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MEND IT, DON'T END IT
NYC's 421-a Affordable Housing Tax Exemption

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EXECUTIVE SUMMARY

New York City has historically adopted policies designed to make more housing available at a relatively low price. Such steps have included rent regulation, which covers more than a million city apartments, and public housing, whose 178,000 units make it the largest such system in the United States.[1]

Since 1971, NYC has also used special reductions in property taxes to encourage the construction of new rental housing, which is otherwise taxed at one of the city's highest rates. This so-called 421-a tax exemption program, named for the state law authorizing the city to adopt it, is due to expire June 15, 2015, unless renewed in some form by state legislators. The 421-a law has been used as an incentive to develop some 150,000 housing units overall in NYC, including some 37,000 low-income, or "affordable," units that 421-a has, since 1985, especially sought to encourage.[2]

Such housing development has come at significant cost in forgone property taxes to the city. Currently, NYC forgives some $1.1 billion annually for 421-a-eligible housing.[3] Some of the reduced taxes have, in exchange for payments directed to low-income housing developments elsewhere in the city, reduced

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tax on luxury Manhattan and Brooklyn apartment buildings—which has, in turn, sparked controversy. In response, NYC mayor Bill de Blasio has proposed that all building developers in the city seeking a 421-a tax exemption be required to set aside units for lower-income tenants in buildings where higher-income residents otherwise pay market rates.[4] Others have proposed a similar rule but one that includes eliminating the 421-a tax exemption entirely.[5]

This paper proposes that state legislators instead adopt a compromise approach aimed at helping finance a higher number of new low-income housing units with a lower level of city property tax exemption. Specifically, the paper proposes to restore an approach, allowed to lapse in 2008, that permits developers of low-income housing to finance construction, through the sale of the right to a 421-a exemption, to developers of higher-cost, higher-income housing elsewhere in the city. In support of the restoration of this so-called 421-a off-site or certificate program, this paper finds that, to date, the cost in reduced taxes per unit built through the on-site, "inclusionary approach" is significantly higher—up to three times higher—than the cost of off-site, low-income units built through the aforementioned tax certificate program that we urge the state to restore.

For example, the cost in forgone taxes for each affordable unit in an on-site "inclusionary" development will, over the duration of the exemption, cost the city three times more—at least $550,000, on average—than an equal-size unit in a freestanding, all-affordable development in a less expensive portion of NYC, such as Astoria, Queens. The present value of the cost of an average, on-site inclusionary unit in central Manhattan is roughly $850,000, compared with roughly $300,000 in Astoria.[6] In other words, for the same level of tax expenditure, the off-site program could lead to the construction of nearly three times as many affordable housing units. This paper also recommends that the overall level of tax exemption under such a program be limited.

In weighing which approach or approaches to choose, state lawmakers, who will set policy, and NYC officials, who will implement it, will have to weigh the question of whether, at a time in which there are many demands on its budget, NYC should devote more tax revenue to a policy aimed at ensuring that rich and poor live in the same buildings, or to limit lost tax revenue while supporting construction of low-income housing units no matter where in the city they might be.

By reintroducing a reformed 421-a tax certificate program as one—but not the only—approach to encouraging affordable housing, NYC can realize the construction of more low-income housing for the same, or less, cost in forgone taxes. Doing so will advance the de Blasio administration goal of seeing some 80,000 new low-income housing units built within the next ten years.

I. INTRODUCTION

The NYC real estate tax exemption law, known as 421-a—adopted in 1971 to spur new construction in a period of economic decline—has, over time, become one of the city's chief vehicles to provide support for low-income, or "affordable," housing. Significant tax exemptions, lasting as long as 25 years, have been granted to real estate developments in exchange for setting aside a percentage of apartments in relatively affluent neighborhoods for those of lower incomes; or for developers who have purchased the right to a tax exemption (a "negotiable certificate") from builders of entirely affordable (i.e., lower-rent) buildings in lower-income neighborhoods.[7]

Since 1985, 421-a is credited, by analysts such as NYC's Independent Budget Office (IBO), with catalyzing the construction of some 37,000 affordable units.[8] At the same time, to make such units possible, the city has forgone a significant amount of property tax revenue—$1.1 billion annually, according to the IBO[9]—that it might otherwise have received.

With the law, a New York state statute, set to expire on June 15, 2015, its future is now uncertain. Public criticism has mounted over the extent of 421-a tax reductions enjoyed by some market-rate developments in prime Manhattan neighborhoods. At the same time, NYC's Department of Housing Preservation and Development (HPD) has made clear that it continues to view the tax exemption program as crucial to one of the central housing policy goals of the de Blasio administration: the creation of some 80,000 new affordable housing units.[10] It is a goal to be realized through an expanded "inclusionary zoning" policy, in which apartments for lower-income residents are located within higher-income market-rate buildings, which receive the tax exemption—thereby lowering property taxes for upper-income tenants.

Currently, NYC forgives some $1.1 billion annually for 421-a eligible housing.

