Creating Affordable Housing Out of Thin Air: The Economics of Mandatory Inclusionary Zoning in New York City

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In May 2016, New York City’s new mayor released an ambitious housing agenda that set forth a multi-pronged, ten-year plan to build or preserve 100,000 units of affordable housing. One of the most talked about initiatives in the plan was incorporation of Inclusionary Zoning. The mayor’s executive order that mandated one square foot of affordable housing capacity, the city must encourage robust production of affordable housing in order to ensure balanced growth, fair housing opportunity, and diverse neighborhoods. In other words, the city intends to combine sparking with mandatory inclusionary zoning in order to increase the supply of affordable housing and promote economic diversity.

Josiah Madar | March 26, 2015

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Available at furmancenter.org
TODAY’S PRESENTER

Josiah Madar
Research Affiliate
NYU Furman Center
AGENDA

- Goal of our analysis and preview of findings
- Background
- Methodology
- Findings
- Conclusions
- Q&A
GOALS OF ANALYSIS

- In light of city’s 2014 housing plan, analyze economic potential of added zoning density to generate affordable housing
- Economic analysis only; there are also legal constraints, which we do not address
- City also has significant planning concerns (e.g., infrastructure capacity)
PREVIEW OF FINDINGS

1. In high-rent neighborhoods, additional zoning density is valuable enough to generate affordable units.
2. In lower rent neighborhoods, additional zoning density will not generate affordable units (without subsidy).
3. The economics of mandatory inclusionary zoning will change as rents, operating costs, and construction costs shift over time.
4. A program can use the cross subsidy generated by additional density in different ways.
BACKGROUND

- What is “mandatory inclusionary zoning”?  
- How does it work?
BACKGROUND

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- How does it work?
BACKGROUND

- What is “mandatory inclusionary zoning”?
- How does it work?

Diagram:

- Developer
  - Land costs
  - Construction costs
  - Return on investment
  - Required affordable units
BACKGROUND

- What is “mandatory inclusionary zoning”? 
- How does it work?
What is “mandatory inclusionary zoning”? How does it work?
Existing Policies

- City has already begun requiring affordable housing for some *discretionary* zoning changes
- City already has *voluntary* inclusionary zoning program that applies to some as-of-right projects: the “Inclusionary Housing Program”
- Also relevant: 421-a property tax exemption
  - 20% affordable required in “Geographic Exclusion Area” (GEA)
  - Effect on value of additional density (as we will see)
METHODOLOGY

- Financial analysis of mid-rise and high-rise rental projects, varying by:
  - Market rent
  - Building type
  - Affordable share
  - Affordability level
  - Property tax exemption

- Similar analysis to what developers use; relies on assumptions about:
  - Construction costs
  - Operating costs
  - Market rents
  - Minimum financial returns required by developers

- NOTE: financial analysis results are approximations, not meant to be point estimates; conveys order of magnitude.
METHODOLOGY

For developer financial return, we use “stabilized net operating income yield” (NOI yield)

\[
\frac{\text{net operating income}}{\text{total development costs}} = \frac{\text{rental revenue} - \text{operating costs}}{\text{land costs} + \text{construction costs}}
\]

- Requiring more affordable units reduces rental revenue and NOI yield
- Allowing more density can increase NOI yield if rents are high enough
METHODOLOGY

Developer

Land costs

Construction costs

NOI yield

New building project under current zoning
METHODOLOGY

Developer

Land costs
Construction costs

NOI yield
METHODOLOGY

Developer → Land costs → NOI yield → Construction costs

NOI yield
FINDINGS

1. In high-rent neighborhoods, additional zoning density is valuable enough to generate affordable units.
FINDINGS

In High-Rent Neighborhoods

Developer

NOI yield

New building project under current zoning
Where rents are high enough, additional market rate units will increase NOI yield: Opportunity for cross-subsidy.
In High-Rent Neighborhoods

- Where rents are high enough, additional market rate units will increase NOI yield: Opportunity for cross-subsidy
## FINDINGS

