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Using market-based policies to address market collapse in the American Rust Belt: the case of land abandonment in Toledo, Ohio

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Land abandonment is an acute problem for shrinking cities throughout the world. The prevailing legal paradigm in the United States relies on market logics to address abandonment—specifically by auctioning abandoned parcels to the highest bidder. This emphasis is reinforced by a variety of structural forces at multiple scales, despite its highly questionable efficacy as a way to return land to "productive use." In this article, we explore the case of Toledo, Ohio, to illustrate the limitations of market logics in addressing market collapse inherent in land abandonment. We find that the market emphasis is effective neither for city building nor tax generation goals, but is deeply rooted and reinforced by layers of state law, structural forces, and pro-market institutions.

Keywords: shrinking cities; land abandonment; neoliberalism

Introduction

Land abandonment is often the most visible symbol of urban decline, one of the most difficult policy problems to manage, and difficult to comprehend given the countervailing worldwide pattern of urban growth (Ehrenfeucht & Nelson, 2011; Hackworth, 2014; Rieniets, 2009). In some heavily abandoned cities like Detroit, tens of thousands of parcels are bereft of a structure, long abandoned by tax-paying owners, and often held by government authorities. While the scale is more extreme in places like Detroit, significant land abandonment is present in virtually all formerly industrial American cities. Planning scholars have proposed ambitious schemes to renaturalize such spaces (Hollander, Pallagst, Schwarz, & Popper, 2009; Schilling & Logan, 2008) or privilege nonmarket community-led reuse (Lawson & Miller, 2013). Implementing such schemes, however, remains challenging within the American context where the prevailing legal paradigm is to return abandoned land to a private tax-paying end user in the hope that private investment will stimulate city re-building. Recent land banking reforms in several American states have changed this emphasis, but only slightly, by allowing government-run land banks to regulate the process somewhat by pre-selecting properties that have gone into tax arrears, or restricting buyers with checkered tax-paying histories. But the goal remains eventually selling abandoned land to tax-paying end users. The reliance on the private market in places the market has abandoned poses many problems. As some scholars and activists have argued, the market-growth paradigm is ineffective or even counterproductive in severely disinvested urban areas (Akers, 2013; Hackworth, 2014;

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Hollander & Cahill, 2011; Schatz, 2013). In this article, we provide a case study of abandoned land in one American city with limited land abandonment—Toledo, Ohio—to illustrate how this emphasis works and to illuminate its inefficacy.

Urban planning, the neoliberal city, and abandoned land

The question of why urban policy has become so dominated by market logics, and even market fundamentalism, forms the basis for the vast literature on neoliberal urbanism (Hackworth, 2007; Harvey, 2005; Peck, 2010; Peck & Tickell, 2002). One thread of this literature highlights the incremental multiscale, path-dependent adoption and adaptation of neoliberalism. This process often involves a "roll-back" of existing regulations and an eventual "roll-out" of rules and institutions that serve to reproduce neoliberal ideals in the future (Peck & Tickell, 2002). The appearance of such logics within highly abandoned neighborhoods and cities is curious not least because prices are near zero and meaningful regulatory hurdles to investment largely do not exist. And yet, many Rust Belt cities in the United States rely on a market-based auctioning system to dispose of land that has fallen into tax delinquency. In many cases, this land fails to sell at auction—even discounted second auctions where the price is lowered to near-zero. Recent reforms at the state level in Michigan, Ohio, Pennsylvania, New York, and Missouri have introduced some oversight and allowed counties to establish land banks to manage the disposition of land, but almost all land disposition laws (old and new) still emphasize tax-paying end users as the ideal policy outcome (Hackworth, 2014). The renaturalization or collectivization schemes proposed by some planners and policymakers remain elusive within this framework. A key question is why, given the actualized market realities, does this market-oriented emphasis remain?

There is no simple answer to this question, but recent research indicates a multiscalar, multidimensional set of forces and impulses that produce and reinforce a market-led approach to land abandonment within many American cities. The first and most basic set of forces might be deemed structural imperatives of local government. Within the US context, property taxes are the primary source of revenue for municipal governments and much of what consists of "urban policy" revolves around the retention and enhancement of the tax base (Olson & Lachman, 1976; Peterson, 1981). The assessment and collection of taxes is often overseen by a county-level auditor's office separated from city government and planning functions. The main purpose of an auditor's office is to collect and assess taxes. The idea of deprivatizing abandoned property or using it within a planning scheme in this context is not only politically far-fetched but legally difficult, if not impossible (Hackworth, 2014). Auditor offices are often mandated by state law to collect taxes, and are given narrow guidelines on how to return tax-foreclosed property to the market. This legal framework is reinforced by outside institutions and forces, including bond-rating agencies who will increase a city's borrowing costs unless they expand their tax base (Hackworth, 2002) and the current wave of government austerity at the federal and state levels (Peck, 2014), which has translated into more responsibility with fewer resources for municipal government.

Though the impulse to raise property tax revenue underlies the market emphasis of tax disposition policies, it does not explain the market-growth emphasis completely. Other scholars have argued that communities struggle to accept limited or nongrowth scenarios as future possibilities (Mayer & Greenberg, 2001; Schatz, 2013). Within this context, it is difficult for planning officials to even speculate about low or nonexistent future growth, much less plan for it. The growth impulse is, moreover, promoted by local growth coalitions (Molotch, 1976; Purcell, 2000), which often dominate local politics by, among other interventions, donating handsomely to local political campaigns. Further complicating government-centered planning for shrinking cities is the dark legacy of mid-twentieth-century urban renewal. Many of the most disinvested neighborhoods in American Rust Belt cities are also heavily impoverished and contain high percentages of minority populations. Many elders in such communities remember how similar promises to restructure their cities during the 1960s and 1970s led to widespread demolition and further disinvestment. Their neighborhoods were targeted for intervention before, and few were given adequate resources to move to better neighborhoods (Thomas, 2013). The level of distrust when public officials suggest "right-sizing," "blight removal," or "smart decline" (or other labels for government-led planning in disinvested areas) is thus acute (Hackworth, in press).

