Redevelopment and housing prices

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Federal Reserve System Community Development Research Conference
May 10, 2019
Housing prices and supply

Biggest metro areas, 2008–2012 vs 2013–2017:

- Housing getting less affordable everywhere
- Slower increase where supply is growing
- Does supply generate affordability?
Conventional policy response

- Allow more construction to promote affordability
- Supply goes up and equilibrium price goes down

Make sense if housing identical, no redevelopment

What kind of housing does market actually provide?
What does new housing replace?

New housing by tract in greater Philadelphia, 2011–2016:

- 24% in tracts $\geq 75\%$ residential, $\leq 5\%$ vacant
- 77% in tracts within 5 km of downtown
How much does new housing cost?

New vs existing housing in Philadelphia, 2005–2017:

- Three-bedroom single-family house: +33%
- Three-bedroom rowhouse: +111%
- Two-bedroom high-rise apartment: +61%
Market-driven supply outcome

New housing stock necessary for growing cities
- Economic theory: more supply will moderate price increase
- Empirical evidence: higher rent in constrained cities

Market response: expensive units in desirable locations
- New housing often replacing existing stock
- More profitable to build higher-quality units

Unclear net impact on price distribution

How to think about this tradeoff?
Our approach

Fit a model of redevelopment to data from Philadelphia

- Residents care about housing quality and quantity
- Landowners own lots which may have housing already
- Three different costs to (re)development:
  - Fixed cost of changing anything
  - Per-unit cost to new quantity
  - Per-unit cost to new quality

- Market-clearing sets housing prices
- Find cost and preference parameter values to match data

Use this to understand quality and quantity changes
Key findings

Three scenarios from fitted parameter values:

- **Lowering fixed cost of development**
  - Drastically increases rate of development
  - New units rapidly replacing existing ones
  - Supply and rent both increase

- **Lowering the cost of adding density**
  - Small increase in rate of development
  - More density than quality — rent decreases

- **Raising cost of adding quality**
  - Decrease in rate of development
  - Lower supply and lower rent
Conclusion

Supply matters for access to housing

Allowing market supply may not solve problem

New supply replaces lower-cost stock

Potential policy response: discourage luxury condos?

Thank you for the opportunity to share this research