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Dealing with Illegal Housing: What Can New York City Learn from Shenzhen

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INTRODUCTION

In New York City, owners violated zoning regulations and opened up their basements, garages, and other floors to rent to people (particularly low-income immigrants) priced out of the formal market.¹ The more than 100,000 illegal dwelling units in New York City (NYC) were referred to as “granny units,” “illegal twos or threes,” or “accessory units.”² Due to the safety and habitability considerations of “alter[ing] or modif[y]ing of an existing building to create an additional housing unit without first obtaining approval from the New York City Department of Buildings (DOB),” the City government devoted substantial resources to detecting and stopping such illegal conversion.³ Recently, however, Mayor Bill de Blasio proposed to legalize such illegal dwelling units to increase the City’s rent-regulated housing stock.⁴ The question remains as to whether crackdown or legalization is the right policy.

Such illegal housing is not unique to NYC. Shenzhen, a city in south China that experienced a population explosion from 300,000 to over 10 million within three decades, faces the same problem as NYC: legal housing supply cannot catch up with the population growth, resulting in prevalent illegal housing supply.⁵ Almost half of Shenzhen’s buildings have been built illegally and now host over eight million migrant workers and low-income residents.⁶ In the past three decades, the Shenzhen city government has swung between legalization and crackdown of such illegal buildings, neither of which has resolved the problem.⁷ Due to the large number of illegal apartments, the “crackdown” option has proven to be impossible, while legalization has incurred huge information costs and encouraged more illegal constructions. In more recent years, though,

1. CHHAYA CMT. DEV. CORP., *ILLEGAL DWELLING UNITS: A POTENTIAL SOURCE OF AFFORDABLE HOUSING IN NEW YORK CITY 3* (Aug. 14, 2008), <http://chhayacdc.org/wp-content/uploads/2008/10/Illegal-Dwelling-Units-A-Potential-Source-of-Affordable-Housing-in-New-York-City.pdf> [https://perma.cc/Z8G3-NB7U] [hereinafter CHHAYA CDC].

2. *Id.*

3. *Illegal Conversions*, N.Y.C. BUILDINGS, <https://www1.nyc.gov/site/buildings/renter/illegal-conversions-vacates.page> [https://perma.cc/8K2Q-8X7W] (last visited Apr. 5, 2017).

4. Mireya Navarro, *Looser Rules on Illegal Housing Sought*, N.Y. TIMES (Oct. 13, 2013), http://www.nytimes.com/2013/10/14/nyregion/looser-rules-on-illegal-housing-sought.html?pagewanted=all&_r=0 [https://perma.cc/3U74-954B].

5. Shitong Qiao, *Small Property, Big Market: A Focal Point Explanation*, 63 AM. J. COMP. L. 197, 207–08 (2015).

6. *Id.* at 201.

7. *See infra* Section II.C.

the Shenzhen city government has discovered an effective policy: keeping the city government's zoning power intact while granting an option to owners of illegal housing to buy an exemption.⁸ The lesson from Shenzhen is that options matter at least as much as the allocation of initial entitlements. In the case of prevalent zoning violations, these options should be granted to parties that have the best information to make decisions—the numerous individual owners rather than the government. I propose that this optional zoning approach should be taken in dealing with illegal housing in New York City.

Part I of this article details illegal housing in New York City, including the three main challenges, namely, information costs, externality, and heterogeneity in dealing with illegal housing. Part II discusses how Shenzhen dealt with illegal buildings with the same challenges. Part III concludes with a preliminary proposal of community-based zoning options for New York City.

I. ILLEGAL HOUSING IN NEW YORK

Overcrowding and undersupply of affordable housing have led to a surge in illegal apartments throughout NYC.⁹ The typical migrant worker in Chinatown, Manhattan or Flushing, Queens is likely to live in an illegal location under the current NYC zoning law.¹⁰ In Jackson Heights, Queens, or similar neighborhoods, houses originally designed for a nuclear family are being occupied by multiple extended families, including cousins, aunts, and uncles.¹¹ Resorting to illegal housing is a problem not limited to immigrants. Even in the Upper East Side of Manhattan, real estate brokers occasionally show young professionals suspiciously low priced units which turned out to be basements without independent mailboxes.¹² The Pratt Center for Community Development (Pratt Center) and Chhaya Community Development Corporation (Chhaya CDC) estimated that between 300,000 and 500,000 New Yorkers live in housing units that do not

8. See *infra* Section II.C.3. For a more comprehensive picture on the Shenzhen Government's policies, see Qiao, *supra* note 5, at 207–12.

9. See CHHAYA CDC, *supra* note 1, at 3.

10. Interview with a worker in Chinatown, in New York, N.Y. (Jan. 11, 2014).

11. Sarah Wessler, *Inequality and Informality in New York: SITU Studio's Proposal for MoMA's Uneven Growth Exhibition*, ARCH DAILY (Jan. 19, 2015), <http://www.archdaily.com/589157/inequality-and-informality-in-new-york-situ-studio-s-proposal-for-moma-s-uneven-growth-exhibition> [<https://perma.cc/6NZK-DSBP>].

12. The author had such a personal experience.

legally exist.¹³ The Pratt Center report found that NYC gained 114,000 apartments *not* reflected in the official number of certificates of occupancy the City granted for new construction or renovation between 1990 and 2000.¹⁴ Chhaya CDC also conducted a door-to-door survey in Jackson Heights and the Briarwood/Jamaica section of Queens and found that 35% of the total units examined (155 out of 446 homes) had separate secondary basement units.¹⁵ The Citizens Housing and Planning Council estimated that nearly 42,000 new housing units in Queens, none of which were recorded in the official system, amounted to 73% of Queens' total housing growth from 1990 to 2000.¹⁶

According to the DOB, "an illegal conversion is an alteration or modification of an existing building to create an additional housing unit without first obtaining approval."¹⁷ Examples of these illegal conversions include creating (without obtaining approval or permits from the DOB) an apartment in the basement, attic, or garage of a property zoned or designated for manufacturing or industrial use, or dividing an apartment into single room occupancies.¹⁸ New York City has used ineffective law enforcement measures to combat the growing prevalence of illegal housing.¹⁹ Although scholars and policy advocates suggest legalization as a solution to this problem, it remains unclear whether legalization is the best course of action either.²⁰ I examine both solutions in detail in the following sections.

A. Legal Enforcement: Too Many to Fail

The New York City government has strong incentive to take measures to enforce the zoning and building codes. The government has warned that illegal housing poses serious safety risks because non-compliance with Building and Fire Safety Codes creates potentially unsafe living conditions.²¹ In addition, the overcrowding caused by

13. ROBERT NEUWIRTH, NEW YORK'S HOUSING UNDERGROUND: A REFUGE AND RESOURCE 2-3 (Pratt Ctr. for Cmty. Dev. & Chhaya Cmt. Dev. Corp., 2008) [hereinafter PRATT-CHHAYA REPORT].

14. *Id.* at 1.

15. CHHAYA CDC, *supra* note 1, at 10.

16. Martha Galvez & Frank Braconi, *New York's Underground Housing*, 9 URB. PROSPECT 1, 2 (2013), http://chpcny.org/wp-content/uploads/2011/02/UP_Underground_Housing1.pdf [<https://perma.cc/T3G4-RRNR>].

17. *Illegal Conversions*, *supra* note 3.

18. *Id.*

19. *See generally infra* Section I.A.

20. *See generally infra* Section I.B.

