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**HOUSING, URBAN GROWTH AND
INEQUALITIES: THE LIMITS TO
DEREGULATION AND UPZONING IN
REDUCING ECONOMIC AND SPATIAL
INEQUALITY**

Andrés Rodríguez-Pose and Michael Storper

**INTERNATIONAL TRADE AND
REGIONAL ECONOMICS**

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Abstract

Urban economics and branches of mainstream economics - what we call the “housing as opportunity” school of thought - have been arguing that shortages of affordable housing in dense agglomerations represent a fundamental barrier for economic development. Housing shortages are considered to limit migration into thriving cities, curtailing their expansion potential, generating rising social and spatial inequalities, and inhibiting national growth. According to this dominant view within economics, relaxing zoning and other planning regulations in the most prosperous cities is crucial to unleash the economic potential of cities and nations and to facilitate within-country migration. In this article, we contend that the bulk of the claims of the housing as opportunity approach are fundamentally flawed and lead to simplistic and misguided policy recommendations. We posit that there is no clear and uncontroversial evidence that housing regulation is a principal source of differences in home availability or prices across cities. Blanket changes in zoning are unlikely to increase domestic migration or to increase affordability for lower-income households in prosperous regions. They would, however, increase gentrification within prosperous regions and would not appreciably decrease income inequality. In contrast to the housing models, we argue the basic motors of all these features of the economy are the current geography of employment, wages and skills.

JEL Classification: D63, O18, R21, R23, R31

Keywords: cities, Housing, regulation, urban planning, Economic Growth, inequality, migration

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Housing, urban growth and inequalities:
**The limits to deregulation and upzoning in reducing
economic and spatial inequality**

Andrés Rodríguez-Pose¹ and Michael Storper²

Abstract: Urban economics and branches of mainstream economics – what we call the “housing as opportunity” school of thought – have been arguing that shortages of affordable housing in dense agglomerations represent a fundamental barrier for economic development. Housing shortages are considered to limit migration into thriving cities, curtailing their expansion potential, generating rising social and spatial inequalities, and inhibiting national growth. According to this dominant view within economics, relaxing zoning and other planning regulations in the most prosperous cities is crucial to unleash the economic potential of cities and nations and to facilitate within-country migration. In this article, we contend that the bulk of the claims of the housing as opportunity approach are fundamentally flawed and lead to simplistic and misguided policy recommendations. We posit that there is no clear and uncontroversial evidence that housing regulation is a principal source of differences in home availability or prices across cities. Blanket changes in zoning are unlikely to increase domestic migration or to increase affordability for lower-income households in prosperous regions. They would, however, increase gentrification within prosperous regions and would not appreciably decrease income inequality. In contrast to the housing models, we argue the basic motors of all these features of the economy are the current geography of employment, wages and skills.

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“(2) Economists widely agree that restrictive land use policies increase housing prices. Studies have found that housing prices in California are higher and increase faster in jurisdictions with stricter land use controls, and in some markets, each additional regulatory measure increases housing prices by nearly 5 percent. Stricter land use controls are also associated with greater displacement and segregation along both income and racial lines. Restrictive land use policies also hurt economic growth by preventing residents from moving to more productive areas where they can accept more productive jobs that pay higher wages.” California Senate Bill 4 (McGuire and Beall), 10/4/2019.

Introduction: housing is no longer a local issue

Housing market failures can imperil local economic growth and generate problems such as segregation, long commute times, deteriorating quality of life, homelessness, and barriers to social mobility for certain populations. In recent years, these worries have tended to increase in the metropolitan areas of many countries. In developed countries, housing regulation through planning and zoning has long been considered to be primarily a domain of local policy, with national policy in a supporting and guiding role for cities and regions. This notion is now changing because, in the mainstream view, sharply rising housing prices and declining affordability in metropolitan areas are the result of overly-restrictive zoning and onerous regulation of construction. These restrictive local housing policies are increasingly seen as central to the magnification of social and spatial inequalities at national scale. This connection emerges, it is argued, because local housing policies create barriers to the ability of people from less dynamic regions to move to more dynamic ones. Housing, in this view, is no longer a local issue: it is central to debates about national growth, the effects of globalization on communities, and can become a source of populist anger from those who are locked out of prosperous metropolitan regions.

In this paper, while agreeing that housing policy can have important impacts on economic growth and social equity, we will critique this mainstream academic view of precisely how housing fits into the broader picture of economic growth and inequalities in the age of globalization. Specifically, we suggest that housing supply is more important, by city scale (among neighbourhoods), than it is to shaping inter-regional migration, the size of cities, and the performance of national economies. The barriers to migration to prosperous economic areas consist less of housing, and much more of the skill composition of urban labour demand. The affordability crisis within major urban areas is real, but it is due less to over-regulation of housing markets than to the underlying wage and income inequalities, and a sharp increase in the value of central locations within metro areas, as employment and amenities concentrate in these places. We posit that this school of thought is simultaneously diverting attention from the real problems of other, lagging regions, while overestimating the potential demographic, income distribution and productivity effects of less restrictive zoning on prosperous regions.

The “housing-as-opportunity” view of inter-regional inequality

Since the beginning of the current round of globalization in the 1970s, we have witnessed a tendency for two types of inequality – interpersonal and geographical – to rise. Income inequality within countries has intensified, both in the developed and developing world (Milanovic, 2016). But while interpersonal inequalities have continued to attract the most attention (e.g. Piketty, 2014), the parallel rise of inter-regional inequality has remained somewhat under the radar. Yet, it is becoming increasingly clear that regional inequalities

have also turned a corner. In the US, the inequality of income per person among metropolitan areas was 30% higher in 2016 than it was in 1980 (Ganong and Shoag, 2017). In Europe and in a process driven by fast-growing capital regions, a long period of regional convergence dating back to 1900 has been replaced since 1980 by divergence (Rosés and Wolf, 2018).

A number of recent changes seem to be behind the widening of inter-territorial inequality. First, inter-regional migration is declining: in the United States it has fallen to half of its century-long average up to 1980, and it is more spatially selective by skill level (Giannone, 2017). Second, labour force participation rates also have a higher inter-regional variance in the EU and the USA than since the 1930s Great Depression. Moreover, the jobs generated in lagging-behind and declining areas have lower average skill levels and wages than those created in more prosperous metropolitan areas (Di Cataldo and Rodríguez-Pose, 2017). Generally, the employment that relocates from core areas to other regions is in more routine, with lower wage levels (Autor and Dorn, 2013). Technology (automation) is suppressing employment levels in routine activities, and import competition keeps unskilled wages down (Autor, Dorn and Hanson, 2015). Though there are some bright signs in lagging-behind regions, such as the expansion of warehousing and logistics jobs linked to the internet economy, wage and skill levels are stagnating and employment levels will be challenged by robotization. Overall, the divergent new geography of income and jobs is also becoming a divergent new geography of opportunities (Storper, 2018).

What can be done to reverse the increasing polarization of income, jobs, and opportunity? Although multiple solutions have been proposed since the 1950s, as *The Economist* (2016) put it, “orthodox economics has few answers to the problem of regional inequality.” In recent years, however, one position deeply embedded in urban economics has also become dominant: the only place-based policy that stands a chance of making a difference involves lifting the barriers to migration from lagging regions to leading metropolitan areas, as the way out of the current predicament of divergence and inequality.

The barrier that must be lifted in order to make this happen is, according to this view, insufficient housing construction in prosperous areas due to local restrictive zoning in those regions. The places where policy is needed are therefore not the lagging and falling-behind regions, but the prosperous areas, which are perceived as afflicted by the disease of NIMBY-ism (Not-In-My-Back-Yard). Undoing NIMBY-ism would allow people from other regions, whom are deemed to be excluded by high housing prices and low availability in prosperous places, to move to prosperity (thus, a place-based policy leads to a people-based outcome).

Along these lines, a host of academic papers (e.g. Katz and Rosen, 1987; Quigley and Raphael, 2005; Ihlanfeldt, 2007; Glaeser and Gottlieb, 2008; Saiz, 2010; Kline and Moretti, 2014; Hsieh and Moretti, 2015, 2017; Ganong and Shoag, 2017; Gaubert, 2018) has made a set of inter-linked claims:

1. Restrictive zoning and other regulations in prosperous metropolitan regions limit the expansion of housing supply;
2. Such constraints drive housing prices up;
3. It adds to the income of developers and landowners and transfers income away from workers living in or seeking to live in these regions (whether as buyers or renters) and, in doing so, enhances inter-personal income inequality;
4. Housing restrictions dampen migration into prosperous regions, depressing access

to metropolitan labour markets, especially for the unskilled in declining regions;

5. Fewer restrictions on housing supply in prosperous regions would alter the inter-regional spatial distribution of population of all skill levels and prosperous metropolitan areas will become bigger, more productive, and more socially inclusive. Moreover, the inter-personal income distribution – at a national scale and especially within prosperous regions – would become more equal.
6. By inference, despair and unemployment in lagging regions would decline and per capita incomes increase due to higher rates of out-migration from these areas to prosperous ones.
7. Housing deregulation in prosperous regions would, thus, have a trickle-down effect. Expanding housing supply in desirable locations would reduce housing market competition and generate affordability and upgrading for wide swathes of the population, stretching far down the income distribution.

Taken together, these claims amount to an extremely ambitious and comprehensive vision of how the space-economy works to link the local and the far away. They form the basis of what has increasingly become a mainstream policy consensus that centres on reducing housing restrictiveness in prosperous areas, asserting that massively increasing the land zoned for housing and its permissible densities is a meaningful instrument to confront and change the current inter-regional divergence of incomes, employment and opportunity, to reduce income inequality, and increase housing access for low-income people in prosperous metropolitan regions.

We call this perspective the “housing as opportunity” policy school of thought.” This perspective has come to dominate academia and captured the public imagination, as its authors have attracted great attention with their claims about the benefits of housing deregulation to prosperous and less prosperous areas alike and to the national economy as a whole. Hsieh and Moretti (2017), in estimations we shall criticize below, assert that the US economy would be far bigger if housing were unregulated, and that the larger agglomerations would increase in size, as the less skilled currently languishing in stagnating regions would migrate to them. Hence, inter-personal inequality would decline, in a win-win scenario of rising productivity and prosperity for all. Ganong and Shoag (2017) claim that inter-state income convergence would be at least 10% greater since 1980, were it not for restrictive housing regulations in prosperous areas. Glaeser (2017) endorses their claims that “America’s most important, hence costly regulations, are land use controls”, and both the New York Times editorial board and its progressive columnists, such as Paul Krugman, have backed the view that NIMBYism, in the form of neighbourhood housing regulations, is strangling national economic growth and has made prosperous metro areas like citadels that those with less education can no longer get into.¹

¹ The mainstream view has strongly influenced legislators, and policy think tanks. For example, the Obama Administration, through its Housing Development Toolkit, and most recently, Senator Elizabeth Warren (American Housing and Economic Mobility Act, proposed legislation), as well as the Trump administration’s Spring 2018 Housing and Urban Development Department publication (*Evidence Matters*) and Secretary Ben Carson’s August 14, 2018 tweet encouraging cities to loosen zoning on behalf of affordable housing. In California the issue of housing development has taken centre stage, with more than 200 Senate Bills – with SB4 and SB 50 being the most relevant – introduced this session (Koseff, 2019). This follows bills 35, 167 and 827 passed in the 2017-18 session.