### In High-Rent Neighborhoods

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Market Type</th>
<th>Annual Gross Rent</th>
<th>Example Neighborhood(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-rise</td>
<td>Very Strong, inside the GEA</td>
<td>$80 per rentable sf</td>
<td>Manhattan Core</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1BR: $4,800/mo)*</td>
<td></td>
</tr>
<tr>
<td>High-rise</td>
<td>Strong, inside the GEA</td>
<td>$60 per rentable sf</td>
<td>Downtown Brooklyn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1BR: $3,500/mo)*</td>
<td></td>
</tr>
<tr>
<td>Mid-rise</td>
<td>Strong, inside the GEA</td>
<td>$60 per rentable sf</td>
<td>Williamsburg Upland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1BR: $3,600/mo)*</td>
<td></td>
</tr>
<tr>
<td>Mid-rise</td>
<td>Moderate, inside the GEA</td>
<td>$44 per rentable sf</td>
<td>Astoria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1BR: $2,600/mo)*</td>
<td></td>
</tr>
<tr>
<td>Mid-rise</td>
<td>Moderate-low, inside the GEA</td>
<td>$37 per rentable sf</td>
<td>Bedford-Stuyvesant (inside the GEA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1BR: $2,200/mo)*</td>
<td></td>
</tr>
<tr>
<td>Mid-rise</td>
<td>Moderate-low, outside the GEA</td>
<td>$37 per rentable sf</td>
<td>Bedford-Stuyvesant, Flushing, other relatively strong markets outside the GEA</td>
</tr>
</tbody>
</table>
FINDINGS

In High-Rent Neighborhoods

- High rise in very strong market
In High-Rent Neighborhoods

- High rise in very strong market
- If additional density pays full property taxes, we estimate that additional density can be 28% affordable (at 60% AMI) without affecting the economics of the development.
In High-Rent Neighborhoods

- High rise in **very strong market**
- If additional density pays **no property taxes**, we estimate that additional density can be **61% affordable** (at 60% AMI) without affecting the economics of the development.
In High-Rent Neighborhoods

- High rise in **very strong market**
- If additional density pays **no property taxes**, we estimate that additional density can be **61% affordable** (at 60% AMI) without affecting the economics of the development.
- Inside the GEA, so 20% baseline affordability requirement applied even under old zoning
In High-Rent Neighborhoods

- High rise in very strong market
- If additional density pays no property taxes, we estimate that additional density can be 61% affordable (at 60% AMI) without affecting the economics of the development.
- Inside the GEA, so 20% baseline affordability requirement applied even under old zoning
- Share of whole building that can be affordable depends also on extent of upzoning
In High-Rent Neighborhoods

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**FINDINGS**

- 20% upzoning
- 27% affordable
In High-Rent Neighborhoods

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- Inside the GEA, so 20% baseline affordability requirement applied even under old zoning
- Share of whole building that can be affordable depends also on extent of upzoning

FINDINGS

33% upzoning

30% affordable
In High-Rent Neighborhoods

**Affordable share* of entire building**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percent Affordable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Zoning and 421-a</td>
<td>20%</td>
</tr>
<tr>
<td>With 20% Density Increase</td>
<td>27%</td>
</tr>
<tr>
<td>With 33% Density Increase</td>
<td>30%</td>
</tr>
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*High-rise, very strong market, inside the GEA

*Affordable at 60% of AMI
In High-Rent Neighborhoods

Affordable share* of entire building

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<th>Percent Affordable</th>
<th>Current Zoning and 421-a</th>
<th>With 20% Density Increase</th>
<th>With 33% Density Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-rise, very strong market, inside the GEA</td>
<td>20% 20%</td>
<td>27% 25%</td>
<td>30% 28%</td>
</tr>
<tr>
<td>High-rise, strong market, inside the GEA</td>
<td></td>
<td></td>
<td></td>
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</tbody>
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*Affordable at 60% of AMI
In High-Rent Neighborhoods

Affordable share* of entire building

<table>
<thead>
<tr>
<th>Current Zoning and 421-a</th>
<th>With 33% Density Increase</th>
<th>With 100% Density Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% 20%</td>
<td>30% 24%</td>
<td>41% 28%</td>
</tr>
<tr>
<td>0%</td>
<td>4%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Affordable at 60% of AMI
FINDINGS

1. In high-rent neighborhoods, additional zoning density is valuable enough to generate affordable units.

2. In lower-rent neighborhoods, additional zoning density will not generate affordable units (without subsidy).
In Low-Rent Neighborhoods

- In some neighborhoods, 100% market rate may not generate an attractive return on construction costs (let alone land).
In Low-Rent Neighborhoods

- In some neighborhoods, 100% market rate may not generate an attractive return on construction costs (let alone land).
- In these neighborhoods, no amount of additional density will make development viable.