21. *Illegal Conversions*, *supra* note 3.

illegal housing may overburden surrounding essential services, reducing a neighborhood's quality of life, and local businesses may suffer from further reduction of already-limited industrial and manufacturing space in NYC.²²

It is possible to check the legal uses of a building by viewing the building's Certificate of Occupancy, which can be accessed through the DOB website's Buildings Information System.²³ However, current enforcement of zoning and building codes occurs through a complaint-based system where neighbors, tenants, and businesses offering services to remove the violations may report suspected illegal conversions by calling 3-1-1 and anonymously file complaints, prompting a Buildings Inspector to inspect the property.²⁴ Property owners that are found in violation of zoning and building codes are fined by the DOB.²⁵ Because enforcement of building and zoning codes substantially relies on neighbor and tenant complaints, the system can perpetuate tension and distrust within local communities.²⁶ This distrust may be particularly salient because the penalties for illegally converting a manufacturing or industrial space for residential use can be as high as \$24,000 for the first offense.²⁷ Although NYC collects revenues from these fines, the revenue is unlikely to outweigh the costs of inspection, enforcement, housing court hearings, and other related costs.²⁸

New York City has previously had minimal success in its attempts to combat its illegal housing. For example, in March 1997, NYC created a unit of thirteen Building Inspectors to ferret out illegal conversions in Queens—the borough with the most complaints of illegal conversions.²⁹ Between 1996 and 1998 the number of violation summonses issued across the city increased more than six-fold, from 637 to 4,094 respectively.³⁰ But increased vigilance has its own complications. The insufficiency of manpower, the DOB officials' lack of power to enter and vacate illegal buildings, and the absence of

22. *Id.*

23. *Id.*

24. *Id.*

25. *Id.*

26. CHHAYA CDC, *supra* note 1, at 3.

27. *Id.*

28. *Id.*

29. Vivian S. Toy, *Despite City Crackdown, Illegal and Overcrowded Apartments Survive*, N.Y. TIMES (Dec. 7, 1998), <http://www.nytimes.com/1998/12/07/nyregion/despite-city-crackdown-illegal-and-overcrowded-apartments-survive.html?page-wanted=2> [https://perma.cc/M69A-TECU].

30. *Id.*

substitute housing all contributed to making serious enforcement difficult.

First, there is simply inadequate manpower for code enforcement. As revealed in the 2014 Queens Borough President Policy Statement:

Today, less than 300 inspectors are on staff citywide, with no staff increase projected. A majority of complaints become response delayed because of the inadequate number of inspectors. Because of these staffing shortfalls, The Department of Buildings and the Department of Housing Preservation and Development frequently have a backlog of thousands of complaints. Violations go uncorrected, which could lead to building collapse and injuries, and millions of dollars in fines go uncollected. Without robust enforcement, there is no deterrent to those involved in the illegal conversion of housing or the exploitation of those in need of affordable housing.³¹

Second, enforcement officials cannot enter an apartment without a warrant. The Fourth Amendment of the U.S. Constitution protects housing owners and tenants from unreasonable searches.³² In *Camara v. Municipal Court*,³³ the Supreme Court held that homeowners could refuse to allow housing inspectors access to their personal residences until they have obtained a search warrant.³⁴ This can apply to homeowners with potential accessory dwelling units in NYC.³⁵ The requirement of a warrant makes the verification of illegality difficult. However, when investigations do reveal illegal units, the government typically provides landlords with a “grace period” to correct violations, unless the housing conditions are dangerous or uninhabitable.³⁶ Thus, even when a violation of zoning

31. MELINDA KATZ, THE OFFICE OF THE QUEENS BOROUGH PRESIDENT: STRATEGY POLICY STATEMENT 2014 (2014), http://queensbp.org/Queens_Strategic_Policy_Statement_2014.pdf [<https://perma.cc/F3AK-2STF>].

32. U.S. CONST. amend. IV, § 1 (“The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”); see also Stephanie M. Stern, *The Inviolate Home: Housing Exceptionalism in the Fourth Amendment*, 95 CORNELL L. REV. 905 (2009).

33. 387 U.S. 523, 534 (1967).

34. See George J. Castrataro, *Housing Code Enforcement: A Century of Failure in New York City*, 14 N.Y. L.F. 60, 63–67 (1968).

35. See, e.g., Katie Honan, *Half of Illegal Home Subdivision Complaints Are in Queens*, DNAINFO (Oct. 28, 2014, 7:24 AM), <http://www.dnainfo.com/new-york/20141028/corona/more-than-half-of-illegal-subdivisions-are-queens-buildings-dept-says> [<https://perma.cc/NUV7-LKTB>].

36. Galvez & Braconi, *supra* note 16, at 3.

and building codes is verified, the government can only vacate a premises if there is imminent danger.

The process of going to court over an alleged violation can be very expensive.³⁷ However, if the government cannot evacuate the property, residents will continue to stay there.³⁸ On many occasions, while the landlords violated the zoning and building codes, tenants are forced to stay in the illegal premises. Some landlords use these tenants to their advantage by continuing to collect rent from them to help pay government fines.³⁹ Absent owners may ignore summonses and become repeat offenders to the DOB.⁴⁰ Even worse, however, is when landlords refer to the illegality of their housing as an excuse to evict tenants.⁴¹

Third, regardless of the convenience and effectiveness of the procedure to eliminate such illegal housing, the NYC government should still be concerned about residents of illegal housing who might be otherwise homeless.⁴² Although the DOB is able to issue vacate orders for dangerous dwellings, the Department rarely does so due to the lack of relocation options.⁴³ During all of fiscal year of 2002, roughly two percent of the 10,000 complaints of illegal conversion to the DOB resulted in a vacate order.⁴⁴ Ed Hernandez, a co-chairman of the Long Island Campaign for Affordable Housing, commented on this problem in 2003 by stating, “if you crack down on one hand and have no alternatives on the other, you’re just making the [housing] crisis even more of a crisis.”⁴⁵

For all three reasons above, legal enforcement has not worked in NYC. Despite government efforts, the number of illegal units has

37. See, e.g., Tessa Melvin, *Legally or Not, 1-Family House Is Often Home To 2 Families*, N.Y. TIMES (Feb. 5, 1995), <http://www.nytimes.com/1995/02/05/realestate/legally-or-not-1-family-house-is-often-home-to-2-families.html> [<https://perma.cc/2C7R-G29V>] (reporting on a 1995 court case that took eleven months and cost taxpayers \$10,000 in legal fees).

38. Toy, *supra* note 29.

39. *Id.*

40. *Id.*

41. *Id.*

42. *Id.* (providing the example of a tenant of an illegal housing unit who said “I only get \$552 a month in Social Security and my rent is \$400, so where else am I going to go?”).

43. Galvez & Braconi, *supra* note 16, at 3.

44. *Id.*

45. Vivian S. Toy, *Unraveling the Issue of Illegal Apartments*, N.Y. TIMES (June 8, 2003), <http://www.nytimes.com/2003/06/08/nyregion/unraveling-the-issue-of-illegal-apartments.html> [<https://perma.cc/58ML-DNVW>].

continued to increase through the decades.⁴⁶ Additionally, the ineffectiveness of legal enforcement has not significantly improved over the years. In 1997, then-Queens Borough President Claire Schulman convened the Queens Illegal Conversion Task Force to address the problem of illegal apartment conversions in Queens.⁴⁷ Of the ten houses with illegal apartments closely followed for a year by this Illegal Conversion Task Force, all but two of the houses continued to have illegal conditions, despite repeated citations and fines.⁴⁸ In at least five cases, the owners neither paid the fines nor made changes to the property.⁴⁹ According to Patricia Dolan, President of the Kew Gardens Hills Homeowners' Civic Association, "[w]e've got more inspectors and a lot more violations on the books, but there's still nothing to force compliance and make people correct dangerous situations."⁵⁰

B. Legalization: Uncertain Effects

With the scarcity of affordable housing in NYC, some housing advocates are calling for a new approach. Legalization is the other way scholars and policy advocates have proposed to resolve the illegal housing problem, and has made it onto the agenda of housing groups.⁵¹ These advocates argue that legalizing at least some of these illegally converted units by waiving certain legal requirements in zoning and building codes would have a number of benefits for NYC.⁵² It would ensure fire safety and health compliance of accessory units, reduce the cost of responding to complaints with multiple inspections, and enhance ability to accommodate and plan for population growth through allocation of resources to area public schools, sanitation, parking capacity, and development. In response to these advocates, Mayor Bill de Blasio has singled out illegal basements and "granny flats" as possible additions to the city's rent-regulated housing stock,⁵³ perhaps drawing on his experience living in

46. PRATT-CHHAYA REPORT, *supra* note 13, at 1.

47. Galvez & Braconi, *supra* note 16, at 2.

48. Toy, *supra* note 29.

49. *Id.*

50. *Id.*

51. *See, e.g.*, Galvez & Braconi, *supra* note 16; CHHAYA CDC, *supra* note 1; PRATT-CHHAYA REPORT, *supra* note 13.

