

Fixing Urban Planning with Ostrom

Strategies for existing cities to adopt polycentric, bottom-up regulation of land use

John Myers,
Co-founder, London YIMBY

Prepared for delivery at the Workshop on the Ostrom Workshop (WOW6) conference,
Indiana University Bloomington, June 19–21, 2019. © Copyright 2019 by John Myers
(contact@londonyimby.org)

Working draft dated 31st May 2019; please do not cite without permission.

Fixing Urban Planning with Ostrom

Strategies for existing cities to adopt polycentric, bottom-up regulation of land use

John Myers¹

Abstract

Urban planning reform proposals have generally failed to provide bottom-up rules that, given local geography and politics, can overcome political opposition to change and allow Coasean bargaining while sufficiently capturing externalities. I suggest four strategies to fill that gap in the literature.

Recent research on the commons has rarely addressed deficiencies in regulation of new urban construction, and yet multiple studies estimate that such deficiencies cause large impairments of productivity and welfare. Many places face transitional gains traps where homeowners and others block any move to a more efficient system.

I argue that allowing bottom-up approval of better uses of land may reverse the current Olsonian problems by allowing the formation of groups with strong incentives and the means to lobby for such changes. It can be seen as a tactic from Riker's heresthetic: splitting the blocking homeowner-voter majority by allowing former objectors to defect from the regulatory cartel and benefit from more intensive land use.

One example is the recent law in New Zealand, allowing a landowner to waive the protective setback rule binding a specific adjoining property. In England, a recent change now permits a parish to approve development on its own green belt, albeit subject to tight constraints. Ellickson's suggestion of allowing a vote by individuals on a single stretch of street ('face block') to upzone that stretch is a third approach that has not yet been tried in practice. Analogously, a fourth rule could allow upzoning by vote of the residents of a city block, subject to restrictions on altering external façades of the block and to angled maximum height planes to preserve light to other blocks.

1. Introduction

Urban planning as adopted in many countries over the course of the twentieth century often consists solely of top-down plan-making. In recent decades it has, perhaps unsurprisingly, proven inadequate to the task of ensuring plentiful housing and infrastructure within commuting range of high-wage job opportunities, given political and other constraints. I suggest urban planning could be greatly improved with a range of different governance and legal techniques inspired from the CPR literature.

First, I summarize some of the poor outcomes from current urban land use governance and the scope for substantial increases in welfare from better use of land. Second, I note that

¹ Co-founder, London YIMBY and YIMBY Alliance; contact@londonyimby.org. Working draft dated 31st May 2019; please do not cite without permission.

current land use rules mean new construction often generates many losers, and I suggest that rules that better address the externalities of new construction would make such construction less unpopular. Third, I review the challenges of governing the urban commons and some reasons why more community-driven, win-win approaches may be helpful. Fourth, I set out why community-driven approaches may also help to solve the challenges of majority opposition, Olsonian incentives, and transitional losses faced by policy entrepreneurs who aim to secure improvements in urban land use governance. Finally, I give four examples of specific ideas or approaches that may illustrate avenues for future research.

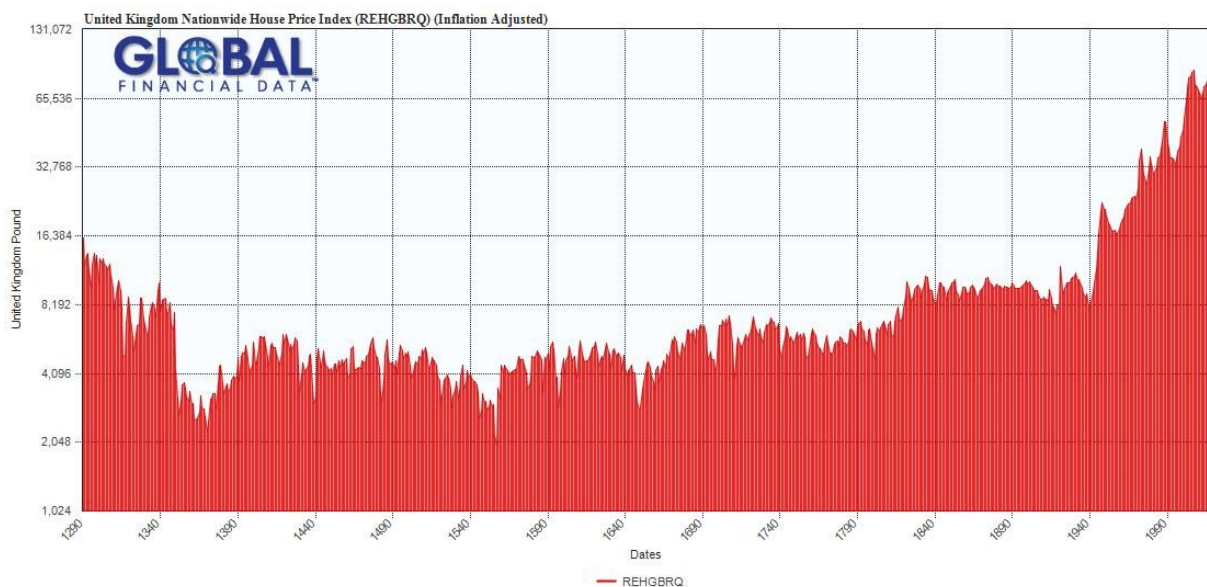
2. Benefits of better urban land use

Many studies indicate that better urban land use could substantially increase welfare, wages and opportunity. In many major cities with high productivity and high wages, the price of a typical dwelling often exceeds the replacement cost of that dwelling, including the cost of the accompanying infrastructure, by more than 100%. There is broad evidence that the excess would be substantially reduced with fewer constraints on increased housing supply (Glaeser and Gyourko 2018).

For perspective on the scale of the problem, estimates from the United Kingdom’s Office for National Statistics imply that the excess of total UK dwelling prices over the total replacement cost of those dwellings was £3.7 trillion in 2015,² or nearly 2/5ths of the entire net value of the UK in the national accounts. The value of US urban land in 2010 has been estimated to be \$19 trillion (Albouy, Ehrlich, and Shin 2018).

A third party graph of UK log real housing costs since 1290 CE (Taylor 2017) shows a rapid increase from the middle of the twentieth century.