Finally, to this suite of forces we might add extra-local politics that undergird the abandonment policies of US localities. Some city officials and land bank supporters have long advocated for stricter regulation related to tax-foreclosed properties and have attempted to integrate nonmarket uses for abandoned parcels. But tax foreclosure is legislated primarily at the state level and governed at the county level. Municipalities are given strict guidelines on what properties they can pursue, what they can do with properties that lack buyers and therefore revert to public authorities, and how long they can hold properties without an end user. Recently, a spate of changes has occurred at the state level, prompted by the lobbying efforts of the Center for Community Progress—a pro-land bank organization—and a variety of fair-housing groups. Though there are important inter-state differences between these new laws (see Akers, 2013; Alexander, 2011; Hackworth, 2014; for more details), the new laws generally enable a more proactive role for government officials to form (county-level) land banks that can acquire, assemble, market, sell, and sometimes rent properties that have been abandoned. This certainly reduces some forms of speculation, but does not generally enable municipalities to engage in larger-scale renaturalization or deprivatization schemes. Stricter legislation was contested by a variety of state-level lobbyists for banks (Brachman, 2012), urban landlords,[1] and neoliberal think tanks (Akers, 2013; Hackworth, 2014). Though the interests of these groups are fairly narrow, their common language of "defense of private property" resonated strongly with state legislators, particularly rural Republicans, who typically demonstrate great distrust of cities and who are keen to limit municipal regulatory powers (Hackworth, 2014).

The prevailing policy dynamic largely avoids government-centered planning and foregrounds a tension between two forms of market policies (see Hackworth, 2015 for elaboration). On the one hand, certain forces advocate "market-only" policies to deal with land abandonment, seeking as little government intervention as possible. In this context, a government that simply managed tax auctions by selling abandoned parcels to the highest bidder without regard for buyer history would be considered ideal. These views are most completely and ideologically articulated by neoliberal think tanks, but the themes of "private property," "limited government," and "deregulation" resonate with other groups fighting measures that might limit the ability of investors to buy abandoned real estate.[2] On the other hand, certain forces advocate "market-first" policies—a more managed approach where private investment remains the end goal but where buyers are screened and statecraft (mostly in the form of land banks) is used to market, package, and sell real estate more effectively. Partially or completely elided within this framework are government-centered approaches that might renaturalize space or approaches that codify the already informal management activities taking place on abandoned real estate in disinvested neighborhoods (e.g., Kinder, 2014).

Basic empirical questions present themselves. Namely, does either approach—market-only or market-first—achieve the city-building goals or the narrower tax generation goals they are designed to support? Does the virtually unregulated auction system generate outcomes that are better than or different from the more managed strategy of land banking? In this article, we address these questions through a case study of abandoned land in Toledo, Ohio. The overall argument is that, despite recent reforms, abandonment policy in Toledo is, as in many American cities, dominated by market-oriented policy logics. This orientation is legally reinforced at several scales. The policies that flow from this logic are neither effective for city building nor even for tax collection (their stated purposes).

Background on Toledo, Ohio

Toledo was chosen for this study because it is arguably more representative of a wider set of cities in the Rust Belt than an extreme case such as Detroit. Despite having a heavily industrial past, Toledo has not experienced catastrophic population loss since the mid-twentieth century. According to the US Census, Toledo lost only 5.4% of its population between 1950 and 2010.[3] By comparison, nearby cities like Detroit and Cleveland lost 61.4 and 56.6% of their populations, respectively, during the same span, causing an almost complete collapse of demand in the process. Using tax delinquency as a barometer, Toledo (a city of 287,208) has seen a range of 190–300 foreclosure actions on tax delinquent properties in the last five years (Table 4). By comparison, Detroit, a city a little larger than twice the size of Toledo, has seen between 7,000 and 23,000 per year over the same span (Dolan, 2014). Because it does not represent such an extreme collapse of demand, Toledo is more representative of a wider set of cities inside the Rust Belt that contain a mix of functioning markets and decline. The efficacy of incremental market-oriented reforms (such as land banking changes) is more plausibly evaluated in a place that has some evidence of demand.

Sometimes lost however in such meta-statistics is the fact that places like Toledo face small pockets of disinvestment that are acute, and that the most complicated difficult-to-dispossess properties are located in a handful of neighborhoods. Figure 1 illustrates the location of properties that have progressed through the tax foreclosure process and not found a buyer (so they revert to the city). Over 62% of these parcels are found in just 12.2% of the city's land area.[4] Prior to 2010, the main policy vehicle for managing such properties was the Toledo Land Bank (TLB) (Fitzpatrick, 2009). The TLB absorbed properties that had gone through a Sherriff's Auction, then forfeiture sale, and had emerged without a buyer. The TLB did not actively seek out properties and was thus deemed "passive." The TLB absorbed hundreds of properties during the ensuing two decades, and when possible tried to sell, assemble, and transfer those properties to adjacent owners, nonprofit housing providers and businesses. In 2010, the State of Ohio passed legislation that allowed counties to establish land banks (Lucas County Land Bank [LCLB], 2013a). The Lucas County Land Bank (LCLB) was created under this authorizing legislation and began to assume responsibilities previously held by the TLB (LCLB, 2013a).

The bill and the creation of the LCLB included a number of changes worth mentioning. First, the LCLB functions at the county level rather than the city level. The idea behind this was that county-level land banks could operate at a scale enabling them to acquire higher-value properties in the suburbs that might help finance their operations. Second, the legislation enabled financing through a number of means, but principally by a

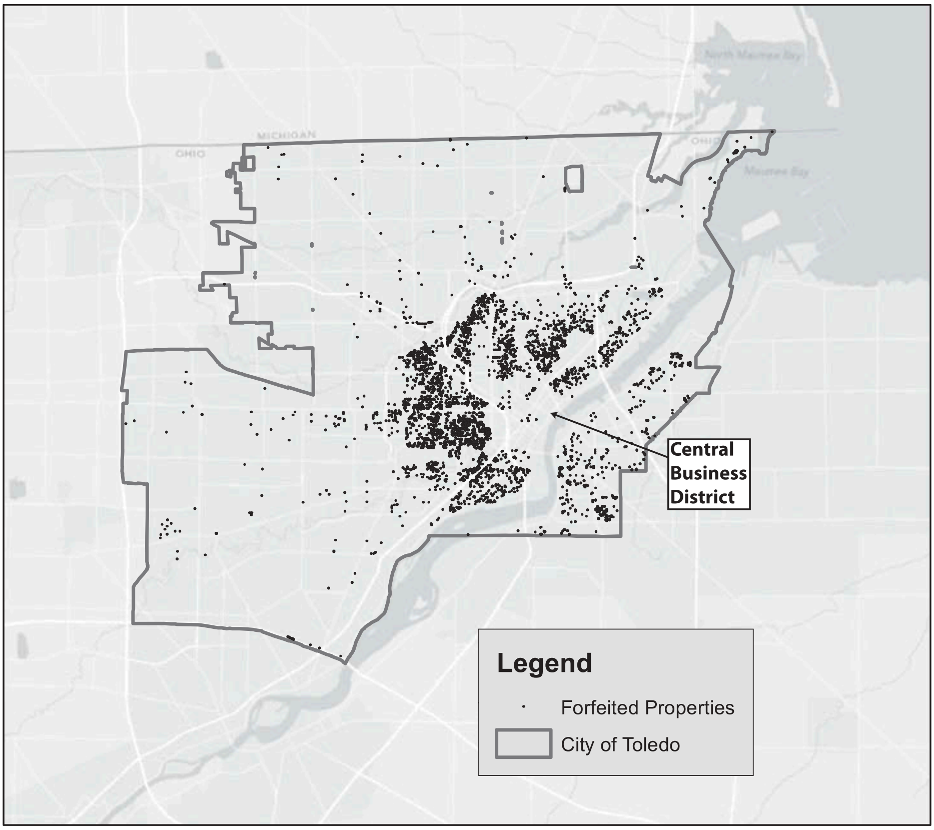

Figure 1. Forfeited land parcels in Toledo, Ohio, 1993–2011 (source: Lucas County Auditor's Office and ESRI).