52. Navarro, *supra* note 4.

53. Esmé E. Deprez, *Illegal NYC Homes Thrive as De Blasio Tackles Housing*, BLOOMBERG BUS. (Nov. 21, 2013), <http://www.bloomberg.com/news/articles/2013-11-21/illegal-nyc-homes-thrive-as-de-blasio-tackles-housing> [https://perma.cc/64V3-79HF].

a questionably legal basement apartment in Astoria, Queens, in the 1980s.⁵⁴ However, it remains unclear how de Blasio is going to legalize such illegal housing. According to the NYC Housing Plan:

There are thousands of unsanctioned housing units across the city, primarily in basements and above garages. The conditions of these units may represent a threat to health and safety of their occupants and to the first responders who may be called to respond to emergencies in those units. The engineering and fire safety challenges created by these units are extremely complex. The City will work with the relevant stakeholders to examine how best to bring these units into the regulated housing system, including a review of other cities' best practices to bring fresh ideas to the discussion.⁵⁵

The Pratt Center and Chhaya CDC recommend NYC “offer landlords who agree to legalize their basement apartments as accessory dwelling units a reasonable (e.g., 12–18 month) grace period during which they will not be subject to penalties for illegal occupancy under the Building Code.”⁵⁶ They also recommend strengthened enforcement and financial assistance to illegal housing landlords and tenants, to encourage compliance.⁵⁷ It seems to be a majority opinion among scholars and policy makers that legalization should occur.⁵⁸ The American Planning Association (APA) has even provided a model code for legalization.⁵⁹ Scholars have examined the political opposition to legalization,⁶⁰ but the consequences of legalization have not been examined in detail and therefore might be not as simple of a solution as it seems. As acknowledged by the APA report, owners of Accessory Dwelling Units (ADUs) “strongly resist legalization out of their fear of higher property taxes, legal sanctions, income taxes on rental income, the costs of conforming to local codes,

54. Navarro, *supra* note 4.

55. THE CITY OF NEW YORK, HOUSING NEW YORK: A FIVE-BOROUGH, TEN-YEAR PLAN 47 (2014), http://www.nyc.gov/html/housing/assets/downloads/pdf/housing_plan.pdf [<https://perma.cc/KCX5-YBG5>].

56. PRATT-CHHAYA REPORT, *supra* note 13, at 1.

57. *See id.* at 1.

58. *See, e.g.*, DAN HAFETZ ET AL., BACKGROUND GUIDE ON HOW TO LEGALIZE CELLAR APARTMENTS IN NEW YORK CITY (2009), <https://basecampaign.files.wordpress.com/2013/06/background-guide-on-how-to-legalize-cellar-apartments-in-new-york-city-final.pdf> [<https://perma.cc/B397-DBQX>].

59. *See* RODNEY L. COBB & SCOTT DVORAK, ACCESSORY DWELLING UNITS: MODEL STATE ACT AND LOCAL ORDINANCE (2000), http://assets.aarp.org/rgcenter/consume/d17158_dwll.pdf [<https://perma.cc/L87U-VJJ5>].

60. *See, e.g.*, Margaret F. Brinig & Nicole Stelle Garnett, *A Room of One's Own? Accessory Dwelling Unit Reforms and Local Parochialism*, 45 URB. LAW. 519 (2013).

and the possibility that code inspectors will discover a variety of code violations. For these reasons, programs to accommodate illegal ADUs have not been very successful.”⁶¹

Many communities in Westchester County, New York, and Connecticut have pursued legalization programs as a response to the special problems of elderly people owning large homes and the increasing number of young people seeking to buy or rent housing.⁶² There were also a few legalization programs in towns on Long Island, New York, but residents questioned whether any illegal landlord would voluntarily submit to paying the required fee and having his or her property inspected.⁶³ In Suffolk County, New York, the Town of Babylon and its incorporated village of Lindenhurst have amended their zoning codes to legalize accessory apartments.⁶⁴ Although each of these suggested legalization programs have implemented a system of permits and fees to allow for conversions,⁶⁵ planning officials in these towns and counties have noted that compliance has been slow.⁶⁶ Residents who converted their homes before these codes took effect (when it was still illegal) are particularly slow to comply with new codes because of the fear that municipalities will require costly renovations to their apartments to conform to approved standards, and the fear of disapproval from surrounding neighbors.⁶⁷ In essence, legalization programs in the 1980s were predominantly failures.⁶⁸ For example, a legalization program in Old Tappan, New Jersey, was met with a disappointingly meager number of applications.⁶⁹ In the codes

61. COBB & DVORAK, *supra* note 59, at 49–50.

62. *Id.* (adapting a proposal for ADU legalization from a 1995 draft of the Village of Scarsdale, New York’s Zoning Code, §4.7.1.g. of South Windsor, Connecticut’s 1990 Zoning Ordinance, and §701 m of Hamden, Connecticut’s 1996 Zoning Regulations).

63. See Bret Senft, *Restricting Illegal Apartments*, N.Y. TIMES (Sept. 24, 1989), <http://www.nytimes.com/1989/09/24/nyregion/restricting-illegal-apartments.html> [<https://perma.cc/XCP4-XW64>].

64. Article II: Accessory Apartments in One-Family Dwellings, 1995 Babylon Local Law No. 14, Babylon Admin. Legislation §153, art. II., <http://ecode360.com/6808107> [<https://perma.cc/CB6S-UHDM>] (“It is the purpose of this article to encourage the residents of our community who require accessory apartments to legally remain in the Town of Babylon.”).

65. See *supra* notes 63 and 64 (and accompanying text).

66. Gene Rondinaro, *Illegal Accessory Units Trouble Suburbs*, N.Y. TIMES (Mar. 3, 1985), <http://www.nytimes.com/1985/03/03/realestate/illegal-accessory-units-trouble-suburbs.html> [<https://perma.cc/FB8V-QC9H>].

67. *Id.*

68. See *id.*

69. *Id.* (noting how Old Tappan’s then-mayor commented how the lack of applications was “a shame when there is now a perfectly legal method of having it done”).

written to address the legalization programs, local governments often outlined comprehensive procedures to ensure the quality and safety of the legalized buildings and to charge the owners a fee for the legalization. Although both requirements are reasonable, many illegal housing owners did not like the extra financial burden, and therefore would not cooperate.⁷⁰ What is more, legalization policies and laws might be tailored to address the concern of legal housing owners in the neighborhood, resulting in stricter compliance requirements. These compliance requirements might further deter illegal housing owners from applying for legalization.⁷¹

Although there have been some seemingly successful legalization programs, the amount of illegal housing that such programs have addressed, and the scale of such programs, are too small to adequately assess whether these programs could be successful in New York City. For example, Santa Cruz's ADU Development Program, which has won numerous awards and has been used as a model by other communities, averages forty to fifty ADU permits per year.⁷² Similarly, Barnstable, Massachusetts' Accessory Affordable Apartment or Amnesty Program, part of their Affordable Housing Plan from 2000, has also been highlighted as an exemplary way to bring the high number of existing illegal ADUs into compliance with current requirements.⁷³ While the program has been successful in converting existing illegal accessory apartments into code-compliant ADUs, in the eight years after its inception, Barnstable has approved only 160 affordable ADUs—roughly twenty ADUs per year.⁷⁴ Going at these rates, it would take more than 2,000 years in Santa Cruz, and 5,000 years in Barnstable to legalize the 100,000 illegal apartments estimated by The Pratt Center and Chhaya CDC.⁷⁵

In sum, the NYC government would have more manpower and higher capacity to deal with illegal housing if similar programs were adopted, but the small numbers in the so-called successful programs discussed above do not provide a solid basis to make predictions. Instead, the information costs, politics over externality, and heterogeneity of the illegal housing sector would be much more

70. *See id.*

71. *See* Senft, *supra* note 63.