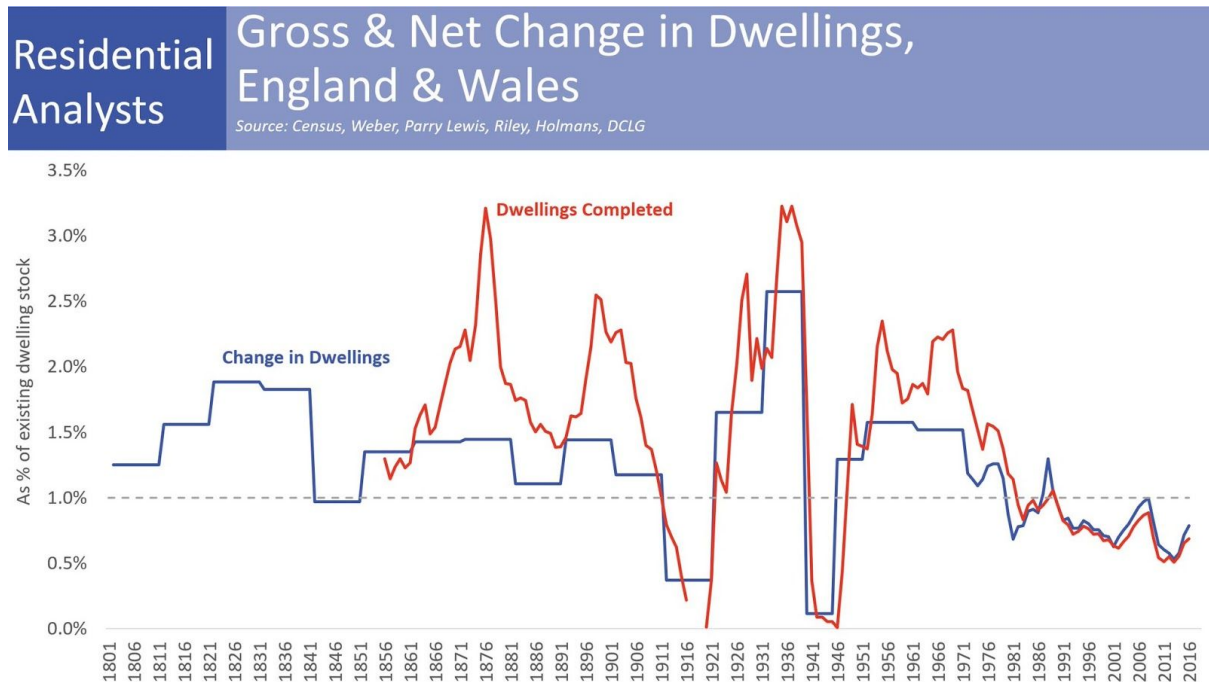
Figure 1



² UK Office for National Statistics data series CGLK and MJF8 under the definitions used up to 2015

Since 1947, a graph from the analyst Neal Hudson implies that the UK stock of dwelling units has never increased at the net percentage rate of the 1830s, let alone the higher rate of the 1930s.³

Figure 2



The problem appears to be repeated across the West (Knoll, Schularick, and Steger 2017). In 2017 Savills estimated the total housing stock globally to be worth approximately \$169 trillion (Tostvein 2017), of which the unnecessary scarcity due to suboptimal regulation may account for tens of trillions of dollars.

The shortage of housing in high-productivity cities is estimated to have a significant impact on welfare on productivity, wages and GDP growth (Hsieh and Moretti 2019). That evidence is not widely known in the housing and urban planning literature, which often seems to assume that housing is a zero-sum game. Furthermore, such estimates do not consider deadweight losses from rent-seeking activities of those lobbying for zoning changes and other permissions for development (Tullock 1967).

Elasticity of housing supply is also important because it is a major determinant of whether the benefits of increased productivity accrue to landowners or to workers (Moretti 2011). In markets with limited new housing supply, increases in wages due to increased productivity will simply go to bid up rents for housing, transferring much of the benefits to landlords.

There is also evidence that housing has played a major role in increasing inequality (Rognlie 2016).

³ Obtained from https://twitter.com/resi_analyst/status/931089599107162120 on 3rd May 2019. Reproduced with permission.

Room for more homes

Given political agreement, many urban planners advocate that it is perfectly feasible to add more housing within existing high-wage cities while improving perceived amenity (Harris 2018).⁴

For example, the historic townhouses and apartment ('mansion') blocks in popular and expensive areas of central London such as Kensington, Pimlico, Covent Garden or Mayfair have densities of built volume per hectare five times higher than many areas of outer London. Many eighteenth- and nineteenth-century buildings have five or more floors. In contrast, half of the current dwellings in London are in buildings of only one or two floors (Gleeson 2015).

Similarly, popular and beautiful city centres such as Paris, Vienna, Venice and Rome have considerably more housing per acre than the suburbs of most US or UK cities. Increases in density in the suburbs need not mean the high-rise towers of the movie *Blade Runner* or present-day Manhattan.

Enabling housing densification is particularly important as economies have moved away from agriculture, where agglomeration effects are less important, towards manufacturing and then services.

There are also advocates for denser and more walkable cities on grounds of health (Sarkar, Webster, and Gallacher 2018) and the environment (Owen 2009).

Densification seems to be difficult

Early evidence suggests that the process of densification over the history of cities like London or Manhattan has become very slow in many parts of cities in the US (Furth 2019) and the UK, despite strong economic incentives.

Maps from Romem (2018) show a large reduction in the pace of densification of suburbs since 1940. In the 2010s, moderately dense suburbs, which have the strictest land use regulations, demonstrated the lowest growth rate (Furth 2019).

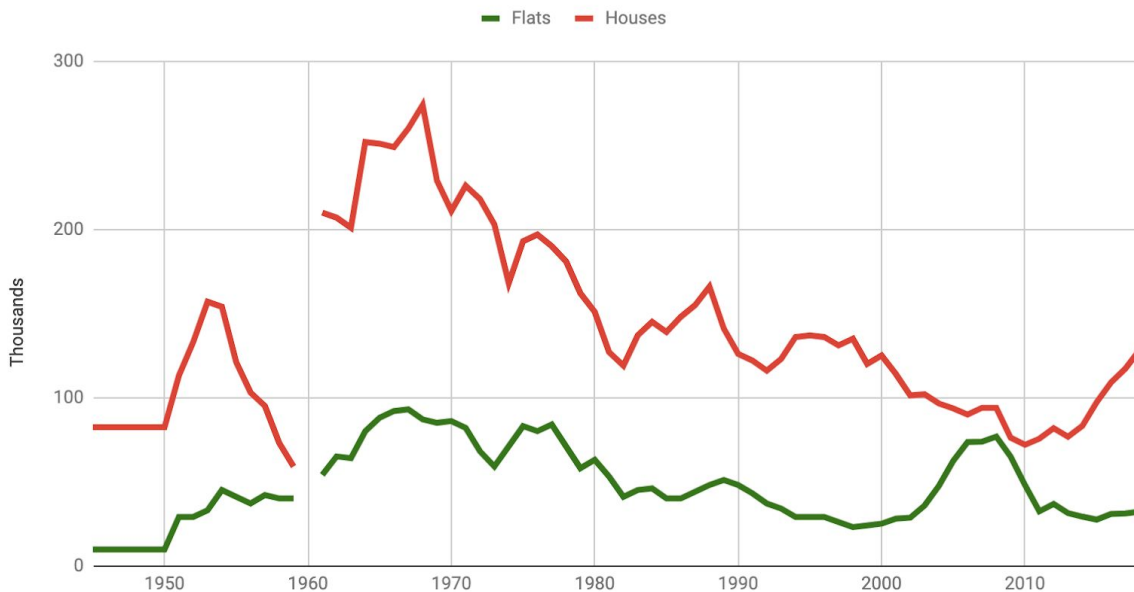
Densification generally requires construction of more apartments rather than houses. But recently the US has spent three times less on building apartments, as a share of GDP, than in the 1970s; the US now spends four times more on home improvements than on building apartments, and still more on building houses (Erdmann 2019). England has also reduced construction of apartments, but even at its peak, construction of new apartments did not reach one third of the government's target of 300,000 new homes per year (Holmans 2005).

⁴ Gyourko and Molloy (2015, 1327) review the economic literature on the welfare implications of regulation.

Figure 3

Houses and flats built, England

(& Wales pre 2002; social housing only pre 1961)



Source: (Holmans 2005); [MHCLG Live Tables](#)⁵ 209 and 254

Each individual homeowner or other landowner has an incentive to build more housing on their land. It is often regulation that stops them from doing so, or from selling to someone else who will (Glaeser 2011).