percentage of delinquent taxes owed to the county. This ensured a more sustainable funding stream. Third, the legislation enabled a "proactive" rather than "passive" land bank. There are a variety of programs under the "proactive" heading, but all are generally dedicated to finding productive end users (rather than speculators). The LCLB can proactively select properties during the tax foreclosure process, but generally must have a plan or end user in place (LCLB, 2013b). They are careful to pre-select investors with productive intent, including adjacent owners wishing to expand their properties, builders with a track record of tax-paying, and nonprofit organizations wishing to build affordable housing. Finally, the reforms built on earlier legislation (1988 and 2006) that made title conveyance cleaner and quicker.

The LCLB obtains the vast majority of its properties through tax foreclosure. This process has several steps. First, a parcel is classified "delinquent" if the owner misses one of the biannual tax payments. If this bill remains unpaid past the next regular payment date, the property is then classified as "certified delinquent." At this point, the county treasurer publishes the parcel on a list of certified delinquent parcels, 60 days after which the county is legally permitted to file a lien against the property for payment of back taxes.[5] In practice, the county is rarely this aggressive, preferring to arrange payment plans (personal communication with Suzanne Cotner Mandros, Assistant Prosecuting Attorney, Lucas County Prosecutor's Office, February 22, February 25, and 21 March

2013). Should this prove impossible, and the county decides to pursue foreclosure, the parcel is listed in a monthly Sheriff's Auction twice, during which the minimum bid is the value of back taxes, interest, and penalties accrued on the property. Many highly distressed properties still do not sell at this stage, so they are formally forfeited to the State of Ohio and offered at an Auditor's Sale (also known as a forfeited land auction) for a negligible price.[6] In the 1990s, the minimum price for such properties in Lucas County was $40, but has now risen to a still negligible $60. Many properties still do not sell at this point, so they are reverted to public ownership. The recent reforms have allowed the LCLB to intervene at various stages in this process to acquire properties more quickly and with cleaner title. This reduces subsequent title pollution and property deterioration and enables the land bank to find end users in a more controlled manner than an auction. The LCLB can assess whether end users, for example, have a plan for the property, the financing to make needed repairs, and a history of paying taxes (unlike during auctions, which are more unregulated).

But while the reforms significantly rationalize a process that was previously more ad hoc, the process still emphasizes properties that have exchange value or an obvious end user (see Lucas County Land Bank [LCLB], 2013b, pp. 3–4). The policy apparatus does not explicitly address properties that pass through the various stages of tax foreclosure without a private end user. Less is known about this group of parcels, yet as a whole they pose the serious challenge for cities. In this article, we explore properties that have made it to a forfeiture auction in Toledo between 1993 and 2011. During this span, 5,207 forfeiture actions occurred on 4,487 discrete parcels.[7] All of these properties were available at auction at negligible prices, and many still lacked private buyers. Most of these properties are located in the first ring of neighborhoods surrounding the central business district (Figure 1). In this study, we assess who bought parcels at these auctions and trace the likelihood of their staying "on the rolls" or generating new development.

Investors in disinvestment

The process of classifying and studying investors is complicated, but the existing literature provides some insight. A recent body of literature has sought to understand the investment activity of private buyers of real estate owned (REO) properties—houses that have gone through mortgage foreclosure but did not generate a buyer at auction and so were repossessed by the mortgage-holding bank (see, among others, Mallach, 2010; Pfeiffer & Tumpson-Molina, 2013). Such authors have categorized investors based on their titles—for example, "nonbank investors" for owners with "LLC" in their title or "bank" for a recognizable bank name. Based on analyzing subsequent transactions and interviewing some investors, these scholars have been able to break REO investment into categories including "milking" (buying a property very inexpensively, renting it for a few years, and putting very few, if any, resources into it) and "flipping" (buying at auction then reselling quickly at profit). These typologies are useful for framing this study, but they apply to a market that is generally considered different (REO properties), so it is unclear whether the same suite of investors and practices exists for tax-reverted property. REO properties are, by definition, parcels that were recently considered to have exchange value, insofar as a bank lent money against their value (even if it did so under less than honest terms). Tax-foreclosed property often lacks exchange value. In highly distressed cities like Detroit, the city formally owns tens of thousands of parcels that failed to sell at multiple auctions despite highly discounted prices. So while valuable, the REO investor literature is of limited use in understanding the range of investors present in the tax-foreclosed land market.

A more applicable literature focuses on the outcomes of tax auctions (Akers, 2013; Dewar, 2009). There are several components to this body of literature. First, there is a small economics literature that calculates ways to operate tax auctions more efficiently and ways to better assess properties so that fewer are abandoned. Flowing as it does from neoclassical economics, price reduction is the chief policy suggestion emanating from this literature. White (1986) suggests that ongoing downward assessments in key neighborhoods could reduce the number of properties that make it to tax foreclosure. DeBoer, Conrad, and McNamara (1992) argues that lowering the minimum price is the best way to sell more properties if they make it to foreclosure stage. This literature generally does not differentiate investors and assumes that the market—as expressed through the auction—is the optimal (and most just) way to achieve public policy goals. Others are more skeptical about the capacity of auctions to generate productive investors or broader policy outcomes. Some have argued that tax auctions often create counterproductive outcomes such as attracting speculative investors who are less likely to pay taxes (Akers, 2013). Such investors often complicate future investment by polluting land titles—using the properties as collateral for loans they neglect, which eventually become liens placed against the parcel. And because tax auctions are rarely managed by land use or planning officials, they rarely integrate closely with larger planning goals (Dewar, 2009). The central purpose of county auditors (many, though not all, of whom are involved in the auction process) is to assess property and collect taxes—the auction from the perspective of most tax collection officials is simply a means toward the ultimate end of "returning a parcel to the rolls."[8] Consideration of how this does or does not fit into larger planning goals is often not a central concern for tax offices.