72. *See generally* U.S DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT OFFICE OF POLICY DEVELOPMENT AND RESEARCH, ACCESSORY DWELLING UNITS: CASE STUDY (2008), <http://www.huduser.gov/portal/publications/adu.pdf> [<https://perma.cc/KR8A-WNLW>].

73. *Id.* at 5.

74. *Id.*

75. *See* CHHAYA CDC, *supra* note 1, at 3.

significant and complicated in NYC than in these small towns and cities where implementation has been moderately successful.

C. Challenges to Illegal Housing in New York City

1. Information Costs

Concealed within the City's seemingly endless rows of apartment buildings, townhouses, and high-rises is a network of typologies that have adapted, subdivided, or converted existing spaces to accommodate the growing number of individuals who cannot find a place to live within the formal housing market.⁷⁶ With owners unwilling to reveal that they have these units for fear of being cited with a violation and tenants not daring to report possible unsafe conditions for fear of eviction, it is not easy to quantify just how many of these underground units exist in New York City and what they look like.⁷⁷ Information cost is an obvious challenge to dealing with the illegal housing issue in New York City. This information cost refers not only to gathering information about buildings, but also to information about the social relations surrounding housing, including renting contracts and property arrangements. New York courts have addressed various issues of illegal housing, such as whether a landlord is liable for a tenant's illegal conversions,⁷⁸ whether a tenant of an illegal apartment is entitled to the government's relocation assistance,⁷⁹ and whether owners could recover value of use and occupancy of premises in illegal conversion.⁸⁰ These cases testify to the complicated property and social arrangements involved in illegal housing. A top-down and unified approach to deal with problems of illegal housing would require cooperation and information from illegal housing owners and tenants.

2. Externality

Although city planners might perceive economic and social benefits of ADUs, surrounding neighbors often fear the exact opposite. They fear that the increased density and traffic in their neighborhoods resulting from the units will cause a decline in their

76. See Wessler, *supra* note 11.

77. PRATT-CHHAYA REPORT, *supra* note 13, at 2.

78. See *Matter of Kurtin v. City of New York*, 78 A.D.3d 473, 911 N.Y.S.2d 40 (N.Y. App. Div. 2010).

79. See *Matter of Smith v. Donovan*, 61 A.D.3d 505, 878 N.Y.S.2d 675 (N.Y. App. Div. 2009).

80. See *Caldwell v. American Package*, 57 A.D.3d 15, 866 N.Y.S.2d 275 (N.Y. App. Div. 2008).

property values.⁸¹ In fact, neighborhood residents dislike illegal housing so much that they voluntarily “police the community” for illegal renters in the absence of legal enforcement.⁸² Residents’ fears have some merit, however, as additional housing imposes a disproportionate drain on municipal services such as roads, sanitary services, and schools.⁸³

3. *Heterogeneity*

The conditions of illegal housing in New York City, as revealed by Chhaya CDC, vary case-by-case. Some illegal housing conditions are safe and meet the Building Code, some could easily be made safe and habitable, and some are fundamentally inappropriate for habitation—lacking natural light, proper ventilation, or safe forms of egress—and could not be made habitable without major renovations.⁸⁴ Chhaya CDC surveyors found “many tenants living in dangerous and extremely overcrowded conditions in units with dilapidated ceilings, poor electrical wiring, and tight living quarters with multiple uses that seemed unsafe for habitation.”⁸⁵ Naturally, these units in serious violation of building safety codes would require significantly more work to become compliant with the law.

Residents of illegal housing also vary. There are tenants who live in accessory housing temporarily, but also tenants have been living in accessory units for many years.⁸⁶ Families who have been living in ADUs for several years are considered an integral part of the local community.⁸⁷ Their children are enrolled in local schools, they worship in local faith institutions, have family or established

81. See Frank Bruni & Deborah Sontag, *Behind a Suburban Facade in Queens, A Teeming, Angry Urban Arithmetic*, N.Y. TIMES (Oct. 8, 1996), <http://www.nytimes.com/1996/10/08/nyregion/behind-a-suburban-facade-in-queens-a-teeming-angry-urban-arithmetic.html> [https://perma.cc/N2J6-JY6G] (quoting a community resident who stated: “The house that used to send two kids to school sends eight . . . This has created havoc with the quality of life in our community.”); Morris Newman, *Focus: Riverside, Calif.; The Welcome Mat’s Out for ‘Granny Flats’*, N.Y. TIMES (Aug. 25, 1991), <http://www.nytimes.com/1991/08/25/realestate/focus-riverside-calif-the-welcome-mat-s-out-for-granny-flats.html> [https://perma.cc/5PHN-JP85].

82. See Marcelle S. Fischler, *Fighting In-Home Rentals*, N.Y. TIMES (Sept. 12, 2008), http://www.nytimes.com/2008/09/14/realestate/14lizo.html?_r=0&adxnml=1&adxnmlx=1428895208fJGAPZc9XzdYAjsfJwethg [https://perma.cc/FNY5-HVZT].

83. *Id.*

84. See CHHAYA CDC, *supra* note 1, at 4.

85. *Id.* at 9 (noting one instance of an individual spending twelve years in his friend’s home).

86. Toy, *supra* note 45.

87. *See id.*

friendships with residents in the community, and are, in many cases, happy with their communities.⁸⁸ Social classes of illegal housing tenants also vary, where some tenants of ADUs are unauthorized immigrants, unemployed, and/or on welfare, and some are also teachers, nurses or workers at hospitals.⁸⁹

There are therefore also differences in the interests and preferences of illegal housing owners. Some owners want to get legal title for these units; some simply may not care.⁹⁰ The Chhaya CDC calls for further research that would help facilitate the integration of illegal housing into the law, “including the projected cost of conversion for [the] average unit, a comparative assessment of increase[s] in tax liabilities, costs of conversion versus income generated, and impact on long-term property value”;⁹¹ and, additionally, a “comparative analysis of time and resources for an owner to proactively legalize versus responding to a complaint of illegal use.”⁹² Such costs would vary by circumstance, and it would be difficult to give a unified answer for city-wide illegal housing. This variance explains why some people say they would be the first to apply for legalization if there is such a program but, on the other hand, many existing programs have had very limited success.⁹³

II. LESSONS FROM SHENZHEN

Shenzhen is a city similar in size to New York City. However, it faces an even bigger problem of illegal housing because almost half of the housing in Shenzhen is built in violation of zoning and building codes, and therefore illegal.⁹⁴ In the past three decades the Shenzhen city government has implemented various measures to deal with illegal housing while facing the same challenges arising from information costs, externality, and heterogeneity as in New York City.⁹⁵ As such, New York City can learn from Shenzhen’s experiences dealing with illegal housing. In this Part, I apply Ian

88. *See id.*

89. *See id.*

90. *See supra* Section I.B.

91. CHHAYA CDC, *supra* note 1, at 2.

92. *Id.*

93. *Cf.* Elissa Gootman, *What Lies Behind Door No. 2? In This Town, Don’t Even Ask*, N.Y. TIMES (July 15, 2002), <http://www.nytimes.com/2002/07/15/nyregion/what-lies-behind-door-no-2-in-this-town-don-t-even-ask.html> [<https://perma.cc/484X-6C8R>].