The availability and continuation of such tax exemptions will, however, depend on state renewal of 421-a. Letting the exemption law lapse should not, as this paper will show, be considered outside the range of public policy options—but only if such a change were part of a far broader NYC property tax and housing policy reform limiting existing tax barriers to new construction (absent building-specific exemptions) and bringing an increasing number of currently rent-regulated properties back onto the nonregulated market.

Alternatively, given the political difficulty inherent in realizing such a thorough reform, the 421-a law should be renewed. Lawmakers should, however, consider reinstituting provisions allowed to lapse in 2008 that allow affordable housing complexes built in less expensive sites to transfer tax exemption certificates to developers of market-rate housing in more expensive locations—even if such market-rate housing does not include low-income units.

When it was in effect from 1985 to 2008, this "certificate approach" provided financial assistance for low-income housing construction by allowing the sale of the right to a tax exemption to developers of housing in higher-tax neighborhoods. Such certificate-based exemptions were limited to ten years and began to phase out after only two years.[11] In contrast, the post-2008 421-a law limits the tax exemption for affordable units to developments that are inclusionary (those that set aside units included in the market-rate development itself). The tax incentive required to draw developers into such projects is substantially more costly to the city: such 421-a exemptions last 20 or 25 years.[12]

This paper's proposal differs from one offered by Mayor de Blasio, who has proposed that all 421-a-eligible developments, whether in high-rent or low-rent sections of NYC, be required to set aside up to 30 percent of units for households whose incomes fall within specific ranges (30–100 percent of area median income [AMI] of $86,300 for a family of four).[13] A return to the certificate approach, whether as a complement or substitute for on-site inclusionary projects, would increase the likelihood that the de Blasio administration would realize its affordable housing production goals—but at far less cost in forgone tax revenues.

To return to the certificate approach, the administration would have to relax its insistence on always coupling low-income housing construction with the additional goal of socioeconomic integration (i.e., that affordable units, as a rule, be part of larger, higher-income housing complexes), which requires a significant investment by the city in sacrificing tax income that it would otherwise receive.

At a time when the renewal and amendment of the overall 421-a law are again under consideration, this paper finds that the certificate approach has helped finance the construction of low-income units at less cost than the inclusionary approach. The paper

compares the costs of the two approaches on several dimensions: costs, in terms of forgone tax revenues for NYC; units constructed; and cost per low-rent/ low-income unit.

Specifically, this paper finds that the cost in forgone taxes for each affordable unit in an on-site inclusionary development will cost the city three times more—at least $550,000, on average—than a similar-size unit in a freestanding, all-affordable development in a less expensive NYC neighborhood. The dollar difference in tax revenue over a 20-year period (the additional taxes not collected for an inclusionary unit compared with an equal-size certificate-based unit) exceed $850,000 in net present value.[14]

For the same level of tax expenditure, the off-site program could lead to the construction of nearly three times as many affordable housing units.

Further, the paper examines housing construction and affordability within the context of NYC's overall property tax and rent-stabilization regimes; and assesses the assertion—espoused by some who believe that 421-a has had the effect of providing overgenerous tax subsidies for high-rent buildings—that the city should require inclusionary zoning even absent tax exemptions.[15]