This literature is valuable when framing the questions for this study, but has generally not divided investors into classes or by strategies, as has been the case with REO investor studies (for an exception, see Akers, 2013). Important hints have emerged, however. Dewar (2009) suggests at least three categories. First, there is a small group of "neighborhood investors"—individuals and nonprofits who purchase parcels with the intent of redeveloping them, living in them, or enlarging their adjacent property. Second, there exists a larger group of "over-enthusiastic" buyers who bought parcels in good faith but were too naive or bullish about the market, and end up re-abandoning the properties after they prove to be a burden. Third, a small but influential group of speculators buy with the apparent intent of capitalizing on the lack of knowledge of future buyers. In some schemes, speculators purchase low-cost parcels then post them for sale on eBay. Akers (2013), by contrast, examines only speculators in Detroit and details their strategies. He finds that most auction investors are speculators, and that few have what might be considered classically productive intent for the land (e.g., see MacDonald, 2011; MacDonald & Wilkinson, 2011a, 2011b). Some purchase with the intent of pressuring or suing nearby owners into payment for their use. Others purchase to assemble land for possible future investment. Few become reliable tax payers regardless of their intent. These typological schemes are a valuable starting point, but they generally do not differentiate within these categories based on the location, size, or nature of the investors (i.e., in the way that the REO literature does), so key questions remain. Are there meaningful differences in the development or tax-paying outcomes of various types of investors? Are individual investors more reliable tax payers than firms? Does the residence of various types of investors influence outcomes? How well do nonprofit housing providers and government land banks do in comparison? What, more broadly, can this tell us about the capacity of markets to deal with land abandonment?

To address these questions, we compiled data from sources including the LCLB, the Lucas County Treasurer's Office, the Lucas County Auditor's Office, and the City of Toledo's Department of Development (which ran the now inactive City of Toledo Land Bank). From these sources, we compiled a data set of properties that had gone through tax forfeiture at least once between 1993 and 2011. These data were supplemented qualitatively by 27 interviews with officials in the city and county, interviews with nonprofit and for-profit developers working in such neighborhoods, seven months spent working (Nowakowski) for the newly formed LCLB, press clippings on the Toledo land market, site visits to 75 data set properties, and Google Earth "visits" to approximately 60 properties in the data set.

Tax foreclosure investment in Toledo

We borrowed aspects of the aforementioned owner typologies to classify the buyers and forfeiters of parcels, grouped them into meta-categories, and then analyzed how their behavior differed over time (Table 1). The types represented in Table 1 are fully inclusive and mutually exclusive—all current owners and historical buyers were classified into only one category. A few words of explanation are in order. First, there were two types of "professional investors": builders and nonbank investors. The former included companies whose titles explicitly invoke "houses," "homes," or house building. The latter included all nondescript and investment-related companies whose titles included "LLC," "INC," or "CORP," among other tags. Private investors that were obviously of a different business type (e.g., Sunoco Gas Station) were categorized as "nonreal estate companies." In cases of confusion, Google and the Ohio Secretary of State website (which has background information on all incorporated businesses in the state) were used for clarification. Second, the majority of the property owners were individual or couple names. It is impossible from our data set to determine the intent of these individuals, so they have all been classified as "individual investors" even if they are owner-occupiers or side lot owners.

Third, it has been the intent of policymakers in Toledo and elsewhere to transfer vacant land to community development corporations (CDCs—also referred to here as "housing nonprofits") who then use public subsidies to develop the land for affordable housing. We counted all CDCs listed in a recent Toledo-Lucas County Plan Commission Report (2007) as falling into this category. Incidentally, some of the for-profit developers categorized as "professional investors" use public subsidies to develop housing, but they are classified differently here. Fourth, a great number of properties do not sell at even the most discounted auction and are reverted to public ownership. Until 2011, this role was exclusive to the TLB, but afterward the newly formed LCLB began selecting some properties from the process. All properties initially held by a public entity of this sort were classified here as "public reversion." Finally, a variety of other, smaller categories were classified, but the associated numbers were not analyzed carefully because they had fewer policy implications than the larger categories described here.

Table 2 presents a basic count of the current ownership of properties that went through forfeiture during the period 1993 through 2011. These are not necessarily the auction buyers, but they may be (that analysis occurs later); this is simply a reflection of the current owners. Individual investors are the largest category, but the largest single owner is the City of Toledo. Professional investors own 13.7% of the portfolio, the majority

Table 1. Typology of forfeited land parcel owners in Toledo, Ohio.

Grouping	Concept	Types	Notes and examples
Professional investors	Investors that buy property for development, speculation, or investment	Builder	Companies with words such as "homes," "houses," and "builder" in their title
		Nonbank investor	A variety of "tags" were used to find this category including "LLC," "INC," "CORP.," etc. If the name was real estate focused or vague, it fell into this category
Individual investors	Nonincorporated individual owners	Person or couple	A person or couple's name on the deed fell into this category
Housing nonprofits	CDCs that build affordable housing and are distinct from nonprofits involved in other activities	Housing CDCs	Names were selected from a list of known CDCs in Toledo: http://uac.utoledo.edu/Links/cdc-web/cot-cdc-dir-07.pdf
Public reversion	Land that did not sell at forfeiture auction and is absorbed by the public	City of Toledo	Before 2011, this was the only absorption facility
		Lucas County Land Bank	Post-2011 forfeitures only
		Lucas Ct Metro Housing Authority	At times in the past, unclaimed land has been transferred directly to the LC Metro Housing Authority
Other	These include a variety of buyers that were not the focus of this study including family trusts, places of worship, nonreal estate companies, banks, and title companies	Bank	These were indicated by the name of a known bank
		Family trust	These were indicated by a person's or group of people's names followed by the word "trust"
		GSE	Fannie Mae or Freddie Mac
		Hospitals	For example, St. Vincent Hospital
		HUD	US Department of Housing and Urban Development
		Nonhousing nonprofit	For example, Ohio Foundation for the Blind
		Nonreal estate company	Companies that were obviously not real estate focused
		Other government	A variety of local, state, and federal agencies own parcels for their own purposes
		Other religious group	These were religious groups that did not have a housing focus
		Place of worship	Any obvious place of worship
		School	For example, Toledo Public Schools
		Title company	For example, Midland Title Agency

Table 2. Current ownership of parcels that were forfeited between 1993 and 2011.