94. Qiao, *supra* note 5, at 210.

95. *See infra* Section II.C.

Ayre's optional law framework,⁹⁶ which is an expansion of Guido Calabresi and A. Douglas Melamed's structure of legal entitlements⁹⁷ to analyze illegal housing and adverse zoning, i.e., private construction and land use against governmental zoning and building codes. This new "optional zoning" approach can be applied to analyze the practices of Shenzhen for the past three decades, which adopted five of the six rules under the optional zoning framework in dealing with illegal housing. The most cost-effective solution is to grant call options, rather than titles to illegal housing owners.

A. Comparability

Table 1. Comparison of New York City and Shenzhen

	Population	Land	Population in Illegal Housing
New York City	8,491,079 ⁹⁸	783.8 square km ⁹⁹	300,000 to 500,000 ¹⁰⁰
Shenzhen	10,628,900 ¹⁰¹	1996.8 square km ¹⁰²	Up to 8 million ¹⁰³

Situated immediately north of Hong Kong, in the southern part of China's Guangdong Province, Shenzhen has been considered the symbolic heart of the Chinese economic reform.¹⁰⁴ In 1980, Deng Xiaoping, the then supreme leader of China, designated Shenzhen (then an agriculture county of about 300,000 farmers named Bao'An) as a "special economic zone" (SEZ) to pilot market-oriented reforms.¹⁰⁵ Since the establishment of the SEZ, Shenzhen has boomed into economic growth and urbanization. From 1979 to 2010,

96. See generally IAN AYRES, *OPTIONAL LAW: THE STRUCTURE OF LEGAL ENTITLEMENTS* 1–4 (2005).

97. See Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972).

98. See Department of City Planning of New York, *Census Bureau Estimates for July 1, 2014, Population: Current Population Estimates*, <http://www.nyc.gov/html/dcp/html/census/popcur.shtml> [https://perma.cc/N58V-9UDJ].

99. See *State & County QuickFacts: New York*, U.S. CENSUS BUREAU (Dec. 2, 2015), <http://quickfacts.census.gov/qfd/states/36/3651000.html> [https://perma.cc/TZ66-CLBT].

100. See PRATT-CHHAYA REPORT, *supra* note 13, at 2.

101. STATISTICS BUREAU OF SHENZHEN CITY & SHENZHEN SURVEY OFFICE OF THE STATE STATISTICS BUREAU, *SHENZHEN STATISTICAL YEARBOOK 2014*, § 1.1.2 (2014), <http://www.szstj.gov.cn/nj2014/indexce.htm> [https://perma.cc/5G9Z-EC3S].

102. *Id.*

103. Qiao, *supra* note 5, at 197, 201.

104. *Id.* at 207.

105. *Id.*

the annual average growth rate of the Gross Domestic Product (GDP) in Shenzhen was 25.3%.¹⁰⁶ Shenzhen ranked fourth in GDP and first in GDP per capita among mainland Chinese cities in 2009.¹⁰⁷ The population of Shenzhen has grown from 314,100 in 1979, of whom 312,600 had local *hukou* (household registration), to 10,372,000 in 2010, of whom only 2,510,300 had local *hukou*.¹⁰⁸

The exponential population growth also brought huge demand for housing, but there was no housing crisis like in New York City.¹⁰⁹ In Shenzhen, housing prices are significantly more expensive than can be afforded by the majority of the population.¹¹⁰ Most of the eight million migrant workers in Shenzhen actually stay in illegal housing, which composes 47.57% of the total floor space of Shenzhen.¹¹¹ Such housing is illegal because it violates land use regulations and building codes. Illegal land development has played an indispensable role in the rapid economic growth of Shenzhen.¹¹²

B. Optional Zoning

Zoning is the right of the government to control land and building use. Adverse possession is when an individual possesses property owned by someone else without his or her permission until the statute of limitations expires for the owner to recover possession, which allows the adverse possessor to acquire a root of title to that already-owned property.¹¹³ American law often requires that possession must be exclusive, open and notorious, actual, continuous, and adverse

106. SHENZHEN STATISTICS BUREAU & NBS SURVEY OFFICE IN SHENZHEN, SHENZHEN STATISTICAL 5 (2011).

107. ZHENG LE, THE PATH OF SHENZHEN 16 (2010).

108. See SHENZHEN STATISTICS BUREAU & NBS SURVEY OFFICE IN SHENZHEN, *supra* note 106, at 4.

109. See generally Shitong Qiao, *Planting Houses in Shenzhen: A Real Estate Market without Legal Titles*, 29 CAN. J.L. & SOC. 253, 258–59 (2014).

110. In August 2015, the average housing price in Shenzhen is 38000 RMB (USD 5960) per square meters, and the average annual salary in Shenzhen is 72,648 RMB (USD 11,394). It would take an average salary-earner in Shenzhen fifty-two years to buy a 100-square-meter apartment, assuming he does not spend his salary on anything else. See Cankaoxiaoxi (参考消息), Gangmei: Hushen Mingzhong Buchibuhe 50 nian cai gou Mai 100 pingmi Fang (港媒:沪深民众不吃不喝50年才够买100平米房) [*It Takes Residents in Shanghai and Shenzhen 50 Years Without Eating or Drinking to Buy a 100-Square-Meter Apartment*], SINA NEWS (Sept. 17, 2015), <http://news.sina.com.cn/c/zs/2015-09-17/doc-ifxhytwr2121287.shtml> [<https://perma.cc/45VM-WSE6>].

111. See Qiao, *supra* note 5.

112. See generally Qiao, *supra* note 109, at 270–71.

113. THOMAS W. MERRILL & HENRY E. SMITH, THE OXFORD INTRODUCTIONS TO U.S. LAW: PROPERTY 34 (2010).

under a claim of right.¹¹⁴ Illegal land use can, therefore, be called “adverse zoning” by land users by applying the adverse possession concept to government-held property interests.¹¹⁵ We can explore how to structure the legal entitlements between illegal land users and the government under the framework of adverse possession.¹¹⁶

The concept of adverse possession can be extended beyond the possession of things. For example, the revival of recent research on adverse possession was partly attributed to a California Supreme Court decision about prescriptive easement.¹¹⁷ Related to adverse possession, prescription is “the effect of lapse of time in creating or extinguishing property interests.”¹¹⁸ It is based on the theory that if “one makes non-permissive use of another’s land, and the landowner fails to prevent such use, such acquiescence is conclusive evidence that the user is rightful”.¹¹⁹ A prescriptive easement is created “by such use of land, for the period of prescription, as would be privileged if an easement existed, provided its use is (1) adverse, and (2) for the period of prescription, continuous and uninterrupted.”¹²⁰

Thomas Merrill calls prescriptive easement a first cousin of adverse possession.¹²¹ Prescriptive easement and adverse possession are different in that the former involves non-possessory use of property, which ripens into an easement, and the latter involves possession of property, which ripens into a fee simple.¹²² Though the non-possessory nature of an easement generally means that the continuity and exclusivity elements should be interpreted differently than in a case of adverse possession, the same legal requirements apply to both adverse possession and prescriptive easements. Scholars often do not distinguish too sharply between the rules of legal entitlements under adverse possession and prescriptive easement.¹²³ Because adverse

114. *Id.* at 35.

115. Scott Andrew Shepard, *Adverse Possession, Private-Zoning Waiver & Desuetude: Abandonment & Recapture of Property and Liberty Interests*, 44 U. MICH. J.L. REFORM 557, 558 (2011).