And this is not without consequences. As indicated by Romen (2016: 1) “cities confronting growth pressure face a trade-off between accommodating growth through outward expansion, or accepting the social implications of failing to build enough new housing”. Thus, local housing and zoning regulations have become not just a local, but a national planning issue, and not just in the United States. They have long been the concern of a national policy debate in the UK. Interestingly, the academic consensus unites groups that emphasize the supposed social justice aspects of reducing housing regulation, assuming it would help the less skilled and reverse a long association of zoning with racial exclusion, with mainstream economists, who assume that regulation is inefficient. As can be imagined, both are applauded by land developers, who are strong supporters of the California-based YIMBY (Yes-in-My-Backyard) movement.²

A corollary to their emphasis on housing in prosperous regions is a systematic rejection of place-based policies in less prosperous regions.³ In their view, large and densely populated cities are the only possible motors of economic activity and promoting economic activity in less-developed areas through public intervention leads, at best, to market distortions and, at worst, to a waste of public resources on “troubled areas” (Glaeser and Gottlieb, 2009: 1014). Moreover, because promoting development in lagging areas implies “severe equity efficiency trade-offs” (Kline and Moretti, 2014: 656), “subsidizing poor or unproductive places is an imperfect way of transferring resources to poor people” (Kline and Moretti, 2014: 656).

In their thinking, the alternative – ‘place-based policies’ for lagging-behind areas – is a suboptimal solution, unlikely to have any discernible economic impact (Leunig and Swaffield, 2007; Glaeser and Gottlieb, 2008). “Local economic policies that are meant to increase production in a particular area [...] seem to be either extremely expensive or ineffective” (Glaeser and Gottlieb, 2008: 203). Moreover, the “mobility of people and capital can complicate the effects and potentially undo most or all of the gains from such redistributive policies” (Neumark and Simpson, 2014: 12).

Our purpose in this paper is to scrutinize this mainstream view about housing construction in prosperous areas as a route to greater prosperity and equality in the winner regions. Our point of departure is that housing markets are not like standard markets, so that aggregate increases in supply do not translate in any straightforward way to decreases in price, because the internal plumbing of housing markets – succession, migration, and occupation patterns – are full of frictions, sunk costs, barriers and externalities that make the effects of aggregate supply increases highly uneven, and in many cases involve unintended or contradictory effects. From this point of departure, our critique argues that the first three claims of the mainstream view above are reasonable but require considerable nuance, while the remaining four are implausible. Through our critique of these claims, we conclude that the housing as opportunity school is diverting attention away from the tasks necessary to address the problems of lagging regions and inter-regional inequality. It also exaggerates the effect of housing in contributing to the overall rise of inter-personal inequality and socio-spatial segregation. Finally, by implication it diverts attention away from the real need to address housing affordability for low- and moderate-income groups already residing in the prosperous metropolitan regions.

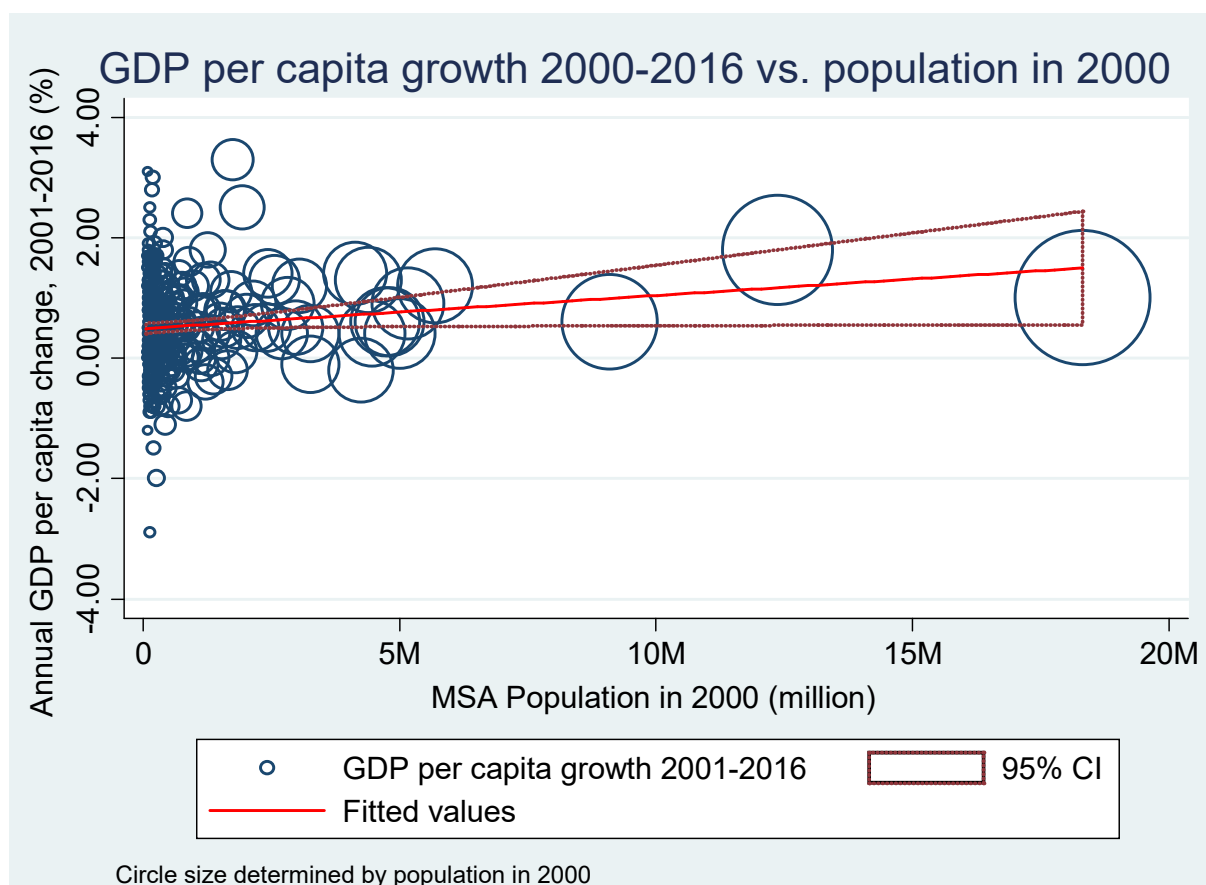
² A principal backer of SB 827 and SB 50 (Bronstein, 2018).

³ Although the tide seems to be turning and some mainstream economists in the current political climate seem to be reluctantly endorsing place-based policies for areas with historically high unemployment (e.g. Austin Glaeser and Summers, 2018).

Does economic growth come mostly from city size, or from urban specialization?

The housing as opportunity school sees housing as the key element in determining inter-regional population mobility and the geographical pattern of real incomes. City size and density are crucial for economic growth. The corollary assumption is that restricting immigration will limit productivity growth, by preventing the unskilled from matching to better job opportunities that supposedly exist for them in prosperous city-regions. The basic set-up here derives from spatial equilibrium theory, which holds that city size and population growth are the only important factors for economic growth, because once the conditions are in place for population growth, jobs and output growth will follow (Glaeser, 2008). This model explicitly rejects using income, per capita income, or the wage structure as measures of urban performance. Therefore, we need to scrutinize the relationship between housing and land supply and urban population growth.

Figure 1. Relationship between city size and per capita economic growth in the US, 2001-2016.

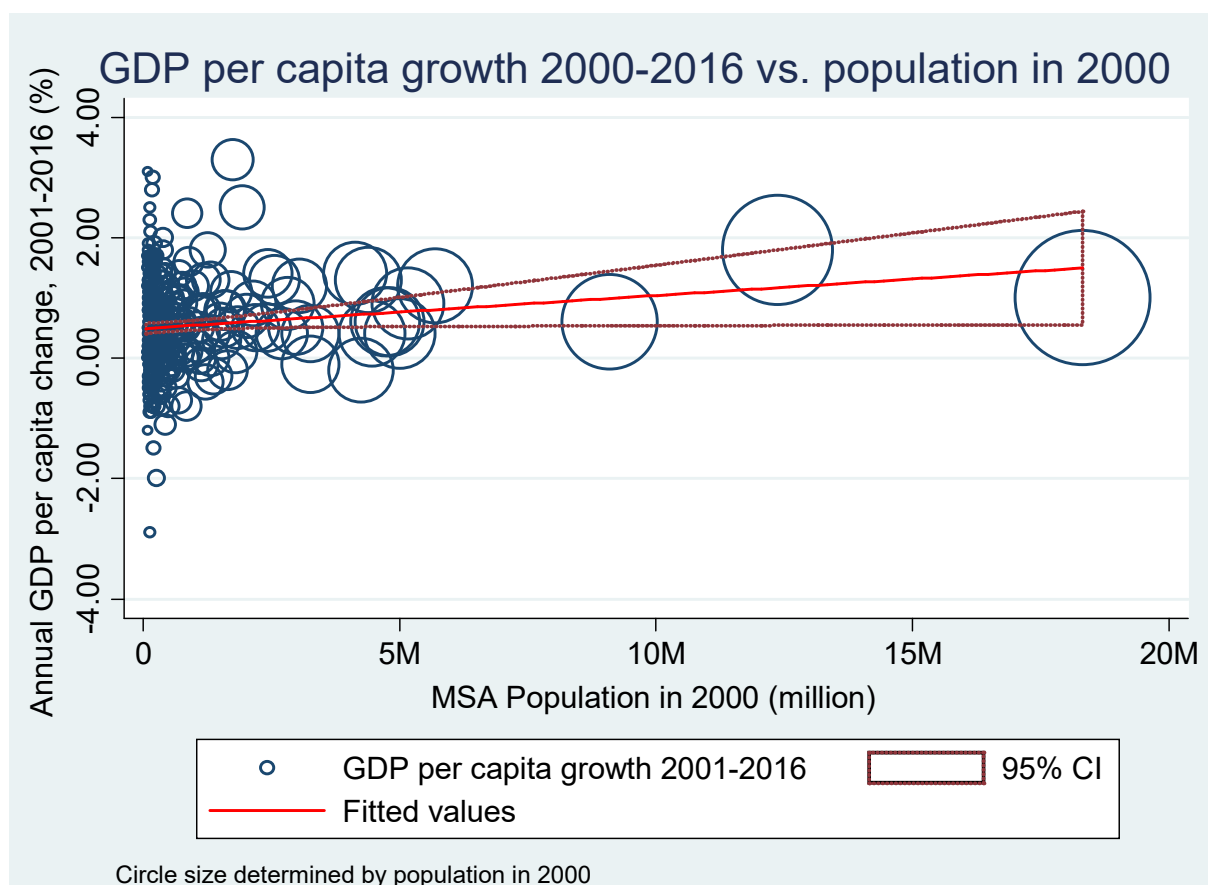


However, the connection between city size, urban population growth and economic growth is far from straightforward (e.g. Polèse, 2005; Frick and Rodríguez-Pose, 2018). Even in the case of the US, the country that has traditionally been used to prove this connection, over the last decade and a half economic polarization has coincided with an absence of a close link between city size and economic growth. Figure 1 displays the link between the size of US metropolitan statistical areas (MSAs) and their economic performance per capita between 2001 and 2016. Taken as a whole, the relationship is, at best, tenuous. While some large MSAs, such as Portland, Los Angeles, San Francisco, Boston, or Seattle have done well, economic growth per capita in other large agglomerations during the same period, including Atlanta, Phoenix, and Las Vegas, has been negative. The link between initial city population

and economic growth during the same period is non-existent (Figure 1).