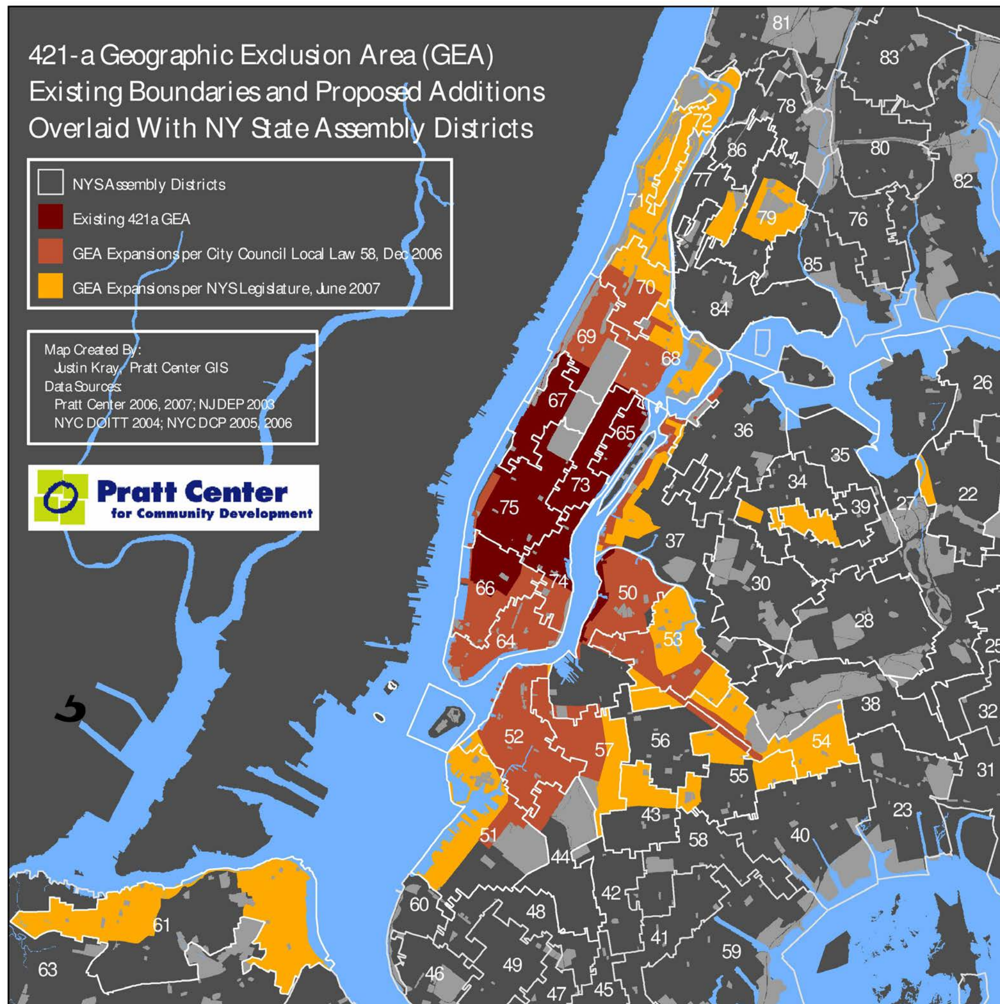
II. 421-a: A BRIEF HISTORY

The 421-a tax exemption, a city tax policy that requires state approval, was originally adopted in 1971 during an era of population loss and limited new development. In its original form (a ten-year as-of-right exemption of the increase in assessed value of a new building from property tax), 421-a was a creative answer to a stubborn public finance problem: the disincentive to build new, or improve existing, property created by NYC's taxing of new residential construction at a higher-than-average rate.

Tax exemptions, such as 421-a in its original form, allowed the city to retain its overall approach to property taxation without disincentivizing new investment, precisely because new investment is automatically exempt from tax for the majority of its payback period.[16] This implicit understanding has evolved since affordable housing requirements were added to the law for central, "geographic exclusion area" (GEA) neighborhoods (**Figure 1**) in 1985. Early 1980s litigation confirming 421-a eligibility for the Fifth Avenue–situated Trump Tower also catalyzed opposition to 421-a's as-of-right ten-year benefits for new units; tax incentives, critics argued, were not necessary to make luxury buildings economically viable.[17] From 1985 to 2005, 421-a-eligible development in the GEA between Manhattan's 14th and 96th Streets required provision of affordable housing by providing units on-site; or by purchasing negotiable certificates certifying provision of an off-site affordable unit.[18]

A 2014 study commissioned by the Manhattan borough president described the difference between the two approaches.[19] With the latter, certificate approach, "affordable housing developers receive 4 or 5 certificates for each unit they produce, which then can be sold to market-rate developers, qualifying the market-rate units for 10-year tax benefits." With the former, inclusionary approach, which required that at least 20 percent of units in market-rate buildings be set aside for low-income households, "[t]he 80/20 program … offered a 20-year tax exemption for the inclusion of on-site affordable housing, later extended to 25-years in the early 1990s to further incentivize affordable housing in the GEA. Affordable units … were restricted to households ranging from 30% AMI to 100% AMI, with an average AMI ceiling of 80%."

Figure 1. NYC's Geographic Exclusion Area*



*Map published in May 2009.
Source: Pratt Center for Community Development

Over time, 421-a grew increasingly complex in determining how exemptions were granted: as 421-a began to require support for affordable housing in higher-cost, higher-rent Manhattan neighborhoods, it continued to grant "as-of-right benefits" in lower-cost "outer borough" neighborhoods, even extending the latter to 15–25 years;[20] in the early 1990s, an additional ten-year bonus for inclusive housing construction in the outer boroughs was implemented; and from 2006 to 2008, additional neighborhoods in all five boroughs were added to the GEA (Figure 1). Further, applicable income restrictions varied, by receipt of "substantial government assistance" and by location.[21]

From 2000 to 2006, the price of NYC residential housing doubled, prompting renewed concerns that market-rate developers were realizing significant tax exemptions, at relatively low cost, for 421-a certificates. In 2006, a Bloomberg administration task

force recommended various changes for 421-a: effective December 2007, the certificate approach was ended, with certificates issued during 2007 capped at $65,000 in exempt assessed value per market-rate unit; "prevailing wage" levels (union-level wages) were mandated for building service workers; and, effective June 2008, the GEA was extended into all five boroughs.[22]