116. *See id.*

117. *Warsaw v. Chicago Metallic Ceilings, Inc.*, 35 Cal. 3d 564, 676 P.2d 584, 199 Cal. Rptr. 773 (Cal. 1984); *see also* Thomas W. Merrill, *Property Rules, Liability Rules and Adverse Possession*, 79 NW. U. L. REV. 1122, 1122–54 (1985).

118. William G. Ackerman & Shane T. Johnson, *Outlaws of the Past: A Western Perspective on Prescription and Adverse Possession*, 31 LAND & WATER L. REV. 79, 86 (1996).

119. *Id.*

120. *Id.* at 86–87.

121. Merrill, *supra* note 117, at 1124.

122. Ackerman & Johnson, *supra* note 118, at 88.

123. *Id.*

possession plays a more significant role in property law, discussions of “the effect of lapse of time in creating or extinguishing property interests” are more often under the framework of adverse possession.

As Guido Calabresi and A. Douglas Melamed wrote, the first issue that any legal system must face is the problem of “entitlement.”¹²⁴ When presented with conflicting interests of two or more individuals or groups of individuals, a state must decide which side to favor and the kind of protection to grant to that side.¹²⁵ Calabresi and Melamed define three types of entitlements—entitlements protected by property rules, entitlements protected by liability rules, and inalienable entitlements.¹²⁶ Property rules protect entitlements by deterring nonconsensual takings.¹²⁷ As such, an entitlement is protected by a property rule when an individual who wants to take an entitlement from another must buy it from a voluntary seller at an agreed upon price.¹²⁸ Liability rules, on the other hand, protect entitlements by compensating the entitlement holder when such takings in fact occur.¹²⁹ Therefore, an entitlement is protected by a liability rule when an individual who wants to take an entitlement from another can destroy the initial entitlement if the individual is willing to pay an objectively determined value for it.

Merrill first applied the Calabresi-Melamed framework to analyze adverse possession.¹³⁰ Adopting this approach to analyzing adverse zoning, the state can choose among four different rules.

Table 2: Calabresi and Melamed’s Two-by-Two Box Applied to Adverse Zoning¹³¹

Method of Protection		
Initial Entitlement	Property Rule	Liability Rule
The Government	Rule 1	Rule 2
Adverse Zoners	Rule 3	Rule 4

- Rule 1: Government prohibits adverse zoning—the government’s zoning cannot be violated.
- Rule 2: Government has the zoning power, but individuals can violate it by paying compensation.

124. Calabresi & Melamed, *supra* note 97, at 1090–92.

125. *Id.* at 1092.

126. *Id.*

127. AYRES, *supra* note 96, at 5.

128. *Id.*

129. *Id.*

130. See Merrill, *supra* note 117.

131. For a similar table, see AYRES, *supra* note 96, at 14.

- Rule 3: Government recognizes adverse zoning without requirements of compensation.
- Rule 4: Government recognizes adverse zoning, but can get rid of it by compensating individuals.

The Calabresi and Melamed categorization has since dominated the discussions of legal entitlements—scholars have discussed different aspects of these rules, tried to expand their content, and even invented new rules.¹³² Among many others, Ian Ayres significantly expanded the content of liability rules by introducing option theory into this field.¹³³ To define an option, it must be determined who has the option, whether the option is to buy (a “call option”) or to sell (a “put option”), and the price of exercising the option.¹³⁴ The individual who has the call option can force a sale at this exercise price, even if the seller does not want to sell.¹³⁵ According to Ayres, traditional liability rules that give at least one party an option to take an entitlement non-consensually and pay the entitlement owner some exercise price gives potential takers a call option. With this new conception of traditional liability rules as granting a potential taker a call option, academics began conceptualizing put options in this context. Here, put options would give the option holder the choice of whether to be *paid* a non-negotiated amount, giving rise to “forced purchases.”

Applied to adverse zoning, the possibility of put options suggests two additional rules:

- Rule 5: Government grants titles to adverse zoners, but also gives them the option of waiving their titles in return for compensation from the government.
- Rule 6: Government not only can keep its entitlement to zoning, but also has the option to give up its entitlement and receive compensation from adverse zoners.

132. See, e.g., Lucian Arye Bebchuk, *Property Rights and Liability Rules: The Ex Ante View of the Cathedral*, 100 MICH. L. REV. 601 (2001); Abraham Bell & Gideon Parchomovsky, *Pliability Rule*, 101 MICH. L. REV. 1 (2002); Louis Kaplow & Steven Shavell, *Property Rules Versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996); James E. Krier & Stewart J. Schwab, *Property Rules and Liability Rules: The Cathedral in Another Light*, 70 N.Y.U. L. REV. 440 (1995); Saul Levmore, *Unifying Remedies: Property Rules, Liability Rules, and Startling Rules*, 106 YALE L.J. 2149 (1997).

133. See AYRES, *supra* note 96, at 5–15.

134. *Id.*

135. *Id.* at 15.

Incorporating the possibility of “put-option” rules, the structure of legal entitlements in adverse zoning is as following:

Table 3: Ayres’ Two-by-Three Box Applied to Adverse Zoning¹³⁶

Method of Protection			
Initial Entitlement	Property Rule	Liability Rule Call Option	Liability Rule Put Option
The Government	Rule 1	Rule 2	Rule 6
Adverse Zoners	Rule 3	Rule 4	Rule 5

According to the distribution of assets and options, the structure of legal entitlements in adverse zoning can be depicted as follows:

Table 4: Ayres’ Table of Claims¹³⁷ Applied to Adverse Zoning

	Govt’s Claim	AZ’s Claim
Rule 1	Zoning	0
Rule 2	Zoning - Call Option	Call Option
Rule 3	0	Adverse Zoning
Rule 4	Call Option	Adverse Zoning - Call Option
Rule 5	- Put Option	Adverse Zoning + Put Option
Rule 6	Zoning + Put Option	- Put Option

C. Practices in Shenzhen

In Shenzhen, each village has a shareholding co-op at the core their community. These co-ops are responsible for managing the collective development land and issue dividends to villagers at the end of each year.¹³⁸ The income generated by the land funds a variety of public works. Members of village co-op boards are typically well-known figures in the community, creating a sense of familiarity and giving the co-ops intimate knowledge of local property arrangements, knowledge that external government branches would otherwise be unable to access.¹³⁹ In addition to their superior access, co-ops

136. For a similar table, see *id.*

137. *See id.* at 17.

138. Qiao, *supra* note 109, at 260.

139. *Id.*

benefit from fewer formal constraints than other government entities.¹⁴⁰

Village co-ops are willing to provide information and support for illegal housing transactions because of economic incentives. They keep records of village building histories in the form of property maps, meeting minutes, or sales receipts, and determine property rights in illegal buildings.¹⁴¹ It is the village co-ops that decide and coordinate how much to build in the villages, and represent villagers in negotiating with the government on rezoning.¹⁴²

As early as in 1982, the Shenzhen government tried to make a feasible plan to deal with the illegal rural houses.¹⁴³ In dealing with the village co-ops, the Shenzhen government has tried five of the six rules under optional zoning framework in the past decades.¹⁴⁴ The only missing rule in the Shenzhen government policies, Rule 5, is actually applicable to a certain group of cases. Shenzhen demonstrates that neither Rule 1 nor Rule 3 works in dealing with adverse zoning—to demolish illegal housing is too costly to achieve and granting illegal housing legal titles for free encourages more illegal land use.¹⁴⁵ Instead, it is more cost-effective and feasible to grant the government the initial entitlement to zoning, rather than individual land users, and therefore Rule 2 (granting call options to illegal housing owners) is the most efficient policy.¹⁴⁶ In the following section, I present a detailed analysis of the six rules in Shenzhen.

1. Neither Legal Enforcement nor Legalization Works: The Limitation of Rule 1, Rule 3, and Rule 6

Legal enforcement, i.e., Rule 1, has proved to be too costly for the government. From the 1980s to the mid-1990s, the Shenzhen government promulgated a series of regulations to deal with illegal land use.¹⁴⁷ However, in the face of prevalent illegal land use, the government's enforcement power seemed limited. A typical illegal building demolition involves dozens of government employees,

140. *Id.* at 260–61.