Despite the large gains to be made, few Coasean bargains (Coase 1960) are struck, for reasons discussed below. Given the elasticity of demand in some high-price areas, Glaeser and Gottlieb argue that land values would be increased by allowing more construction. Current rules make it hard for communities to find Coasean, Pareto-superior solutions (Glaeser and Gottlieb 2008, 212).⁶ Landowners in, say, Palo Alto might well gain substantially on average if the city were zoned more intensively – albeit with some losers, particularly in the short run.

Furthermore the prohibition on construction under most current systems of land use regulation is absolute, with criminal sanctions and injunctive relief for breach. That might be seen as contrary to the fifth institutional design principle, of graduated sanctions (Ostrom 2005). If penalties for construction not compliant with the rules were limited to a fine or an

⁵ Available at <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>. Accessed on 8th May 2019.

⁶ 'Why do communities fail to maximize land value? The Coase theorem, after all, suggests that side deals between property owners should lead to maximizing joint wealth. One answer is that property rights are murky and that the democratic process is not geared towards such side payments. In many cases the right of an owner to build is the outcome of a complicated regulatory process that cannot be replicated in advance. In other cases explicit legal impediments prevent such side deals. Since each new development creates a windfall for one owner and a host of inconveniences for everyone else, one can understand why democratic decisionmaking would lead to many restrictions on building.'

award of damages, the most inefficient prohibitions could be overridden (Ellickson 1973). Moreover, the government administering the land use rules generally has no power to award compensation payable by the developer, which increases political opposition.

In a related context, Ellickson (1993, 1374) notes that the Anglo-American legal system has evolved to deter destructive decompositions of property interests that lead to gridlock. Examples include the rule against perpetuities and rules for the termination of land use covenants. Urban planning has no such mechanism for preventing de facto political gridlock.

Instead of a commons, therefore, the city has effectively become an anticommons, with multiple interlocking rights and quasi-rights, unclearly vested, making most potential change impossible (Heller 2008).

There may have originally been no intention to create such gridlock. The quasi-rights to block development have become more valuable as they have become more binding and as land values have risen. In earlier stages of urban land use regulation, there is little or no evidence of thoughts of compensation for overriding those quasi-veto rights, perhaps because those rights were worth far less.

3. The neglected importance of Pareto superiority in urban land use

The last section reviewed some of the evidence that nearly win-win outcomes with considerably better supply of homes are possible. If so, literally trillions of dollars have been left on the sidewalk (Olson 1996).

Political entrepreneurs seeking to enable some of those potential gains face two challenges.

i. Finding systems that can allow better urban land use

First, political entrepreneurs must specify governance systems that would be effective over the long term to generate enough housing and related infrastructure. That would involve writing regulations that do not lead to needless restrictions on housing supply, but adequately address transaction costs and aesthetic and other externalities.

Upzoning procedures in a traditional zoning system, or discretionary permissions granted by a government official subject perhaps to various impact fees, are clearly not designed to seek outcomes that are as close to win-win as possible, because the benefits and burdens may fall on different people.

Simple upzoning gets closer to win-win outcomes when all of the landowners have purely financial interests in their land and when there is no vertical subdivision of interests. For different homeowners, who may have radically different preferences, and apartment owners, who may see nothing but disbenefit if additional storeys are added to surrounding buildings, upzoning provides a very inaccurate way to try to ensure that most or all people benefit from allowing more development. In those circumstances, it is hardly surprising that many people oppose new construction.

There is often considerable opposition to more housing from homeowners (Fischel 2005) and other landowners (Hilber and Robert-Nicoud 2013). Homeowners are rationally risk averse about what is often their most valuable asset. Renters may also oppose housing in some circumstances (Hankinson 2018). Rent-controlled tenants have a quasi-ownership interest in their home and may often align with homeowners in opposition to change. Politicians may also seek to avoid displacement and gentrification affecting their supporters.

Transferable development rights have been a limited answer in some cities (Hills and Schleicher 2015), but they do not solve many of the problems of differential effects and transitional losses.

ii. Finding systems with any chance of being adopted

Second, political entrepreneurs who seek change in land use rules must solve for the political difficulties of moving to a better system, particularly in democracies with a majority of homeowner-voters.

Much research on urban planning reform addresses the first problem but not the second. In the old joke, it assumes a can opener: a dictator who can wave through the reform proposal.

We can combine the two questions: what system can feasibly be adopted that will work better? In political economy terms: what are the achievable second- or third-best options?⁷

I suggest, after Corkindale (2004), that such systems should facilitate changes in urban land use, coupled with side payments as necessary, that are much closer to being Pareto-superior than current rules, in order to improve political support for new construction and the political resilience of the system. In the next section, I argue that a fundamental but neglected problem in urban land use is to find such systems, and that lessons from the CPR literature are highly relevant to doing so.

4. Governance challenges in the urban commons

The space in a city outside the buildings can be viewed as a common pool resource. Drab or delightful façades line our streets. The sun warms us over rooftops that we cannot walk on. Every day, we are affected by ugly or beautiful spaces or objects without necessarily stepping in or touching them.

Much of the literature on the urban commons focuses on community management of public land, construction of community housing, or collective management of existing land uses that affect others (Foster and Iaione 2015), rather than control of development by third parties. There are exceptions such as Fennell (2009).

⁷ Some institutions such as the World Bank (Fritz, Levy, and Ort 2014), the OECD (Hoj 2006) and the UK's Department for International Development and ODI (Harris 2013) use applied political economy analysis to find second- or third-best policy proposals, but I have found little explicit use of such analysis to find workable reforms in the field of urban planning.

Of course, many common pool resources (fisheries or common grazing land) may involve questions of conservation more than of active construction or modification,⁸ but there are examples of construction and modification, including irrigation systems (Ostrom 2015).

On the other hand, advocates for planning reform in the legal literature mainly divide into advocates of better zoning of one form or another (Hills and Schleicher 2015; Schleicher 2013, 2012) and advocates of property rights approaches (Fennell 2009).

Given the complexity of urban land use, we should not be surprised if the eighth institutional design principle of multiple layers of nested enterprises (Ostrom 2005) turns out to be important.

Why is there so little Coasean bargaining?

The common law of real property allowed some Coasean bargaining: the law on nuisance, rights to light and trespass allowed waiver, negotiation and side payments.

Incomes have risen and sensibilities have increased; building higher has become easier; and land ownership has become more fragmented as the percentage of homeownership has increased over the last century. All three trends have increased the political demand to address externalities.

Over the course of the twentieth century, externalities in cities have increasingly been addressed through top-down rules, not individual property rights. Such urban land use rules often prevent Coasean bargaining despite the enormous deadweight losses, due to the high transaction costs of negotiating to overcome those regulatory obstacles. The rights to block development are ill-defined, vested in an uncertain number of people, and inalienable – entirely unlike most common-law property rights.

Good urban land use rules are hard to find

Urban settings often feature highly fragmented land ownership and many different externalities from new construction. The high housing cost problems of many cities around the world may be an indication that designing good frameworks to allow governance of urban land use is particularly challenging compared to many other legal or common pool resource problems.

Ideally, better rules would mitigate current problems with transaction costs, holdout problems and externalities.

It is hard to find rules and boundaries that address all of those issues.