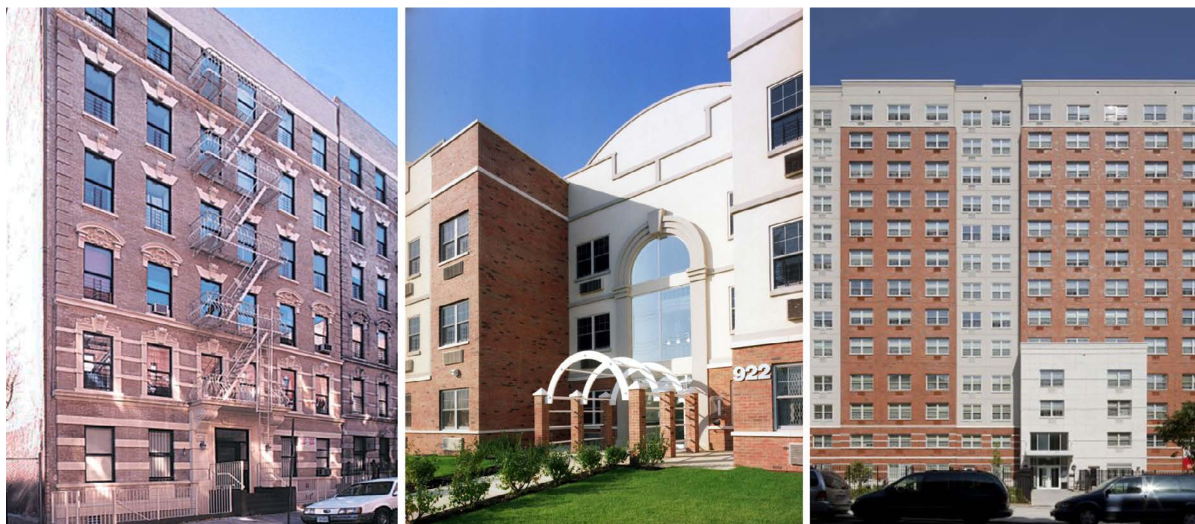
III. PERFORMANCE OF OFF-SITE NEGOTIABLE CERTIFICATES

Under the off-site certificate approach, some 7,700 rent-regulated, affordable housing units were built (**Figure 2**).[23] Off-site certificate units constructed under 421-a are available only to households earning 60–80 percent of AMI for 35 years. Market-rate units must be rent-stabilized for the longer of ten years or the tenant's lease—even though market-rate units often start at or above the luxury threshold for normal rentals.

From 2002 to 2006, 17 condominium and 12 rental housing projects purchased certificates, according to the HPD. Developers typically paid less per certificate than "face value" (the value of the certificate's tax exemption):[24] on average, certificate buyers received ten-year total benefits of $70,878 per certificate, while paying $11,440 per certificate.[25] With affordable units eligible for four or five certificates, NYC granted market-rate developers a tax reduction, over the life of a 421-a exemption, of $283,512–$354,390 per affordable unit; market-rate developers, in turn, passed on $45,760–$57,200 per affordable unit to affordable developers.[26]

While this approach might seem to favor market-rate developers at the expense of NYC taxpayers, it is less costly to the city than the inclusionary approach adopted exclusively in 2008—and now favored by the de Blasio administration.

Figure 2. Certificate Buildings in Manhattan,* Brooklyn,** and the Bronx***



*144 West 144th Street, New York, NY; completed February 1998.
**922-1101 Forbell Street, Brooklyn, NY; completed March 2004.
***2271 Washington Avenue, Bronx, NY; completed November 2009.

Source: Arker Companies

IV. PERFORMANCE OF ON-SITE INCLUSIONARY ZONING

To date, some 5,800 affordable units have benefited from 421-a via the inclusionary approach.[27] Inclusionary units have higher costs than those constructed via the certificate approach largely because of the higher costs of land and construction in the more expensive NYC neighborhoods where they are built. When NYC abates a portion of the property tax on buildings whose developers agree to set aside 20 percent or more of units as affordable for not ten but 20 or 25 years, the value of the inclusionary exemption becomes markedly higher, too: a 20-year uncapped exemption on an average new $353,000 market-rate rental unit costs NYC roughly $263,000 (present dollars); a ten-year uncapped exemption on the same unit costs NYC $111,000.[28]

How much of a tax reduction must be offered to developers to accept (lower-rent) inclusionary units?[29] New York University's Furman Center for Real Estate and Urban Policy recently built a real estate model, using current market rents, that projects reasonable estimates of the opportunity cost of an inclusionary unit. Using Furman's data, this paper calculates that the effective rent subsidy for inclusionary rental units in prime Manhattan neighborhoods can total as high as $3,800 per month. For households residing in such units with 60 percent of AMI, their pretax earnings equal $3,150 per month. NYC, in other words, is providing subsidies worth more than such households' entire monthly incomes for the privilege of living in central Manhattan.

Given that it would be possible to subsidize three affordable units in less costly NYC neighborhoods—in Astoria, for instance, two such units could be provided at 80 percent of AMI and one affordable unit at 60 percent of AMI—at the same total cost to NYC taxpayers, the merits of the inclusionary approach are certainly worth reevaluating (see Appendix).

V. 421-a NEGOTIABLE CERTIFICATE REFORM: A MIDDLE GROUND?

There are three legitimate concerns with the original negotiable certificate program.

Concern 1: Neighborhood Concentration
One goal of so-called inclusionary housing involves offering lower-income families the opportunity to escape dysfunctional institutional/cultural environments. Constructing affordable (below-market-rate) units in such environments, some assert, is unlikely to achieve this end. This concern might be resolved by designating particular areas or community boards to be exclusively eligible to produce certificates.

