The Role of Economic Freedom in Intercity Competition: A Framework and Some Evidence from U.S. Metropolitan Areas

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Abstract

I present a framework for analyzing city competition that clarifies the different dimensions along which cities can compete with one another for people and firms. I contend that current urban development strategies are largely based on a "hydraulic" approach to development and discuss an alternative that focuses on polices and the amount of local government impediments to urban development that exist across cities. Using a sample of 381 metropolitan areas (MSAs) and an MSA economic freedom index from Stansel (2013), I find that MSAs with fewer government impediments experienced more per capita income growth from 2002 to 2005. I also find that MSAs with more overall freedom experienced more population growth from 2002 to 2011 and from 2002 to 2015, and these results were driven by tax freedom and labor market freedom. Taken together, this evidence is consistent with several country and state-level studies that find that government impediments to economic activity affect intensive and extensive economic growth.

1 Introduction

Not house finely roofed, or stones of walls well built, nor canals nor dockyards makes the city, but men able to use their opportunity. –Alcaeus of Mytilene, Frag. 28 Edmonds.

Since the mid-20th century many US cities have experienced dramatic decreases in their populations (Downs, 1997). This population decline has generated substantial interest from scholars and government officials at all levels.

Efforts to generate urban development in America's declining cities take a variety of forms, but nearly all of them focus on building or renovating things–new parks, new roads, new trains or street cars, new downtowns, new office parks and new sports stadiums are some of the most common proposed solutions for halting or reversing urban decline. Research by New Institutional economists, however, reveals that good institutions are a precondition for development to occur. How much economic development occurs in a given urban area depends on local rules and economic policies.

The popular approach to modern urban development closely resembles the early, and still popular, approach to foreign economic development that emphasizes physical investment. The Harrod-Domar model and its successor, the Solow model, both emphasize the importance of capital investment as a catalyst for economic development. In theory capital increases the marginal productivity of workers and raises per capita incomes, so more capital investment should generate economic growth. Angus Deaton (2013) calls this idea the hydraulic approach to economic development – if money flows in at one end development will flow out the other.

Towards the end of the 20th century, New Institutional economists Douglass North (1990), Oliver Williamson (1994) and others initiated a resurgence in thinking about the role that government policies and institutions play in economic development. The lesson that emerged from this research is that institutions and policies matter, and one should not expect capital investment to generate economic development in places with poor institutions or overly complex rules that hamper productive economic activity.

The insight that institutions and rules matter filtered down to the local level. Porter (1997) noted that regulatory barriers and red tape could prevent private investment in declining inner cities. Porter argued that creating a favorable environment for business i.e. altering rules, could help generate economic development within cities. Storper (2011) also suggests that local-level institutions could be the key forces that enable or stymie economic specialization and development. Yet many studies that examine local and regional economic development routinely omit any measure of local rules (e.g. Hartley et al. (2016)), possibly due to the difficulty of measuring them in a way that is compatible with multivariable regression analysis.

Institutions that are commonly accepted as being pro-growth are well-defined property rights, rule of law (Smith, 1776; Rodrik et al., 2004) and a market economy with a well-functioning price system that leaves the majority of productive resources in the hands of economic agents guided by profit and loss (Gans et al., 2011). Just below the institutional level are the actual rules and policies in place, which at the municipal level consist of tax policy, business regulations, land-use regulations and various legal ordinances. The rules and laws of a municipality also impact the size and provision of government goods and services, such as roads, police protection, fire protection and water and sewage services.

In this paper, I present a framework for analyzing the local-level variables that impact urban development. I then examine the relationship between local government policy and two measures of urban development at the metropolitan area level: population growth and per capita income growth.

Since I do not have a quantitative measure of government policies at the political city level, I use an MSA economic freedom index published in Stansel (2013) as a proxy. The index is composed of measures of government size, level of taxation and labor market freedom, and is designed to capture the government impediments (or encouragements) to economic activity that exist at the MSA level. So while it does not explicitly measure the actual rules and policies within MSAs, it does broadly capture the economic results of those policies. With this index I am able to examine how MSA-level variations in how people are "able to use their opportunity" affect economic development.

I find that fewer government impediments, as measured by a higher score on the overall economic freedom index, are associated with more per capita income growth over a three-year period after controlling for other factors that impact urban development. The result is economically meaningful as well: a one standard deviation change in overall freedom is associated with an increase in average annual per capita income growth of 0.34 percentage points.

To better understand the relationship between economic growth and the index, I also examine the relationship between economic freedom and population growth, which is a measure of extensive economic growth. I find that economic freedom is positively associated with population growth from 2002 to 2011 and 2002 to 2015. When I separate the economic freedom index into its components, I find that tax freedom and labor market freedom are positively correlated with population growth over a longer time frame at the 10% level: A one standard deviation change in tax freedom is associated with a 0.75 percentage point increase in total population growth from 2002 to 2011 and a 1.08 percentage point increase from 2002 to 2015. A one standard deviation change in labor market freedom is associated with a 1.37 percentage point increase in total population growth from 2002 to 2015.

In the next section, I discuss the plight of declining cities and present a framework for thinking about local economic development. I then discuss some of the common approaches for generating economic development and summarize the evidence of their effectiveness. Finally, I present and discuss the empirical results that examine the relationship between government impediments, as measured by the MSA economic freedom index from Stansel (2013), and urban development. The last section concludes.

2   Declining Cities and Economic Development

Many cities in the U.S. have been experiencing population loss since the mid-20th century. These cities have drawn the attention of government officials and policy makers at all levels of government. Their response has been to create numerous federal and state programs designed to reverse, or at least halt, the population decline of these cities.

To get an idea of the extent of this decline, Table 1 lists 16 cities that were originally eligible for one recently created program that received federal funds, National Resource Network's "311 for cities". The 311 program was initially funded by a Department of Housing and Urban Development grant and allows city officials to request and receive free assistance from experts on a variety of topics relating to municipal finance and government. As the table below makes clear, the program is targeted at shrinking/struggling cities. The table includes each city's population in 1950 and 2013: All of these cities lost population over that period.

Table 1: Cities eligible for National Resource Network's "311 for Cities"

City	*population*		*annual growth rate needed*			*# of years*
	1950	2013	50 years	30 years	20 years	at U.S. rate
Birmingham, AL	326,037	212,113	0.86	1.44	2.17	65
Buffalo, NY	580,132	258,959	1.63	2.73	4.12	122
Canton, OH	116,912	72,535	0.96	1.60	2.42	72
Cleveland, OH	914,808	390,113	1.72	2.88	4.35	130
Dayton, OH	243,872	143,355	1.07	1.79	2.69	80
Detroit, MI	1,849,568	688,701	2.00	3.35	5.06	149
Fall River, MA	111,963	88,697	0.47	0.78	1.17	35
Flint, MI	163,143	99,763	0.99	1.65	2.49	74
Gary, IN	133,911	78,450	1.08	1.80	2.71	81
Hartford, CT	177,397	125,017	0.70	1.17	1.77	53
New Haven, CT	164,443	130,660	0.46	0.77	1.16	35
Newark, NJ	438,776	278,427	0.91	1.53	2.30	69
Providence, RI	248,674	177,994	0.67	1.12	1.69	51
St. Louis, MO	856,796	318,416	2.00	3.35	5.07	150
Trenton, NJ	128,009	84,349	0.84	1.40	2.11	63
Youngstown, OH	168,330	65,184	1.92	3.21	4.86	144

Note: U.S. annual growth rate from 2012 to 2043 based on 2012 census projections is 0.644%

In order to understand the uphill battle these cities are facing, columns 4 – 6 provide the annual growth rates required for each of these cities to reach their 1950 population from their 2013 population in 50, 30 and 20 years respectively. The last column shows the number of years it would take for each city to reach its 1950 population if it grew at the same rate as the overall US population is projected to grow. For example, for Buffalo, NY to grow from 258,959 to 580,132 people in 50 years it would need to grow at an annual rate of 1.63%. If Buffalo's annual growth rate was the same as the country's as a whole (0.64%) it would take 122 years for it to reach its 1950 population. Slowing population loss in these cities may be possible, but meaningful recovery, let alone full recovery, is an incredibly arduous task.

