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Tax Increment Financing and Major League Venues

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Purpose – This article intends to shine a light on venue-related tax increment financing (TIF) through the first comprehensive inventory of its use at the major league level.

Design/methodology/approach – For each 2018 venue in the five North American major leagues, data was collected on TIF contributions to direct venue capital costs as well as to projects using TIF to enable real estate development ancillary to a venue. Neighborhoods surrounding a venue were also assessed for the presence of a TIF district. With both the direct and ancillary elements, data was collected from government, industry, academic, mapping and media sources. A review of this data set and findings are followed by a discussion of implications and directions for future work.

Findings – Over one-third of the TIF eligible permanent stadiums and arenas studied in the five major leagues have a direct or strong TIF connection. Direct TIF contributions to sports venues, as well as TIF use intended to generate real estate development around these venues, are most frequent and financially significant in arenas and soccer-specific stadiums. Additionally, arena and stadium projects using TIF often accompany ancillary real estate development.

Originality/value – A primary purpose of this article is to provide a previously missing general reference resource to governments and citizens of jurisdictions considering facility TIF use on the scope, nature, extent and identity of TIF projects related to major league sports venues. More generally, the inventory and assessment of TIF use in professional sports venues offered by this article sets the stage for future research on associative relationships between TIF contributions and facility finance outcomes as well as the normative value of venue-related TIF.

Keywords: Finance, Stadiums, Real estate development, TIF, Venues

1. Introduction

Tax increment financing (TIF) is one of the most widely used instruments of local economic development in the United States, and a growing phenomenon in certain Canadian provinces. Although there is a vibrant literature on TIF, little has crossed over to the sports venue context, leaving a gap where some of the most expensive and risky TIF projects are concerned. Likewise, while there is a lively literature on public subsidy of sports stadia and there are some publications making note of facility based TIF, there is limited work focusing squarely on TIF and sports facilities.

This relative absence of sport venue TIF literature matters because TIF can be an effective means of obscuring the true public cost of sports facilities. With considerable work indicating a lack of strong returns on major public investments in sports venues, TIF is a way for actors desiring a stadium or arena to obtain a public subsidy that may attract less scrutiny or resistance than other revenue sources. Similarly, TIF – as a subsidy frequently tied to the creation of assessed real estate value – is central to the seemingly growing phenomena of team-driven real estate development surrounding arenas and stadiums, which has the potential to transform blighted areas of inner cities or anchor new suburban centers. Accordingly, this article intends to shine a light on venue related TIF through the first comprehensive inventory of its use at the major league level. Beyond serving a reference role for cities considering venue TIF, this article intends to help begin closing identified research gaps while setting a baseline for future work on associative relationships and the normative value of venue TIF.

After the literature review, the article moves to the core TIF use inventory. For each 2018 venue in the five North American major leagues (i.e., Major League Baseball, Major League Soccer, National Basketball Association, National Football League, and the National Hockey

League), data was collected on TIF contributions to direct facility capital costs as well as to projects using TIF to enable real estate development ancillary to a venue. Neighborhoods surrounding a venue were also assessed for the presence of a TIF district. With both the direct and ancillary elements, data was collected from government, academic, industry, and media sources. A review of this data set and findings are followed by a discussion of implications and directions for future work.

2. Explaining TIF

TIF involves designating a geographic area in which a state or local government wishes to revitalize or build a tax base through business recruitment and real estate development. Once a revenue baseline in the area is established, revenue below the baseline will continue to flow as before (e.g., property taxes to a municipal general fund that will pay for roads and firefighters), but new “incremental” revenues are retained and spent within the geographic zone for a period determined by statute to fulfill those localized development and growth objectives. TIF is intended to spur private investment that would not occur, or occur with the same benefit to the TIF using jurisdiction “but for” the subsidy. Conceptually, TIF is an alternative to general obligation bonds which may require a public vote and revenue bonds premised on a particular tax stream. While its roots are found in urban blight alleviation, TIF has become a favorite tool of local economic development more generally in the US. Yet despite its popularity, the academic literature is quite mixed on its merits from each of a property valuation, economic development, and fiscal impact perspective (Greenbaum and Landers, 2014).