The mayor is targeting 15 NYC neighborhoods for rezoning and redevelopment;[30] such efforts could garner significant financial support for affordable units through the sale of certificates. Astoria, for example, offers significant opportunity to provide affordable off-site units in a desirable location. More broadly, new construction in even long-standing low-income neighborhoods may help upgrade such areas (supplemented, of course, by the provision of high-quality public services, such as good schools, clean parks, and safe streets).

Concern 2: Sale Price of Certificates
Certificates, as noted, typically sold for less than the full present value of their tax exemptions. In the least expensive Bronx and Brooklyn neighborhoods, market-rate units were already at or near the affordable thresholds required for eligibility—thereby requiring little additional discount to be eligible. New construction, as mentioned, was occurring mostly with help from various other affordable housing subsidies. This overlap allowed affordable developers to issue certificates at low costs because they needed little additional subsidy from certificate sales to be viable. Market-rate developers' willingness to buy certificates was bolstered by the viability of their projects even without subsidies.

The concern of excessively low certificate prices can be resolved by restricting the overlap of affordable housing incentives and by restricting issuance of certificates to the 15 neighborhoods targeted by Mayor de Blasio for redevelopment. Moreover, such a strategy would be unlikely to dent demand for certificates. Because market-rate demand for negotiable certificates fell only at the peak of the 2007–08 financial crisis (as property prices declined and construction financing dried up),[31] the decline in certificate prices likely reflected a decline in the ability of market-rate projects to pass on their subsidies to affordable developers via the certificate sale price.

Concern 3: Value of Tax Exemption

The size of the 421-a negotiable certificate tax expenditure was originally uncapped: the more expensive the apartment, the larger the tax reduction. Yet the original intent of 421-a was to halt blight and increase utilization of land, not to encourage construction of luxury units. The Bloomberg administration's 2007 overhaul—limiting the value of certificates to the first $65,000 in assessed value (AV) per exempted unit, with the cap rising 3 percent annually thereafter—was an attempt to address this issue.[32]

The optimal size of an AV cap depends on the details. If certificate sales are limited to new projects in moderate-rent neighborhoods and sellers are restricted in their receipt of affordable housing incentives, new certificates will be available only at prices far higher than in the past. A careful analysis is therefore needed of market conditions in neighborhoods permitted to issue certificates, the extent of overlapping affordable incentives, and the amount of subsidy required to incentivize participation and project viability. Whatever the precise value of the optimal AV cap, it should be below $225,000—thereby excluding luxury units from receiving exemption on tax owed above $500,000 in NYC Department of Finance (DOF)-calculated market value. This paper finds that the present value of such a ten-year certificate would be roughly $142,000—less than half of what an equivalent 20-year AV-capped market-rate unit would receive in an 80/20 building.

State legislators need not draft such detailed languages but should merely restore the certificate option. Further, restoring the reformed certificate approach might, as mentioned, be particularly important in assisting the de Blasio administration's efforts to use higher-density zoning to encourage new housing construction in long-distressed neighborhoods (such as East New York, Brooklyn), while ensuring that some portion of new units is set aside for households with low incomes. In such neighborhoods, market rents are likely to be insufficient to allow developers to set aside on-site low-income units and still realize sufficient return on investment. Allowing such developers to sell 421-a exemptions, via certificates, would ensure that the necessary incentives are in place.

VI. MANDATORY INCLUSIONARY ZONING WITHOUT 421-a?

Some low-income housing advocacy groups have proposed yet another approach: end 421-a altogether but still require developers to set aside on-site inclusionary units.[33] If adopted absent other property tax reforms, such an approach might well have the opposite effect of what its proponents intend.

If a 20–30 percent inclusionary minimum is mandated but no tax exemption is granted, developers may conclude that it does not make economic sense to proceed with development. Less supply would, in turn, raise market rents across NYC. Similarly, if a 20–30 percent inclusionary minimum *is* required to qualify for a 421-a exemption, developers may forgo the exemption altogether. The effect: incentivizing the construction of more luxury, and less middle-income, housing. In such a scenario, new housing construction may halt entirely in outer borough areas where market rents would be inadequate to provide adequate return on investment. The 421-a exemption, in other words, may not be enough

to incentivize on-site construction in lower-cost, lower-rent neighborhoods—or enough to preclude construction of high-rent units in more affluent areas.

In short, absent continuation of 421-a and renewal of its now-lapsed certificate program, overall affordable housing construction may slow in NYC at a time when such construction has become a priority of the current mayoral administration.

VII. A HOUSING GRAND BARGAIN

New York's state legislature faces several major housing policy choices: (1) whether to eliminate 421-a; (2) whether to extend 421-a as is or expand it to include a certificate program; (3) whether to require on-site affordable housing with or without 421-a; and (4) whether to extend NYC's rent-stabilization program, which regulates rent increases for some 1.2 million units, or continue its partial phaseout for higher-cost and vacant units.

Policymakers will have to weigh whether NYC should devote more tax revenue to ensure that rich and poor live in the same buildings—or limit lost tax revenue while supporting construction of low-income units across NYC.

