations governing SRO housing provide an extreme example—and given the frequent use of hotels as SROs, an example that is relevant to the focus of this paper. Starting in the 1950s, New York City imposed a slew of policies meant to eliminate SROs, which were perceived as offering unacceptably poor living conditions that blighted neighborhoods (Sullivan and Burke 2013). Among these was an outright ban on the construction of new, unsubsidized SROs. By the 1980s, realizing that this regulatory strategy had decimated the city's lowest-rent housing stock and exacerbated homelessness, the city reversed course entirely, instituting an outright moratorium on the conversion of SROs (this moratorium was later struck down by the courts and replaced with alternative mechanisms to preserve the existing stock of SROs) (Sullivan and Burke 2013). But New York City did not repeal the earlier ban on creating new SROs. Thus, city policy reflects the apparent belief that New York City had precisely the right number of SROs as of the mid-1980s, in precisely the right locations: neither adding nor removing any private SRO is to be permitted. This is a remarkably prescriptive approach to land use regulation, and a somewhat silly one. However unlikely it was that New York City had exactly the right set of SROs in the 1980s, that simply cannot have remained true across four decades of dramatic change.

Extreme cases notwithstanding, our goal is not to assess the aggregate effect of a less flexible land use regulation system, much less to provide a guide as to the flexibilities worth keeping. Each inflexibility was added for a reason, and some of those reasons were quite important ones. Even so, it is important to recognize that compared to the systems in place at zoning's birth, contemporary land use law provides many more obstacles to changing the use and operation of an existing building.

3.2 Regulatory Barriers to Post-COVID Commercial Conversions

As already discussed, in the wake of the COVID-19 pandemic, there has been immense interest in the possibility of repurposing commercial spaces for residential uses. Mayor Eric Adams, notably, made a promise to convert 25,000 hotel rooms (mostly outside Manhattan) into affordable housing a centerpiece of both his election campaign and his affordable housing plans (Dugan 2021).

While some commercial-to-residential conversions have proceeded over the last two years, the pace of conversions has been slower than some anticipated (or hoped). A thicket of local regulatory barriers may have contributed to this slow pace, with many sites unfriendly for conversions for one reason or another. More than a third of newly built hotels in New York City were constructed in manufacturing districts where residential uses are not allowed, for example. As already mentioned, residential uses require deeper rear yards than commercial uses do, precluding the conversion of many hotels built to the commercial standard. Density regulations limit the number of separate apartments permitted within a building, potentially precluding the conversion of small hotel rooms into apartments on a one-to-one basis. And a change of use would trigger many new building-code requirements—chief among them improvements to accessibility for people with disabilities—that could require extensive renovations. Many conversions would have been possible only after an extended rezoning process and/or costly and slow renovations (Kazis, Appel, and Murphy 2021). However, the precise effect of these regulatory barriers is not clear; the amount of market demand for conversions, absent these regulations, is not known. And while hotel-to-housing conversions have proven quite successful in states like California, the New York City context presents special obstacles; rooms are much smaller than elsewhere and very few extended-stay hotels with pre-existing kitchens are available for the easiest conversions.

Office-to-residential conversions face different issues. Generally, offices are so unlike residences that gut renovations are required for any conversion: They will need different layouts, but also different plumbing and electric and gas connections. While rules governing buildings' size and shape will limit some office-to-residential conversions, such regulatory barriers pose a lesser obstacle to these conversions. For example, in New York City, residential uses are permitted in all districts zoned for offices, eliminating another barrier facing some hotel conversions. Market forces are likely to play a more central role in determining which buildings will pursue such conversions. (One important feature of this market, relative to hotels, is the long term of office leases, which kept many buildings stable through the pandemic and will make it more difficult for owners to put office buildings into a conversion-ready condition.)

Notably, though, housing quality standards do shape the type of housing produced by office conversions. Bedrooms require windows, unlike offices. Accordingly, residential buildings are generally built with shallower floor plates than offices; newer office buildings, in particular, are designed to have especially deep floor plates. Geometrically, then, offices are more easily converted into large apartments, where internal spaces can be joined into larger rooms or used for "home offices" and other uses that don't require windows. It may be very difficult, architecturally, to convert offices into smaller apartments (many projects even involve structurally removing existing floor area to create narrower buildings or new courtyards). In turn, this may make converting offices into subsidized housing especially difficult, given the terms and financial structure of many subsidy programs.