141. *Id.* at 261.

142. *Id.*

143. SHENZHEN CITY GOVERNMENT, STIPULATIONS ON STRICTLY PROHIBITING PRIVATE AND NON-PLANNING HOUSING BUILDING WITHIN THE SPECIAL ECONOMIC ZONE 1 (Mar. 29, 1982).

144. *See infra* Sections II.C.1–C.3.

145. *See infra* Section II.C.2.

146. *See infra* Section II.C.3.

147. Shitong Qiao, *Small Property, Adverse Possession and Optional Law*, in *LAW AND ECONOMICS OF POSSESSION* 290, 303–06 (Yun-chien Chang ed., 2015).

including construction workers who are responsible for demolition and policemen who maintain order during the demolition.¹⁴⁸ Each demolition is a battle between the government and villagers, which frequently results in bloody conflicts.¹⁴⁹ Despite the time and energy put into each demolition, the number of illegal buildings continued to increase over time.¹⁵⁰ From 1999 to 2010, the number of illegal buildings grew from 221,600 to 348,400.¹⁵¹ The huge expense of demolition has become unaffordable for the government. In March of 2013, the local People's Congress published a draft of "Regulation of Land Use Monitoring," which required the owners of illegal buildings to pay the demolition fees. In order to do that, the Department of Land Use Monitoring could take the owners' properties, such as automobiles, legal real estate, and bank savings, as lien.¹⁵²

Although the Shenzhen government may have circumvented the costs of demolition, the larger issue is that illegal housing is too interconnected with the normal functioning of the city to fail. These buildings essentially provide affordable shelter to the middle-and-low income population, such as taxi drivers, factory workers, and even young white-collar workers, and sometime even space for small high-tech start-ups.¹⁵³ Rents of such illegal buildings are also the main income of over 300,000 indigenous villagers, whose interests cannot be easily disregarded.¹⁵⁴

After legal enforcement proved to be ineffective, the Shenzhen city government also tried legalization. Its free-titling policy, which is essentially Rule 3, has been mainly limited to a "one household, one house" policy.¹⁵⁵ This legalization policy also failed. In addition to

148. Fu Ke (付可), *Shenzhen Chaichu Sifang zao Dizhi Duoming Jingcha Shoushang* (深圳拆除私房遭抵制多名警察受伤) [*Many Polices Got Hurt in Demolition of Private Houses*], S. METROPOLITAN DAILY (Jan. 23, 2007), <http://news.sina.com.cn/c/1/2007-01-23/115112115150.shtml> [<https://perma.cc/K7LC-WQST>].

149. *Id.*

150. *Id.*

151. SHENZHEN CITY GOVERNMENT, INVESTIGATION REPORT ON ILLEGAL BUILDINGS IN SHENZHEN 26 (2010) (on file with the author).

152. Peng Yan (彭琰), *Qiangchai Feiyong you Weijianren Chu* (强拆费用由违建人出) [*New Regulations Draft Require Owners of Illegal Buildings to Pay for the Demolition Expenses*], SHENZHEN COM. DAILY (Mar. 12, 2013), http://szsb.sznews.com/html/2013-03/12/content_2401448.htm [<https://perma.cc/6K3M-JSFU>].

153. Qiao, *supra* note 109, at 266.

154. *Id.* at 15.

155. SHENZHEN CITY GOVERNMENT, *supra* note 151.

effectively encouraging illegal land use, the Shenzhen government gained very little revenue from this policy and was embarrassed that its policy benefited law-violators rather than law-abiders.¹⁵⁶

First, villagers had to devote substantial resources to obtain a permit to build a house, regardless of whether they had already built one or not.¹⁵⁷ Getting a permit sometimes depended on how a “household” is defined. One house could be divided into two households just to get the benefits from the “one household, one house” policy.¹⁵⁸ Many resources were spent on lobbying and bribing government officials with authority to issue such permits.¹⁵⁹ Second, many people viewed this and other policies which provide mechanisms for villagers to legalize their illegal real estate as a signal that the government was unable to enforce harsh demolition rules and would have to grant legal titles to all illegal buildings.¹⁶⁰ Villagers responded with more illegal land use to secure their claims of rights in the possible situation of free-titling-for-all.¹⁶¹ This desire to secure property in case of free titling was the main reason that each time the Shenzhen government initiated a campaign to deal with illegal buildings, there was a burst of illegal land use.¹⁶²

The Shenzhen government also promulgated a local regulation allowing villagers to keep their illegal houses after paying fines and land-use fees—essentially Rule 6 under the optional zoning framework. The comprehensive plan included standards of fines and fees that were again set according to owners’ identities and the total areas of the buildings, and the plan provided that legal title for each

156. Qiao, *supra* note 147, at 308.

157. See Xie Xiaoguo et al. (谢孝国 等), *Shenzhenshi Jianzhu 4 cheng Weigui, Liyi Jituan Youshui Shizhang* (深圳市建筑 4 成违规 利益集团游说市长) [40% of Shenzhen’s Buildings are Illegal, Interest Groups Lobby the Mayor of Shenzhen for Illegal Buildings], YANG CHEN EVENING NEWSPAPER (Feb. 24, 2010), http://www.fwwwd.com/content/2010-02/24/content_4412896_3.htm [<https://perma.cc/ZB68-RYK6>]; Sun Zhongchun (孙中春), *Shenzhen Longgang Jiedao “Shequ ti Xiaochanquanfang Shenqing Fugongpai”* (深圳龙岗街道“社区替小产权房申请复工牌”) [Street Office Applied for License to Build Small-Property Houses], SHENZHEN EVENING NEWSPAPER (Oct. 18, 2010), http://szhome.oeeee.com/a/20101018/316592_2.html [<https://perma.cc/QYR5-663C>].

158. See *Foreign Capital Involved in Illegal Housing in Shenzhen: Even Tycoons Are Selling Uniformly Constructed Buildings* (深圳违建房竟有“外资”介入 富豪也倒卖统建楼), NEW EXPRESS (Sept. 13, 2013), <http://szhome.oeeee.com/html/201309/13/18669.html> [<https://perma.cc/W6FF-C2V9>].

159. Xie Xiaoguo et al., *supra* note 157.

160. Qiao, *supra* note 147, at 307–08.

161. *Id.* at 308.

162. *Id.*

illegal building would have a price after calculation.¹⁶³ Owners of illegal buildings were required to apply for legal titles from the government within one year of the decree's promulgation, giving the Shenzhen government information on illegal buildings within its jurisdiction.¹⁶⁴ This did not work out well. The regulation was made in 2001, and it took the Shenzhen government nine years to gather its first detailed report on illegal buildings, only to conclude that, despite substantial efforts, the regulation had not been well received by illegal housing owners. Although there were other owners of illegal buildings who applied for legalization, by 2010, only about one quarter of the 221,600 illegal buildings built before 1999 were granted legal titles, and the total number of illegal buildings had increased to 348,400.¹⁶⁵

The information costs required to enforce the put-option liability rule are too high for the government to enforce. The government would need to impossibly accumulate all the information on all illegal buildings within its jurisdiction. While physical information regarding the location, height and floor areas are not difficult to collect, the collection of information regarding the history, quality, and other less tangible characters of the illegal buildings are very costly.¹⁶⁶ Even more costly than these intangible factors is collecting information regarding the social and economic relations of the illegal buildings (e.g., who owns them, and who should get legal title).