From an economic standpoint the decline of these cities may be optimal. The economic factors that contributed to the initial success of these cities – important shipping locations (e.g. St. Louis, Cleveland, Buffalo), hometowns of successful entrepreneurs (e.g. Dayton, Flint), proximity to larger economic centers (e.g. Gary, Newark) – no longer give these locations a competitive edge. As a result economic activity has shifted elsewhere.

Despite the magnitude of the task and the often sound economic reasons for population decline, there are several national policies that either directly or indirectly try to revitalize declining cities, even though their efficacy is unclear. Political actors and residents tend to dislike a shrinking city because of the financial, social and economic problems that accompany population loss. Thus they often seek outside assistance to help them address population decline. However, cities that want to attract firms and people are largely

capable of modifying their attractiveness on their own along a variety of dimensions. I elaborate on this in the next section.

2.1   Dimensions of City Competition

Before progressing further, it's important to address the degree of inter-city competition. In the economic literature, elected officials are modeled as behaving in several of different ways: revenue maximizers (Brennan and Buchanan, 1977), vote maximizers (Downs, 1957) or benevolent social planners (Musgrave, 1959). None of these models has economic growth itself, either intensive or extensive, as the goal. Instead, economic growth will be pursued so long as it helps officials obtain either more revenue or more votes, or officials believe it maximizes the welfare of their constituents. Here I sidestep an explicit model of local officials' behavior and instead assume that in many places, pursuing growth does in fact help officials accomplish any of the three aforementioned goals. To the extent that it does the following framework is useful.

There is also evidence that inter-city competition for firms and people exists and is common. For example, a 2017 article in the Wall Street Journal describes the competition between cities for firms, highlighting the role that tax incentives play in this competition.[1] In the article, a managing partner from a consulting group that helps firms evaluate cities' incentive offerings states that the competition between cities to attract or retain firms "is probably as competitive as it has ever been in the 30 years I have been doing this type of work." Additionally, a Google search reveals that nearly every state and local government has some sort of economic development office tasked with attracting companies via various incentives as well as communicating information about the local economy. The website Good Jobs First tracks the incentives awarded by many of these economic development offices and has amassed over 330,000 entries from over 800 state and local programs.[2]

City officials who want to generate more economic development need to attract people and firms, often from other cities. In order to do this, city officials need to increase the attractiveness of their city as a place to live and do business. For the purpose of analyzing how cities can attract people and firms in order to increase economic development, I assume that city officials attempt to increase their city's attractiveness, that is, economic development (Y) is a function of a city's attractiveness (A), or $Y = F(A)$. Attractiveness is not an individual, objective metric, but rather a collection of attributes that impact the quality of life in a particular area. A city's attractiveness (A) is a function of several city characteristics and can be represented by:

$$A = F(T, PS, G, S, I, R, C, E) \tag{1}$$

Where T = tax/fiscal policy, PS = public safety (police, fire), G = government goods (schools, parks, festivals), S = redistribution/social safety net, I = infrastructure, R = regulatory environment, C = climate, weather, geographic features and E = path-dependent agglomeration forces. T, PS, G, S, I, and R are choice variables. C is exogenous and determined by location and E is exogenous in the present and determined by historical events.

Totally differentiating A = F( ) results in:

$$dF = \frac{\partial F}{\partial T}dT + \frac{\partial F}{\partial PS}dPS + \frac{\partial F}{\partial G}dG + \frac{\partial F}{\partial S}dS + \frac{\partial F}{\partial I}dI + \frac{\partial F}{\partial R}dR + \frac{\partial F}{\partial C}dC + \frac{\partial F}{\partial E}dE \tag{2}$$

The magnitude and sign of the partial derivatives could be the same across cities, i.e. every city's attractiveness will increase by an identical amount for a given increase in that particular attribute, or they could vary. The differential terms (dT, dPS, etc.) represent the ability of local government officials to change each attribute in order to alter their city's overall attractiveness. Table 2 provides a list of the differential terms and the government activities included in each one.

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[1]Simon, Ruth "U.S. Cities Battle Each Other for Jobs With \$45 Billion in Incentives". Wall Street Journal March 16, 2017 `https://www.wsj.com/articles/u-s-cities-battle-each-other-for-jobs-with-45-billion-in-incentives-1489675343?mod=e2tw`
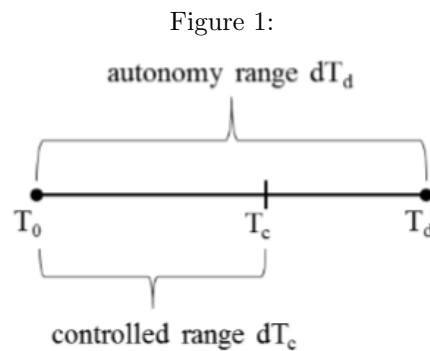
[2]Good Jobs First `http://www.goodjobsfirst.org/subsidy-tracker#`

Table 2: List of differential terms and associated government activities

Differential	Description
dG	Government goods - parks, festivals, libraries, schools
dI	Infrastructure - roads, dams, bike paths, sidewalks, buildings
dPS	Public safety provision - police, fire, health, water
dT	Tax and fiscal policy - tax rates, tax structure, spending patterns
dS	Redistribution and social safety net
dR	Regulatory environment - business licenses, zoning, inspections
dC	Climate, weather, geographic features
dE	Path-dependent agglomeration forces

To think about how changing these variables can alter a city's attractiveness let's consider tax policy. Tax policy is a choice variable and consists of rates and the structure of the tax code i.e. the base used for property taxes, whether or not an income tax is levied and if so are there any exemptions, what goods/services if any are exempt from the local sales tax, etc. A given amount of taxes can be raised in several different ways, and some ways are more efficient, equitable and transparent than others.

Since municipal governments are creations of state governments, the level of autonomy granted to a city varies by state. In some states all cities are granted broad authority over local policy, while in other states all cities have limited authority or the authority granted is dependent on the size of the city (Richardson et al., 2003). A city that has a lot of control over local policy will have a broader range of choices for the differential terms. Intra-state and interstate differences in levels of autonomy affect the ability of cities to compete with one another.

For example, in states where each city has a significant local control over tax policy T, dT can vary according to the discretion range shown in Figure 1, where the line segment $T_0 T_d$ represents the range of possible tax policies.

Figure 1:

In cities that have less control, dT can only vary according to the controlled range or some similar range. If local government has no control over tax policy the maximum dT will be 0 for that city since local officials cannot change tax policy. What constitutes good tax policy is somewhat subjective and since the details are not important in this general framework I will not comment on the matter here. What I want to show from this analysis is that there are several attributes that can alter the attractiveness of a city and that the degree of local control impacts the amount by which those attributes can be altered by the local government.