Developer

Insufficient NOI yield
FINDINGS

In Low-Rent Neighborhoods (cont.)

Location of market-rate multifamily projects currently under construction (as of January 2015)

Number of Units
- 36 - 100
- 101 - 150
- 151 - 200
- Greater than 200

Source: Reis, Inc.
FINDINGS

In-between Neighborhoods

- In some borderline neighborhoods, 100% market rate projects may be viable with upzoning.
In some borderline neighborhoods, 100% market rate projects may be viable with upzoning.

But adding a new requirement may make NOI too small; would stifle development even with current rents.
FINDINGS

In Low-Rent Neighborhoods

- Regardless of short/medium term effects, a requirement could ensure affordable housing long term.
FINDINGS

1. In high-rent neighborhoods, additional zoning density is valuable enough to generate affordable units.
2. In lower-rent neighborhoods, additional zoning density will not generate affordable units (without subsidy).
3. The economics of mandatory inclusionary zoning will change as rents, operating costs, and construction costs shift over time.
Economics of IZ Will Change Over Time

- What works today...
Economics of IZ Will Change Over Time

- What works today...
- Might not work tomorrow if rents drop relative to construction and operating costs
FINDINGS

Economics of IZ Will Change Over Time

- What works today...
- May appear too generous if rents outpace costs
Economics of IZ Will Change Over Time

- What works today
- Tradeoff between certainty and flexibility
FINDINGS

1. In high-rent neighborhoods, additional zoning density is valuable enough to generate affordable units.
2. In lower-rent neighborhoods, additional zoning density will not generate affordable units (without subsidy).
3. The economics of mandatory inclusionary zoning will change as rents, operating costs, and construction costs shift over time.
4. A program can use the cross subsidy generated by additional density in different ways.
Policy Design Decisions

- On-site versus off-site
  - On-site: ensures ongoing cross-subsidy; access to high opportunity neighborhoods.
  - But high opportunity cost:

<table>
<thead>
<tr>
<th>Market Description</th>
<th>Tax Exemption</th>
<th>Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very strong market</td>
<td>20 year</td>
<td>$1,189,984</td>
</tr>
<tr>
<td></td>
<td>tax exemption</td>
<td></td>
</tr>
<tr>
<td>Strong market</td>
<td>25 year</td>
<td>$806,369</td>
</tr>
<tr>
<td></td>
<td>tax exemption</td>
<td></td>
</tr>
<tr>
<td>Moderate market</td>
<td>25 year</td>
<td>$428,149</td>
</tr>
<tr>
<td></td>
<td>tax exemption</td>
<td></td>
</tr>
<tr>
<td>Moderate-low market, outside GEA</td>
<td>15 year</td>
<td>$330,678</td>
</tr>
<tr>
<td></td>
<td>tax exemption</td>
<td></td>
</tr>
</tbody>
</table>
FINDINGS

Policy Design Decisions

- Level of affordability vs. percent affordable:

![Bar chart showing affordable share of entire building with 33% upzoning.](image-url)
Policy Design Decisions

- Permanent vs. long term affordability:
  - Probably does not affect development decisions
    - Present value of cash flow differences in distant future are small.
    - Impossible to forecast so far in the future
  - But other concerns: sustainability of off-site, 100% affordable vs. on-site mixed income
CONCLUSIONS

1. In high-rent markets, additional density is valuable; city can require affordable units where it adds density.
   - The amount of affordable housing that can be required varies widely based on market rents; likely construction type; extent of upzoning; level of affordability.
2. Property tax exemption makes additional density much more valuable.
3. In much of the city, the market is currently too weak for additional density to have any potential to spur mid-rise or high-rise development, let alone cross-subsidize affordable units.
4. The economics of mandatory inclusionary zoning will shift over time.
5. Policy options pose some significant tradeoffs.
Q&A