Category	All parcels in category	Percent of total parcels	Owner type	All parcels	Percent of total parcels
Professional investors	614	13.7	Builder	167	3.7
			Nonbank investor	447	10.0
Individual investors	2,373	52.9	Person	2,373	52.9
Housing nonprofits	210	4.7	Housing CDC	210	4.7
Public reversion	841	18.7	City of Toledo	736	16.4
			Forfeited land[a]	67	1.5
			Lucas County Land Bank	24	0.5
			Lucas Ct Metro Housing Authority	14	0.3
Other	449	10.0	Bank	6	0.1
			Family trust	173	3.9
			GSE	2	0.0
			Hospitals	11	0.2
			HUD	2	0.0
			Nonhousing nonprofit	73	1.6
			Nonreal estate company	38	0.8
			Other government	8	0.2
			Other religious group	11	0.2
			Place of worship	108	2.4
			School	3	0.1
			Title company	14	0.3
Total	4,487	100.0	Total	4,487	100.0

Source: Lucas County Auditor's Office.
Note: [a]This is an intermediate state. These parcels will eventually be transferred to the LCLB or City of Toledo.

being nonbank investors (as opposed to builders). Housing nonprofits own 4.7% of the parcels in this sample. A variety of other owner types exist, the three most substantial categories being trusts, nonhousing nonprofits, and places of worship. Nonhousing nonprofits and places of worship are interesting categories but typically purchase land for specific periodic purposes related to their activities (e.g., creating a parking lot), not as an investment or building site.[9]

These data refer only to current ownership, however. Many of the current owners obtained these parcels after auction. Table 3 illustrates patterns in the types of owners whose properties were eventually forfeited and sold at auction. The table highlights the dominant presence of individual investors (almost half) as forfeiters of land (Table 3). Among the forfeiters whose identity is known (i.e., excluding "unknown"), this group constitutes 77.3% of the total. The number of professional investor forfeitures fluctuated and generally increased over time but never exceeded 18% of the annual total. Housing nonprofits and other categories (most of the latter were family trusts) exhibited low forfeiture rates.

Table 4 displays data on auction buyers. Individual investors were also substantial buyers of forfeited parcels, though the rate fluctuated considerably from year to year. Over 46% of the parcels never found a buyer at forfeited land auction and so were publicly reverted. These parcels remained available through the TLB, and many eventually sold or

Table 3. Forfeiters of land parcels in Toledo, Ohio, 1993–2011[a].

Year	Professional investors	Professional investor (%)	Individual investors	Individual investor (%)	Housing nonprofits	Housing nonprofits (%)	Other	Other (%)	Unknown[b]	Unknown (%)	Total
1993	0	0.0	0	0.0	0	0.0	0	0.0	404	100.0	404
1994	0	0.0	3	0.5	0	0.0	0	0.0	609	99.5	612
1995	1	0.2	8	1.4	0	0.0	0	0.0	583	98.5	592
1996	37	8.5	181	41.8	0	0.0	52	12.0	163	37.6	433
1997	26	5.7	275	60.2	0	0.0	73	16.0	83	18.2	457
1998	22	7.9	205	73.2	0	0.0	26	9.3	27	9.6	280
1999	11	6.7	114	69.5	0	0.0	12	7.3	27	16.5	164
2000	17	12.5	97	71.3	0	0.0	16	11.8	6	4.4	136
2001	7	3.3	170	81.3	0	0.0	30	14.4	2	1.0	209
2002	10	7.5	101	75.9	0	0.0	20	15.0	2	1.5	133
2003	8	7.5	83	78.3	2	1.9	9	8.5	4	3.8	106
2004	8	6.0	91	68.4	0	0.0	16	12.0	18	13.5	133
2005	10	3.5	234	81.0	0	0.0	41	14.2	4	1.4	289
2006	1	0.5	155	85.2	2	1.1	20	11.0	4	2.2	182
2007	23	11.7	153	77.7	2	1.0	18	9.1	1	0.5	197
2008	32	17.6	129	70.9	0	0.0	21	11.5	0	0.0	182
2009	25	11.6	153	70.8	6	2.8	30	13.9	2	0.9	216
2010	24	13.1	140	76.5	1	0.5	16	8.7	2	1.1	183
2011	22	7.4	235	78.6	3	1.0	38	12.7	1	0.3	299
Totals	284	5.5	2527	48.5	16	0.3	438	8.4	1942	37.3	5207

Source: Lucas County Auditor's Office.
Notes: [a]"Forfeiters" refers to the owner prior to tax foreclosure proceedings.
[b]Based on the way that the ownership records are kept (in Lucas County), it was impossible (with our data) to determine the prior owner name/type for all auctioned properties (thus there were a high number of unknown forfeiters).

Table 4. Buyers of forfeited land parcels in Toledo, Ohio, 1993–2011[a].

Year	Professional investor	Professional investor (%)	Individual investors	Individual investor (%)	Housing nonprofits	Housing nonprofit (%)	Public reversion	Public reversion (%)	Other	Other (%)	Total
1993	10	2.6	300	84.8	11	2.9	61	3.4	22	6.3	404
1994	22	4.6	392	74.4	10	1.2	114	6.7	74	13.0	612
1995	54	7.6	209	48.0	2	1.9	281	34.2	46	8.2	592
1996	15	3.9	175	48.3	1	0.3	202	36.8	40	10.7	433
1997	2	0.5	173	44.7	0	0.0	237	39.9	45	14.9	457
1998	35	17.1	107	46.1	0	0.0	120	28.5	18	8.3	280
1999	12	8.3	64	46.5	0	0.0	80	37.5	8	7.6	164
2000	0	0.0	72	65.4	1	5.8	58	24.0	5	4.8	136
2001	5	5.2	37	43.2	2	0.0	148	40.6	17	11.0	209
2002	48	45.7	13	12.4	0	0.0	65	35.2	7	6.7	133
2003	14	18.3	27	38.0	0	0.0	59	33.8	6	9.9	106
2004	23	25.0	42	45.7	2	2.2	61	21.7	5	5.4	133
2005	12	6.3	123	64.1	6	3.1	144	24.5	4	2.1	289
2006	2	2.0	40	59.4	0	0.0	138	35.6	2	3.0	182
2007	61	46.2	22	17.4	0	0.0	113	35.6	1	0.8	197
2008	48	43.4	24	21.2	0	0.0	107	33.6	3	1.8	182
2009	67	39.4	56	32.4	1	0.6	90	26.5	2	1.2	216
2010	12	10.8	45	40.5	0	0.0	125	47.7	1	0.9	183
2011	50	24.8	52	26.7	0	0.0	197	48.5	0	0.0	299
Total	492	9.4	1973	37.9	36	0.7	2400	46.1	306	5.9	5207

Source: Lucas County Auditor's Office.
Note: [a]This only refers to the buyer at the forfeited land auction. Other owners may have acquired the same properties through private sales after the initial auction.

were donated to housing nonprofits. Housing nonprofits constituted less than 1% of the buyers at auction, suggesting that the current housing nonprofit portfolio (approximately 10 times this size) was obtained through other means, namely donations (or one-dollar sales) from the city, or Sheriff's Sales that preceded this event. A collection of other buyer types—churches, family trusts, and nonhousing nonprofits—purchased less than 6% of the properties for sale at auction. In the remainder of this article, we focus on the four largest categories of buyers—professional investors, individual investors, housing nonprofits, and public reversion—to assess differences in levels of current tax-paying and eventual outcomes.