Difficulties with individual property rights

A pure individual property rights approach to urban land use faces substantial challenges, not least political.

⁸ Many thanks to Salim Furth of the Mercatus Center for this point.

Without any rights to block development at all, the history of Manhattan or indeed Mayfair in London demonstrate that densification is possible, until there is sufficient political force to change the rules.

It is difficult to define optimal rights and in particular who should have them – and who should not, despite being affected by externalities.

The suggestion of allowing development by unanimous consent of neighbors dates back to at least Davis (1963, 386).

However, a requirement for unanimous consent of more than a few people will lead to holdout problems: both strategic holdouts, by those trying to game estimates of how much they are damaged, and holding out by those whose preferences genuinely ascribe a very high price to allowing change. Many people are affected differently, both because of topography and their personal circumstances. Also, two people in identical positions may genuinely value an effect very differently.

But many changes affect far more people than the immediate neighbors, so many people will want such veto rights.

Rights to compensation might be granted instead of veto rights, but homeowners are rationally risk averse and may genuinely place very different valuations on change.

Voter preferences have too many dimensions for Tieboutian sorting (Tiebout 1956) to be anywhere near perfect, given agglomeration effects and the multiple overlapping externalities of urban construction (Hills and Schleicher 2014).

Voting is an established way of overcoming holdout problems with individual rights and may also help alleviate resistance to compensation if individual veto rights are removed. Ellickson notes that the ‘possibility of arbitrariness could be reduced by shifting the power to waive mandatory land use standards from local government to the neighbors who would be damaged by the prohibited use’ although that can allow those who are least affected to vote through a proposal, damaging those who are more affected; Ellickson suggests a modified voting system that ‘necessarily internalizes the external costs to the most seriously affected neighbors’ (Ellickson 1973, 709–10).⁹

There is a tradeoff between the degree of consensus required and ease of action. Defining the extent and weighting of acceptable voting rights is difficult due to different impacts and preferences.

Housing supply as a function of the scale at which decisions are made

Ortalo-Magneé and Prat postulate a U-shaped curve of the maximum politically achievable housing stock according to the size of jurisdiction that makes the decision on zoning, given certain assumptions (Ortalo-Magneé and Prat 2014).¹⁰ At the largest scale, a nation state will

⁹ Note also the suggestion of allowing neighbours within a specific radius to vote, revived in Morton (2011).

¹⁰ The result also suggests that one way to lessen undersupply is to split up jurisdictions. The proposition above implies that, if a city is divided into two identical but independent municipalities,

internalize more of the benefits and will therefore choose to produce more housing. At small scale, single homeowners will build as much as makes financial sense, if they are allowed to. See also Thorson (1996).

Of course, housing supply is much more elastic in some cities than in others (Glaeser and Gyourko 2018; Hsieh and Moretti 2019). Houston and other cities in Texas have housing supply far more elastic than municipalities in the Bay Area or London, England.

Tokyo shows that it can be possible to upzone and increase housing production to reduce dwelling prices (Harding 2016; Gleeson 2018). However, zoning rules still constrain construction of new homes in Tokyo. Cities such as Atlanta have succeeded in meeting increased demand with increased supply (Glaeser and Gyourko 2018), albeit primarily through horizontal expansion rather than densification.

Given such examples, it seems plausible that the small scale extreme of Ortalo-Magné and Prat's curve – individual landowners deciding in the absence of zoning controls (such as early twentieth-century Manhattan) – may generate higher housing densities than the large-scale end of the curve (such as present-day England, where land use rules are set at national level).

Externalities to be considered

I suggest that there are many negative externalities that a well-designed system would seek to address to reduce opposition to more development. Some externalities – particularly sunlight, daylight and visual amenity – may be inescapable functions of the built form. I consider a short, non-comprehensive list of possible negative externalities below.

a. Sunlight and daylight

The externalities of overshadowing can be large. Sunlight has considerable benefits for psychological and physical health. Lack of sunlight may cause seasonal affective disorder and depression. Without direct sunlight (not passing through glass), the human body cannot synthesize vitamin D, which may lead to deficiencies if not met through diet alone. In those circumstances, lack of sunlight can have a more negative effect on ethnic groups with darker skin pigmentation, because they require more sunlight to synthesize a given amount of vitamin D (Holick 2002).

The solar constant is 1.37 kW/sq m. Taken at a typical cost of electricity of 12 cents per kilowatt-hour, that could be worth \$300/year per square meter, depending upon latitude and cloud cover.

The externality might be positive or negative depending on whether heating or cooling is needed. That might be a factor reducing political opposition to overshadowing in warmer climates. 'No variable can better predict city growth over the past fifty years than January

the minimum city size doubles. This is because residents of a particular municipality enjoy the full permit fees but pay only half of the capital loss. It is interesting to combine this observation with the result above that nationalizing housing policy also increases housing supply. Equilibrium city size is in some sense U-shaped in the size of the administrative district in charge of it, and the minimum size is achieved when housing supply is made by districts that correspond to labor markets.'

temperature, yet it is unclear a priori why warm places have grown so dramatically.’ (Glaeser and Gottlieb 2009) See also Cheshire and Magrini (2006).

Some of the streets with the least daylight in the world – the narrow passageways of Venice, for example – are among those most visited by tourists.

It may also be that high-rise towers upset some people not necessarily because of the loss of sunlight or daylight, but due to their aesthetic preferences. Gradualism may be a way to mitigate that. High-rise buildings will provoke less reaction from people far away if they do not stick out far above the surrounding roofline.

b. Congestion

More construction may increase congestion of roads, parking and public transportation. However, any externalities of congestion could be addressed by pricing mechanisms such as road pricing, parking fees, or less subsidy for public transport fares, coupled with more assistance for those on low incomes to prevent transitional losses (Trebilcock 2014). For example, Singapore has road pricing (Goh 2002), and Tokyo does not permit on-street parking (Shoup 2011). Addressing the transitional losses from the proposed adoption of such a mechanism may not be easy.

c. Other local services

Adequate solutions for externalities such as competition for services such as education or healthcare may vary depending upon whether those services are provided privately or by various tiers of government.

d. Noise and other pollution

Soundproofing may mitigate externalities of noise; regulation may mitigate or eliminate pollution.

e. Aesthetics

Aesthetics may be more important in some places and for some voters than others.

5. Getting to polycentricity may also be more politically feasible

Politics is clearly important whenever major changes in urban land use regulation are proposed, but the study of local government law has not kept up with advances in economics and positive political science (Schleicher 2013).¹¹

Although society as a whole might be better off in the long term with better rules on land use, the losers face considerable Olsonian challenges in organizing themselves to lobby for and achieve reform (Olson 2003). It is a particularly pernicious version of a transitional gains

¹¹ This may be one manifestation of a broader divide among the disciplines. I have not found extensive cross-citation between papers in local government law or property law, common pool resources, economics and political science on the one hand and housing and urban planning literature on the other.

trap (Tullock 1975) because in many jurisdictions the homeowners who benefit from the current system, at least in the short run, are a majority of voters.

A further Olsonian challenge is that sudden deregulation may lead to a rapid decline in house prices as they quickly discount the expected long-term reduction in future rents (imputed or otherwise) due to expected increases in housing construction, whereas that decline in rents will take time to materialize as the housing stock increases through new construction. The losses from reform through declining house prices will therefore be quickly and highly visible, whereas the future benefits to renters will be uncertain and distant, and therefore probably perceived to be small – except for those renters who are thereby able to afford to buy a home at the reduced prices, should they have the courage to try to catch a falling knife.