The same applies to population growth. Although it is true that cities with more unregulated housing markets have witnessed greater population growth, population growth has not necessarily been translated into economic growth (Figure 2). Some cities with relatively unregulated housing markets, such as San Antonio, Dallas-Fort Worth, and Houston, have both experienced high levels of population and economic growth. However, rapid population expansion has not resulted in economic growth in Las Vegas, Orlando, Phoenix, or Atlanta. In contrast, many cities with highly regulated housing markets, such as New York, Boston, Portland, and San Francisco, have enjoyed high absolute levels of economic and population growth in the past few decades (with the exception of Portland's population growth). Overall, since the turn of the century there has been no connection between population change and economic growth across US cities (Figure 2).

Figure 2. Link between population growth and the growth of GDP per capita in US MSAs, 2000-2016.



For present purposes, this means that, even if substantial deregulation of housing markets were to reshape migration and population distribution, more national economic growth would not necessarily follow automatically. This is because urban productivity and incomes appear to rise up to a certain point, but are also shaped by what a city specializes in and from the absolute size of a particular specialized agglomeration of firms (Kemeny and Storper, 2014). Thus, the US has a bigger urban productivity surplus than does Europe, and Europe has many more middle-sized cities than the USA, but this difference is less due to the preponderance of larger urban areas in the USA and more to their greater specialization, which is an outcome of the lower barriers to trade within the US urban system. Not enough is currently known about the relative contributions of size and specialization to incomes and

productivity, but is a leap into the unknown to predict unlimited positive relationships of the latter to metropolitan size.

Is inter-regional migration shaped principally by housing prices?

Mainstream theories have used the association between low levels of housing regulation and high rates of population growth in the Southeast and Southwest of the USA as an explanation for their population growth (Graves, 1976; Roback, 1982; Glaeser, 2008). Most such models assume that housing and amenities rank highly on preference functions, via a further assumption that “jobs follow people” (Muth, 1971). Their canonical image is taken from US Sunbelt development in the post-war period, which involved high domestic migration (rural to urban within the South; and Industrial Midwest/Northeast to South and West). But the assumption that these migration streams were motivated by cheaper housing in the developing areas finds no historical proof at all in that literature.

A more plausible explanation is that such migration was unleashed by de-agglomeration of routine manufacturing from its Northeastern-Midwestern heartland, combined with job-market deregulation in the form of the Taft-Hartley Amendments to the National Labour Relations Act in the 1940s, which made it more difficult to unionize in the resulting “right-to-work” states. This prolonged the cheapness of labour in during the rural-to-urban transition in the post-war period. Hence, an explanation of the growth of these regions starts with the movement of jobs, fuelled by a deregulated labour market, rather than with unregulated housing markets. Massive migration to California, by contrast, clearly did not have to do with cheap housing, as Californian metropolitan housing prices have remained well above national averages for the better part of a century.

Deepening a perspective based on employment as the key direct factor behind urban growth and decline, from the late 1950s and through the 1970s cities in the Northeast and Midwest bled jobs, as manufacturing went through a three-phased process of de-agglomeration to the South, technological change, and, finally, globalization. This is what is vernacularly known as “the new geography of jobs” and the “great inversion” (Moretti, 2012). It was not highly-regulated housing markets that led to population loss in these cities and regions, but employment decline. Later, with the advent of the new economy, selective parts of the old economy, such as Boston, Washington, New York, (or London in Europe), reinvented themselves and rebounded from population decline, again in spite of highly-regulated housing markets.

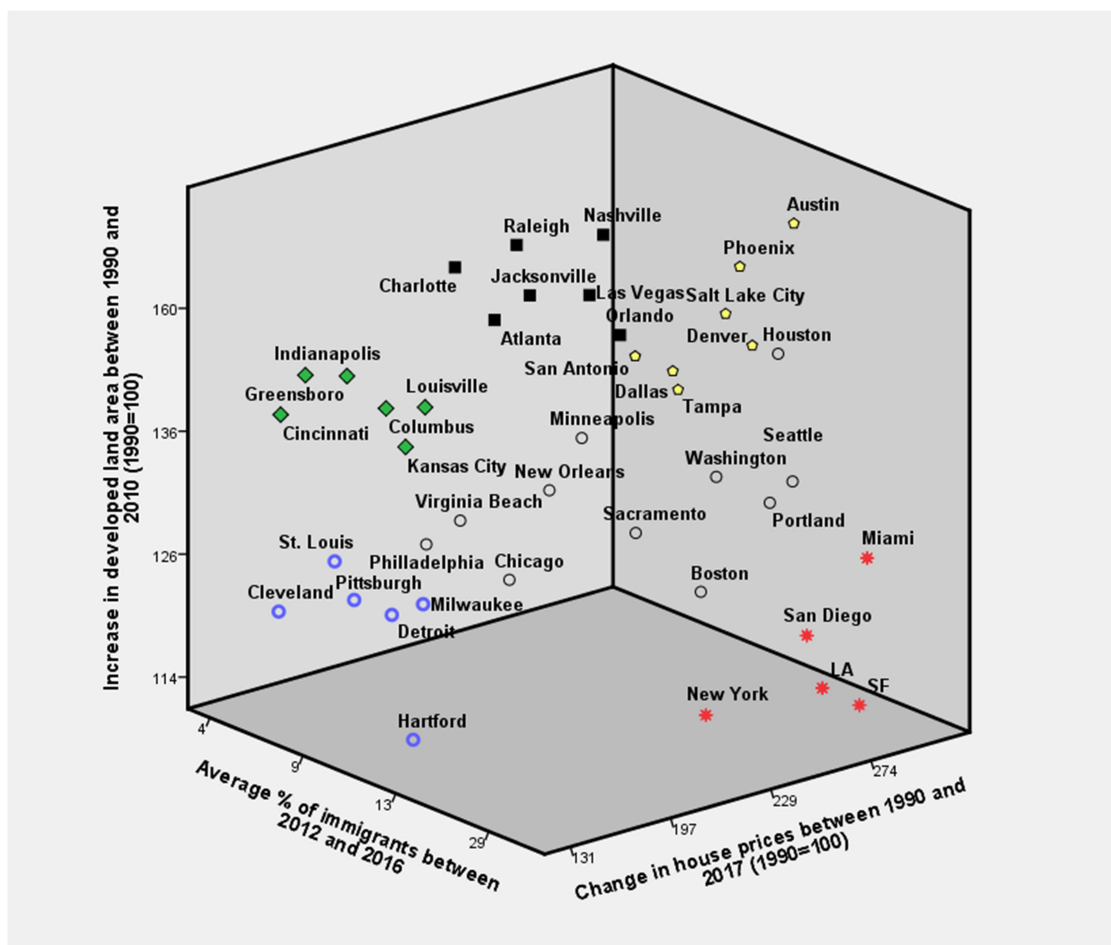
The difference between the two cases of population change is the type of jobs and the point in industrial maturity that generated them (Norton and Rees, 1979). In the rapidly-growing cities of the American Sunbelt, average skill and wage levels have for decades been lower than in cities such as Washington, Seattle, and San Francisco. One of the major contributors to the rising gap in housing prices between high-cost regions, such as New York and San Francisco, and low-cost regions, such as Orlando or Phoenix, is the widening differences in wages and wealth of those who seek housing in the two different types of region (Romen, 2018). Hence, differences in housing prices are not uniquely determined by the level of in-migration (aggregate demand) but its composition. “Composition” here refers to the wage and income structure of the population. In areas that have grown principally due to the growth of jobs with routine skills and moderate wages, housing prices are mechanically lower than in metropolitan areas that draw in the highly-skilled and highly-paid. A different case is weak aggregate demand, explaining why housing is also inexpensive in most middle-sized cities of the Rustbelt – Buffalo, Milwaukee, South Bend, Syracuse, where people leave in spite of low housing costs. Lack of jobs and a weak geography of opportunity are the main

culprit. In many growing Sunbelt cities, by contrast, employment growth has taken place mainly in middle- to low-waged jobs. This trend is so strong that, as Autor and Fournier (2019) put it, “the economic advantages of dense cities are disappearing for low-skilled workers.” In 1950, denser urban areas offered higher wages for both educated and less educated workers. Today, when wages are adjusted for density, workers without a college degree have very little advantage from locating in large cities. Similar trends are being uncovered in Europe. Bjerke and Mellander (2019) find that moving from a rural to an urban area in Sweden has no positive effects on the movers’ salaries, with the only exception of the highly-skilled. Though housing costs in dense areas compound the disadvantage to low-skilled workers, reducing housing costs would not, under any scenario, erase the basic facts of the labour market in dense urban areas for these workers, which stem from fundamental changes in economic geography, as we shall argue in more detail later in the paper.

A more recent generation of models that comprises part of the housing literature does centre on the geography of employment. Gaubert (2018) argues that firm sorting and housing are strongly tied. In her model, cities are undersized today because firms cannot capture all the potential gains to workers’ productivity from potential agglomeration economies, and this is because wages in large cities are inflated by excessive housing costs due to regulation. Thus, if housing supply increased, this would flatten the inter-regional wage curve, attracting more firms into big cities and, consequently, endogenously creating more agglomeration externalities. The key mechanism would be increasing the skilled labour supply, resulting in bigger and more productive and specialized cities. This model affirms our view that urban growth – whether induced by greater housing supply or other factors – would primarily involve the skilled workers as currently enjoying high urban wage premiums (Autor and Fournier, 2019; Bjerke and Mellander, 2019). Figure 3 buttresses our view that it is the fundamentals of economic geography more than house prices that are at work, by showing graphically the weak relationship between changes in home values, expansion of the developed residential area, and the presence of immigrants in US cities.

The relationship between residential expansion and low housing value appreciation emphasised in the housing as opportunity literature appears only in a relatively small number of Southern cities, highlighted by a black square. In Charlotte, Raleigh, Nashville, Atlanta, Jacksonville, Las Vegas or Orlando, a rapid increase in the developed land area between 1990 and 2010 has indeed come with moderate increases in house prices. But affordable housing has hardly been a magnet for immigrants, as the number of immigrants from outside the US in these cities is relatively low in comparison to the rest of urban America. On the whole, these cities tend to be outliers, rather than the norm.

Figure 3. Urban land area development, house prices and in-migration in the largest metropolitan areas in the US (1990-2017).