Mayor de Blasio has even proposed limiting the deregulation of higher-rent units, a policy that has reduced the rolls of regulated units by some 231,000.[34] In practice, NYC's rent-stabilization policies have significantly aggravated, not alleviated, the city's housing shortage.[35] NYC's housing unit turnover is low—and lowest among the ten largest U.S. metropolitan areas[36]—in part because tenant households face strong incentives to remain in place and enjoy below-market rents, even if they no longer need as large an apartment. In the process, newcomers face artificially low vacancy rates and artificially high market rates for rent.

Nevertheless, all indications suggest that state legislators will extend current rent-stabilization policies.[37] Therefore, it would be unwise to reverse the current rent-stabilization phaseout of units in higher-priced NYC neighborhoods. But no matter the final policy mix, the legislature should consider establishing a bipartisan commission to examine NYC's overall housing regulation and property tax system, with an eye toward reforms that could lead to greater housing availability and a fairer approach to property taxation.

Indeed, a major reason that developers believe that the 421-a exemption is so crucial is that NYC property taxes *are* higher for new housing than for existing housing. As Rosemary Scanlon, divisional dean of NYU's Schack Institute of Real Estate, and Hope Cohen of the Regional Plan Association wrote in a 2009 Manhattan Institute study: "For decades, a broad consensus has accepted overtaxing commercial (and utility) property so that residential owners can receive a tax break. This consensus has also supported undertaxing existing homes and overtaxing new residential construction. The disparities in tax treatment among property classes continues to widen—and not even as a result of any considered policy process, but rather as a mixture of tradition, politics, and legal sophistry. The result is an ad hoc patchwork of bizarre assessment guidelines, exemptions, abatements and rebates."[38]

In this context, it is understandable that developers seek the predictability and lower rates afforded by 421-a. Far better, however, for NYC to adopt a tax rate on new development that does not require exemptions for construction to be considered. Such a reform would require a gradual phaseout of rent regulations in high-income neighborhoods, where

relevant buildings would then pay more tax because they would realize higher revenues. Property taxes on high-cost co-ops and condos might similarly be raised. As Scanlon and Cohen note: "[I]ncome-based valuation for Manhattan co-ops generated approximately $135 million in tax revenue, instead of the $760 million that would be produced if sales prices were used [for valuations, rather than the current system of basing tax rates on rents in regulated buildings].... As a consequence, other property classes have to compensate for the revenue lost."[39]

At present, condos pay tax as if they were rent-stabilized buildings, despite the fact that they sell at market rates. Gradually phasing out rent regulations confers the additional advantage of reducing the current disparity between condos and rental buildings within property tax Class 2.[40] In short, the distortions created by NYC's property tax system lead to disproportionately high taxes on new housing construction, leading to demands by developers for tax exemptions, leading, in turn, to political contention.

Far better for state legislators, working with city officials, to equitably reform the entire system rather than continue carving out costly ways to create a limited number of "affordable" housing units. A NYC housing grand bargain would thus end 421-a, phase out rent-stabilization regulations in affluent neighborhoods, and equalize tax treatment of rentals and condos.

VIII. CONCLUSION

As desirable as a fundamental reform of NYC's distorted tax and rent-regulation system might be, it will likely not occur anytime soon—and certainly not in time to address the looming expiration of both the 421-a and rent-regulation laws. Therefore, New York would be ill-advised to end 421-a entirely or to continue the present arrangement, in which exemptions are contingent on costly on-site units in otherwise high-rent buildings.

Legislators should instead restore the option for developers to build low-rent housing in 15 HPD-designated neighborhoods and to help finance these units through the sale of an AV-capped ten-year 421-a tax exemption certificate to developers in high-cost neighborhoods. This option need not eliminate the possibility of an inclusionary approach in which low-income units are set aside in high-rent buildings; some developers may prefer the 20 or 25-year exemption that current 421-a law provides for such units. But restoring 421-a negotiable certificates would offer the de Blasio administration another useful tool with which to meet its affordable housing construction goals—at far lower cost in forgone tax revenue. Restoring 421-a certificates would also provide an incentive for housing development in low-income NYC neighborhoods, where market-rate rents are too low to support new affordable construction absent the opportunity to issue 421-a certificates.

Ideally, a reformed NYC property tax system would tax all classes of property equitably, on the basis of fair market value and regular reassessments. Such reforms would end existing distortions that tax some classes of property—such as co-ops and condos—at relatively low rates and new rental property at high rates. NYC would still be able to subsidize affordable housing, should it choose to do so, but it would not have to rely on its current, highly flawed property tax system. The need for a tax exemption program, such as 421-a, reflects NYC's imperfect tax and housing regulation system. For now, continuing 421-a and restoring the option of ten-year negotiable certificates remain the city's best strategy.

There are different ways to express the costs and trade-offs of NYC's affordable housing and tax policies; all the point estimates are contingent. Standard practice, based on the literature reviewed and cited in this paper, is to project rents and AMI to grow at 3 percent annually. Developer/landowner discount rates are typically 7–8 percent. The city's discount rate for policy purposes is typically 6 percent—in line with recent IBO research reports based on NYC's cost of funds.[41] These are the assumptions the authors use. (The authors also implicitly assume a stable macroeconomy and therefore a linear projection of NYC's rent and income growth.)