In an extreme case of no local autonomy, all of the differentials in equation 1 would be fixed at 0 from the city's perspective. In this case, changes in relative attractiveness would depend entirely on dC, changes in climate and geographic features, and dE, changes in path-dependent agglomeration forces.[3] Since both of these features are fixed in the short-run – and likely the long-run[4] – the relative attractiveness of different

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[3]Of course city officials could still lobby state officials to change the differentials but if this meant changing them for every city it would not confer a competitive advantage to any city.

[4]Global climate change may impact dC in the long-run, but since both the qualitative and quantitative effects for any

cities would depend entirely on characteristics largely outside the control of present-day local officials.

2.2 Intercity Competition

Some cities such as San Diego, Miami, and Santa Barbara have a desirable climate and this gives them an advantage over other cities i.e. $C_{SanDiego} > C_{Buffalo}$. In this example, San Diego can have a lower level of one or more of the other variables and still be just as attractive as another city with a less favorable climate, e.g. Buffalo. If San Diego and Buffalo were equal in every category except for climate then San Diego would still be relatively more attractive and gain population at the expense of Buffalo until congestion or some other factor made the marginal person indifferent between locations. Because of its worse climate, the only way for Buffalo to attract residents from San Diego is to alter one or more of the other choice variables relative to San Diego.

As an example, if Buffalo improved their Public Safety (PS) then the change in their attractiveness would be the amount of the improvement, dPS, times the effect that a change in PS has on its attractiveness, which is the partial derivative of F with respect to PS. If this increase in public safety is large enough to change Buffalo's attractiveness such that it meets or exceeds San Diego's then people will migrate from San Diego to Buffalo.

If residents migrate from San Diego to Buffalo after Buffalo's change in PS, officials in San Diego may respond by changing one of their choice variables to increase their attractiveness. This process of altering the various policy variables is how cities compete with one another for residents and firms. The intensity of this competition will in part depend on the discretion given to each city by their respective state.

In the Tiebout (1956) model, residents and firms sort themselves based on their preferences over various public goods and services and externality mitigation. Changes in a city's differentials will alter their relative attractiveness and impact the Tiebout sorting process. In the past transport costs used to be a large determinant of location choice for people and firms. But as Glaeser and Kohlhase (2004) note, "In a service economy where transport costs are small and natural productive resources nearly irrelevant, weather and government stand as the features which should increasingly determine the location of people." Gyourko (2005) makes a similar argument in his analysis of urban development in Philadelphia.

Increases in technology coupled with declining transportation costs has made it easier for firms and people to move, and the decreasing importance of place-specific natural resources has expanded the choice set of locations. Agglomeration economies driven by differences in human capital accumulation across cities may still result in industry concentration (Berry and Glaeser, 2005), but high-human capital individuals – unlike rivers or coastline – can move. And since weather is largely fixed, or at the very least out of the control of local officials, government policy is an important choice variable for local officials.

This type of intercity competition, in which cities increase or decrease the differential terms in equation 2, is constantly occurring, even if it is not always intentional on the part of local politicians or officials. The labor market equilibrium required for urban populations to stabilize in the long run does not exist indefinitely. The entrepreneurial process and technological change are constantly altering relative wages across areas, as well as the value of place-specific amenities. These changes induce people at the margin to migrate to new locations, which leads to further migration as the new arrivals change the differentials by altering the economic, political and social environment of the city. Even if a temporary equilibrium is reached, it is only a matter of time before some aspiring economic or political entrepreneur does something that starts the process all over again. With this process in mind, cities are inevitably faced with the prospect of either growing or shrinking, especially in the long run.

2.3 The Hydraulic Approach to Urban Development

As discussed previously, city officials and policy makers in many U.S. cities, such as the cities listed in Table 1, appear to want to attract residents and firms to their cities. These cities and others have experienced significant population decline, and Downs (1997) identifies three fundamental approaches to counteract,

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particular area are uncertain there is not much to say about it here.

slow, or at least attenuate the negative effects of city decline: structural change, city government reform and community development.

Structural change involves creating either a metropolitan-level government that has the power to coordinate land use and transportation policy, limit urban sprawl and redistribute resources within the area, or creating a coalition of state senators and representatives that can pass state-level laws that mimic many of the functions of a metropolitan government. City government reform focuses on reforming city bureaucracies as well as policies and regulations that hinder the attraction and retention of firms and residents. Finally, the community development approach emphasizes the central location and untapped potential of central cities as benefits and encourages residents and local officials to highlight these assets. Federal and state-level grants and investment are also encouraged by many advocates of this approach in order to accelerate the process of urban revitalization.

Broadly speaking, the community development approach seems to be the most common approach in the United States. One example of the community development approach is the Community Development Block Grant Program (CDBG), which is the largest source of federal funds for urban improvement initiatives (Rohe and Galster, 2014). Despite its longevity, there have been relatively few studies that examine the effectiveness of the CDBG program. The lack of informative evaluation of CDBG projects is not unrecognized by HUD officials (Bostic, 2014).

Two related reasons for the limited evaluation are the lack of data and the high cost of obtaining what data is available. For example, Brooks and Sinitsyn (2014) had to submit a Freedom of Information Act request to obtain the data necessary for their study. Furthermore, after obtaining the data significant time and effort were required to manipulate the data into a useable format. The few studies that have examined the CDBG program find mixed evidence that the program generates short-term development and no evidence that it generates long-term development (Galster et al., 2004; Norcross, 2007).

The community development approach, of which the CDBG program is an example, encourages investment in physical projects such as schools, infrastructure and business districts with the hope that such investment will spark broader economic vitality. Often, however, the projects fail to consistently create lasting and significant economic development, both in the United States (e.g. many CDBG program projects) and abroad. For example, Ahlfeldt et al. (2016) examine a large urban renewal project in Berlin, Germany designed to improve the housing stock in economically depressed areas of the city following German reunification. They find that while building quality slightly improved, there were no larger development effects and that the program was primarily a cash transfer to participating landlords.

The economic model behind this approach is similar to the Harrod-Domar model of economic growth, which dominated the landscape of international economic development for decades. That model emphasizes savings and the role of capital investment in the creation of viable economic development and produced what Angus Deaton (2013) calls the hydraulic approach to economic development – if money flows in at one end it must flow out the other. The hydraulic approach portrays economic development as a plumbing or engineering problem. The basic idea is that certain tangible things are needed for a country to be successful, the cost of these things can be summed, the money can be procured, and the projects can be completed for the specified cost; in short, money in means projects out. Once the projects are complete robust economic development will occur. The criteria used to judge success are dollars spent and projects completed.

After decades of direct foreign aid in the spirit of the hydraulic approach, it became obvious to most that money alone would not lead to robust economic development in foreign countries (Easterly, 2003). In the 1980s and 90s New Institutional economics started changing the way economists and policy makers thought about economic development, placing a heavier emphasis on institutions or "the rules of the game". The research of Douglass North (1990), Oliver Williamson (2000), William Easterly (2003) and others emphasized that if a country's institutions and economic policies created the wrong incentives then no amount of investment would generate economic development.