City (un)building on abandoned real estate in Toledo

The proximate empirical goal of this study is to evaluate the extent to which different auction buyers and ownership pathways produce different policy outcomes. Is there a meaningful difference between the relatively unregulated auction (market-only) and the more managed experience of initial public reversion followed by partnerships with housing for-profits and nonprofits (market-first)? Our data allow us to evaluate two types of outcomes: eventual development and tax delinquency. The following analysis focuses on the aforementioned 4,487 parcels of land that appeared at a discounted forfeiture auction between 1993 and 2011. The data represent the entire population of parcels that made it to this point.

Development

The central goal of the Lucas County Auditor, and most similar offices in the United States, is to collect property taxes. This includes enforcing laws associated with tax delinquent land owners. One way to assess the efficacy of this goal is exploring what private owners do with the parcels after purchasing them. Vacant lots are assessed at lower rates, and often generate secondary problems (such as illegal dumping) that can increase the cost for government. Efficient tax collection is not simply a matter of generating a buyer regardless of their intent for a parcel. Increasing the assessed value and function of the parcel is thus an ancillary goal of tax collection entities, so generating development cannot be fully disentangled from the goal of improving tax revenue for the county. On the other hand, some scholars have argued that new housing development is the last thing that highly disinvested neighborhoods need (e.g., Glaeser & Gyourko, 2005), as they are awash in supply and new units will only drive down the costs and conditions of surrounding units. So the goal of increasing assessed value is debatable, but measurable.

In this study, we evaluate development in two ways. First, we explored conditions when city unbuilding—demolition without further reconstruction—occurred. Second, we explored conditions of city building—housing built on sites after forfeiture auction. Of the 4,487 parcels auctioned in Toledo between 1993 and 2011, 2,989 (66.6% of total) were recorded by the county as having no building assessed value in 2012, meaning they were vacant lots and generated little tax revenue. This number can of course be affected by two forces: demolition and new construction. Both activities were minimal. A total of 308 parcels (6.8% of the sample) experienced demolition without further reconstruction after auction between 1993 and 2011. A total of 217 properties (4.8%) experienced new construction—in all but 33 cases this occurred on a vacant lot—for a net loss of 124 housing units within this portfolio of land. In short, the majority of parcels that made it to this stage were auctioned vacant, and stayed that way. It is nonetheless possible to

Table 5. Forfeited parcels where demolition (without further reconstruction) took place after auction in Toledo, Ohio, 1993–2011[a].

	Initial purchaser[b]		Owner during demolition[c]		Current owner	
Type	#	%	#	%	#	%
Professional investor	9	3.1	16	5.3	29	9.4
Individual investor	199	64.7	205	66.6	167	54.2
Housing nonprofit	3	1.1	8	2.6	11	3.6
Public	67	21.8	53	17.2	75	24.4
Other	28	9.2	25	8.3	26	8.4
Total	308	100.0	308	100.0	308	100.0

Source: Lucas County Auditor's Office.
Notes: [a]When a parcel was auctioned multiple times during 1993–2011, the first auction date was used. In 33 cases, demolition preceded development (these were eliminated from this table).
[b]During first showing at forfeiture auction, 1993–2011.
[c]Demolitions are often facilitated by the city, so property might be in private possession but the demolition executed by the city as part of a side-lot transfer, for example.

evaluate which buyer types were most responsible for city building and unbuilding at different stages in the process.

Table 5 summarizes demolition activity on forfeited parcels from 1993 to 2011. It is based on a cross-tabulation of assessment data provided from Lucas County and demolition data provided by the City of Toledo. It includes only cases where the demolition date occurred after the forfeiture auction. The aforementioned majority of vacant lots in this sample were thus vacant before 1993. Property of this sort changes hands frequently, sometimes through the mechanism of the tax foreclosure process, other times privately. A professional investor might, for example, purchase a lot with a house on it, demolish it, and then sell the parcel to an individual investor, who then neglects to pay taxes, so the property is publicly reverted. Table 5 divides the parcels into a sequence that includes the initial purchaser (at the forfeiture auction), the owner during demolition,[10] and the current owner (as of 2012). It then displays the distribution of owner types at each stage.

A few patterns are evident. First, professional investors and housing nonprofits demolish very little housing compared to the other groups. They purchased low numbers of properties on which structures were eventually demolished, were seldom owners during the demolition process, and do not hold a large amount of this property at present. It is likely that some of the demolitions conducted by these buyers were intended to clear land for future development. Second, individual investors, by contrast, were the dominant type involved in demolition. They purchased the majority of properties that saw demolition, were the most frequent owners during the process, and are currently the dominant ownership group. We do not have precise numbers, but our interviews suggested that much of this activity was facilitated by the city. Sometimes this intervention was cooperative (as in the city demolishing a house and gifting the parcel to the neighbor), while at other times it was more hostile (as in the city demolishing a house for code violations and billing the owner). Third, slightly less than a quarter of this portfolio was publicly reverted and stayed that way during the forfeiture process. Overall, the number of relevant properties is low, representing a mere 6.8% of the portfolio during this time period, so it is difficult to conclude that this process is facilitating a large-scale destruction of existing housing. But our analysis does suggest that this destruction had already taken place in the decades prior to 1993.

Table 6. Forfeited parcels where development took place after auction in Toledo, Ohio, 1993–2011.

	Initial purchaser		Owner during development		Current owner	
Type	#	%	#	%	#	%
Professional investor	6	2.5	134	61.8	143	65.9
Individual investor	52	24.2	15	6.9	40	18.4
Housing nonprofit	27	12.3	57	26.3	22	10.1
Public reversion	115	53.0	7	3.2	0	0.0
Other	17	8.1	4	1.8	12	5.5
Total	217	100.0	217	100.0	217	100.0

Source: Lucas County Auditor's Office.

Table 6 illustrates the city building that took place on the sample parcels between 1993 and 2011. Specifically, it identifies new house construction that occurred after a forfeiture auction. In all but 33 cases, this new building took place on already-vacant lots (in the other cases, reconstruction followed a demolition). Overall, the numbers are very low—lower than the number of demolitions and low in relation to the overall number of parcels. But there are patterns that might indicate which pathways are more conducive to development than others. Perhaps the most obvious feature of this portfolio is the large percentage shifts that occur as these properties pass through the development process. More than half of the properties were publicly reverted, but very few were actually developed while under public control. The TLB partnered with nonprofit and for-profit developers to build housing. More than 88% of the housing was completed while in the ownership of builders. Beneath the aggregate figures other patterns emerge, namely that the professional investors were almost exclusively builders rather than vaguely named investment LLCs. Such builders tended to retain the housing after development, perhaps for rental income. Publicly held parcels in this portfolio evaporated to zero after development, suggesting that this process is effective at "returning property to the rolls" and perhaps at building housing.