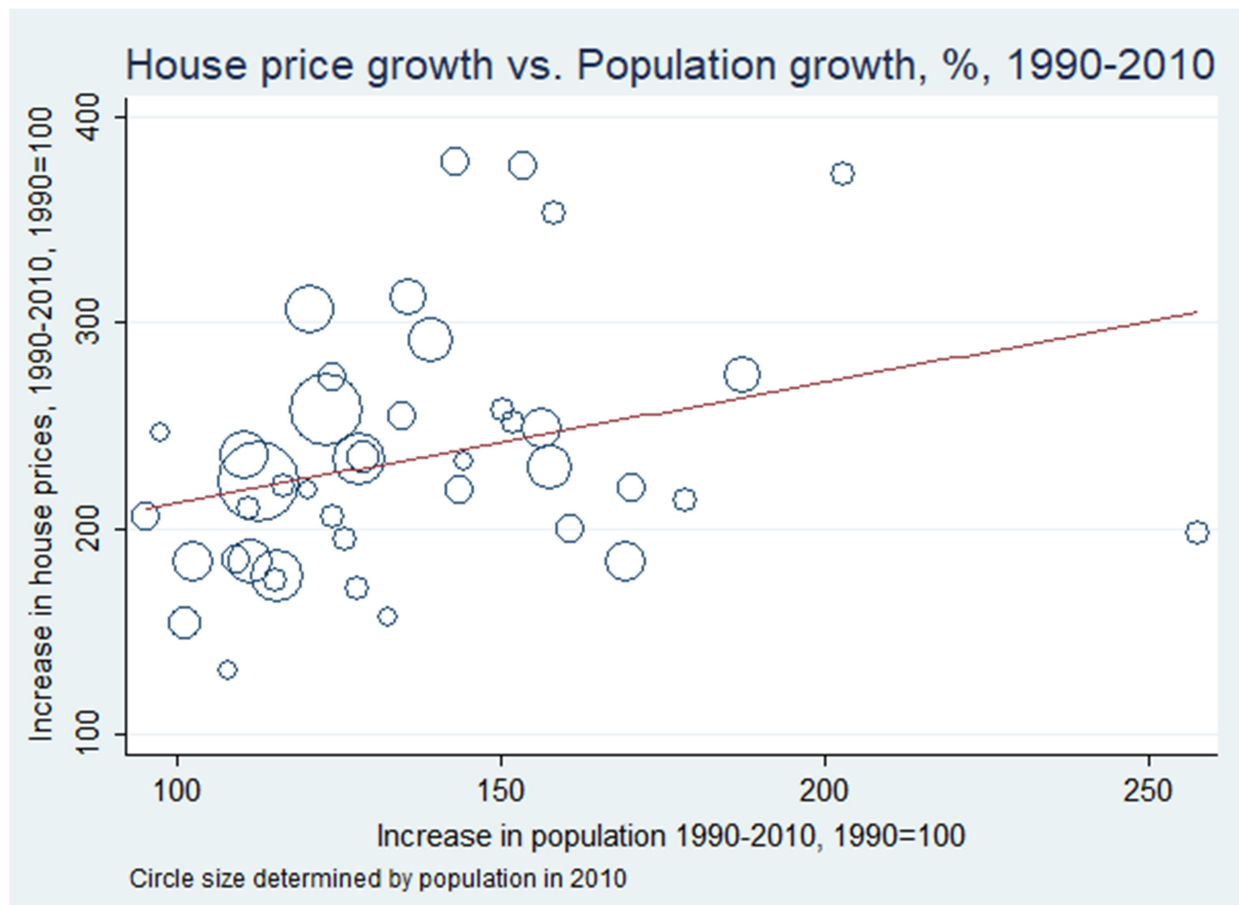
Source: Own elaboration, using data provided by Romén, Bogin, Doener and Larson (2018) and the Migration Policy Institute (2018).

The norm, in fact, does not exist. This reflects that there is much more than housing regulation driving the relationship between housing expansion, affordability, mobility and urban growth. A number of cities that have witnessed limited land area development and high house price increases over the last decades, either because of strong geographical constraints or tight regulations (those denoted by a red star in Figure 3), have continued to attract population and large numbers of immigrants. Miami, with almost 40% of foreign population, tops the rank of metropolitan areas with more foreign immigrants. Los Angeles comes second; San Francisco, fifth; San Diego and New York are not far behind. Another group of US cities – such as Indianapolis, Cincinnati, Greensboro, Columbus, Louisville and Kansas City, indicated by a green diamond in Figure 3 – have experienced rapid housing growth and, while prices have remained relatively low, they have failed to attract immigrants. In other expansive cities, such as Austin, Phoenix, Salt Lake City, Denver, Dallas, San Antonio or Tampa (denoted by a yellow pentagon), rapid housing growth has not been accompanied by greater affordability. Here, while the share of immigrants is greater than in areas with more affordable housing, they lag behind as a magnet for migrants than places that are still more expensive and where the housing stock has hardly grown (red star in Figure 3). Finally, cities like Cleveland, St. Louis, Pittsburgh, Milwaukee, Detroit or Hartford (pictured by a blue circle in Figure 3) have neither expanded nor witnessed strong increases in house prices nor (with the partial exception of Hartford) attracted migrants. Their economic performance (with the

exception of Pittsburgh) has also been substantially below par.

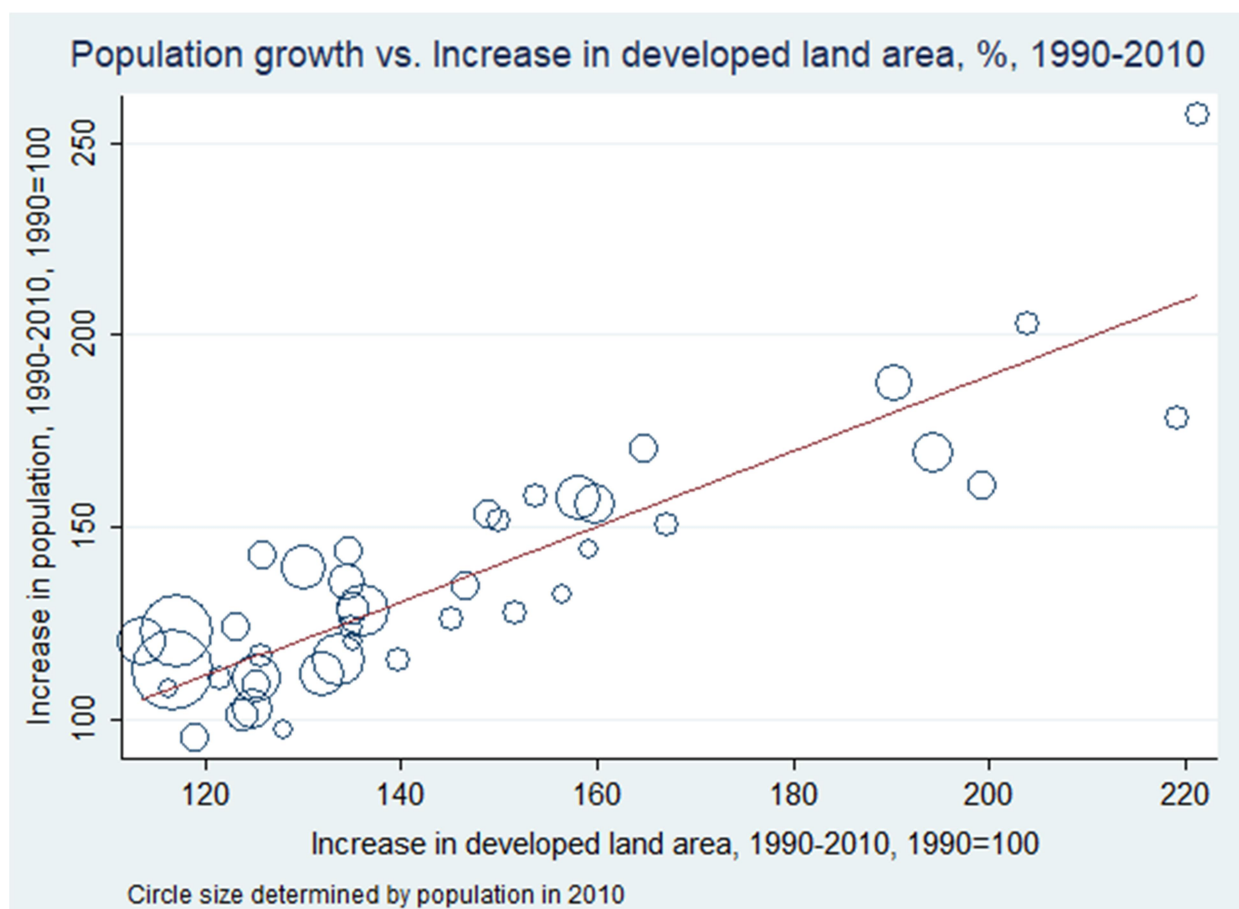
Figure 4 shows a positive relationship between house price growth and population growth, though with considerable dispersion at the level of individual metropolitan areas.

Figure 4. House price vs. population growth, %, 1990-2010.



Supply adjustments can be made by using new ‘develop-able’ land or by changing housing stock on existing land (for example through in-fill or greater density). In Figure 5, a strongly positive relationship is observed between population growth and expansion of developed area, consistent with the way that many rapidly growing American metro areas expand on their periphery.

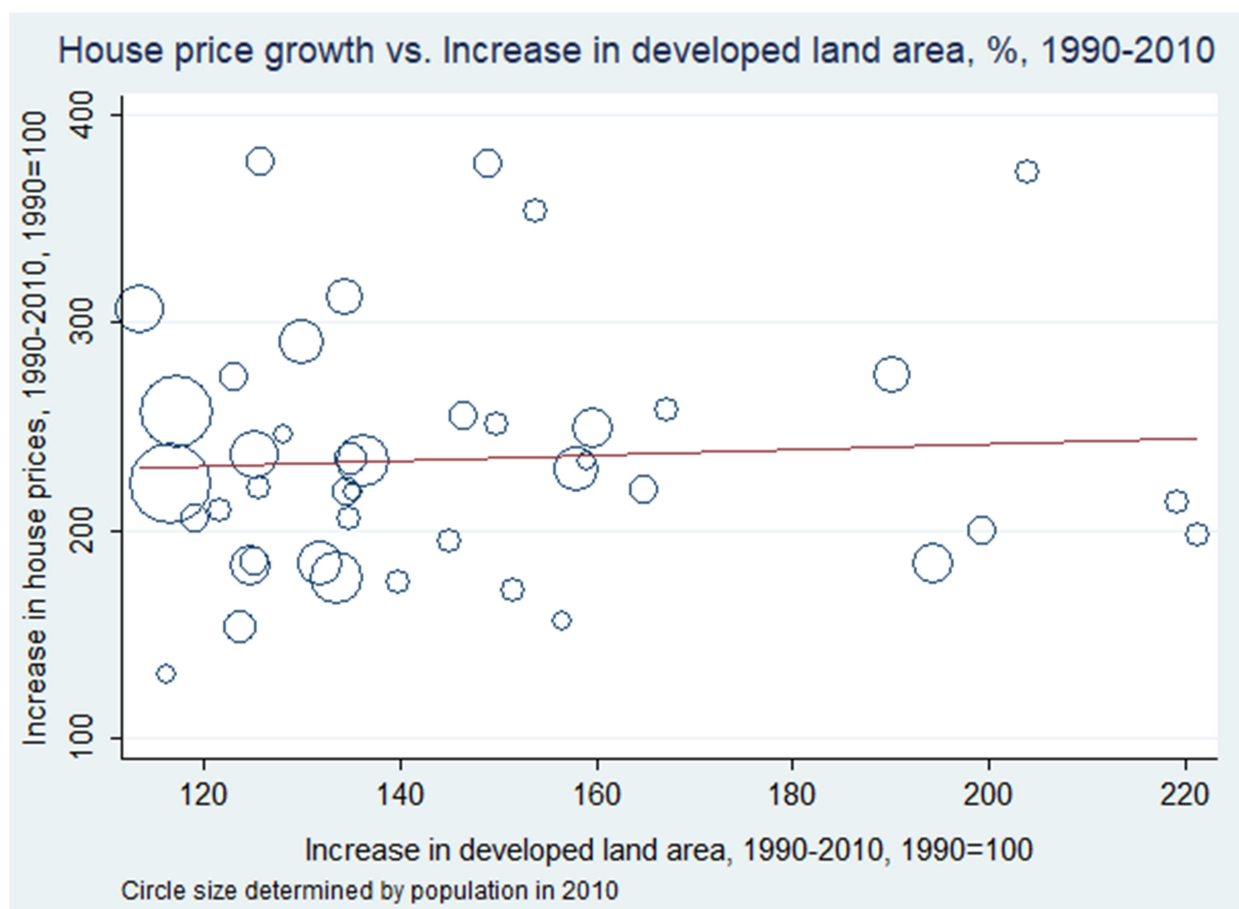
Figure 5. Population growth vs increase in developable area 1990-2010.