When it comes to urban redevelopment in the US, the hydraulic approach is still the primary framework. In terms of the differentials in Table 2, US urban development polices target government goods (dG), infrastructure (dI), and to a lesser extent public safety (dPS). The idea is that successful cities have certain things–nice parks, river walks, sports teams, good schools, good jobs and walkable neighborhoods – and that duplicating those things in downtrodden cities will reverse population loss and urban blight. This approach

overlooks the more underlying policy factors captured in the other differentials – tax and fiscal policy (dT), regulatory environment (dR), and social safety net (dS) – that also affect a city's attractiveness. People will not reside in a city that has nice parks or sports teams if the tax code used to acquire such amenities is excessively inefficient or confiscatory. Similarly, no matter how nice an office park is, entrepreneurs cannot create new products, services and the accompanying jobs if the regulatory structure is confusing and overly burdensome.

2.4   Variants of the Hydraulic Approach

In addition to development grants such as CDBGs, cities also try to attract businesses and individuals through various incentive programs and contests. Economic incentives programs largely change the dT (tax) differential, but not in a way that creates more efficient tax policy. Instead tax policy is altered via company-specific tax abatements, exclusions, rates and credits, often referred to as tax expenditures, which create distortions in the local economy and undermine the local rules of the game.

There is also little evidence that such incentive programs increase employment or generate economic development more broadly. Several studies (Fox and Murray, 2004; Peters and Fisher, 2004; LaFaive and Hicks, 2005) find no effect on actual investment or employment growth, while some even find a negative effect (Gabe and Kraybill, 2002). Even in studies that find a positive effect, it is usually quite small (Faulk, 2002). Clark (2014) concludes that there is little evidence that tax expenditure programs in Ohio – home of several declining cities – have resulted in any meaningful economic development. In an overview of the state tax incentives literature, Buss (2001) notes that many studies yield conflicting results and thus provide little guidance to policy makers about what programs or incentives, if any, actually work.

Delgado and Zeuli (2016) find that the strength of intraregional linkages between inner city, central city, and suburban economic clusters positively affect inner-city employment growth. Generic place-based policies such as empowerment zones that seek to attract any firm and neglect the importance of such clusters are unlikely to succeed because they fail to leverage the competitive advantages already present in a region. Political attempts to attract certain industries that are a poor fit for an area can create distortions in the local economy that crowd out firms in industries more suited for the region, as well as interfere with the organic creation of new businesses (Desrochers and Sautet, 2004).

There is also evidence that the use of empowerment zones or tax increment financing (TIF) simply reallocate economic activity from one area of a city or metro area to another rather than increase overall output (Dye and Merriman, 2000). So while the public tax subsidies may make the neighborhoods and districts included in the programs relatively more attractive, they do not appear to contribute to a thriving economy overall (Lester, 2014). This is not surprising given the targeted nature of the programs and the accompanying lack of city-wide policy reform.

Other examples of cities trying to increase their attractiveness include changing dG (government goods), perhaps by publicly funding a convention center, stadium or arena. Again, there is little evidence that such projects generate sustainable economic development. Baade and Dye (1990) find a possible negative impact on local economic development from the subsidization of sports stadiums. In a summary of the relevant research Siegfried and Zimbalist (2000) find "virtually no evidence of economic development benefits from sports teams or stadiums". Coates (2015) updates a 1999 study and finds that sports teams may actually hurt economic growth. In an earlier study, Coates and Humphreys (2003) find that sports teams increase earnings in the amusement and entertainment sector of the economy but lower earnings and employment in other sectors, which helps explain the overall negative economic impact of sports teams that is often found in the literature.

The common thread that runs through the development strategies just discussed is that they ignore, or at least downplay, the knowledge problem – public officials and planners have no way of obtaining or analyzing all of the dispersed information necessary for effectively selecting the businesses or projects that will generate sustainable economic growth. Instead of expending resources procuring intergovernmental grants, subsidizing sports stadiums or providing firm-specific tax expenditures, city officials could unlock the entrepreneurship that is present in their cities by reforming their local policies and rules. As Boettke and Coyne (2003) argue, entrepreneurship itself is not the cause of economic development; everyone is an

entrepreneur and entrepreneurship is omnipresent. The key to economic growth is unlocking the productive, rather than unproductive, entrepreneurship that already exists in a particular area. This means creating rules of the game that nurture productive entrepreneurship and the creation of new ideas.

At the country level, economic freedom is associated with a variety of positive economic outcomes such as faster growth and better living standards (Hall and Lawson, 2014). When looking across countries it is apparent that many areas of the world stifle entrepreneurship with some combination of corruption, cronyism, burdensome regulation and confiscatory taxation. But international differences in economic freedom cannot explain intra-national differences in economic outcomes. In the US, which has relatively good country-level rules and institutions and a high degree of economic freedom (Gwartney et al., 2015), there are substantial differences in economic development both across and within states. Since within-country/within-state differences cannot be explained by country-level/state-level rules and institutions, it is a worthwhile exercise to examine whether local rules, institutions and local economic freedom more broadly can help explain the variation in MSA economic outcomes.

The idea that local rules and institutions can impact city and regional growth is not a new one. As mentioned previously, Porter (1997) noted that regulatory barriers and red tape could prevent private investment in declining inner cities. Porter argues that creating a favorable environment for business i.e. altering policies and rules, can help generate economic development within cities.

The generation of regional clusters is also dependent on local regulations. Isaksen (2016) emphasizes the importance of existing knowledge and entrepreneurs in an area. He also notes that "existing knowledge may become relevant and initiate new clusters in the wake of altered rules of the game" (p. 7). Later he says that "...new clusters can arise in places in which actors with relevant synthetic and/or analytical knowledge are able to develop or exploit new technological knowledge, *new regulations*, etc. to commercial ends." (p.8, my italics).

Local rules and regulations in combination with state and federal rules can unlock entrepreneurship, but different rules will lead to different types of entrepreneurial activity. Baumol (1990) noted that Schumpeter's 1912 list of entrepreneurial activity was incomplete, and that in addition to productive activities such as the introduction of a new good, a new method of production or the opening of a new market, entrepreneurs could also allocate their time and energy to pursuing innovations in rent-seeking, which Baumol called unproductive entrepreneurship. Baumol argues that better rules and institutions will promote productive entrepreneurship. Sobel (2008) tests Baumol's hypothesis and presents state-level evidence that higher quality institutions positively affect productive entrepreneurship.

If the rules increase the payoff of unproductive entrepreneurship relative to productive, people will devote more of their abilities and resources to the former. If the rules change such that the relative payoff of productive entrepreneurship increases then some people will switch from unproductive to productive entrepreneurship. Not only will some people switch between the two types of entrepreneurship, but as Baumol pointed out some people who were not particularly suited for unproductive entrepreneurship and were sitting on the sidelines may become first time (productive) entrepreneurs in response to the change in relative payoffs.

Baumol's analysis largely ignored migration since it focused on country-level institutions and international migration is relatively difficult. But within a country like the US where people are relatively mobile, if the local rules of the game are tilted towards unproductive entrepreneurial activity in one area, entrepreneurs in that area whose talents are better suited for productive entrepreneurship can migrate to a different area that allows them to better utilize their abilities. This means that within a country like the US productive entrepreneurs do not have to wait for the rules to change in their favor – a process that may take a long time – before engaging in entrepreneurial activity. Instead they can move to an area that fosters productive entrepreneurship.