In New York, many of these barriers have recently been addressed for a subset of hotels, pursuant to new legislation. Under a state law passed in June 2022, New York City hotels can be converted to permanent affordable housing, notwithstanding any otherwise-applicable regulatory barriers, so long as the city housing department approves and various conditions are met. (These conditions include being located within 400 feet of a zone permitting residential uses, receiving union consent where hotel workers are collectively represented, and meeting specified affordability levels.) How many projects are able to take advantage of this law remains to be seen, but it represents an important shift in the state's strategy. Notably, though, it applies only to hotels, and only to a subset of them. For example, the owner of one Midtown hotel reached a tentative deal with a supportive housing developer to convert the property to

more than 500 affordable and supportive housing units, but the deal was vetoed by the hotel workers' union. The lack of union support is expected to prevent the conversion of most large Manhattan hotels (the most unionized segment of the industry) into housing.

Previously, New York's efforts to legislatively streamline the conversion process as a strategy for producing affordable housing were essentially unsuccessful. In 2021, legislative leaders and the governor's office each proposed strategies to allow immediate conversions of certain hotels and offices to affordable housing residential use, notwithstanding many state and local laws. The legislature took a different approach, however. In the 2021 Housing Our Neighbors with Dignity Act (HONDA), New York State provided funds for the acquisition of commercial properties and their conversion to permanently affordable housing but no regulatory relief (and indeed added substantial new conditions on the types of conversion that would qualify for funds) (Kazis, Appel, and Murphy 2021). Although the state made \$100 million available, a year later it had received only two preliminary proposals and no formal applications for HONDA funds (Mellins 2022).

4. Policy Solutions

Flexibility is hardly an unalloyed good (Super 2011), and the shocks of the COVID-19 crisis should not cause policymakers to overweight the need for quick shifts in use over other important values (including the predictability and clarity of rules). Still, the events of the past two years do point to certain opportunities for rethinking current land use regulations that may unduly reduce regulatory flexibility in contexts where it can be needed. This is hardly a comprehensive list of either ways to improve the flexibility of the building stock or lessons that could be learned from this pandemic era. Rather, these suggestions represent the type of re-evaluation that may be necessary moving forward (and, to some extent, informed the state's recent legislation permitting hotel conversions).

4.1 Reduce Distinctions Between Short-Term and Long-Term Residential Uses

Across an array of regulatory spaces, contemporary law tends to distinguish between short-term and long-term residential uses: hotels and apartments. It is not clear that this distinction uniformly supports good housing policy. The sharp divide between short-term and long-term residential uses is an ahistorical one. As American cities grew in the nineteenth and early twentieth centuries, a more continuous spectrum of housing options was common, operating under such names as boarding houses, rooming houses, and apartment hotels (Groth 1994). Such arrangements served important functions for poor, middle-class, and wealthy urbanites alike. The same is true today; extended-stay hotels, for example, have become an important housing option for many Americans, especially low-income families facing housing instability.

But too often, those lines create artificial distinctions. For example, New York City does not generally allow long-term residential uses in industrially zoned hotels, but it does allow the same hotels on the same sites to be leased out as homeless shelters, which are functionally

another, less stable form of residence. Indeed, many calls to convert hotels into affordable housing have run up against the obstacle that, in effect, those hotels are already under contract as affordable housing, as part of the shelter system. (Serving as shelter may be more profitable than conversion to long-term affordable housing in many cases as well.) It is not immediately obvious what land use planning purpose is served by allowing one type of housing but not the other in the same location. Meanwhile, such laws impede the use of hotels as SRO-style housing—eliminating a potentially affordable housing option—and leave many households stuck in poor shelter conditions.

It would be inadvisable to immediately eliminate all distinctions between short-term and long-term residential uses. Entire regulatory apparatuses and policy programs have been built on that foundation, from property taxes to the homeless shelter system. Still, the COVID-19 crisis has exposed the arbitrariness of these lines. The recent state legislation permitting certain hotel-to-housing conversions appears to recognize that hotels can, at times, already provide habitable housing options. This moment of clarity should be a call to further investigate how to better use hotels as housing (and perhaps housing as hotels).