But once we consider the third combination of relationships, between ‘develop-able’ area and house prices, as in Figure 6, there is no relationship. It seems plausible that rapidly developing urban areas that are expanding outward on their urban fringe benefit from the low land prices on the develop-able fringe, which in turn lowers their average housing prices, as in the cases we cite above. We cannot capture the effect of available land in declining urban areas (such as Rustbelt cities), which would have vacant land available for development. In any event, in large and mature urban areas, the metropolitan fringe is already far away from the core and long occupied (and sometimes has hit natural geographical barriers), raising commuting times. That is why policies attempting to increase supply are directed to already-developed land in the urban core, with its strong structurally high land prices, in addition to the declared policy goals of developing near public transit. Why are aggregate supply changes in this type of metropolitan core area unlikely to have a strong effect on reducing housing costs overall, through social and spatial trickle-down effects?

In what follows, we argue that the missing element in determining housing prices and affordability in these cities is the structure of jobs and incomes, not aggregate supply policies.

Figure 6. House price growth vs. increase in developed land area, %, 1990-2010.



Incomes and urban size drive housing prices

The difference between expensive and expansive urban areas is the income and wealth underlying the structure of housing demand. The share of very high-income households in the San Francisco Bay Area increased from 17% to 27% of the total in the 2001-2013 period (Bronstein, 2017). This was principally driven by the concentration of high-skill, high-wage employment in agglomerated core industries of the 3rd Industrial Revolution.⁴ Real incomes in high-wage and high-amenity metropolitan areas, even after accounting for housing costs, are on average 15% higher than in lower-wage metropolitan areas (Kemeny and Storper, 2012). These prosperous regions also generally have high levels of income inequality, resulting from a growing gap between the wages of the high- and the low-skilled (Baum-Snow et al., 2017). In these prosperous metropolitan areas, low-skilled jobs are largely filled by international migrants, because low-skilled domestic workers have largely stopped migrating to them. Foreign migrants have a variety of housing strategies, ranging from high densities, overcrowding and substandard conditions, to long-distance commutes. In spite of these supposed barriers, both unskilled and skilled workers keep on moving to these cities (Lindley and Machin, 2004). Another element of population growth in large agglomeration is the young. The young are not yet at the top of the skill-wage hierarchy, but are willing to put up with difficult conditions in the short run in order to build their experience on the job escalator (Jayet, 1983; Glaeser and Maré, 2001; de la Roca and Puga, 2017).

⁴ A longer term perspective on San Francisco finds that changes in wages explain most of the variation in housing costs in post-war San Francisco (Fischer, 2016).

Let's return now to the case of the less-skilled domestic worker population, whose inter-regional mobility is said by the mainstream housing view to be impeded by housing costs. Autor and Fournier (2019) reveal that the hourly wages of less-skilled adults in the USA, which formerly rose steeply with density, no longer do so, whereas the hourly wages of the skilled are ever more strongly positive to density. This has contributed to a widening rural-urban divide in skills: the share of working-age population with a college degree is now 20 percentage points higher in urban places than in rural ones. In 1970 that gap was just five percentage points. Several decades ago mid-skilled work was clustered in big cities, while low-skilled work was most prevalent in the countryside. No longer; the mid-skilled jobs that remain are more likely to be found in rural areas than in urban ones.

The wave of inter-regional divergence in the location of different types of job since the 1980s (innovative/agglomerated/non-routine versus routine) has affected the geography of housing prices. Formally, this is modelled within the New Economic Geography tradition as a spatial split between the prosperous metropolitan areas, which agglomerate innovative high-wage industries, whose wages are weakly affected by spatial competition, and other territories whose industrial mix is dominated by activities that are strongly tradeable, involve routinized work, and are subject to global competition (Venables, 2018).

The agglomeration effect in prosperous metro areas involves an intra-metropolitan dimension as well, which is a recent change in a greater proportion of housing preferences toward access to centrally-located urban amenities, transportation and – for some – greater proximity to employment. This phenomenon has driven up housing prices in the core of prosperous metropolitan regions, such that distance from urban centres imposes an increasing penalty on house prices (Partridge et al., 2009), in an inversion from patterns in the mid- to late 20th century, when skilled employment agglomeration forces were weaker. The demand for more central locations is, by contrast, weaker in successful Sunbelt metropolitan regions such as Atlanta or Houston, with their relatively weak residential urban cores, as compared to cities such as Boston, San Francisco, New York, or most large European cities. Moreover, skilled workers located in the urban core today are not moving to the suburbs at the same point in the life cycle as in previous generations. According to Autor and Fournier (2019), there has been a 50-75% decline in the outmigration rate of prime age adults since the 1990s. This may be due to the longer and steeper opportunity ladders in cities today (de la Roca and Puga, 2017), as well as to the higher time costs of commuting in major metropolitan areas. This creates greater competition for inner metropolitan locations than was previously the case, reinforcing the notion that less restrictive zoning is likely to gentrify inner metropolitan areas but do little about housing affordability for the less-skilled.

The domestic migration slowdown: housing or skills? Kept out or trapped outside?

Inter-regional migration in the USA – usually taken as the canonical case of a geographically-fluid system of inter-regional population adjustment – has declined to half the average level that prevailed for the century between 1880 and 1980, and has remained relatively low since (Goetz et al., 2017). A greater share of the population is spatially “trapped” in the sense that it suffers from barriers to mobility to opportunity. But to what extent is this a consequence of planning restrictions and lack of affordable housing, as opposed to the nature of employment opportunities and the skills required to access them, in dynamic cities?

Skill-biased technical change has a distinctive geography, consisting of the concentration of skilled jobs in certain kinds of regions, mainly large – but not always the largest – metropolitan areas. Part of this new geography reflects the increasing divergence in

the returns to education (Giannone, 2017). But the changing nature of skills also drives this divergence. In innovation-driven agglomerations, formal education represents an entry point, but ongoing experience effects are key to the observed divergence in returns to education. Parts of the population thus face multiple challenges in the new economy: paying for the education to obtain entry-level formal skills; accessing the jobs that provide experience effects by mastering the soft codes and conventions that get them into networks and allow them to acquire the right kinds of skills (DeLong, 2016).

Under these circumstances moving to big cities provides no immediate benefits for workers without college education (Autor and Fournier, 2019). While building more affordable housing in core agglomerations would accommodate more people, the collapse of the urban wage premium for less-educated workers means that the extra housing would mostly attract additional skilled workers. Consequently, as the prospects for improving wages in core areas are poor and the opportunity ladder has shrunk, the choice for low-skilled workers to stay put is rational (Autor and Fournier, 2019). In brief, the decline in inter-regional migration has multiple sources, including the new geography of skills and wages, ageing, the changing nature of skills, social networks, negative housing equity for some, and – far down the list of causes – housing restrictions in prosperous areas.

In this light, urban economic models emphasizing the role of housing supply in inducing or preventing inter-regional mobility make unrealistic assumptions about migration in general. Three main points about inter-regional migration need to be emphasised: it is not costless; housing markets have more of an income distribution effect than a migration effect and; the political influences on both the labour supply (migration) and labour demand side (housing regulation) are extremely complex and not amenable to the simple aphorisms of many urban economic models. We discuss each of these in turn.

Many migration arguments of the housing as opportunity school start with the decline in aggregate inter-regional migration. But migration is still happening; it has just become more selective and spatially separated by skill. Skilled individuals continue to migrate to the most dynamic places and use them as ‘escalator’ regions (Fielding, 1992, de la Roca and Puga, 2017). This is happening everywhere in the developed world. University graduates from the North of England flock to London and the South-East immediately after graduation, regardless of whether they studied in northern or southern universities (Faggian and McCann, 2008, 2009). Similar processes are in evidence in Italy (Biagi et al., 2011), Sweden (Eriksson and Rodríguez-Pose, 2017), or Australia (Corcoran et al., 2010). And the drive towards opportunity is not limited to the highly-skilled. In the USA, the skilled move between skilled cities (Diamond, 2016; Giannone 2017). This is essentially ‘brain exchange’, and is different from the classical mass migration of manual workers to industrial cities of the mid-twentieth century, as in the Sunbelt migration in the USA or the 1960s movement from the Italian Mezzogiorno to Lombardy, Piedmont, Switzerland, or Germany.

In Europe, low-skilled migrants continue to move in large numbers. One third of Romanians between the ages of 25 and 35 live outside Romania (World Bank, 2017). Lithuanians and Poles moving to the UK have ended up conducting low-skilled activities in London, regardless of their previous level of education (Parutis, 2014). This may reflect the fact that European border-free movement is more recent than in the USA, where the Sunbelt migrations of the post-war period already resettled many low-skill migrants. In both Europe and the USA, those not moving are those who either cannot move – because of the growing skill divide between large cities, on the one hand, and towns and rural areas, on the other – or do not want to move.

There are variations on this theme for each country. For example, in East Germany there is a significant skill advantage of young migrants – mainly women – over stayers (Hunt, 2006:1032). The migration difference between the skilled and unskilled young is reproduced in countries like the UK (Faggian and McCann, 2009) and Sweden (Eriksson and Rodríguez-Pose, 2017). In addition to the young who have failed to acquire new economy skills, many non-migrants are older, including those who never migrated from traditional industrial areas or did so during the mid-20th century industrial de-agglomeration wave. But that was a generation ago.

The current domestic migration slow-down affects also middle-aged professionals. People in this group often started their careers on the experience ‘escalator’ of the city and moved back at one point to medium-sized cities to cash in on their acquired experience (de la Roca and Puga, 2017; Eriksson and Rodríguez-Pose, 2017). They moved ‘back’ in search of better quality of life for their families, a different set of amenities, more security, and lower housing costs (Whisler et al., 2008).