As discussed above, under many current urban land use regulations, new construction often generates substantial uncompensated negative externalities. Such new construction is often perceived to damage or place at risk the interests of people who are directly, visibly and substantially affected. In that sense, urban land use therefore pays far less attention to preserving the value of third party assets than many other areas of property law such as nuisance, trespass or rights to light. It is hardly surprising that calls for further ‘deregulation’ of urban land use, with the risk of more negative externalities, can lead to fierce resistance.

I suggest that reform proposals designed to reverse that dynamic by making small groups substantially better off and ensuring that any losses are distant in time and space, widely dispersed and uncertain would face far fewer Olsonian challenges.

In many jurisdictions, those who benefit (at least in the short run) from scarcity – homeowners and other landowners – are a voting majority. Rising house prices are hardly surprising when regulation gives homeowners a means to achieve them.

In England, it is an express objective of national government for house prices to rise (Javid 2018). In contrast, I am unaware of any Western jurisdiction with an express target of rising prices for any other basic necessity such as food or clothing.¹²

In the US, principles of federalism or local rule may limit the willingness of state or federal government to intervene. However, many municipalities operate zoning regimes set under laws enacted by the state.

Polycentricity as a means to overcome political resistance

Current urban land use regulations restrict the supply of housing because municipalities use the police power within their borders against smaller groups or communities that would like to build on their own land. In many cases the framework of land use regulation is itself set at state level, with limited scope for municipalities to experiment.

Entirely removing that mechanism faces challenges of political feasibility because zoning is popular (Fischel 2005), even if it were possible to do so.

¹² For discussion of the role of politics in housing and planning in England, see Pennington (2000); Coelho, Dellepiane-Avellaneda, and Ratnoo (2017); Lund (2016); and Cox (1984).

Rational choice theory suggests that a regulatory cartel involving a majority of voters might be broken by allowing small groups of voters to defect and profit by their defection.

Allowing bottom-up setting of urban land use rules can be seen as one tactic from Riker's heresthetic: assembling and promoting a policy bundle that unites a winning coalition of voters by splitting the blocking homeowner-voter majority by allowing former objectors to defect from the regulatory cartel and benefit from more intensive land use¹³ (Riker 1986; Hindmoor and Taylor 2015).

One promising path to the adoption of reforms for better use of urban land, therefore, may be to allow small local groups, with boundaries drawn and other rules set with the aim of minimizing externalities, to defect from certain land use regulation constraints.¹⁴ In that way they can capture the benefits for themselves – either by development on their own property or through negotiating a division of the profits with the landowner in question. Such reform will be popular with them, whereas any reduction in the overall average price of a home across the country will be limited, distant and uncertain. That should serve to reduce political opposition.

Furthermore, such rules are consistent with strong support for localism. Local people speaking up in favour of more housing – because that is currently unusual and because local people are often perceived to be the most affected – can have powerful rhetorical force.

Such reforms may prove easier as many writers in urban planning theory now promote a move away from top-down planning practices and increased use of collaborative planning or co-decision with local communities (Healey 1997).¹⁵

Bueno de Mesquita and Smith (2012) argue that an effective strategy for political entrepreneurs is to design a policy that will win votes for the politician who adopts it.

6. Towards polycentrism in urban land use

I have sought to summarize the problems with urban land use regulations and reasons to believe that allowing more polycentric decisions may both help overcome political resistance to change and also lead to better outcomes.

In an urban land use context, one formulation of the principle of subsidiarity might be that decisions to permit development and use should be able to be made at the smallest possible scale that does not confer harm on others. That is to say, land use decisions should be taken at the most local level capable of capturing or addressing externalities.

¹³ Many thanks to Prof. Andrew Hindmoor of Sheffield University for this point.

¹⁴ For example, three suggestions from different fields have all suggested localism as a way forward (Ellickson 1998; Pennington 2002; Morton 2011).

¹⁵ In a related field, the growing interest in participatory and deliberative democracy may also be helpful (Fung and Wright 2003).

Examples

To illustrate avenues for creating potential land use frameworks that may merit further work, I list four examples of current practice or new ideas allowing more bottom-up solutions to problems of urban land use.

a. Waiver of setback rule by adjacent neighbor

A recent law in New Zealand allows a landowner to waive the protective setback rule binding a specific adjoining property in relation to their joint boundary,¹⁶ following a suggestion by housing campaigner Brendon Harre (Nunns 2017). That is analogous to traditional rights to light, which are waivable by the owner of the right.

In New Zealand, setback and pyramid rules ('boundary rules') are defined by each local government, under the framework set out by the Resource Management Act 1991. If an activity will infringe rules relating to more than one boundary, the activity is only permitted if the owner of each boundary waives the respective rule.

b. Extension of urban containment boundary by local community.

In England, a recent change now permits a parish to approve development outside its own urban containment boundary (on its 'green belt'), albeit subject to tight constraints. The reform was proposed in August 2017 (Myers 2017) following a suggestion by Pennington (2002) and, subject to limits, the core principle was adopted at national level in 2018.¹⁷

It is a recent extension of an existing regime: the English system of 'neighbourhood planning' allows local communities to adopt local development plans and/or authorize specific developments by referendum (Harwood 2016).

However, one of the constraints of the new rule is that the development thereby approved must not affect the 'openness' of the relevant countryside. That concept is defined by a large body of case law, but may involve a limit of no more than six to eight homes, which may make it unviable for many parishes to undertake the cost, risk and time of the relevant process. If the desire is to protect third parties outside the urban containment boundary in question, a better rule might be to set a minimum distance from any dwelling not within that urban containment boundary.

c. Single street upzoning

Robert Ellickson suggested allowing a vote by persons on a single stretch of street between two intersections ('face block') to upzone that stretch (Ellickson 1998). That approach has not yet been tried in practice to my knowledge.

In England, the London YIMBY campaign advocates a similar approach under the name 'Better Streets' (Myers 2017). It suggests a supermajority threshold for voting and a requirement to set a design code to ensure that aesthetic concerns are addressed.

¹⁶ The idea was also hinted at by Ellickson (1973, 676).