For example, Ketterer and Rodríguez-Pose (2015) find evidence that local government quality positively impacts migration at the regional level in Europe. Other studies examine the relationship between state-level economic freedom and migration in the United States. Ashby (2007) finds that people are more likely to migrate to states with greater economic freedom. He attributes this to economic freedom's positive effect on per capita income and employment growth. He also finds that people are less likely to migrate to states with higher marginal tax rates. Mulholland and Hernández-Julián (2013) also find that economic freedom

generally has a positive relationship with state-level migration flows but that its effects vary by the education level of the migrants. Finally, Cebula et al. (2016) find that both state-level economic freedom and total freedom – which includes additional measures of freedom such as regulations concerning alcohol, firearms, and campaign finance – are positively associated with greater in-migration.

An example of poor rules and institutions affecting city population growth in the US is Detroit. Many point to the decline of the American automobile industry as a significant factor in Detroit's decades-long decline. And while that was certainly part of it, Detroit also had a corrupt government that routinely doled out favors to well-connected firms and obstructed the projects of others as reported in several newspaper stories.[5] This type of political and business climate and the unproductive entrepreneurship it fostered also contributed to the city's decline.

Since all industries are eventually challenged by new competitors, the relevant question for understanding sustained development is how local economies deal with such challenges, and as noted both here and by Storper (2010), research on international development that examines the role of institutions and policies offers some guidance. Variations in institutions and policies across cities can lead to variations in growth and development since different policies have different effects on local economies' ability to adapt to change. Local areas that implement or maintain policies that make it easier for entrepreneurs to generate new activities to replace the old should have more resilient economies and better economic outcomes than similar areas that make such adaptation and innovation more difficult.

3 Empirical evidence

In this section I present empirical evidence that government impediments to economic activity matter at the local level. I use an index of MSA economic freedom from (Stansel, 2013). This index consists of three measures of economic freedom – labor market freedom, taxation freedom, and size of government – which are then aggregated at the MSA level to form an overall freedom index. This index is modeled after the 2008 edition of the Economic Freedom of North America (EFNA) (Karabegovic and McMahon, 2008).

The following analysis is similar to Bologna et al. (2016). That study also uses the MSA economic freedom index and its components as explanatory variables along with several other controls. However, the only dependent variable used in that study is per capita income growth which means it only examines the relationship between local rules and policies and intensive urban development.

A significant contribution of that paper is that the authors test for spatial dependence between per capita income and economic freedom and find some evidence that such dependence exists. The authors employ spatial econometric techniques to account for this dependence. The authors also use OLS and report the correlations, which is what I do here. The correlations themselves are still interesting and examining extensive growth – more economic output that manifests as more people – in addition to intensive growth – more economic output that manifests as more income per person – is important at the local level since intensive growth may understate the economic vitality of an MSA due to migration.

MSAs are not controlled by one government, so the empirical results here do not perfectly align with the analysis and discussion presented earlier. That being said, the point of this empirical section is to analyze the effect of government impediments on economic activity at a more local level than previous work that uses states or countries as the unit of analysis. Extrapolating the results of this analysis to political cities should be done with caution, but the analysis itself is a step towards a better understanding of the effect local impediments have on local economic activity.

The three major components of the index and their sub-components are listed in Table 3 below. The measures of economic freedom were constructed using 2002 data and range from 0 (least free) to 10 (most free) and there is wide dispersion between the values as shown in the summary statistics in Table 4. While these measures of economic freedom are not identical to measures of rules – such as tax rates, business license requirements or minimum wage laws – or institutions – such as the security of property rights or an impartial judicial system – they do provide a proxy for the role of government in the local economy. For example, the labor market freedom index measures how binding the minimum wage is in an MSA, the intensity of

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[5]For examples, see Baldas (2013), Cwiek (2016), and Zywicki (2014).

unionization, and the proportion of total employment in government. Since these variables provide a measure of the government's use of labor resources and the freedom to contract with employers across MSAs they can serve as a proxy for the rules governing the labor market.

Table 3: MSA Economic Freedom Index Components

Area	Description
Size of Government	General Consumption expenditures by government as a percentage of personal income
	Transfers and subsidies as a percentage of personal income
	Social security payments as a percentage of personal income
Takings and Discriminatory Taxation	Total tax revenue as a percentage of personal income
	Total individual income tax revenue as a percentage of personal income
	Indirect tax revenue as a percentage of personal income
	Sales tax collected as a percentage of personal income
Labor Market Freedom	Minumum wage annual income as a percentage of MSA per capital personal income
	State and local government employment as a percentage of total employment
	State union density

Notes: For more details about the index see Stansel (2013).

Other components of the index, such as taxes as a proportion of income and government expenditures as a percentage of personal income, provide a measure of the economic results of policies e.g. the proportion of resources removed from the private sector and spent on government goods and services. That is, even though they do not directly measure government policy, they do measure the allocation of productive resources between the government and private sector that results from policy.

The model I estimate is:

$$y_i = \alpha + \beta econ.freedom_i + \theta X_i + \epsilon \tag{3}$$

where X is a vector of control variables that may also affect urban development. The outcomes I am interested in are population growth and per capita income growth. Large MSAs, such as New York, are divided into metropolitan divisions (MDs) by the Office of Management and Budget. These MDs are the units of observation when available.

A complete list of the control variables and their summary statistics is available in the appendix and I briefly discuss them here. The control variables are from the US Census Bureau and the Bureau of Economic Analysis (BEA). They are the same controls used by Bologna et al. (2016) with one exception; I added the average January temperature of each MSA since climate has been shown to impact population growth and wages (Glaeser et al., 2001; Rickman and Wang, 2017). MSAs are based on commuting patterns and thus may change over time. In this analysis, all of the dependent and independent variables used are based on the 2009 MSA definitions from the Office of Management and Budget (Office of Management and Budget, 2009).

These control variables were chosen because the literature shows that they can impact urban growth and development. The controls primarily consist of year 2000 data to mitigate endogenity concerns between the control variables and the dependent variables. Since I use population and per capita income growth from 2002 onward as my dependent variable, the use of data from 2000 reduces concerns of reverse causation.

Per capita income in 2002 and the percentage of people in poverty in 1999 are used in order to capture the initial economic conditions of the MSA. Population and population density provide a proxy for the degree of economic specialization within an area and the ease of knowledge spillovers, respectively. Research shows that city-level productivity, and thus wages, tend to increase with population size as well (Ahrend et al., 2017). These two measures can broadly capture the presence and scale of agglomeration economies.

A bevy of employment controls are used to control for the initial industrial and labor market composition

of the MSA. The percentage of an MSA's residents that are teens, of working age, and over 65 along with the percentage of residents that are black or Hispanic control for an area's demographics.

Average January temperature is used as a control since it is an important climate amenity that is associated with population growth and productivity. The number of square meters of water per person is also included as a control to capture the availability of waterfront real estate and water-associated amenities.

The percentage of people in an MSA with a bachelor's degree or higher is included as a control variable, along with the percentage of people with a high school diploma and percentage with some college. An area's level of human capital is strongly correlated with population growth, and economic development more broadly, especially in the long run (Simon, 1998; Simon and Nardinelli, 1996; Nardinelli and Simon, 2002; Glaeser and Saiz, 2004).

The model specification in equation (2) allows for the two dependent variables, per capita income growth and population growth, to depend on the initial economic conditions of the MSA, the MSA's industrial composition, the MSA's demographics, the MSA's geographic and climate amenities, and the MSA's level of human capital, along with the economic freedom variables.

The dependent variables are population growth and average annual per capita income growth over a variety of time periods and are created from data in the BEA's Local Area database. Three time periods are examined for each outcome variable: 2002-2005, 2002-2011, and 2002-2015. Data from 2015 are most recent data available.