4.2 Consider More Pathways to Compliance

Regulatory transition costs associated with changes in use or redevelopment may pose a barrier to flexibility in housing supply. As already discussed, when incremental changes to building use trigger extensive new regulatory requirements, it can lock in existing uses. Land use law already provides an array of options for managing the process of regulatory transition, and policymakers seeking to encourage the flexible use of the city's building stock should pay close attention to these options for regulatory transitions. Many aspects of the codes take the clearest positions: either simply grandfathering in existing uses or requiring universal compliance. But these are not the only choices. Many laws phase in over time, allowing a period of transition during which capital improvements can be planned and implemented. Others create special processes to allow easier conversions of target properties. Article I, Chapter 5 of the New York City zoning code, for example, allows commercial properties to convert to residential use more easily if they were built prior to 1961 (or 1977 in Lower Manhattan) and located in the neighborhoods nearest the city's central business districts. The city's Loft Law managed the transition from industrial to residential space by creating a schedule tying permissible rent increases to different stages of conversion while allowing residential uses in the interim.

Each of these tools might help facilitate commercial conversions. In cases where old buildings have fallen far behind contemporary standards but are unlikely to be entirely replaced with new construction, incremental pathways to compliance may prove useful (as might requiring or allowing existing buildings to upgrade to a lower standard than the requirements that would apply to new construction). And in cases where land use law already permits such alternative pathways to compliance, policymakers should be sure to update their applicability as appropriate. When it was first enacted, Article I, Chapter 5 allowed for easier conversions of buildings that were twenty years old; should it today allow for conversions of buildings constructed in 2001 rather than 1961?

4.3 Rethink the Separation of Uses

The separation of uses—residential, commercial, and industrial, along with subcategories of use within each—is traditionally at the heart of American zoning. New York City's zoning code, like most in the United States, is "Euclidean"; it regulates both the size and the use of a building (and a number of other things besides). Beginning in the 1980s, some architects and planners began to call for "form-based codes" instead. Such codes remove most restrictions on the use of a building to instead prioritize architectural standards (that is, "physical form"). Many cities have moved toward a form-based approach, including big cities such as Miami, Denver, and Nashville. While the distinction between use-based and form-based zoning is easily overdrawn—at least in big cities, zoning rarely abandons all attention to either use, bulk, or architectural form—it represents a difference in priorities.

Likewise, European zoning codes rarely fully separate residential and nonresidential uses, instead determining as a matter of course that certain commercial and even industrial uses are not only compatible but complementary with residential development (Hirt 2014). American zoning stands apart for the rigidity of its separation of uses. And while New York City's zoning code is much friendlier to both mixed uses and adaptive re-uses than many American jurisdictions, it still defines permitted uses with an exacting level of detail.

The experience of the past two years may suggest an appetite for continuing to deprioritize the separation of uses as an organizing principle of zoning in New York City. First, the possibility of commercial-to-residential conversions generated enough excitement for the state legislature to allow existing hotels to be used as residences in some industrial districts. Allowing industrial uses in residential zones might still generate intense opposition. But especially if the state's hotel conversion law proves successful, there could be room to move further toward a system that permits more housing in industrially zoned areas.

Second, the widespread adoption of work-from-home arrangements over the past two and a half years may indicate that the exclusion of many commercial uses from residential zones is outdated. The pandemic taught us that commercial and residential uses can (and occasionally must) coexist in much closer proximity than traditional zoning always allows. Further, increasing attention to the idea of the "fifteen-minute neighborhood" (one in which most basic needs can be addressed within a fifteen-minute walk from a resident's home) suggests a growing interest in such mixed-use districts, due to both shifting preferences and climate considerations (Steuteville 2021). While many low-impact home-based businesses are permitted in New York City, many limitations apply, including a requirement that home occupations be accessory to a residential use (New York City Department of City Planning 2022b). Not all of these limitations seem strictly necessary in a Zoom (or WeWork) world. Might not a studio apartment be rented out as an individual's office space? Could a second individual be allowed to join someone in their living room to formally work from "home" together?