The first method estimates the lower-bound cost of on-site affordable housing by quantifying its opportunity cost: what, in other words, would a developer be willing to pay NYC to avoid providing an inclusionary unit in a newly constructed 421-a building? The cost is calculated from the developer's perspective in a realistic building model, using his 7–8 percent discount rate. This is the approach taken by the Furman Center in Table 8 of its inclusionary zoning report and is the source of this paper's headline estimate of the cost of 421-a on-site units in Manhattan. It is a cost in the sense that the HPD chooses not to collect a buyout check from developers in lieu of the average tax-exempt one-bedroom on-site affordable unit in central Manhattan (**Figure 3**).

The second method involves estimating from NYC's perspective the actual recent tax expenditure per average new market-rate 421-a rental unit, multiplied by the ratio of market-rate-to-affordable units (5:1 in an 80/20 building). This calculation uses the city's 6 percent discount rate and represents the average expense per voluntary on-site unit in recent years. On average, recent expenditure is higher than the minimum necessary to buy down hypothetical rents. Current projects are either uncapped (on-site units for 20 years in the GEA; off-site for ten years if built with substantial government assistance) or capped at $76,000 in exempt AV (off-site for ten years without substantial government assistance; AV cap set at $65,000 in 2008, allowed to grow at 3 percent annually). The authors also include a hypothetical $225,000 AV cap for illustrative purposes. Note that the tax expenditure is calculated using the DOF's

Figure 3. Reconstruction of Furman Center's Table 8

Location of 720-sq.-ft. 1-bed unit	40% AMI ($)	60% AMI ($)	80% AMI ($)	Ratio of Units (both tax exempt)
Central Manhattan (20-year exemption)	928,788	856,788	784,789	
Downtown Brooklyn (high-rise, 25-year exemption)	652,391	580,586	508,779	1.475731
Astoria (25-year exemption)	367,839	308,267	248,694	2.779368
Bed-Stuy (15-year exemption)	298,582	238,088	177,594	3.598618

Figure 4. Tax Expenditure in Central Manhattan by Abatement Length

		Abatements per Central Manhattan Affordable Unit (80/20)		Hypothetical 70/30
		20-Year On-Site ($)	**10 Year Off-site ($)**	**10-Year Off-Site ($)**
Average new 1-bed (DOF FMV $373,000)	$76K AV cap	596,330	253,139*	168,760**
	$225K AV cap	1,317,026	559,071	372,714
	Uncapped	1,317,026	559,071	372,714
Luxury new 1-bed (DOF FMV $3 million)	$76K AV cap	596,330	253,139*	168,760**
	$225K AV cap	1,765,451	749,425	499,617
	Uncapped	10,592,705	4,496,553	2,997,702

Note: * figures are not viable in any of the analyzed market types; ** figures are viable in Bed-Stuy but not Astoria; and the remaining figures are viable in Astoria and higher rental markets. Note, too, the relative cost of 20-year versus ten-year abatements.

estimate of fair market value, which vastly underestimates the actual market-rate value of units, especially co-ops and condos (**Figure 4**).[42]

The third method is a simpler, intuitive derivation of the first: it calculates the present value of the gap between market rent in a given area and 60 percent AMI rent, discounted at NYC's cost of funds. The authors also show the present value of the subsidy stream to the developer at 8 percent—this can be thought of as the size of the hypothetical rent voucher necessary to bridge the affordable versus market-rate rent gap in present-value terms in a given market type. In reality, the hypothetical voucher would be paid to the off-site developer up-front, via its sale of five certificates to lock in the affordable rent for 35 years plus the duration of the tenant's residency at the end of 35 years. If the city were able to perfectly calibrate the revived off-site certificate market, this would be the cost per affordable unit. The authors calculate the present values for a term of 45 years to account for the potential rent stabilization period past 35 years if the tenant chooses to remain (**Figure 5**).

Figure 5. Present Value of Rent Subsidy by Neighborhood

Location of 720-sq.-ft. 1-bed unit	60% AMI Rent Subsidy NPV @6% ($)	60% AMI Rent Subsidy NPV @8% ($)	Ratio of Units
Central Manhattan	1,118,361	815,592	
Downtown Brooklyn	770,233	561,711	1.451977
Astoria	480,127	350,144	2.329305
Bed-Stuy	364,084	265,517	3.071713

Figure 6. Initial Rent Subsidy by Neighborhood				
Location of 720-sq.-ft. 1-bed unit	**Average 1-Bed Market Rent, Recent Construction ($)**	**60% AMI Affordable 1-Bed Rent ($)**	**Monthly Rental Discount @60% AMI ($)**	**Unit Ratio**
Central Manhattan	4,800	945	3,855	
Downtown Brooklyn	3,600	945	2,655	1.451977
Astoria	2,600	945	1,655	2.329305
Bed-Stuy	2,600	945	1,255	3.071713

The unit ratios in Figure 5 differ slightly from the Furman estimates in Figure 3 because of differences in their detailed building model. The former simply values the PV of the rent gap starting on the first operating day in each area. The initial monthly rent gaps, the PV of which is shown in Figure 5, are shown in **Figure 6**.