Population and income growth are widely used measures of economic development. The first is a measure of extensive growth while the latter is a measure of intensive growth, and using both provides a more holistic view of the economic success of an area (Partridge and Rickman, 2003). Additionally, only using per capita income growth as a dependent variable can be problematic at the local level due to the relative ease of interstate and inter-MSA migration, which tends to equilibrate per capita incomes over time. Thus there could be population growth in an MSA without any per capita income growth, and the former is evidence of a thriving urban area.

3.1   Empirical Results

Table 4 below displays the results from regressing the per capita income dependent variables on overall economic freedom and all of the controls. The dependent variable is listed at the top of each column. In accordance with my interest in how local rules and policies relate to urban development and for the sake of brevity, I only report the coefficients for the economic freedom controls in the empirical results.[6]

Table 4: Economic freedom and per capita income

Indep. variables	*1* per capital inc annual growth 2002-05	*2* per capita inc annual growth 2002-11	*3* per capita inc annual growth 2002-15
overall freedom	0.004**	0.002	0.001
std. error	0.002	0.001	0.001
Other controls	YES	YES	YES
R^2	0.482	0.428	0.355

Standard errors clustered by state, 49 clusters. *10% **5% and ***1% significance levels. Regressions also include the other controls listed in Appendix table 1. Constant is included but not reported and N = 381.

In column 1, overall economic freedom is positively associated with per capita income annual growth from 2002 to 2005 and is significant at the 5% level. A one standard deviation change in overall freedom is associated with a 0.34 percentage point change in average annual per capita income growth from 2002 to 2005. Column 2 shows that the positive relationship persists over a longer period though the magnitude and significance of the coefficient declines.

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[6]Complete results can be obtained from the author upon request.

Column three reports the results using the longest time period, 2002 to 2015. The relationship between economic freedom and per capita income growth is still positive but is small and insignificant. As we will see in the next section, the absence of a strong, positive relationship is not that surprising since at the local level people can move in response to higher incomes. As the labor supply increases in high income areas, income growth slows in those areas.

3.2   Population Growth and Economic Freedom

The results in Table 4 are similar to those of Bologna et al. (2016), which also examines the relationship between MSA economic freedom and per capita income growth. In this section I extend their analysis and examine the relationship between MSA economic freedom and population growth. Population growth is a measure of an area's extensive growth and may be occurring even if there is no noticeable change in an area's per capita income growth due to inter-MSA migration.

The results displayed in Table 5 are similar to those in Table 4 but the dependent variables are population growth from 2002 to 2005, 2002 to 2011 and 2002 to 2015.

Table 5: Economic Freedom and Population Growth

Indep. variables	1 population growth 2002-05	2 population growth 2002-11	3 population growth 2002-15
overall freedom	0.002	0.010**	0.016**
std. error	0.002	0.005	0.006
Other controls	YES	YES	YES
R^2	0.483	0.582	0.635

Standard errors clustered by state, 49 clusters. *10% **5% and ***1% significance levels. Regressions also include the other controls listed in Appendix table 1. Constant is included but not reported and N = 381.

Contrary to per capita income growth, overall economic freedom is significantly associated with population growth over the longer two periods (columns 2 and 3), though the point estimate is positive for all periods. A one standard deviation increase in overall economic freedom is associated with a 0.86 percentage point increase in population growth from 2002 to 2011 and a 1.38 percentage point increase from 2002 to 2015.

When the overall score is separated into its components, I find that tax freedom is positively associated with greater population growth over the longer periods at the 10% level, as shown in columns 2 and 3 of Table 6 below. Labor market freedom is also positively associated with population growth from 2002 – 2015 at the 10% level.

The results in Table 6 show that government size has a negative but insignificant association with population growth while tax freedom has a larger, positive relationship with population growth from 2002 to 2011 and 2002 to 2015 and it is significant at the 10% level. A one standard deviation change in tax freedom is associated with a 0.75 percentage point increase in total population growth from 2002 to 2011 and a 1.08 percentage point increase from 2002 to 2015. Labor market freedom is also positively associated with population growth at the 10% level from 2002 – 2015, and a one standard deviation increase is associated with a 1.37 percentage point increase in population growth.

As mentioned in Table 3, the tax freedom measure captures the proportion of total MSA income that is taken from individuals in order to fund government. Thus a natural interpretation of the tax freedom coefficients is that areas that take less resources from the private sector, holding the size of government and other factors constant, attract more people. If government spending and quality of government goods and services are positively related at the local level – a plausible but certainly not airtight assumption – this finding is consistent with the idea that there is more population growth in areas where governments provide a given level/quality of goods and services at the lowest tax cost, all else equal.

These findings are also consistent with previous state-level research. The positive sign on the tax-freedom

Table 6: Economic Freedom and Population Growth

	1	*2*	*3*
Indep. variables	population growth 2002-05	population growth 2002-11	population growth 2002-15
size of government	-1.2E-04	-0.003	-0.005
std. error	0.002	0.004	0.005
tax freedom	0.003	0.009*	0.013*
	0.002	0.004	0.007
labor market freedom	-8.5E-04	0.006	0.012*
	0.002	0.005	0.007
Other controls	YES	YES	YES
R^2	0.485	0.585	0.639

Standard errors clustered by state, 49 clusters. *10% **5% and ***1% significance levels. Regressions also include the other controls listed in Appendix table 1. Constant is included but not reported and N = 381.

coefficients are consistent with Ashby's 2007 finding that higher state marginal tax rates reduce the likelihood of in-migration, while the negative sign on the size-of-government coefficients is consistent with Mulholland and Hernández-Julián's 2013 state-level finding that people with at least some college education (who are more likely to move) migrate to states with greater government expenditures on average, which corresponds with a lower government size score in the economic freedom index.

This analysis reveals that the relationship between policies, government impediments and urban development is complicated: Different components of the economic freedom index are associated with particular outcomes. Overall freedom is significant and positively related to faster per capita income growth in the short run. On the other hand, greater overall economic freedom is significantly associated with future population growth in the medium and longer-term, and this result appears to be driven by the tax freedom and labor market component as shown in Table 6. In fact, the positive relationship between population growth and tax freedom/labor market freedom is somewhat offset by the negative relationship between population growth and government size. Table 7 below summarizes the statistically significant relationships.

Table 7: Summary of changes in outcomes associated w/ a one SD change

Economic freedom component	Coefficient		SD of score	Change
Overall Freedom				
Per capita inc. growth 2002-05	0.004	**	0.86	0.34%
Population growth 2002-11	0.01	**	0.86	0.86%
Population growth 2002-15	0.016	**	0.86	1.38%
Tax freedom				
Population growth 2002-11	0.009	*	0.83	0.75%
Population growth 2002-15	0.013	*	0.83	1.08%
Labor market freedom				
Population growth 2002-15	0.012	*	1.14	1.37%

notes: The index component associated with the change displayed in the last column is listed above each dependent variable. Standard deviation (SD) column shows the standard deviation of the index component listed above the dependent variable.

It is important to note that there may be some spatial dependence between MSAs, as in the findings of Bologna et al. (2016), that is unaccounted for in these results. The simple regressions reported here provide some insight into whether economic freedom is associated with population growth, but future research should

try to measure and account for spatial interactions between MSAs that could affect population growth and bias these results. That said, the results here are consistent with the theory that per capita income growth that arises due to more economic freedom eventually slows as people migrate to those areas. Future work examining the impact of economic freedom on economic outcomes at the local level should keep these dynamics in mind.