There are four primary and overlapping reasons for TIF use: (a) financial utility; (b) political utility; (c) overlaying capture; and (d) competition. With the first, Weber (2014) conceptualizes TIF as a means of smoothing revenue fluctuation for local government over a

project's lifetime – by nature the costs of a new development will be frontloaded and the revenue benefits mostly received on the backend. TIF allows financing improvements up front while limiting the risk pool to project itself. Although TIF may appear to be a risk-free means of finance, if the development does not deliver or relocates outside of the boundaries, there is exposure to underperformance depending on how the deal is framed.

On the political front, TIF provides a bureaucratic incentive for local economic development agencies to gain an earmarked source that does not have to be fought over with rival elements of local government come budget time (Weber 2014). Likewise, TIF diverts revenue instead of raising tax rates, in theory seeing that the fiscal impact is less directly felt by taxpayers (Briffault, 2010). Thus TIF creates a political shield for elected officials relative to the alternative of raising property or other taxes to fund improvements (Brueckner, 2001).

Even where “but for” is not present and the financial utility cost-benefit calculation does not meet muster, a TIF project may still become viable through capturing revenues from overlaying and neighboring jurisdictions (Brueckner, 2001). For instance, where municipal property tax revenue will generally make up a plurality of TIF diverted revenues, most jurisdictions will have some combination of school, county, transit, hospital, and library mills that may combine to be more significant than revenues flowing to a municipal general fund. Further, as the boundaries of these overlaying taxing jurisdictions often do not mirror municipal boundaries, TIF is an opportunity to lessen the relative share of these overlaying services for the taxpayers of the TIF initiating municipality.

Similarly, TIF provides a potentially politically and financially safer means for local politicians to compete with other cities to subsidize firms. Whereas a non-TIF dependent grant to lure (or retain) a firm or project may not produce a return sufficient to justify the subsidy, a

developer reimbursed TIF project will only pay out to the proponent if the return is as expected. This shifts the risk of underperformance to the private party, forming a sort of stop loss mechanism on a subsidy race to the bottom.

3. Public Finance of Sports Venues

Significant work exists showing that sports venues do not positively impact economic growth in a city or region (see Coates and Humphreys, 2008; Humphreys, 2019). Still, the venue, its resident sports team, and a surrounding entertainment district can be seen as a way to compete for talent with alternative locales. This Tiebout (1956) competition is on two levels: between regions for the monopoly scarce opportunity to host a franchise, and within a region to direct activity to a particular area. Rosentraub (2014) argues that despite not positively impacting regional economic growth, professional sports can beneficially reallocate activity within a region to downtown area, a notion supported by the neighborhood effects cited by Matheson (2019). Likewise, access to the major leagues may be perceived as impacting talent location decisions (Delaney and Eckstein, 2006). However, while the presence of a new venue can alter the composition of local services and property values or create entertainment agglomerations (Humphreys and Zhou, 2015), there is mixed evidence on relationships between land values and venue location. While some works show positive localized returns (Ahlfeldt and Maennig, 2010; Dehring *et al.*, 2007; Feng and Humphreys, 2012; Propheter, 2019; Tu, 2005), others find stronger appreciation in a neighborhood after the departure of a sports team (Humphreys and Nowak, 2015), or nothing to suggest that the presence of a new venue brings new businesses (Harger *et al.*, 2016).

But how do stadium subsidy deals get done? Building off of urban regime theory, so-called “local growth coalitions” of politicians aligned with major local companies and media outlets, have been viewed as influencing public subsidies (Delaney and Eckstein, 2006; 2007).

Beyond making arguments of economic growth and redevelopment, local growth coalitions spend significantly on ballot measures, and frame the alternative of not reaching a deal as losing the team and accompanying “big league” status. Indeed, Delaney and Eckstein (2007) found that local growth coalitions have more success in former industrial cities that have seen structural economic challenges. Conversely, cities without teams may wish to offer generous subsidies to gain or reclaim status.