ENDNOTES

1. See http://www1.nyc.gov/site/nycha/about/developments.page.
2. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF, p. 19.
3. See http://ibo.nyc.ny.us/cgi-park2/?p=436.
4. See http://www1.nyc.gov/office-of-the-mayor/news/295-15/mayor-de-blasio-calls-sweeping-overhaul-tax-benefits-spur-more-affordable-housing.
5. See http://www.anhd.org/wp-content/uploads/2011/07/ANHD-421a-Fix-it-or-end-it.pdf.
6. Authors' calculations, with data from http://furmancenter.org/files/NYUFurmanCenter_InclusionaryZoningNYC_March2015.pdf, p. 33, table 8. This paper defines "central Manhattan" as Manhattan south of 110th Street. A developer would be willing to pay about $850,000 to deregulate an average new 60 percent AMI affordable unit in central Manhattan. This is a significant opportunity cost: the Furman Center estimates that HPD could collect an $850,000 average fee in lieu of the average new 60 percent AMI affordable unit in central Manhattan. However, this understates the actual tax expenditure. Discounted at NYC's cost of funds, the cost per average affordable unit is closer to $1.3 million (see Appendix).
7. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF.
8. Ibid., p. 19, fig. 6.3.
9. See http://ibo.nyc.ny.us/cgi-park2/?p=436.
10. See http://www.nyc.gov/html/housing/assets/downloads/pdf/housing_plan.pdf.
11. See http://www1.nyc.gov/site/hpd/developers/tax-incentives-421a.page.
12. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF, p. 15, fig. 5.1.
13. See http://www.nychdc.com/pages/Income-Eligibility.html; AMI is specified by household size.
14. See http://furmancenter.org/files/NYUFurmanCenter_InclusionaryZoningNYC_March2015.pdf, p. 33.
15. See http://www.anhd.org/wp-content/uploads/2011/07/ANHD-421a-Fix-it-or-end-it.pdf.
16. In its consequences, this approach is similar to shifting from property taxation to land taxation—a far more efficient type of property tax, favored by economists since Henry George famously proposed it in the late nineteenth century.
17. See http://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1312&context=ulj, p. 1108.
18. See http://www.taxadmin.org/fta/meet/08rev_est/papers/grathwol.pdf, p. 2, slide 3.
19. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF.
20. New York City Residential Mortgage Insurance Corporation (REMIC) and New York State Neighborhood Preservation Companies Program (NPP) areas in the outer boroughs received 25-year as-of-right exemptions: http://www.taxadmin.org/fta/meet/08rev_est/papers/grathwol.pdf, p. 2, slide 3.
21. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF, fig. 5.1.
22. Ibid., p. 12.
23. E-mail correspondence with HPD.
24. Many low-income housing developers selling certificates were also receiving other housing subsidies—a fact that likely made such developers more willing to unload their certificates below their face values.
25. See http://www.taxadmin.org/fta/meet/08rev_est/papers/grathwol.pdf, p. 5, slide 9.
26. The price of certificates rose and fell in line with supply and demand: a later study by the Pratt Center for Community Development suggested that certificates sold for as low as $12,000 each. See https://www.habitatnyc.org/pdf/advocate/Pratt421a.pdf.
27. See http://manhattanbp.nyc.gov/downloads/pdf/2015%20421-a%20Policy%20Brief.PDF, fig. 6.3.
28. See Appendix.
29. Consider the cost of buying down the inclusionary unit's rent vs. its market-rate neighbor: the present-value difference represents the size of a check that a developer would be willing to pay NYC to buy out an inclusionary unit (see Figure 3).

30. See http://www.capitalnewyork.com/article/real-estate/2014/05/8545932/weisbrod-promises-neighborhood-specific-zoning?__hstc=109812634.0fddf9865a8574bd9b37bccb7b82af fd.1396891321261.1400774822508.1400857056607.
31. See http://therealdeal.com/blog/2009/03/17/421-a-certificates-add-to-developers-woes.
32. At the Class 2 assessment ratio of 45 percent, only the first $144,444 in market value per unit enjoyed the declining ten-year exemption from tax. At an 8 percent discount rate, the present value of this exemption was limited to $48,000 (equal to the maximum amount that developers would pay for a certificate).
33. See http://www.anhd.org/wp-content/uploads/2011/07/ANHD-421a-Fix-it-or-end-it.pdf.
34. See http://furmancenter.org/files/FurmanCenter_FactBrief_RentStabilization_June2014.pdf.
35. See http://www.nber.org/papers/w6220.
36. See http://www.city-journal.org/2013/special-issue_housing.html.
37. See http://www.bizjournals.com/albany/news/2015/04/26/cuomo-pushes-extension-of-rent-stabilization-law.html.
38. See http://www.manhattan-institute.org/email/crd_newsletter04-09.html.
39. Ibid.
40. Without 421-a, NYC's property tax discrepancy between condos and rentals would either encumber new rental development or require market rents to rise before new rental development could begin.
41. See http://www.ibo.nyc.ny.us/iboreports/options2013.pdf.
42. See http://furmancenter.org/thestoop/entry/join-the-furman-center-at-talking-transition-making-property-taxes-fairer.