4   Conclusion

In his discussion of inner cities, Porter (1997) argues that sustainable economic development can only be created "through private, for-profit initiatives, and investments based on economic self-interest and genuine competitive advantage" and not "artificial inducements, government mandates, or charity." (p.12) Though Porter's focus is inner cities his argument is in theory applicable everywhere. Alternatively, the hydraulic approach is one of artificial inducements and government mandates that can crowd out and limit private, for-profit initiatives, and as discussed earlier has been largely unsuccessful.

In this paper, I present a framework for analyzing intercity competition for people and firms. There are several dimensions along which cities can compete, but most of the policies implemented by cities focus on dimensions that correspond to a hydraulic approach to urban development, such as targeted tax incentives and subsidized investment in infrastructure, stadiums and businesses.

In contrast to the aforementioned literature, I examine the relationship between differences in government impediments across MSAs and two measures of urban economic development: 1) population growth and 2) per capita income growth. My measure of government impediments is a MSA economic freedom index from Stansel (2013).

I find that MSAs with more overall freedom experienced more extensive growth, measured as population growth, from 2002 to 2011 and from 2002 to 2015, and the results are significant at the 5% level. The relationship between overall economic freedom and intensive growth, measured as per capita income growth, was positive and significant at the 5% level in the short term but the significance diminished over the longer periods. These results are consistent with the theory that MSAs with more economic freedom experience faster per capita income growth that attracts migrants, and that this population growth tempers longer-term per capita income growth.

The plight of America's declining cities is well known but policies capable of halting or reversing such decline remain elusive. The traditional remedies of intergovernmental grants and subsidies, subsidized private investment, and tax incentives and abatements have been largely ineffective. There are theoretical reasons to believe that local rules and economic policies can facilitate or inhibit urban economic development and this paper is a step towards a better understanding of that relationship. Other empirical techniques, such as accounting for spatial dependence between MSAs, would further enhance our understanding of the relationships examined here.

Additionally, the measures of local policies used in this paper broadly capture the economic results of local policies, but more granularity would further clarify the relationship between local rules and economic growth. Comparative case studies that examine the rules and institutions of individual cities and local urban development would help us better understand the mechanisms underlying the relationships found in this paper.

References

Ahlfeldt, G. M., Maennig, W., and Richter, F. J. (2016). Urban renewal after the Berlin Wall: A place-based policy evaluation. *Journal of Economic Geography*, 17(1):129–156.

Ahrend, R., Farchy, E., Kaplanis, I., and Lembcke, A. C. (2017). What makes cities more productive? Evidence from five OECD countries on the role of urban governance. *Journal of Regional Science*, 57(3):385–410.

Ashby, N. J. (2007). Economic freedom and migration flows between US states. *Southern Economic Journal*, pages 677–697.

Baade, R. A. and Dye, R. F. (1990). The impact of stadium and professional sports on metropolitan area development. *Growth and Change*, 21(2):1–14.

Baldas, T. (2013). How corruption deepened Detroit's crisis. *Detroit Free Press*, 6 October.

Baumol, W. J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, 98(5, Part 1):893–921.

Berry, C. R. and Glaeser, E. L. (2005). The divergence of human capital levels across cities. *Papers in Regional Science*, 84(3):407–444.

Boettke, P. J. and Coyne, C. J. (2003). Entrepreneurship and development: Cause or consequence? *Advances in Austrian Economics*, 6(1):67–87.

Bologna, J., Young, A. T., and Lacombe, D. J. (2016). A spatial analysis of incomes and institutional quality: Evidence from US metropolitan areas. *Journal of Institutional Economics*, 12(1):191–216.

Bostic, R. W. (2014). Cdbg at 40: Opportunities and obstacles. *Housing Policy Debate*, 24(1):297–302.

Brennan, G. and Buchanan, J. M. (1977). Towards a tax constitution for leviathan. *Journal of Public Economics*, 8(3):255–273.

Brooks, L. and Sinitsyn, M. (2014). Where does the bucket leak? Sending money to the poor via the community development block grant program. *Housing Policy Debate*, 24(1):119–171.

Buss, T. F. (2001). The effect of state tax incentives on economic growth and firm location decisions: An overview of the literature. *Economic Development Quarterly*, 15(1):90–105.

Cebula, R. J., Foley, M., and Hall, J. C. (2016). Freedom and gross in-migration: An empirical study of the post-great recession experience. *Journal of Economics and Finance*, 40(2):402–420.

Clark, B. Y. (2014). Can tax expenditures stimulate growth in rust belt cities? In *The Road through the Rust Belt: From Preeminence to Decline to Prosperity*, pages 37–68. WE Upjohn Institute for Employment Research, Kalamazoo, MI.

Coates, D. (2015). *Growth Effects of Sports Franchises, Stadiums, and Arenas: 15 Years Later*. Mercatus Working Paper, Arlington, VA.

Coates, D. and Humphreys, B. R. (2003). The effect of professional sports on earnings and employment in the services and retail sectors in US cities. *Regional Science and Urban Economics*, 33(2):175–198.

Cwiek, S. (2016). Corruption charges in Detroit's struggling schools. *NPR*, 22 April.

Deaton, A. (2013). *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton University Press, Princeton.

Delgado, M. and Zeuli, K. (2016). Clusters and regional performance: Implications for inner cities. *Economic Development Quarterly*, 30(2):117–136.

Desrochers, P. and Sautet, F. (2004). Cluster-based economic strategy, facilitation policy and the market process. *Review of Austrian Economics*, 17(2-3):233–245.

Downs, A. (1957). An economic theory of political action in a democracy. *Journal of Political Economy*, 65(2):135–150.

Downs, A. (1997). The challenge of our declining big cities. *Housing Policy Debate*, 8(2):359–408.

Dye, R. F. and Merriman, D. F. (2000). The effects of tax increment financing on economic development. *Journal of Urban Economics*, 47(2):306–328.

Easterly, W. (2003). Can foreign aid buy growth? *Journal of Economic Perspectives*, 17(3):23–48.

Faulk, D. (2002). Do state economic development incentives create jobs? An analysis of state employment tax credits. *National Tax Journal*, pages 263–280.

Fox, W. F. and Murray, M. N. (2004). Do economic effects justify the use of fiscal incentives? *Southern Economic Journal*, pages 78–92.

Gabe, T. M. and Kraybill, D. S. (2002). The effect of state economic development incentives on employment growth of establishments. *Journal of Regional Science*, 42(4):703–730.

Galster, G., Tatian, P., and Pettit, K. (2004). Supportive housing and neighborhood property value externalities. *Land Economics*, 80(1):33–54.

Gans, J., King, S., and Mankiw, N. G. (2011). *Principles of Microeconomics*. Cengage Learning, Independence, KY.

Glaeser, E. L. and Kohlhase, J. E. (2004). Cities, regions and the decline of transport costs. In *Fifty Years of Regional Science*, pages 197–228. Springer.

Glaeser, E. L., Kolko, J., and Saiz, A. (2001). Consumer city. *Journal of Economic Geography*, 1(1):27–50.

Glaeser, E. L. and Saiz, A. (2004). *The Rise of the Skilled City*. National Bureau of Economic Research,

Cambridge, MA.