Thus, the pandemic experience has highlighted two areas where New York City may have overly required the separation of uses: the general prohibition of residences in industrial zones and specific prohibitions of commercial uses in residential zones. These can be paired with the city's usual willingness to allow residences in commercial districts and other methods of encouraging mixed-use development. Is there room for a broader rethinking of use zoning? In answering these questions, planners will need to carefully consider the special circumstances facing the city's central business districts. While there are many advantages to mixed-use, live/work neighborhoods—as demonstrated by recent changes in Lower Manhat-tan—the city's commercial strength has been built on the intense agglomeration economies in its central business districts, which exist not only at the city level but in sub-neighborhoods and even block-by-block. Indeed, the city's 2017 rezoning of East Midtown was specifically intended to rebuff the encroachment of residential uses on the city's commercial core in order to protect those small-scale agglomeration effects (New York City Department of City Planning 2017). In now considering how to *allow* increased residential development in Midtown, more thought is needed about how remote work and other changes have affected the geographic scale at which these agglomerations operate and how to value the protection of overwhelmingly commercial areas.

4.4 Consider When to Abandon Normal Procedural Protections

At times, it may be necessary to act much more expeditiously-and with fewer safeguards-than government is accustomed to doing. A comparison between California's and New York's approaches to hotel conversions during COVID-19 provides an illustration. California received much acclaim for its Project Homekey, a program to convert commercial spaces (especially hotels) into permanent housing for people at risk of homelessness. Project Homekey was created in June 2020; by May 2021, it had created 6,000 units of housing. Notably, the per unit cost of this housing was less than \$150,000; by contrast, the average cost of a new unit of affordable housing in California in 2016 was \$425,000 (Office of Governor Gavin Newsom 2020; Terner Center 2020). Some of Project Homekey's success can be attributed to its speed (which in turn stemmed from the state's need to meet tight federal deadlines for the use of COVID-19 relief funds). California exempted Project Homekey developments from local zoning entirely, as well as from the normal permitting and environmental review processes. It also provided projects with enough funds to fully fund the conversion work up-front, allowing them to avoid the slow process of coordinating multiple funding streams and arranging complex financing packages.

In contrast, New York State passed no legislation to promote commercial-to-residential conversions until June 2021, a full year after Project Homekey kicked off. HONDA, discussed above, provided funds for commercial-to-residential conversions but no regulatory relief. The path New York initially chose, of retaining all the normal procedural protections while attempting to promote conversions, failed to generate any housing. Now, New York has followed California in more broadly allowing immediate conversions of hotels, removing most pre-existing state and local regulatory barriers, but it may have missed the moment of greatest opportunity.

To be clear, California's aggressive actions might not have sufficed to generate the same results in New York, even had New York acted quickly. California could convert extended-stay hotels and motels with footprints that lent themselves to easy apartment conversions; many already had kitchenettes. New York City's extra-small (and high-rise) hotels are not so amenable to conversion under any regulatory framework. But conversely, California surely

would not have achieved its results without its aggressive regulatory strategy. At times of rapid change, equally rapid action may be necessary. Local approvals, impact analysis, and community participation each have their place in a land use system, but so, too, may knowing when to abandon them.

4.5 Consider a Subsidy to Encourage Conversions to Affordable Housing

Given the mounting evidence about the long-term benefits that lower-income children glean from living in economically integrated neighborhoods, there are good reasons to foster neighborhoods that are not only mixed use but also mixed income. But conversions are not cheap. Absent financial incentives, they would likely produce little or no affordable homes, with office conversions in particular tending toward large and high-end residential use. Consider that the financial district, which has transitioned to a mixed-use neighborhood in part through conversions of office buildings, had a median income in 2019 that was more than two and a half times larger than that of the city as a whole, and a poverty rate that was less than half the citywide rate. Indeed, given the property tax system in New York City, there are questions about whether even market-rate rentals, as opposed to condominiums, would be created absent some financial incentives. While increasing the supply of market-rate apartments (rented or owned) would help to increase affordability in the city, it would mostly make homes at the higher end of the market more affordable. Thus, as the city thinks about remaking its office districts, it should consider the possibility of subsidizing the creation of affordable homes in conversions, whether through a new program or the application of existing funding streams to these projects.