4. Why Use TIF to Finance a Sports Venue?

4.1 Public Approval and Local Political Risk

Beginning with the objective of public approval for an investment in a stadium project, the contingent valuation literature highlights that the public is willing to place some financial value on a facility amenity, but there is a gap between willingness to pay and the actual cost (Johnson and Whitehead, 2000). In turn, the professional club is likely to have an expectation for public funding based upon comparable subsidies in similar markets.

While a bargaining gap could be closed through any number of financial means, TIF is particularly attractive because of its ability to be sold as a self-financing instrument that does not increase tax rates. Through a TIF allocation, while the club is getting closer to its desired subsidy objective, local politicians and supportive media can plausibly say that the subsidy cost has not increased. Even though this argument may be a fiction, TIF provides a more saleable fiction than a direct grant. Such tactics may have been seen with the TIF funded Edmonton arena, where Scherer (2016) documented elements of an apparent local growth coalition using self-financing TIF arguments to successfully pushback against opponents.

TIF again also allows for the capture of revenue from overlaying jurisdictions, such as counties and school boards. Thus only a portion of the TIF cost will typically be borne by the

proponent local government and captured revenue would otherwise not be controlled by this local government. This capture is extended through the use of federally tax-exempt bonds, which have become the norm in stadium finance since the Tax Reform Act of 1986 (see Williams & Seifried, 2013). Unlike many revenue sources that are directly related to a facility that have been barred from direct inclusion as collateral for federal tax-exempt municipal bonds, TIF revenue (through incremental sales and property taxes) is a permissible inclusion. This further positions TIF to extend the benefits provided to tax-exempt stadium bonds relative to taxable alternatives.

The lessening of adverse public opinion resulting from increased subsidization to close bargaining gaps, combined with the below described financial risk management benefits, allows TIF to likewise reduce electoral risk for local government decision-makers. By smothering potential public opposition to the highly visible venue deal, the prospective oxygen for new electoral opponents is possibly also reduced – anti-subsidy politicians will have a less obvious base to draw from.

4.2 Financial Risk Management

An instrument premised on development around the venue site – whether that revenue is derived through gains in assessed value, or commercial activity – not only makes it easier to sell the project as urban redevelopment, but can serve as a shield to the public’s downside financial risk. Whereas other prospective revenue sources have no direct relation to development outcomes, TIF can be structured so that the club only gets paid the subsidy if new development or commercial activity occurs in the stadium district. Thus TIF can facilitate better project conformance to the “benefitting party pays” principle than most alternatives, while likewise shifting underperformance risk – in completion, budget, or revenue terms – to the private party.

4.3 Sub-Federal Political and Financial Risk Management

In some instances however, instead of shifting risk from public to private partners, TIF can be used as a means of downloading facility underperformance risk from state to local governments. This shift has two primary benefits for state (or provincial) governments, respectively based in political and financial risk management. The former is the same masking function used by local governments to mitigate political risk in public-private partnerships – again unlike direct grants or tax rate increases, which are easier for taxpayers to see both as corporate welfare and an increase to their tax bills to facilitate corporate welfare, TIF is not immediately visible.

Building off this masking function, whereas the transfer of direct grants and tax rate increases place the financial cost squarely with the state, these up front transfers are no guarantee of the project meeting longer-term performance expectations. Structuring TIF so that local governments are responsible for covering revenue shortfalls, serves three purposes: transferring financial risk to local governments, dissuading local governments from embarking upon projects reliant upon incremental state revenues where the local government does not truly believe the TIF district will meet financial projections, and protecting state governments from local government optimism bias commonly found in megaprojects (see Flyvbjerg *et al.*, 2009). Such shifting was noted in the Edmonton arena context by Scherer (2016).

While state and local governments have obvious incentives to enable TIF projects, overlaying jurisdictions (most significantly schools) whose share of property tax increment is liable to be captured and diverted from its intended purpose, have less obvious reasons to consent. The simple answer in some states is that non-initiating jurisdictions have no choice – their increment is simply frozen at baseline levels when local governments choose to implement TIF. With school districts however, the picture is complicated by state aid formulas by which the

state sets a minimum per student property tax amount and will make up the difference for districts that fail to meet the threshold. Thus for some school districts, captured TIF is merely replaced by state funding and TIF has the potential upside of creating greater than state level funding in the longer term. This incentive can be compounded by negotiated agreements between a school board and municipality. For instance, local governments may agree to transfer a share of their sales or other tax revenues in the TIF zone to make up for lost increment. Accordingly, a school board could receive state aid for lost property taxes on top of negotiated shares of non-property tax increments.