Gwartney, J., Lawson, R., and Hall, J. (2015). 2015 economic freedom dataset. In *Economic Freedom of the World: 2015 Annual Report*. Fraser Institute, Vancouver, Canada.

Gyourko, J. (2005). Looking back to look forward: What can we learn about urban development from Philadelphia's 350-year history? *Brookings–Wharton Papers on Urban Affairs*, 1:1–58.

Hall, J. C. and Lawson, R. A. (2014). Economic freedom of the world: An accounting of the literature. *Contemporary Economic Policy*, 32(1):1–19.

Hartley, D. A., Kaza, N., and Lester, T. W. (2016). Are America's inner cities competitive? Evidence from the 2000s. *Economic Development Quarterly*, 30(2):137–158.

Isaksen, A. (2016). Cluster emergence: Combining pre-existing conditions and triggering factors. *Entrepreneurship & Regional Development*, 28(9-10):704–723.

Karabegovic, A. and McMahon, F. (2008). *Economic Freedom of the World: 2008 Annual Report*. Fraser Institute, Vancouver.

Ketterer, T. D. and Rodríguez-Pose, A. (2015). Local quality of government and voting with one's feet. *The Annals of Regional Science*, 55(2-3):501–532.

LaFaive, M. D. and Hicks, M. J. (2005). *MEGA: A Retrospective Assessment*. Mackinac Center for Public Policy, Midland, MI.

Lester, T. W. (2014). Does chicago's tax increment financing (TIF) programme pass the but-for'test? Job creation and economic development impacts using time-series data. *Urban Studies*, 51(4):655–674.

Mulholland, S. E. and Hernández-Julián, R. (2013). Does economic freedom lead to selective migration by education? *Journal of Regional Analysis & Policy*, 43(1):65–85.

Musgrave, R. A. (1959). *Theory of Public Finance: A Study in Public Economy*. McGraw-Hill, New York, NY.

Nardinelli, C. and Simon, C. J. (2002). Human capital and the rise of American cities, 1900–1990. *Regional Science and Urban Economics*, 32(1):59–96.

Norcross, E. (2007). *The Community Development Block Grant: Does It Work?* Mercatus Policy Series 5.

North, D. C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge University Press, Cambridge, UK.

Office of Management and Budget (2009). Update of statistical area definitions and guidance on their uses. *OMB Bulletin*, No. 10–02.

Partridge, M. D. and Rickman, D. S. (2003). Do we know economic development when we see it? *Review of Regional Studies*, 33(1).

Peters, A. and Fisher, P. (2004). The failures of economic development incentives. *Journal of the American Planning Association*, 70(1):27–37.

Porter, M. E. (1997). New strategies for inner-city economic development. *Economic development Quarterly*, 11(1):11–27.

Richardson, J. J., Gough, M. Z., and Puentes, R. (2003). *Is Home Rule the Answer? Clarifying the Influence of Dillon's Rule on Growth Management*. Center on Urban and Metropolitan Policy, the Brookings Institution, Washington, DC.

Rickman, D. S. and Wang, H. (2017). US regional population growth 2000–2010: Natural amenities or urban agglomeration? *Papers in Regional Science*, 96:S69–S90.

Rodrik, D., Subramanian, A., and Trebbi, F. (2004). Institutions rule: The primacy of institutions over geography and integration in economic development. *Journal of Economic Growth*, 9(2):131–165.

Rohe, W. M. and Galster, G. C. (2014). The community development block grant program turns 40: Proposals for program expansion and reform. *Housing Policy Debate*, 24(1):3–13.

Schumpeter, J. A. (1912). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard University Press, Cambridge, MA.

Siegfried, J. J. and Zimbalist, A. (2000). The economics of sports facilities and their communities. *Journal of Economic Perspectives*, 14(3):95–114.

Simon, C. J. (1998). Human capital and metropolitan employment growth. *Journal of Urban Economics*, 43(2):223–243.

Simon, C. J. and Nardinelli, C. (1996). The talk of the town: Human capital, information, and the growth of English cities, 1861 to 1961. *Explorations in Economic History*, 33(3):384–413.

Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. W. Strahan and T.

Cadell, London, UK.

Sobel, R. S. (2008). Testing baumol: Institutional quality and the productivity of entrepreneurship. *Journal of Business Venturing*, 23(6):641–655.

Stansel, D. (2013). An economic freedom index for US metropolitan areas. *Journal of Regional Analysis & Policy*, 43(1):3–20.

Storper, M. (2010). Why does a city grow? Specialisation, human capital or institutions? *Urban Studies*, 47(10):2027–2050.

Storper, M. (2011). Why do regions develop and change? The challenge for geography and economics. *Journal of Economic Geography*, 11(2):333–346.

Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy*, 64(5):416–424.

Williamson, O. E. (1994). The institutions and governance of economic development and reform. *World Bank Economic Review*, 8(suppl_1):171–197.

Williamson, O. E. (2000). The new institutional economics: Taking stock, looking ahead. *Journal of Economic Literature*, 38(3):595–613.

Zywicki, T. (2014). Bankrupt: How cronyism and corruption brought down Detroit. *NPR*, 10 February.

Appendix

Table A1: Variables and Summary Statistics

Variable	Mean	std. dev.	source
Dependent variables			
avg. % change in per capita inc 2002-05	0.9%	1.5%	BEA
avg. % change in per capita inc 2002-11	0.2%	1.0%	BEA
avg. % change in per capita inc 2002-15	0.7%	0.9%	BEA
population growth 2002-05	3.0%	4.0%	BEA
population growth 2002-11	9.0%	9.0%	BEA
population growth 2002-15	13.0%	12.0%	BEA
Controls			
overal freedom	6.70	0.86	Stansel (2013)
size of government	7.50	1.14	Stansel (2013)
tax freedom	6.10	0.83	Stansel (2013)
labor market freedom	6.50	1.20	Stansel (2013)
population 2002	623,837	1,111,244	BEA
per capita income 2002	$26,559.00	$6,280.00	BEA
% employment federal	0.9	1.0	BEA (2000)
% employment ag, forest, fish	1.2	1.2	BEA (2000)
% employment construction	4.1	0.8	BEA (2000)
% employment manufacturing	8.7	4.5	BEA (2000)
% employment wholesale trade	2.0	0.6	BEA (2000)
% employment retail trade	7.2	0.9	BEA (2000)
% employment transp., warehousing	2.8	0.8	BEA (2000)
% employment information	1.5	0.6	BEA (2000)
% employment finance	3.5	1.4	BEA (2000)
% employment professional, scientific	4.6	1.7	BEA (2000)
% employment education, health	12.4	2.8	BEA (2000)
% employment arts, entertainment	4.8	1.6	BEA (2000)
% employment other services	2.8	0.4	BEA (2000)
% self employed	3.8	0.9	BEA (2000)
%high school grad	30.1	6.0	Census (2000)
% some college	28.4	4.5	Census (2000)
% bachelor's or more	22.8	7.5	Census (2000)
% age 15 to 19	7.6	1.1	Census (2000)
% age 20 to 64	58.4	2.6	Census (2000)
% age 65 plus	12.7	3.5	Census (2000)
% black	10.4	10.7	Census (2000)
% hispanic	9.4	14.1	Census (2000)
% of population below poverty	12.5	4.3	Census (2000)
person per square mile of land	332.1	543.0	Census (2000)
square meters of water per person	1.2	2.5	Census (2000)
avg. January temperature 1971-2000	35.4	12.6	NOAA

N=381 for all variables