Hence, large groups are caught in a ‘spatial trap’ that prevents them from moving to more dynamic areas. Life cycles, strong family ties, emotional and material attachment to place, and lack of employment opportunities in more dynamic areas for less-skilled and/or older workers seriously limit the propensity of people in lagging-behind and declining cities and regions in the developed world to migrate.

Lack of affordable housing in large cities may play a role in all of this, as for example in extreme cases of negative equity (housing bubbles in certain areas, long-term depopulation in others), but its influence will be small. The housing as opportunity school has traditionally assumed that migration is costless – or, in the words of Glaeser and Gottlieb (2008: 159), that “migration is cheap enough to make consumers indifferent” – but the reality is that for those in a ‘spatial trap’ migration is anything but costless and not a realistic and/or viable option. Hence, neither subsidized housing, nor any reasonably imaginable price effect of supply changes induced by less restrictive zoning would overcome the skills and equity barriers or the differences in perceptions about opportunity that these populations face in the new economy.

Data and measurement: an air of unreality

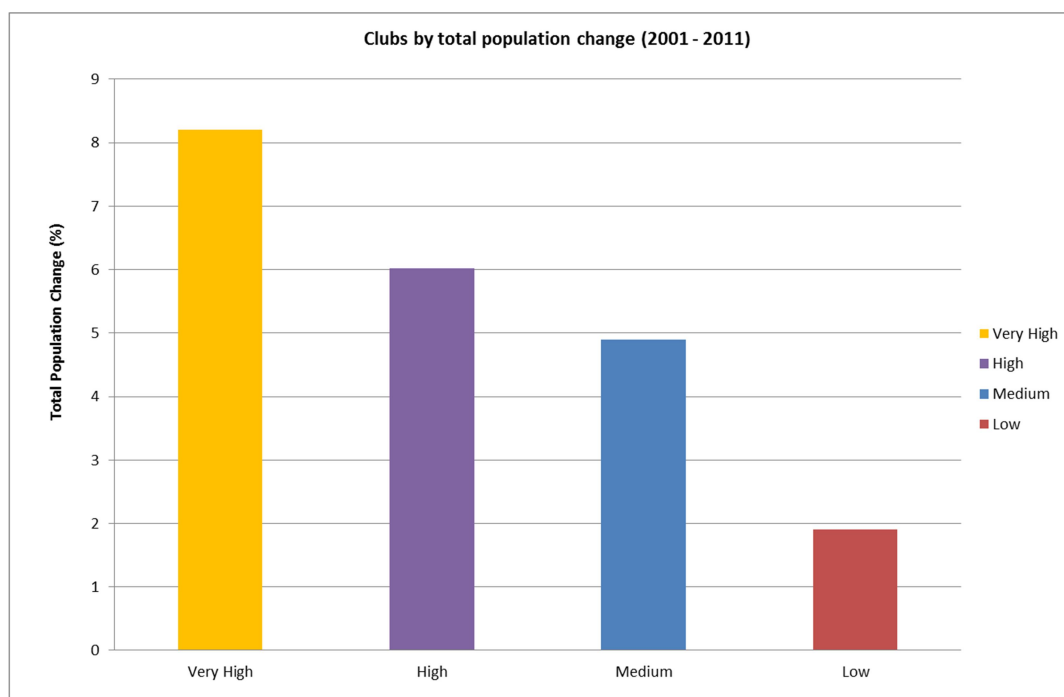
Until recently most of the papers on housing, migration and economic performance have avoided offering counter-factual scenarios for population distributions, the size of metropolitan areas, and employment levels of the less-skilled that would come about in a world of re-formed housing policy, focusing on the housing price effect (Quigley and Raphael, 2005; Ihlanfeldt, 2007; Glaeser and Ward, 2009; Saiz, 2010). Those papers have mostly relied on the Wharton Index, which is a turn-of-the-century survey of about 2600 municipalities, relying on responses of municipal planning directors and other officials about ‘perceived’ regulatory pressure or a survey of those that have terms such as “growth control” in their statutes. The models using the Wharton Index associate an average effect of housing prices on migration elasticity, but they do not differentiate the supposed effect according to incomes, wage levels, or skill levels. There is generally no direct identification of how housing regulation affects housing supply. This corresponds to the wide variations in housing regulation in relation to housing supply change and, especially, to the fact that many northeastern and midwestern municipalities with weak regulation experience limited new housing construction. Adding to this weakness, in order to characterize regulation at the MSA level, the Wharton Index tends to be aggregated up from the municipalities that control zoning to metropolitan area levels (at which housing markets operate) without using weights for

different municipal areas within metro areas (Storper et al, 2015).

A more recent wave of research ventures into estimating how housing supply deregulation affects, variously, population growth and city sizes, inter-regional income inequality, income distribution, and national economic productivity and output (e.g. Hsieh and Moretti, 2017). Though some of these authors demur about their own work by claiming to produce only ‘instructive’ simulations, such ventures are meant to influence the policy debate. They are picked up by the media as academic proof of the potential benefits of deregulation for housing supply. Hsieh and Moretti’s (2017) ‘full adjustment scenario’, as housing construction becomes unshackled from regulation in prosperous metro areas, New York gains 787% in employment, while the job base is multiplied by five in San Francisco-San Jose. The employment loss in Flint, Michigan is, by contrast, 98%. Even in their ‘intermediate’ (and thus supposedly more realistic) scenario, New York enjoys 179% population growth, San Jose 149% and Flint loses ‘only’ 77% of its jobs. Housing deregulation, they claim, would generate \$1.4 trillion annually in additional GDP, through a combination of wage gains and transfer of excessive rents from landowner rents to worker salaries. The benefits of housing deregulation would also be highly territorially uneven, as almost all of the benefits of deregulation to the national economy would come from a three large metropolitan areas.

Yet, the authors admit that their simulations rest on unrealistic assumptions of perfect mobility and do not consider all the conditions required for a Detroit auto-worker to move to the San Francisco Bay Area or any other New Economy region. Ganong and Shoag (2017) claim that housing regulation has contributed to about a 10% greater inter-regional income divergence effect than would otherwise be the case. These claims about the magnitude of potential effects of housing regulation on prices, output, income, productivity and population are implausible, especially when the full costs of migration are taken into account.

Figure 7. Population growth in European regions by income levels, 2001-2014.



In Europe, where planning regimes are, on average, stricter than in the US, tight housing restrictions have also not prevented population growth. The highest-income European

regions with the most expensive housing, are those attracting the most people (Figure 7).

The European example, in concert with the analyses of Diamond (2016) and Giannone (2017) and with realistic estimates of the price of new housing in prosperous metropolitan areas, come together to indicate that, if housing deregulation were to substantially increase inter-regional migration – which is, as we have argued above, improbable –, the migration would mostly accelerate the transfer of skilled-workers from less prosperous into prosperous regions. Simulations for London suggest this would be the outcome of authorizing construction in the Green Belt. A chain reaction would be triggered: those close to the Greenbelt would shift further into London as others arrive on the London periphery (Szumilo, 2017).

Three consequences of such feedbacks are expected. First, in contrast to the conclusions of Ganong and Shoag (2017) and Hsieh and Moretti (2017), greater, rather than lower, inter-regional skill and income divergence would be the outcome, although the magnitude of this phenomenon may be small. Second, any further emptying out of skills and talent in lagging regions will further degrade their future capacity to improve their economic performance, and further widen the development gap. And third, the intra- metropolitan movements of the skilled will further increase intra-regional spatial- neighbourhood inequalities, while simultaneously increase the commuting times of the less skilled, a topic we cover in the next section.

The effects of upzoning: gentrification without affordability

Hsieh and Moretti (2015) argue that NIMBY-ism in prosperous cities, and strong housing regulation more generally, redistribute income from workers to rentiers and accentuate income inequality (presumably placing the landowners higher in the intra-regional income distribution), which, in turn, inhibits aggregate growth. These claims are more plausible than those made about inter-regional migration and convergence by the housing as opportunity school, but they still require considerable nuance.

To begin with, there is a strong and strengthening correlation between regional per capita income and the Gini coefficient on income of urban agglomerations. Prosperous metropolitan areas such as San Francisco, Boston, or New York are more unequal, in the aggregate, than less prosperous ones such as Provo, Utah – although the American Deep South represents an exception. Welfare and income redistribution systems, among other factors, also play an important role in levels of inequality. As Musterd et al. (2017: 1070) indicate, “segregation levels of the better-off and the worst-off are still lower in metropolitan Europe than in the largest metropolitan areas in the United States”.

Some of the intra-regional inequality in prosperous cities may indeed be due to a net transfer of income from non-owners to owners of housing, as housing prices increase more rapidly than wages and other prices. However, the assumptions in the models behind these assertions are often too simple and data too aggregated to shed light on this relationship. In the San Francisco Bay Area, the households with income above \$150,000 increased by 80% from 1990-2015, with their proportion of the total growing from 17 to 27 percent (ABAG Plan Bay Area 2040). These populations have pushed up housing prices overall, and gentrified a small number of neighbourhoods in central areas that were formerly quite poor, as has been the case with some former boundary areas between middle- and high-income areas. This rising inequality in incomes powerfully affects the housing available to less-skilled lower income workers because the existing housing stock of prosperous city-regions has been upgraded, generating a crisis of affordability for lower and middle-income households.

The powerful effects of income inequality rather than aggregate supply emerge from recent analysis of IPUMS data. Popov (2019) finds that in all of the top 100 US metropolitan areas, housing costs are growing more for those in the bottom half of the national income distribution than for those in the top half. Income inequality has risen in 45 of the top 50 metro regions, and fallen in only 19 of the top 100. Housing costs have actually fallen for the top quartile of the national income distribution, in virtually all metro areas, but they have strongly risen for the bottom half. This is not a new problem for the bottom half, which is paying about the same share of its income for housing today as in 1980. The difference is the fall in the housing costs for the top earners. Part of this is attributable to the landowner bonus that figures prominently in Hsieh and Moretti (2017), because the top income earners have a higher proportion of owners. But even for renters, top income households show a decline in income going to housing costs, while the bottom half of households that are renters show an increasing share going to housing costs, in a result consistent with Freemark's (2019) detailed results for Chicago.

Building on these data, we now argue that policies such as blanket upzoning, which will principally unleash market forces that serve high income earners, are therefore likely to reinforce the effects of income inequality rather than tempering them, as we now argue. Combes et al. (2018) show that the elasticity of land prices between centre and periphery of metro areas is non-convex, and rising with urban size. Supply changes must then be large and central to bend this curve appreciably and thereby generate trickle-down effects to other areas. Thus, upzoning at a regional scale would trigger new housing construction in the neighbourhoods where the skilled workers want to live: the already-gentrifying areas and the extensive boundary zones between them and other neighbourhoods. This would allow more skilled workers in the upper quarter of the income distribution to live in the metropolitan core. Moreover, through filtering, producing housing for high income households will prevent them from directly outcompeting low-income households for older and lower quality housing stock, but it would very likely involve replacing older and lower-quality housing stock in areas highly favoured by the market, effectively decreasing housing supply for lower income households in desirable areas. This is gentrification.