But the rates of development are undeniably small and often rely on public subsidies (such as low-income housing tax credits or the HOME program), so it is difficult to simply suggest that this is the path forward for disinvested neighborhoods given the wave of austerity afflicting the local state in the United States and elsewhere. Moreover, it is questionable whether new housing is what disinvested neighborhoods need, so one should be careful with the interpretation of new development. The central goal is returning property to the tax rolls, so we also evaluated the efficacy of the auction process from this perspective.

Tax delinquency

Tables 7 and 8 evaluate how well the auction process between 1993 and 2011 generated tax-paying end users of properties. We assess this by cross-tabulating the data with mailing address and the parcel's appearance (or not) on the 2013 certified delinquent tax list for Lucas County. Table 7 illustrates one dimension of this portrait by displaying the tax delinquency rates for the two main types of private buyers. Publicly held properties and a sizeable portion of both housing nonprofit and "other"-held parcels are exempted from paying property taxes, so they have not "returned to the rolls" in a

Table 7. Professional and individual investor tax delinquency rates by location of main residence.

	Total	% by geographic type	# tax delinquent	% tax delinquent in 2013
Professional investors	614	100	218	35.5
Local[a]	344	56.0	120	34.9
Regional[b]	120	19.5	30	25.0
National/global[c]	150	24.4	68	45.3
Individual investors	2373	100	1038	43.7
Owner-occupier persons[d]	133	5.6	53	39.8
Neighborhood individual investors[e]	1100	46.4	353	32.1
Same city individual investors	583	24.6	318	54.5
Same state individual investors	199	8.4	83	41.7
National/global individual investors[f]]	358	15.1	231	64.5

Source: Lucas County Auditor's Office.
Notes: [a]Local professional investors include all with mailing addresses in Toledo.
[b]Regional professional investors are located elsewhere in Ohio.
[c]National/global professional investors are located in another state or country.
[d]Owner-occupiers are individuals living at the same address as the parcel in question.
[e]Neighborhood individual investors own property in the same zip code as their residence.
[f]National/global individual investors reside out of state or country.

Table 8. Tax delinquency rate differences between property that was initially reverted and those that sold at auction.

	Initial public reversion				Sold at auction			
Current owners	Total #	% of total	# delinquent[a]	% delinquent	Total #	% of total	# delinquent	% delinquent
Professional investor	293	12.2	94	32.1	321	15.3	124	38.6
Individual investor	1195	50.0	499	41.8	1177	56.2	539	45.8
Housing nonprofit	152	6.4	47	30.9	58	2.8	19	32.8
Publicly held[b]	556	23.2	–	–	286	13.7	–	–
Other	196	8.2	43	21.9	253	12.1	96	37.9
Total	2392	100.0	683	28.6	2095	100.0	778	37.1

Source: Lucas County Auditor's Office.
Notes: [a]Appeared on the 2013 Certified Delinquent Tax List for Lucas County.
[b]"Publicly held" parcels that "sold" at auction experienced a reversion after 2011 or were acquired by the city through nonforeclosure means (e.g., donations, private purchase, etc.).

definitive way. Professional and individual investors are generally not given such exemptions, so it is useful to see how often the auction process generates tax-paying end users. The two categories were further subdivided based on the mailing address of the owner to determine whether more remote owners were better or worse at paying taxes.

Several patterns become evident. First, of the 614 parcels currently held by professional investors, 35.5% are certified delinquent. In contrast, the delinquency rate for all of Lucas County in 2013 was under 10%. Professional investors located out of state or in another country displayed the highest rates of delinquency, but local investors were hardly reliable, registering a delinquency rate of 35.5%, more than three times the county-wide average. Individual investors were even more delinquent overall and between categories. These investors are a more varied group locationally, ranging from owner-occupiers, to side lot owners, to out-of-country investors, so we divided them more finely than professional investors. A total of 43.7% of this group were on the certified delinquent tax list. Neighborhood investors were a more reliable tax-paying group, and the largest at 1,100 parcels. This group included those who bought a parcel within the same zip code as their home residence. A large percentage of these properties were low-value side lots with little assessed value and accompanying taxes. Still, 32.1% of this category appeared on the certified delinquent tax list—more than three times the county average. The most unreliable group of individual investor tax payers were located out of state or in other countries. Fully 64.5% of these investors were delinquent in 2013. In short, the current private owners of property forfeited in the period between 1993 and 2011 are generally unreliable tax payers. The stated goal of returning property to the rolls has achieved only mixed success if we focus on these numbers. What the figures do not represent, however, is the process itself. Does the unregulated tax auction generate different levels of delinquency than the more managed public reversion-then-transfer model?

Table 8 was designed to shed light on this question. It divides the portfolio of forfeited properties into two categories: (1) those that were reverted initially then sold or given to owners afterward; and (2) those that sold to a nonpublic buyer at an auction between 1993 and 2011. A total of 1,836 parcels were initially publicly reverted, then successfully transferred to different owners between 1993 and 2011. And 556 parcels were reverted but did not find a buyer during that time span, so they remain in public hands. In total, 53.3% of forfeited parcels were initially publicly reverted; of those 76.7% were eventually transferred to a private owner. In contrast, 2,095 parcels initially sold at forfeiture auction (between 1993 and 2011) to a nonpublic buyer. Of these, 286 were then either subsequently reverted (in 2012) or donated to or acquired by the city in a nonforeclosure action after the foreclosure auction sale. Thus, in total, public officials now own 842 of the 4,487 parcels (18.8%) that went through forfeiture during the period between 1993 and 2011.[11]

Table 8 further divides these categories into tax-paying frequency by assessing the numbers of parcels on the 2013 certified delinquent tax list. All public parcels, many housing nonprofit parcels and some “other” parcels (churches, other nonprofits) are exempted from taxes, so attention here focuses on the numerically dominant categories of individual and professional investors. Overall, rates of delinquency are significantly above Lucas County averages for both categories regardless of the pathway, but initial public reversion generated slightly better results than the relatively unregulated auction in terms of generating tax-paying end users. Professional-investor-owned parcels that were obtained from the TLB through a more managed process were delinquent 32.1% of the time; those that sold at auction privately were delinquent 38.6% of the time. Similarly, individual investor parcels acquired through initial public reversion were delinquent 41.8% of the time; those obtained directly from auction were delinquent 45.8% of the time. But in both cases the shift is slight and the overall rates still well above county averages. If we combine properties that are currently delinquent with those currently in the public portfolio (regardless of the pathway) and thus not creating tax revenue, 51.3% of the sample is not drawing any revenue for the county. And this does not take into account the numbers of nonprofits under the category of “other” and “housing nonprofit” that are not creating revenue. In short, more than half of the time property did not return to the rolls. There are slightly better rates of return when the process is slightly more managed than the auction, but the delinquency rates are still very high and shed doubt on the efficacy of returning property to the market at all. Given the low assessments of those properties that do sell, costs associated with pursuing these properties, and low values generated at auctions, it is questionable whether pursuing this portfolio of properties generates enough revenue to offset the costs of the current process.