4.6 Consider How Rent Regulation Affects Long-Term Flexibility

Rent regulation—by design—reduces the flexibility of the city's buildings. It does so through multiple channels. In currently rent-regulated residential buildings, the tenure protections for tenants ensure lower turnover of units and preclude landlords from unilaterally redeveloping or repurposing a property. These prohibitions limit building owners' ability to convert away from residential uses (not a pressing issue under current market conditions). Additionally, recent changes to New York's rent stabilization law limit landlords' ability to increase rents in connection with building-level improvements. This may reduce building owners' interest in certain investments, including those related to climate resiliency. Finally, to the extent that new, or newly residential, buildings are included in rent-regulation schemes, this will likely discourage some owners from shifting buildings toward residential use by reducing potential returns. Proposed "good cause eviction" legislation in New York, which includes a functional cap on rent increases even in newly created homes, could have this effect, depending on the ultimate details of the scheme. Any effort to increase the flexibility of the building stock must be aligned with rent-regulation programs to ensure that conversions can be financed without undermining the intent of those schemes; conversely, rent-regulation programs should be designed with an eye toward the way the building stock must grow and change over time.

5. Extending Flexibility: The Case of Climate

This paper has focused on one context—the most immediate—where a more flexible approach to the use and regulation of buildings may be necessary: the response to COVID-19. But cities have always faced the need to adapt to changes both foreseeable and unknowable. Climate change is likely to bring both. Climate bears mentioning to underscore that the kinds of flexibility described above are not only responsive to an era-defining pandemic, but may be valuable more broadly.

Climate change is likely to require enormous changes to the way we design, use, and operate buildings. In New York City, rising sea levels will bring one set of challenges to low-lying coastal areas; the growing frequency and intensity of storms will bring another, overlapping set of concerns related to flooding (in other regions, fires may be the primary concern). At the same time, the imperative to reduce greenhouse gas emissions from buildings—which in New York City is now a legal obligation for most large buildings—will require substantial renovations and systems upgrades, as well as changes to operations.

Dealing with these challenges poses many concerns analogous to recovering from COVID-19. For example, code standards aimed at ensuring flood resistance apply to newer buildings but not to older existing buildings. Improving those grandfathered buildings' climate resilience will require the same kind of careful construction of pathways for regulatory compliance and coordination with rent-regulation programs as will allowing commercial-to-residential conversions. Likewise, as one response to flood standards that leave ground floors unusable as residential space in flood-prone areas, New York City has recently allowed the introduction of commercial spaces on those ground floors: another case where the stringency of use zoning has been mitigated in response to new policy demands. (Indeed, this came as part of a broad resiliency-focused effort to add flexibility throughout all aspects of the zoning of coastal areas.) Reworking the city's building stock to reduce climate emissions will require its own set of adaptations, especially as the need to reduce emissions from existing buildings is paired with the separate climate goal of encouraging dense and transit-oriented development. It will be necessary to consider policies that facilitate each of these transitions, along with policies to facilitate the transition from under-utilized commercial space to in-demand housing.

6. CONCLUSION

As New York City (hopefully) looks beyond the worst phases of the COVID-19 pandemic, demand for residential space has recovered quickly, while demand for commercial space remains depressed and may remain so for the long term. Yet, to date, the conversion of office and hotel space to homes has not been a significant feature of the recovery. At least in the case of hotel-to-housing conversions—perhaps somewhat less so for offices—regulatory barriers to conversion have likely played a role in preventing a shift in use to accommodate current conditions. This reflects the generally inflexible nature of New York City's land use law, which, as standards proliferate, has become more prescriptive. With COVID-19 serving as a stark reminder of how quickly the needs of urban life can shift, we suggest that cities like New York

need to become more comfortable with allowing the built environment to quickly shift as well. Allowing and even encouraging greater flexibility for the use of existing buildings could be an important first step. The city should also consider new subsidy tools to ensure that conversions produce not only high-end housing but also some set of affordable homes.

Notes

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¹ The impact on productivity remains unclear. Experts debate the degree to which people working from home will find it easier to slack off or learn less from casual and unplanned encounters with their co-workers.

² Cities' experiences with devastating storms and pandemics also underscore the need for buffer spaces that can be used when such disasters hit, though these spaces are not the focus of this essay. Disasters may be particularly destabilizing to lower-income households and households of color, which often lack the savings and resources to easily weather disruption. Home-sharing platforms could help to connect people to temporary places to stay, but this might require cities to relax restrictions on short-term rentals. Under-utilized hotels and government buildings could also be reconfigured with this flexibility in mind. During the pandemic, many cities turned to empty hotels to house people experiencing homelessness or who tested positive for COVID (Colburn et al. 2020).

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