However, there is virtually no evidence that substantially lower costs would trickle down to the lower two-thirds of households or provide quality upgrading of their neighbourhoods, but it undoubtedly would enhance displacement in neighbourhoods currently at the boundary of higher-income inner metropolitan areas. Indeed, according to Zillow data reported in *The Washington Post* (August 6, 2018), rents are now declining for the highest earners while continuing to increase for the poorest in San Francisco, Atlanta, Nashville, Chicago, Philadelphia, Denver, Pittsburgh, and Washington, noting that a boom in luxury construction in these areas has failed to ease housing market competition for cheaper properties. And while there is more evidence of filtering, this seems to have also stalled.

Let's now expand on this point about the relationship of intra-metropolitan housing choice dynamics in the face of increasingly unequal inter-personal income distribution. Income inequality in prosperous metro regions strongly affects less-skilled lower income workers, forcing them into painful arbitraging of their residential locations within such regions, usually to outer suburbs. This often involves long commuting times and high transport expense that affect the quality of their lives disproportionately compared to higher-income workers; barring that, it involves subject status downgrading in order to live in more central but less amenity-rich neighbourhoods.

A different type of arbitraging is at work for less skilled foreign immigrants. Intergenerational social mobility is higher in the more prosperous metropolitan areas (Chetty

et al., 2014), still making them magnets for the less skilled immigrants. But while foreign immigrants are willing to accept poor living conditions (higher house prices in lower quality neighbourhoods), low skilled domestic migrants are less likely to leave their places of origin, as they already have a higher relative social status than they could achieve by moving to a prosperous metropolitan area.

In any event, all types of lower-income households in prosperous regions pay the price of ‘displacement’ in competing with higher-wage workers who benefit from upzoning to gentrify neighbourhoods, as they occupy its newer, higher quality housing. None of the extant models or simulations provide realistic estimates of how much new housing would result from upzoning in prosperous regions, or the realistic geographical distributions of such new supply, the magnitudes of intra-metropolitan sorting of the skilled to new housing stock, and inter-metropolitan increases in skilled in-migrants, and their effect on housing competition (see also Freemark, 2019).

It follows that without active policies to help low-income housing consumers and their neighbourhoods, the less-skilled would not benefit from the blanket upzoning policies prescribed by the mainstream literature. As indicated by Jacobus (2019), if upzoning leads mainly to build, as seems to be overwhelmingly the case, “only high-end housing, everyone may see some benefit, but most of the benefit will flow to the rich”. This is evident as both more un-regulated (Houston, Phoenix, Orlando) and highly-regulated and supposedly NIMBY-ist (Boston, New York, San Francisco, London, Paris and most large European cities) housing markets feature high levels of housing segregation by income, and increasing commuting times, especially for low-income residents.

Segregation by income, race, national origin and other vectors, of course, has manifold structural causes (Sampson, 2012, 2018; Boustan, 2017). Even in cities with strong ‘mixity’ policies (such as Paris), market forces push in an opposite direction, although renter protections can slow down the gentrification and segregation processes (with other side effects). Regulation and other policies are often supported by residents who wield political power, to enforce homogeneous neighbourhood quality and resist dis-amenities, with the intended or unintended outcome of segregation. Overturning these regulations, however, has little to do with any general liberalization of housing markets. In Chicago, for example, it has been found that upzoning has had unintended consequences, such as raising housing prices without necessarily triggering additional construction of newly permitted dwellings (Freemark, 2019). Highly deregulated Atlanta or Houston also tend to be more segregated than most highly regulated cities. Indeed, the policy mix that would be required to reduce segregation in the name of providing better access to jobs and transportation, reducing commuting times, and getting access to better schools and amenities for lower-income groups has largely eluded research, even though there is evidence that when lower-income groups access higher-quality neighbourhoods there are strong positive effects on childhood development (Chetty et al., 2015). As a whole, the housing as opportunity school has failed to properly internalise in their models that the intra-urban housing market is highly segmented, and that large different spatial and structural factors affect the characteristics of within-city submarkets (Watkins, 2001; Jacobus, 2019). For our purposes here, it suffices to say that upzoning is not the kind of delicate and complex policy mix that is required to address interpersonal inequality in our cities. Most importantly, undifferentiated aggregate supply policies do essentially nothing to abate the underlying structural causes of the housing crisis in prosperous metro areas that we have identified: high demand from highly-skill, high-income people; increasing income inequality; and a rise in construction and land costs consequent upon the growth and maturation of metropolitan regions and demands for a higher-quality urban environment. The targeted policies that would be needed to reduce spatial-economic

segregation involve increased regulation and other forms of public intervention into the housing market, exactly the opposite of the deregulation approach. The evidence from cities with active public/social housing programmes (such as New York, Paris, and London) is that this requires high public subsidies for construction of affordable housing.

The uses and misuses of theory

The housing as opportunity school has become vocal and assertive about the political and policy uses of its research, but, as we have argued, its research is, in our view, not scientifically solid enough to merit this assertiveness. The reasons for this are:

Its failure to consider the influence of labour demand on influencing changes in the level and composition of the population of cities. A growing body of evidence shows that this is the main driver of population sorting across regions today;

Its inability to demonstrate that housing supply change is a principal contributor to inter-regional patterns or magnitudes of migration, alternative city size distributions, and aggregate economic outcomes, especially in comparison to the geography of labour demand and skills;

Its incapacity to effectively prove that zoning is the principal reason behind rates of housing supply change or inter-metropolitan location of new housing, as opposed to changing effective demand, structural causes of construction costs, land assembly, first nature geography, among many other potential causes;

Its failure to establish a clear link between housing regulation and the size or nature of housing price changes, in comparison to the geography of employment and incomes and general changes in the income inequality;

Its lack of consideration of the intra-metropolitan effects of general zoning liberalization, erroneously concluding that a general deregulation of housing construction in high-income metropolitan areas would generate widely-distributed price and income benefits, socially and spatially, through a trickle-down effect from the luxury market to lower-income groups ('easing housing competition').

Many of these weaknesses stem from the underlying spatial equilibrium model that is used with few questions in much of urban economics today. The field needs an enriched and more realistic spatial equilibrium model, fully incorporating the geography of labour demand and ranked preferences (e.g. Schwartzman, 2017). Households consider not only the average cost of housing when considering mobility, but, first and foremost, the type of jobs available given their skills. In today's circumstances, less skilled domestic workers avoid big, expensive cities not simply because of high average housing prices there. They could secure some type of housing in these vast metropolitan markets, as most external migrants do. Nevertheless, the declining urban wage premium for internal less-skilled migrants, combined with uncertainty about the future of their income in the face of ongoing technological change, as well as their likely high commute times and subjective status downgrading (such as having to co-locate with immigrant groups whom they consider to be of lower social status than themselves if they want to avoid long commutes), shape their decisions not to move to prosperous cities. There is no realistic housing supply expansion in prosperous metropolitan areas that could address the employment and residential utility requirements of less skilled domestic workers and enable them to move massively to prosperous regions.

In the face of what remains an insufficiently developed scientific case, however, the political uses of the housing as opportunity position have become quite prominent. Opposition to more lax planning regimes – and to theories that promote the development of the London Green Belt or constructing on the park lands that encircle the hills of the San Francisco Bay Area – comes not only from rich, rentier land owners, but also from ordinary citizens that appreciate green spaces in their daily lives, as well as dedicated environmentalists, yet they are now depicted as NIMBYs opposed to social justice, backed up by prestigious academic authorities. In lagging regions and in the populist – and, increasingly, the mainstream – media, residents of prosperous regions are depicted as erecting ramparts to keep out the less fortunate (e.g. Guilly, 2016; Edsall, 2018). There is little consideration of the fact that the high-skilled workers, who are the main political constituency of the YIMBY movements, might be more motivated by self-interest than social justice. Part of the mainstream academic literature may also have become – wittingly or unwittingly – a stalking horse for developers whose primary interest is not in reducing socio-spatial inequalities or spreading prosperity. Serious affordability policies, which inevitably involve public subsidies and regulation, as well as measures to finance them, are curiously absent from the literature, with its focus on deregulation.

It is also worrying that policies aimed at promoting place-sensitive development in the left-behind regions, where large numbers of individuals are becoming increasingly spatially trapped continue to be dismissed, out of hand, as deadweight loss subsidies “targeting heavily distressed areas into which outsiders are unlikely to migrate” (Kline and Moretti, 2014: 657).

It is our view that too much is being promised to policy-makers about the supposed potential benefits of housing market de-regulation. At the same time, in the rush to promote an oversimplified vision of “densify near transit stops”, too little consideration is being given to the policies that would promote affordability for the right people in the right places. Moreover, planning deregulation and housing construction in prosperous regions – while interesting issues – are not going to solve the problem of areas lagging behind. However, an excessive focus on these issues at the expense of serious and sustainable development strategies, can fuel economic, social and political distress and anger in declining and lagging areas that can threaten the very foundations on which economic activity, both in less developed and more prosperous areas, has been erected in recent decades (Rodríguez-Pose, 2018). It is vital to keep considering the important role for regulation and other forms of public intervention in combating the severe socio-spatial inequality that afflicts prosperous metropolitan areas today. And, to return to our introductory discussion, it is ever more vital to consider that a complex array of problems contributes to the current stagnation of less prosperous regions, notably the structural changes in the spatial distribution of employment, agglomeration forces, and the types of skills that are in demand today.

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References

- Austin, B., Glaeser, E. and Summers, L.H. (2018). Saving the heartland: Place-based policies in 21st century America. Brookings Papers on Economic Activity. BPEA Conference Drafts, March 8–9, 2018. <https://www.brookings.edu/bpea-articles/saving-the-heartland-place-based-policies-in-21st-century-america/>.
- Autor, D.H. and Dorn, D. (2013). The growth of low-skill service jobs and the polarization of the US labour market. *American Economic Review*, 103(5): 1553-97.
- Autor, D.H., Dorn, D, and Hanson, G. (2015). Untangling trade and technology: evidence from local labour markets. *Economic Journal*, 125: 621-646.
- Autor, D.H. and Fournier, J. (2019). “Work of the past, work of the future.” Richard T. Ely Lecture to the AEA, Atlanta, January 4. <https://economics.mit.edu/files/16560>
- Baum-Snow, N. Freedman, M. Pavan, R. (2017). “Why has urban inequality increased?” Irvine, CA: University of California, working paper. Last accessed: http://faculty.sites.uci.edu/freedman/files/2017/08/BFP_Manuscript.pdf
- Biagi, B., Faggian, A. and McCann, P. (2011). Long and short distance migration in Italy: the role of economic, social and environmental characteristics. *Spatial Economic Analysis*, 6(1): 111-131.
- Bjerke, L. and Mellander, C. (2019). Mover stayer winner loser - A study of income effects from rural migration. CESIS Electronic Working Paper Series, no. 476.
- Boustan, L.P. (2017). *Competition in the Promised Land: Black Migrants in Northern Cities and Labor Markets*. Princeton, NJ: Princeton University Press.
- Bronstein, Z. (2017). When affordable housing meets free market fantasy. *Dissent*, November 27.
- Bronstein, Z. (2018). California’s ‘Yimbys’: the growth machine’s shock troops. *Dollars & Sense*, 338: 9-15.
- Chetty, R., Hendren, N., Kline, P., and Saez, E. (2014). Where is the land of opportunity? The geography of inter-generational mobility in the U.S. *Quarterly Journal of Economics* 129: 1553-1623.
- Chetty, R, Hendren, N, and Katz, L.F. (2015). The effects of exposure to better neighbourhoods on children: evidence from the Moving to Opportunity experiment. http://scholar.harvard.edu/files/lkatz/files/mto_manuscript_may2015.pdf
- Combes, P.P., [Duranton, G., and Gobillon, L. \(2018\). The costs of agglomeration: house and land prices in French cities. Last accessed 1.16.19: \[real.wharton.upenn.edu/duranton/papers/currentresearch\]\(http://real.wharton.upenn.edu/duranton/papers/currentresearch\)](#)
- Corcoran, J., Faggian, A. and McCann, P. (2010). Human capital in remote and rural Australia: the role of graduate migration. *Growth and Change*, 41(2): 192-220.
- De la Roca, J. and Puga, D. (2017). Learning by working in big cities. *The Review of*

Economic Studies, 84(1): 106-142.