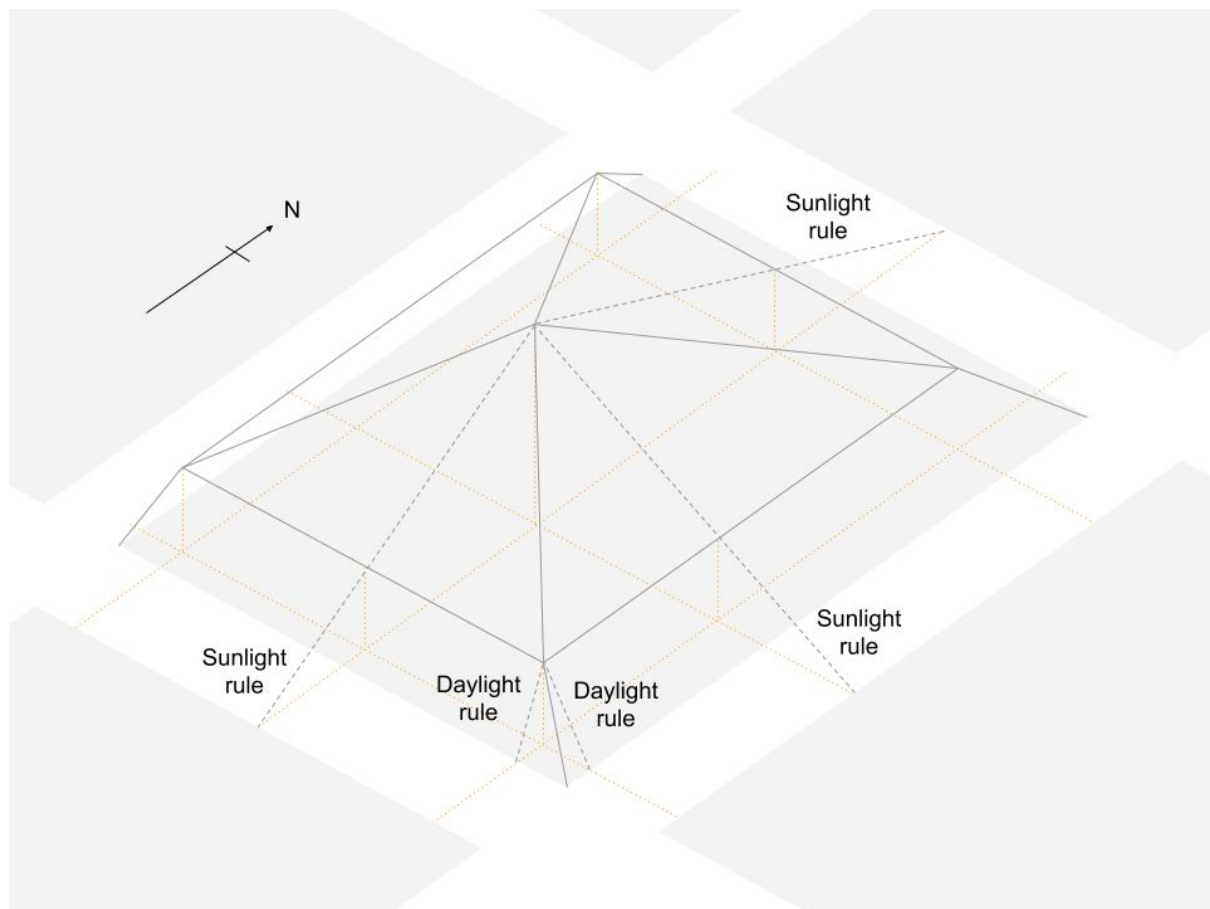
¹⁷ English National Planning Policy Framework paragraph 146(f), available at <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

The premise is that individuals are most affected by changes on their stretch of street. However, to fully capture externalities of shade and daylight, it would be necessary to impose limits and/or compensation rules in relation to loss of light falling on buildings on other streets. Ellickson (2018) has also suggested that political opposition might be reduced if the developer were required to pay generous compensation: perhaps, for each owner, a lump sum to compensate for loss of subjective value, and an entitlement to recover for loss of market value,¹⁸ plus attorney fees; the framework might provide a more generous formula resulting project were to exceed a specified height.

d. Single block upzoning

Analogously, a fourth rule could allow upzoning by vote of the residents of a city block. Again, to capture externalities of aesthetics, shade and daylight, it might include restrictions on altering external facades of the block and to angled maximum height planes to preserve light to other blocks. It is sketched in Figure 4 under the name 'Better Blocks'.

Figure 4

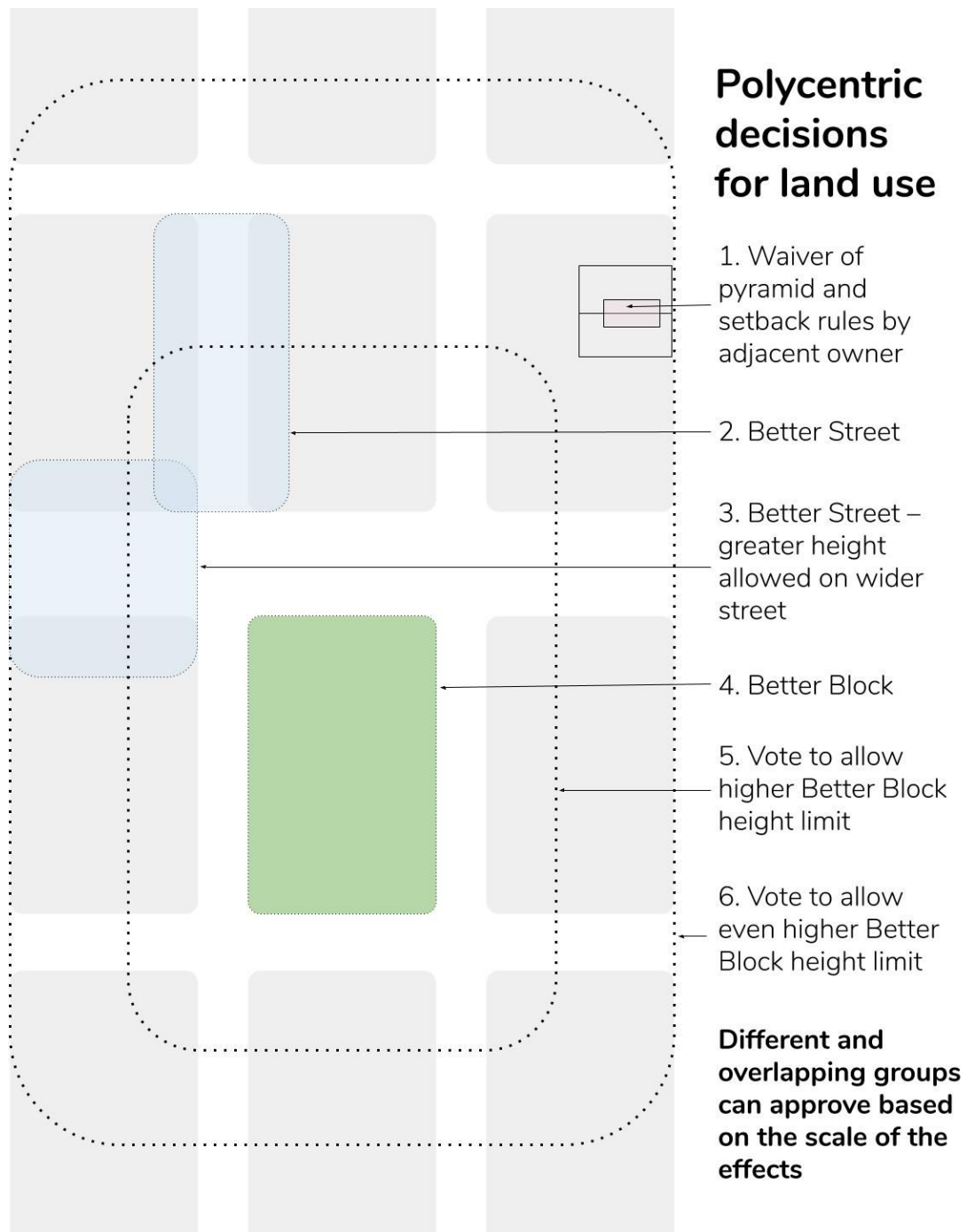


Considerable further work is required to find rules that sufficiently address concerns and externalities. I argue that a polycentric combination of such rules might allow, over time,

¹⁸ The compensation for loss of market value might even be set at a fixed percentage premium over loss of market value.

much better use of urban land with less political backlash against new construction. Figure 5 sketches an example of how such rules might operate at different scales.