To summarize, the disposition process for abandoned land that existed in Toledo, Ohio, between 1993 and 2011 does not appear to have facilitated city building, planning or tax revenue policy goals. The majority of properties that made it to the forfeiture stage were already vacant. Post-auction demolition was more likely than post-auction development, but both were rare. Auctions appear to be ineffective mechanisms for generating new development. But then again, some have argued that new development is the last thing neighborhoods like this need, so we also evaluated tax outcomes and found that this form of auction appears to be an ineffective mechanism for finding consistent tax-paying end users regardless of the initial buyers. Over 50% of the parcels are certified delinquent, tax exempt, or publicly reverted. There were high rates of delinquency overall for private buyers. Local owners are somewhat better as tax payers, but all delinquency rates for individual and professional investors are well above county averages. Small differences between initial reversion and less-regulated auction were found, but both generated above-average delinquency rates. Similarly, professional investors were slightly more likely to pay their property taxes than individual investors, but still well below the average for other land owners in the county.

The more managed process of the public reversion followed by partnering with for-profit and nonprofit builders was the most common pathway for city building, generating the most housing units. This seldom occurred in a purely private way, often involving public subsidies even to for-profit developers. This pathway also led to lower rates of delinquency and transferred property out of the land banking system and into private hands, as per the stated intent of policy. But the overall number is very low, and given that expansion would have to rely on public monies unlikely to materialize in the near future, initial public reversion is questionable as a policy pathway.

In short, both market-only (auction) and market-first (initial public reversion) approaches perform poorly on development and tax generation goals with this portfolio. Opening abandoned parcels to the very market that generated the abandonment appears to be highly inefficient at generating tax-paying end users, or housing units, or staving off further destruction of the city. The more managed approach embodied by the TLB was better on all three counts, but only by slight margins, and generated highly questionable (at best) outcomes, as it was reliant on a largely nonexistent market of productive investors.

Market policy to solve market collapse

Toledo is representative of many American Rust Belt cities. It has experienced both long-term deindustrialization and signs of economic recovery over the long, medium, and short term. It has lost population, but not nearly as catastrophically as nearby locations like Detroit. The city has had uneven development with some sections experiencing very little private investment. Toledo is located in one of the several states that recently reformed laws to allow county governments to acquire and manage abandoned properties. They hope this will help reduce speculation and title clouding, and there are reasons to be optimistic on these counts. But, by the same token, the approach in Toledo and in nearby jurisdictions still emphasizes a market-first approach. That is, rather than allowing anyone to buy abandoned properties, the process is now more organized, but the emphasis remains on tax-paying end users rather than collective, informal or government-led efforts.

Perhaps this emphasis is sensible in areas where market demand is clear. No government, and certainly no local jurisdiction in the United States, can afford to ignore potential tax revenue. But abandoned land represents not only a departure by people, but also by the market. Simply lowering the cost of abandoned properties to attract investment is ineffective at discouraging speculation and demolition, or encouraging development and tax-responsible private land stewardship. Recent land banking reforms offer possibilities that did not exist previously, but they still emphasize private end users. Why does this emphasis remain? Why is it so challenging to alter this policy trajectory?

There is no simple answer to these questions, but recent scholarship has emphasized several pertinent dimensions that bear repeating. The market-only emphasis is reinforced by a variety of institutions, discourses, and forces, despite its well-known limitations. Almost all forms of government-led policy are rejected within this framework. The putative market-first "alternative" is merely a change in emphasis—government is permitted to organize the market, but little more. In the end, however, the reliance on market logics limits the capacity of this alternative. This is particularly the case in areas the market has abandoned.

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Notes

1. This was conveyed to us by three key informants who were involved in passing recent land banking legislation in Pennsylvania and Ohio. All three asked that their identities not be revealed. The conversations took place in October 2013.
2. The fight to retain this emphasis endures after laws limiting it have been passed. One recent example is an ongoing court case filed by investors in Michigan who object to the fact that land banks in the state have the ability to pre-select properties and buyers and renters for abandoned property. In the plaintiffs' view, that right belongs to investors (Gryczan, 2014).
3. It should be noted that much of this is due to significant land annexations during the 1960s. Once the boundaries remained more or less fixed after 1970, the population dropped by 28.9%, according to the US Census. All Census data cited in this section were derived from: www.census.gov.
4. This was calculated using US Census data. Specifically, we tallied the land area of all census tracts with over 100 forfeitures (18 of the city's 95 census tracts). We also completed a more careful year-by-year analysis of forfeited parcel locations but for space considerations have chosen not to present it here. The main finding is that the distribution of forfeited parcels did not change meaningfully between 1993 and 2011. The tracts with high forfeiture rates in 2011 were the same tracts with high forfeiture rates in 1993.
5. As a twist on this process, between 2006 and 2009, Lucas County briefly permitted the sale of tax liens for delinquent properties to a private entity named Plymouth Park Tax Services, a subsidiary of JP Morgan (see Healy, 2009). Plymouth was permitted to charge 18% interest on taxes successfully collected. At first, this practice brought in a great deal of money—around \$10 million in the first year for the county—but when the housing market collapsed, many

owners were unable to pay. Plymouth then began foreclosing on such households. The county has since ceased using this practice.
6. In practice, all rights of redemption by the former owner have expired if a property goes to Auditor's Auction.
7. Specifically, 676 parcels had been forfeited more than once, some as many as four times during this span.
8. Some have argued that the central tension for tax collection offices in distressed urban environments is not necessarily between planning and revenue per se but between the immediate necessity of revenue collection versus measures that might enhance future revenue through reuse of abandoned property (Olson & Leanne, 1976).
9. These purposes may include, for example, parking or adding onto an existing building. We are not suggesting that these purposes are unproductive and unworthy of study. But we do mean to suggest that the interest of these buyers in auctions is sufficiently different from the other categories evaluated here to treat them separately in the analysis.
10. According to our interviews, most demolitions are executed by the City of Toledo, even if the property is formally owned by a private citizen. A typical pattern with this portfolio is for the city to identify potential side lot owners and agree to demolish the structure on the site in exchange for the next-door neighbor taking formal ownership of the vacated lot.
11. A total of 676 parcels (12.9% of the sample) went through the foreclosure process more than once. In most cases (93.8% of the time), it appeared twice. In those cases, the first sale or reversion was used as the "before"; its status in 2013 was used to assess the "after" (even if had been reverted more than once along the way).

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