The most costly information gathering, however, is determining how much an owner values their property. The cost of strategic bargaining could be prohibitively high, particularly when the government exercised its put option and thus had no opportunity to know the owner's evaluation. For owners of illegal buildings, the complicated titling procedures imposed high information costs on them and fostered distrust of the government, both of which might prevent owners from even thinking about whether the fees and fines charged by the government are reasonable.¹⁶⁷

163. SHENZHEN PEOPLE'S CONGRESS STANDING COMMITTEE, STIPULATIONS ON HISTORICAL ILLEGAL PRODUCTION AND COMMERCIAL BUILDINGS 34 (2001).

164. *See id.*

165. SHENZHEN CITY GOVERNMENT, *supra* note 151, at 28–29.

166. Qiao, *supra* note 147, at 310.

167. In conversations that occurred during the author's eleven-month fieldwork in China from August 27, 2011 to July 5, 2012, for example, several government officials commented that the fees and fines for a particular group of villagers were not high at all, while villagers in this particular group did not understand the government policies and were told by their friends that the government would charge a lot of money for granting titles to their buildings. The amounts of both sides differed a hundredfold.

In summary, there might be a price that both the government and adverse zoners would accept for legalization of the illegal buildings, but the government's put option is too costly to exercise it. To make sure that the price was set right, the government had to design complicated rules, which in turn caused great information costs to villagers.

2. *Too Expensive for the Government to Buy: The Limitation of Rule 4 and Rule 5*

Under Rule 4, the government can grant legal titles to owners of illegally developed buildings, but retains the option to take these buildings provided it compensates the owners. The Shenzhen government has tried this approach in fulfilling its obligation to provide affordable housing. Although the Chinese central government has required local governments to build low-income public housing, the Shenzhen government did not have enough land to comply.¹⁶⁸ The Shenzhen government found that, rather than developing extra houses, requisitioning small-property houses might be more appropriate for their city where most low-income people lived in illegal housing.¹⁶⁹ Under this plan, setting a proper price is also a key issue. Social conflicts would arise if the government insisted on requisitioning the illegal houses with too little compensation. The costs of information and bargaining to set the proper price could be high. On the other hand, the Shenzhen government could not afford to purchase over 400 million square meters of illegal buildings at a reasonable price.¹⁷⁰ Regardless, the goal of "requisitioning illegal buildings for public housing" is questionable. If illegal housing was adequate public housing and indeed served as homes to low-income population through the small-property market, why should the government become the owner?

Under Rule 5, adverse zoners would not only have the legal title, but would also have an option to waive their titles in return for government compensation. The Shenzhen government has not adopted such a rule in dealing with illegal land use in its history.¹⁷¹

168. Qiao, *supra* note 147, at 313.

169. *Id.*

170. *Id.* (explaining a situation where the Shenzhen government requisitioned a small-property building at about one-third the price of buildings in the surrounding area, which was enough to cover construction costs and keep a small profit).

171. *Id.* at 314–15.

3. *Optional Zoning That Works: Rule 2*

Of the six adverse zoning rules, the most successful and promising solution has been Rule 2, wherein the government keeps its entitlement to zoning, but adverse zoners can take it by paying compensation.¹⁷² The use of this rule emerged over time through Shenzhen's various village redevelopment projects.¹⁷³ In the process of redeveloping villages where illegal land development was prevalent, the Shenzhen government insisted that only legally-developed land could be redeveloped and only legally-built houses could be compensated.¹⁷⁴ However, it was clear to the government and other individuals that village redevelopment, regardless of whether it was on legally-developed land, would bring big profits through modernization.¹⁷⁵ Because of this realization, the government began to ignore whether redeveloped buildings were legal or illegal as long as the project can supply 20% of its land to the government for free and develop another 12% of land for public roads and other public facilities.¹⁷⁶

While the government has the entitlement to regulating and limiting development on the land, Rule 2 provides an option for the villagers to pay the fixed price (i.e., 32% of its land) to the government for legal rights to develop the remaining land.¹⁷⁷ In this scenario, the government does not need to do much—because the villagers know the value of their land best, the government should not have to waste resources to find this information. Compared with the reluctance received by other legalization plans, villagers have actively applied for village redevelopment, resulting in 342 projects between 2009 and 2012 involving 30 square kilometers of illegally-developed land, and in 2011 alone such projects contributed almost 40% of newly-developed residential housing in 2011.¹⁷⁸

This rule differs from the government's put-option liability rule in several key aspects. First, this approach places the decision-making power with villagers, who are both more attuned to opportunities in the market, as well as more aware of the real estate under their control.¹⁷⁹ Second, titling becomes a continuous process under this

172. *Id.* at 311.

173. *Id.*

174. *Id.*

175. *Id.*

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.* at 311–12.

rule, allowing villagers to decide whether to exercise their call option based on real market opportunities, rather than on theoretical predictions.¹⁸⁰ This flexibility in timing can even counteract the negative effects of the government's potential bad pricing that villagers would be subject to where the government exercises its put option. Instead, Rule 2 allows the villagers to exercise their options anytime based on market opportunities, prices of real estate, and do not have to rely on the price of exercising the call option at a certain point in time.¹⁸¹ While the government could also choose the timing of exercising its put option, it is more difficult to choose the right time without knowing the villagers' information. Thus, Rule 2 leaves the decision to the party with better information.¹⁸²

CONCLUSION: COMMUNITY-BASED ZONING OPTIONS

How should cities allocate legal entitlements efficiently? Ayres' optional law theory tells us that "[l]iability rules delegate allocational authority—allocational options—to privately informed disputants. The delegation effect gives us strong reasons to believe that liability rules do a better job than property rules in harnessing the private information of disputants."¹⁸³ Applying this theory to address illegal housing in NYC, I argue that the government should grant illegal housing owners options to buy legal titles rather than providing blanket, direct legalization.

While the government knows its own needs and valuation of the right to zone, individual owners have the information about their illegal housing. The government has two roles in this case—one as a disputant and potential entitlement holder, and the other as a policymaker who can determine who has to decide the final allocation of entitlements. The government as policymaker in this case has complete information about one disputant—the government—but does not have enough information about numerous illegal dwelling units and their occupants' valuations of them, which are more diverse and speculative than the government's valuations.

New York City can learn several things from Shenzhen. First, decisions about illegal housing should be made at the community level because externality is primarily a community-level issue, and local communities are better at monitoring individual land uses than the city government. Second, neither legal enforcement nor

180. *Id.* at 312.

181. *Id.*

182. *Id.*

183. AYRES, *supra* note 96, at 183.

traditional legalization is going to effectively solve the problem of illegal housing. Private land users have an informational advantage and greater control over their land compared to the government, which makes effective legal enforcement against prevalent zoning violations almost impossible. “Traditional legalization” here can be categorized into two rules—legalization without any charges on illegal housing owners (i.e., Rule 3) and imposed legalization with charges on illegal housing owners (i.e., Rule 6), which is the forced sale of the legal title by the government to the adverse zoners. Application of Rule 3 jeopardizes the integrity of zoning, ignores the negative externality that adverse zoning imposes on the community and the city, and encourages adverse zoning without effective checking on private land use. Application of Rule 6 faces the challenges brought by heterogeneity, such as making it impossible to set a price that would work for all adverse zoners. The government should have the initial entitlement to zoning generally but can create zoning options for illegal housing owners. It would be financially burdensome for the government to pay individual land users for zoning. Instead, adverse zoning should only be applicable in limited cases and should be auctioned at the community level.¹⁸⁴ Members who exercise these options need to pay the community for the extra burden caused by crowding, traffic, garbage collection, etc.

Essentially, the government should determine who decides, rather than deciding the final allocation of resources. Options, instead of titles, should be granted to individual adverse zoners, as individual zoners are more numerous and capable of multiple takings than collective decision-makers. These zoners also have private information and the more speculative valuation of the land, both of which are less known to the government and the community.

184. See Abraham Bell & Gideon Parchomovsky, *Governing Communities by Auction*, 81 U. CHI. L. REV. 1 (2014).