Figure 5



7. Conclusion

I suggest a new direction for urban planning and the law of urban land use built upon lessons from the CPR literature, aiming to make win-win solutions easier in an urban context.

I argue that such reforms may both be substantially more politically feasible and also considerably improve the supply, affordability and quality of housing, leading to significant increases in welfare through increases in opportunity, amenity, health and productivity. If so, it is remarkable that so little work is currently being done in that direction. Such research might allow a revival of the process of gentle densification that, over centuries, created some of the most cherished parts of the world's historic cities.

References

- Albouy, David, Gabriel Ehrlich, and Minchul Shin. 2018. "Metropolitan Land Values." *The Review of Economics and Statistics* 100 (3): 454–66.
https://doi.org/10.1162/rest_a_00710.
- Brueckner, Jan K. 1983. "Property Value Maximization and Public Sector Efficiency." *Journal of Urban Economics* 14 (1): 1–15.
[https://doi.org/10.1016/0094-1190\(83\)90026-8](https://doi.org/10.1016/0094-1190(83)90026-8).
- Bueno de Mesquita, Bruce, and Alastair Smith. 2012. *The Dictator's Handbook: Why Bad Behavior Is Almost Always Good Politics*. New York: PublicAffairs.
- Cheshire, Paul C., and Stefano Magrini. 2006. "Population Growth in European Cities: Weather Matters – but Only Nationally." *Regional Studies* 40 (1): 23–37.
<https://doi.org/10.1080/00343400500449259>.
- Coase, Ronald H. 1960. "The Problem of Social Cost." In *Classic Papers in Natural Resource Economics*, edited by Chennat Gopalakrishnan, 87–137. London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230523210_6.
- Coelho, Miguel, Sebastian Dellepiane-Avellaneda, and Vigyan Ratnoo. 2017. "The Political Economy of Housing in England." *New Political Economy* 22 (1): 31–60.
<https://doi.org/10.1080/13563467.2016.1195346>.
- Corkindale, John. 2004. *The Land Use Planning System: Evaluating Options for Reform*. Hobart Paper 148. London: Inst. of Economic Affairs.

- Cox, Andrew W.. 1984. *Adversary Politics and Land: The Conflict over Land and Property Policy in Post-War Britain*. Cambridge [Cambridgeshire] ; New York: Cambridge University Press.
- Davis, Otto A. 1963. "Economic Elements in Municipal Zoning Decisions." *Land Economics* 39 (4): 375. <https://doi.org/10.2307/3144842>.
- Ellickson, Robert C. 1973. "Alternatives to Zoning: Covenants, Nuisance Rules, and Fines as Land Use Controls." *The University of Chicago Law Review* 40 (4): 681. <https://doi.org/10.2307/1599220>.
- . 1993. "Property in Land." *The Yale Law Journal* 102 (6): 1315. <https://doi.org/10.2307/796972>.
- . 1998. "New Institutions for Old Neighborhoods." *Duke Law Journal* 48 (1): 75. <https://doi.org/10.2307/1373008>.
- . 2018. Private email correspondence with the author. September 18, 2018.
- Erdmann, Kevin. 2019. *Shut Out: How a Housing Shortage Caused the Great Recession and Crippled Our Economy*. <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1989081>.
- Fennell, Lee Anne. 2009. *The Unbounded Home: Property Values beyond Property Lines*. New Haven: Yale University Press.
- Fischel, William A. 2005. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge, Mass.; London: Harvard University Press.
- Foster, Sheila, and Christian Iaione. 2015. "The City as a Commons." *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2653084>.
- Fritz, Verena, Brian Levy, and Rachel Ort, eds. 2014. *Problem-Driven Political Economy Analysis: The World Bank's Experience*. The World Bank. <https://doi.org/10.1596/978-1-4648-0121-1>.
- Fung, Archon, and Erik Olin Wright. 2003. *Deepening Democracy: Institutional Innovations in Empowered Participatory Governance*. The Real Utopias Project 4. London: Verso.

- Furth, Salim. 2019. "Housing Supply in the 2010s."
<https://www.mercatus.org/publications/state-and-local-regulations/housing-supply-2010s>.
- Glaeser, Edward, and Joseph Gyourko. 2018. "The Economic Implications of Housing Supply." *Journal of Economic Perspectives* 32 (1): 3–30.
<https://doi.org/10.1257/jep.32.1.3>.
- Glaeser, Edward L. 2011. *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*. New York: Penguin Press.
- Glaeser, Edward L., and Joshua D. Gottlieb. 2008. "The Economics of Place-Making Policies." *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1299046>.
- . 2009. "The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States." *Journal of Economic Literature* 47 (4): 983–1028.
<https://doi.org/10.1257/jel.47.4.983>.
- Glaeser, Edward, and Kristina Tobio. 2007. "The Rise of the Sunbelt." w13071. Cambridge, MA: National Bureau of Economic Research.
<https://doi.org/10.3386/w13071>.
- Gleeson, James. 2015. "Housing in London 2015." London: Greater London Authority.
<https://www.london.gov.uk/what-we-do/housing-and-land/housing-and-land-publications/housing-london-2015>.
- . 2018. "How Tokyo Built Its Way to Abundant Housing." February 19, 2018.
<https://jamesjgleeson.wordpress.com/2018/02/19/how-tokyo-built-its-way-to-abundant-housing/>.
- Goh, Mark. 2002. "Congestion Management and Electronic Road Pricing in Singapore." *Journal of Transport Geography* 10 (1): 29–38.
[https://doi.org/10.1016/S0966-6923\(01\)00036-9](https://doi.org/10.1016/S0966-6923(01)00036-9).
- Gyourko, Joseph, and Raven Molloy. 2015. "Regulation and Housing Supply." In *Handbook of Regional and Urban Economics*, 5:1289–1337. Elsevier.
<https://doi.org/10.1016/B978-0-444-59531-7.00019-3>.
- Green, David, Rene Morissette, Ben Sand, and Iain Snoddy. n.d. "Economy-Wide Spillovers From Booms: Long Distance Commuting and the Spread of Wage Effects."

- Hankinson, Michael. 2018. "When Do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism." *American Political Science Review* 112 (3): 473–93. <https://doi.org/10.1017/S0003055418000035>.
- Harding, Robin. 2016. "Why Tokyo Is the Land of Rising Home Construction but Not Prices." *Financial Times*, August 3, 2016. <https://www.ft.com/content/023562e2-54a6-11e6-befd-2fc0c26b3c60>.
- Harris, Daniel. 2013. "Applied Political Economy Analysis." *A Problem-Driven Framework*. London: Overseas Development Institute.
- Harris, James. 2018. "Settlement Patterns, Urban Form & Sustainability." London. <https://www.rtpi.org.uk/media/2822766/settlementpatternsurbanformsustainability.pdf>.
- Harwood, Richard. 2016. *Planning Permission*.
- Healey, Patsy. 1997. *Collaborative planning: shaping places in fragmented societies*. Planning, environment, cities. Basingstoke, Hampshire: Macmillan.
- Heller, Michael. 2008. *The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives*. New York: Basic Books.
- Hilber, Christian A.L., and Frédéric Robert-Nicoud. 2013. "On the Origins of Land Use Regulations: Theory and Evidence from US Metro Areas." *Journal of Urban Economics* 75 (May): 29–43. <https://doi.org/10.1016/j.jue.2012.10.002>.
- Hills, Roderick, and David Schleicher. 2014. "City Replanning." George Mason University. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2477125.
- . 2015. "Planning an Affordable City." *Iowa Law Review* 101: 91. <https://ilr.law.uiowa.edu/print/volume-101-issue-1/planning-an-affordable-city/>.
- Hindmoor, Andrew, and Brad Taylor. 2015. *Rational Choice*. 2. ed. Political Analysis. Basingstoke: Palgrave.
- Hoj, Jens. 2006. "The Political Economy of Structural Reform: Empirical Evidence from OECD Countries." OECD Economics Department Working Papers 501. <https://doi.org/10.1787/881353527404>.