- DeLong, B. (2016). Regional policy and distributional policy in a world where people want to ignore the value and contribution of knowledge and network-based returns. Available online at: www.bradford-delong.com/2016/12/16 [Accessed 1 May 2018].
- Di Cataldo, M. and Rodríguez-Pose, A. (2017). What drives employment growth and social inclusion in the regions of the European Union? *Regional Studies*, 51(12): 1840-1859,
- Diamond, R. (2016). The determinants and welfare implications of US workers' diverging location choices by skill, 1980-2000. *American Economic Review*, 106: 4709-524.
- Edsall, T. (2018). "The Democrats' Gentrification Problem." *New York Times*, 19 April 2018.
- Eriksson, R. and Rodríguez-Pose, A. (2017). Job-related mobility and plant performance in Sweden. *Geoforum*, 83: 39-49.
- Faggian, A., and McCann, P. (2008). Human capital, graduate migration and innovation in British regions. *Cambridge Journal of Economics*, 33(2): 317-333.
- Faggian, A. and McCann, P. (2009). Universities, agglomerations and graduate human capital mobility. *Tijdschrift voor Economische en Sociale Geografie*, 100(2): 210-223.
- Fielding, A.J. (1992). Migration and social mobility: south east England as an escalator region, *Regional Studies*, 26(1): 1-15.
- Fischer, E. (2016). Employment, construction and the cost of San Francisco apartments. Online: experimental.geography.blogspot.com/2016/05.
- Freemark, Y. (2019). Upzoning Chicago: Impacts of a zoning reform on property values and housing construction. *Urban Affairs Review*. <https://doi.org/10.1177/1078087418824672>
- Frick, S. A. and Rodríguez-Pose, A. (2017). Big or small cities? On city size and economic growth. *Growth and Change*, 49(1): 4-32.
- Gaubert, C. (2018). Firm Sorting and Agglomeration. *American Economic Review* (forthcoming).
- Giannone, E. (2017). Skill-biased technical change and regional convergence. Mimeo. Ganong, P. and Shoag, D. (2017). Why has regional income convergence in the US declined? *Journal of Urban Economics*, 102: 76-90.
- Glaeser, E.L. (2008). *Cities, agglomeration and spatial equilibrium*. Oxford: Oxford University Press.
- Glaeser, E.L. (2017). Reforming land use regulations. Brookings, <https://www.brookings.edu/research/reforming-land-use-regulations/>
- Glaeser, E.L. and Gottlieb, J.D. (2008). The economics of place-making policies. *Brookings Papers on Economic Activity*, Spring: 155-253.
- Glaeser, E. L. and Gottlieb, J. D. (2009). The wealth of cities: Agglomeration economies and spatial equilibrium in the United States. *Journal of Economic Literature*, 47(4): 983-

1028.

- Glaeser, E. and Maré, D. (2001). Cities and skills. *Journal of Labour Economics*, 19: 3016-342.
- Glaeser, E. and, Ward, B.A. (2009). The causes and consequences of land use regulation: Evidence from Greater Boston. *Journal of Urban Economics*, 65: 265–278.
- Goetz, S., Partridge, M., and Stephens, H. (2017). The Economic Status of Rural America in the Trump Era. MPRA Paper No. 77830.
- Graves, P. (1976). (1983). Migration with a composite amenity: the role of rents. *Journal of Regional Science* 23(4): 541-547.
- Hsieh, C. and Moretti, E. (2017). Housing constraints and spatial misallocation. NBER Working Paper 21154, May 18.
- Hunt, J. (2006). Staunching emigration from East Germany: Age and the determinants of migration. *Journal of the European Economic Association*, 4(5): 1014-1037.
- Ihlanfeldt, K. (2007). The effect of land use regulation on housing and land prices. *Journal of Urban Economics*, 61: 420–435.
- Jacobus, R. (2019). Why voters haven't been buying the case for building. *Shelterforce*, 19 February 2019.
- Jayet, H. (1983). Chômer plus souvent en région urbaine, plus longtemps en région rurale. (Labour turnover is greater in urban areas, but unemployment periods longer in rural areas). *Economie et Statistique*, 153: 47-57.
- Katz, L. and Rosen, K. (1987). The Interjurisdictional Effects of Growth Controls on Housing Prices. *Journal of Law and Economics*, 30(1): 149-160.
- Kemeny, T. and Storper, M. (2012). The sources of urban development: Wages, housing, and amenity gaps across American cities. *Journal of Regional Science*, 52(1): 85-108.
- Kemeny, T. and Storper, M. (2014). Is specialization good for regional economic development? *Regional Studies*, 49(6): 1003-1018.
- Kline, P. and Moretti, E. (2014). People, places, and public policy: Some simple welfare economics of local economic development programs. *Annual Review of Economics*. 6: 629–62.
- Koseff, A. (2019). Blitz of housing legislation: Lawmakers push 200 bills, many likely to upset local governments. *San Francisco Chronicle*, March 5, 2019.
- Leunig, T. and Swaffield, J. (2007). *Cities unlimited: Making urban regeneration work*. Policy Exchange.
- Lindley, J and Machin, S. (2014). Spatial changes in labor market inequality. *Journal of Urban Economics* 79: 121-138.
- Migration Policy Institute (2018). U.S. immigrant population by Metropolitan Area.

- <https://www.migrationpolicy.org/programs/data-hub/charts/us-immigrant-population-metropolitan-area> (Accessed June 20th, 2018).
- Milanovic, B. (2016). *Global inequality. A new approach for the age of globalization*. Cambridge, Ma.: Harvard University Press.
- Moretti, E. (2012). *The new geography of jobs*. Boston: Houghton Mifflin Harcourt.
- Musterd, S., Marcińczak, S., Van Ham, M., and Tammaru, T. (2017). Socioeconomic segregation in European capital cities. Increasing separation between poor and rich. *Urban Geography*, 38(7): 1062-1083.
- Muth, R.F. (1971). Migration: chicken or egg? *Southern Economic Journal* 37: 295-306.
- Neumark, D. and Simpson, H. (2014). Place-based policies. NBER Working Paper 20049
- Norton, R.D. and Rees, J. (1979) The product cycle and the spatial decentralization of American manufacturing. *Regional Studies*, 13: 141-151.
- Partridge, M.D., Rickman, D.S., Ali, K. and Olfert, M.R. (2009). Agglomeration spillovers and wage and housing cost gradients across the urban hierarchy. *Journal of International Economics*, 78(1): 126-140.
- Parutis, V. (2014). “Economic migrants” or “middling transnationals”? East European migrants’ experiences of work in the UK. *International Migration*, 52(1): 36-55.
- Piketty, T. (2014). *Capital in the twenty-first century*. Cambridge, Ma.: Harvard University Press, 704 p.
- Polèse, M. (2005). Cities and national economic growth: A reappraisal. *Urban Studies*, 42(8): 1429–1451.
- Popov, I. (2019). Housing markets and income inequality. Accessed (April 30, 2019): <https://www.apartmentlist.com/rentonomics/housing-markets-and-income-inequality/>
- Quigley, J. and Raphael, S. (2005). Regulation and the High Cost of Housing in California. *American Economic Review. Papers and Proceedings*, 95(2): 323-328.
- Roback, J. (1982). Wages, rents, and the quality of life. *Journal of Political Economy*, 90(6): 1257-78.
- Rodríguez-Pose, A. (2018). The revenge of the places that don’t matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, 11(1): 189-209.
- Romen, I. (2016). Can U.S. cities compensate for curbing sprawl by growing denser? BuildZoom. <https://www.buildzoom.com/blog/can-cities-compensate-for-curbing-sprawl-by-growing-denser> (accessed July 21, 2018).
- Romen, I. (2018). Characteristics of domestic cross-metropolitan migrants. BuildZoom. <https://www.buildzoom.com/blog/characteristics-of-domestic-cross-metropolitan-migrants> (accessed July 21, 2018).

- Rosés, J.R. and Wolf, N. (2018). *The economic development of Europe's regions: A quantitative history since 1900*, Routledge Explorations in Economic History. London: Routledge.
- Sampson, R.J. (2012). *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.
- Sampson, R.J. (2018). Neighborhood effects and beyond: explaining the paradoxes of inequality in the changing American metropolis. *Urban Studies* (forthcoming, based on the *Urban Studies* annual lecture at the Association of American Geographers Annual Meeting, New Orleans, April 2018).
- Schwartzman, F. (2017). Inequality across and within US cities around the turn of the twenty-first century. *Economic Quarterly* 103:1-4, 1-35.
- Saiz, A. (2010). The geographic determinants of housing supply. *Quarterly Journal of Economics*, 125(3): 1253-1296.
- Storper, M. (2018). Separate Worlds? Explaining the current wave of regional economic polarization. *Journal of Economic Geography*, 18: 247-270.
- Storper, M., Kemeny, T., Makarem, N., and Osman, T. (2015). *The rise and fall of urban economies: Lessons from San Francisco and Los Angeles*. Stanford: Stanford University Press.
- Szumilo, N. (2017). Housing affordability? Is new local supply the key? London: London School of Economics, unpublished paper.
- Venables, A. (2018). Winners and losers in the urban system. Oxford: University of Oxford, Dept. of Economics, manuscript, version of 6 March 2018.
- Washington Post (2019). https://www.washingtonpost.com/business/economy/in-expensive-cities-rents-fall-for-the-rich--but-rise-for-the-poor/2018/08/05/a16e5962-96a4-11e8-80e1-00e80e1fdf43_story.html?utm_term=.908f1a3f9311
- Watkins, C.A. (2001). The definition and identification of housing submarkets. *Environment and Planning A*, 33(12): 2235-2253.
- Whisler, R. L., Waldorf, B. S., Mulligan, G. F., and Plane, D. A. (2008). Quality of life and the migration of the college-educated: a life-course approach. *Growth and Change*, 39(1): 58-94.
- World Bank (2017). Rethinking lagging regions in the EU: evidence-based principles for future Cohesion policy. Washington, D.C.: World Bank.

APPENDIX

Figure A1. Relationship between city size and population change in the US, 2000-2016