- Holick, Michael F. 2002. "Sunlight and Vitamin D: Both Good for Cardiovascular Health." *Journal of General Internal Medicine* 17 (9): 733–35.
<https://doi.org/10.1046/j.1525-1497.2002.20731.x>.
- Holmans, A. E. 2005. *Historical Statistics of Housing in Britain*. Cambridge: Cambridge Centre for Housing and Planning Research.
- Hornbeck, Richard, and Enrico Moretti. n.d. "Who Benefits from Productivity Growth? Direct and Indirect Effects of Local TFP Growth on Wages, Rents, and Inequality."
http://faculty.chicagobooth.edu/richard.hornbeck/research/papers/TFP_HM.pdf.
- Hsieh, Chang-Tai, and Enrico Moretti. 2019. "Housing Constraints and Spatial Misallocation." *American Economic Journal: Macroeconomics* 11 (2): 1–39.
<https://doi.org/10.1257/mac.20170388>.
- Javid, Sajid. 2018. "Review of Build Out," January 14, 2018.
<https://www.gov.uk/government/publications/review-of-build-out-terms-of-reference>.
- Knoll, Katharina, Moritz Schularick, and Thomas Steger. 2017. "No Price Like Home: Global House Prices, 1870–2012." *American Economic Review* 107 (2): 331–53.
<https://doi.org/10.1257/aer.20150501>.
- Lund, Brian. 2016. *Housing Politics in the United Kingdom: Power, Planning and Protest*. Bristol, UK: Policy Press.
- Moretti, Enrico. 2011. "Local Labor Markets." In *Handbook of Labor Economics*, Edited by David Card and Orley Ashenfelter, 4:1237–1313. New York: Elsevier.
- . 2013. "Real Wage Inequality." *American Economic Journal: Applied Economics* 5 (1): 65–103. <https://doi.org/10.1257/app.5.1.65>.
- Morton, Alex. 2011. *Cities for Growth: Solutions to Our Planning Problems*. London: Policy Exchange.
- Myers, John. 2017. *Yes In My Back Yard – How to End the Housing Crisis, Boost the Economy and Win More Votes*. London: ASI (Research) Ltd.
- Nunns, Peter. n.d. "Legalising Perimeter Block Housing." *Greater Auckland* (blog). Accessed May 28, 2019.
<https://www.greaterauckland.org.nz/2017/08/29/legalising-perimeter-block-housing/>.

- Olson, Mancur. 1996. "Distinguished Lecture on Economics in Government: Big Bills Left on the Sidewalk: Why Some Nations Are Rich, and Others Poor." *Journal of Economic Perspectives* 10 (2): 3–24. <https://doi.org/10.1257/jep.10.2.3>.
- . 2003. *The Logic of Collective Action: Public Goods and the Theory of Groups*. 21. printing. Harvard Economic Studies 124. Cambridge, Mass.: Harvard Univ. Press.
- Ortalo-Magné, François, and Andrea Prat. 2014. "On the Political Economy of Urban Growth: Homeownership versus Affordability." *American Economic Journal: Microeconomics* 6 (1): 154–81. <https://doi.org/10.1257/mic.6.1.154>.
- Ostrom, Elinor. 2005. *Understanding Institutional Diversity*. Princeton Paperbacks. Princeton: Princeton University Press.
- . 2015. *Governing the Commons: The Evolution of Institutions for Collective Action*. Canto Classics. Cambridge, United Kingdom: Cambridge Univ Press.
- Owen, David. 2009. *Green Metropolis: Why Living Smaller, Living Closer, and Driving Less Are Keys to Sustainability*. New York: Riverhead Books.
- Pennington, Mark. 2000. *Planning and the Political Market: Public Choice and the Politics of Government Failure*. London: Athlone.
- . 2002. *Liberating the Land: The Case for Private Land-Use Planning*. Hobart Paper 143. London: Inst. of Economic Affairs.
- Riker, William H. 1986. *The Art of Political Manipulation*. New Haven: Yale Univ. Pr.
- Rognlie, Matthew. 2016. "Deciphering the Fall and Rise in the Net Capital Share: Accumulation or Scarcity?" *Brookings Papers on Economic Activity* 2015 (1): 1–69.
- Romem, Issi. 2018. "America's New Metropolitan Landscape: Pockets of Dense Construction in a Dormant Suburban Interior." *America's New Metropolitan Landscape: Pockets of Dense Construction in a Dormant Suburban Interior* (blog). February 1, 2018. <https://www.buildzoom.com/blog/pockets-of-dense-construction-in-a-dormant-suburban-interior>.
- Sarkar, Chinmoy, Chris Webster, and John Gallacher. 2018. "Neighbourhood Walkability and Incidence of Hypertension: Findings from the Study of 429,334 UK Biobank Participants." *International Journal of Hygiene and Environmental Health* 221 (3): 458–68. <https://doi.org/10.1016/j.ijheh.2018.01.009>.

- Schleicher, David. 2012. "City Unplanning." *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.1990353>.
- . 2013. "Schleicher, David, Local Government Law's 'Law and ___' Problem (November 15, 2013). *Fordham Urban Law Journal*, Vol. 40, No. 5, Pp. 101-123, 2013; George Mason Law & Economics Research Paper No. 13-63. Available at SSRN: <https://Ssrn.Com/Abstract=2355372>."
- Shoup, Donald C. 2011. *The High Cost of Free Parking*. Updated. Chicago: Planners Press, American Planning Association.
- Taylor, Bryan. 2017. "Seven Centuries of Real Estate Prices." *Seven Centuries of Real Estate Prices* (blog). January 18, 2017.
<https://www.globalfinancialdata.com/GFD/Blog/seven-centuries-of-real-estate-prices>.
- Tiebout, Charles M. 1956. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64 (5): 416–24. <https://doi.org/10.1086/257839>.
- Thorson, James A. 1996. "An Examination of the Monopoly Zoning Hypothesis." *Land Economics* 72 (1): 43. <https://doi.org/10.2307/3147156>.
- Tostvein, Paul. 2017. "How Much Is the World Worth?" *How Much Is the World Worth?* (blog). April 10, 2017.
<https://www.savills.co.uk/blog/article/216300/residential-property/how-much-is-the-world-worth.aspx>.
- Trebilcock, Michael J. 2014. *Dealing with Losers: The Political Economy of Policy Transitions*. Oxford New York Auckland: Oxford University Press.
- Tullock, Gordon. 1967. "The Welfare Costs of Tariffs, Monopolies, and Theft." *Economic Inquiry* 5 (3): 224–32.
- . 1975. "The Transitional Gains Trap." *The Bell Journal of Economics* 6 (2): 671.
<https://doi.org/10.2307/3003249>.