Where a county is not the TIF initiator, there is a more facially understandable reason for participation than with a school board. If the county or its development agency believes that financial assistance to business, and specifically TIF, works, then it will be inclined to be supportive. Likewise, if TIF is viewed as a means for the county to compete with neighboring counties, the county will happily allow a municipality to take on the lion's share of the subsidy cost for a project that will likely benefit the county as a whole. Also, where state statute allows for negotiated county participation, counties can negotiate project design to reflect specific county objectives, as well as minimize the potential for deadweight losses through intra-county municipal competition.

5. Data Collection and Framing Methods

While perhaps the most useful exercise for jurisdictions considering venue TIF would be case study reference on every notable use, this paper works within the limits of the article format and contributes to existing literature in two primary ways: identifying venue TIF uses and inventorying a range of their characteristics, and then making observations about these uses and characteristics that form a basis for theory building. From the inventory, cities can identify where

and how TIF was used and then select where to compare the promises to the outcomes. From the broader observations, academics can more easily pursue specific issues.

Generally, this study uses a document review and synthesis method from government, academic, industry, mapping, and media sources found through a combination of search engine and database reviews (primarily ProQuest). Government sources include TIF statutes, TIF plans, reports, policy documents, contracts, council proceedings, legislative committees, bond prospectuses, property records, meeting minutes, and memos. Academic sources include articles and books relevant to a particular variable, such as the venue capital cost numbers and method from Long (2013). Industry sources include consultant reports, as well as analyses from real estate firms and other businesses operating in a market. Mapping means Google Maps and satellite imagery of the venue site and ancillary areas, complemented by street views. Media sources consist of articles from newspapers, magazines, business reporters, and local media outlets. Particular emphasis was placed on reporting with interviews and quotes from government and industry actors associated with a club, league, venue, or venue ancillary project.

The unit of analysis within the documents is TIF. The review sought results pertaining to both financial and geographic use of TIF, specifically starting with searches for “TIF” and “tax increment” in combination with a particular venue and city. This is followed by combining these initial terms with those specific to a particular variable (e.g., property taxes, sales taxes, bonds, or debt). Depending on the nature of the variable, the primary coding process started with a combination of exhausting search term combinations to where no new relevant sources were found, as well as snowballing from discovered sources, to find a range of prospective sources for a particular variable entry. From here, ideally multiple sources consistently confirmed the same variable entry or complemented one another to form a more complete picture through synthesis.

Where sources directly conflicted, the source(s) with the strongest basis in official government documents was generally selected first, followed by any available academic sources, then industry sources, then media reporting. While multiple sources supporting the same entry or number was preferred, this could be outweighed by official sources with a stronger and more logical basis for the number or entry. From conflict resolution, sources were synthesized and coded.

With some real estate variables, the process started with reviewing maps and imagery data to focus search terms. This secondary process then moved to isolating potential building connections and searching for TIF connections with these buildings. Once these relevant search combinations were exhausted, the rest of the primary coding process of category sorting, conflict resolution, and synthesis was followed into coding.

This coding process is applied to variables concerning 125 permanent 2018 venues in the five major leagues. For each venue data was collected from sources on TIF contributions to direct facility capital costs as well as to projects using TIF related to venue development. Where multiple venues were used by a team in 2018, the newest facility was used. These costs were adjusted to 2017 dollars using the Consumer Price Index (CPI). Direct venue costs were conceptualized to include expenses such as land acquisition, site preparation, and infrastructure, consistent with and updating the capital cost models of Long (2013). Direct TIF contributions were then calculated as a percentage of both total and public capital costs.

Each area surrounding a venue was also assessed for the presence of a TIF district through the primary process. A TIF district is considered present if its geographical boundaries at least neighbor a block where a facility complex resides. Beyond the parcels upon which a stadium or arena directly reside, a venue complex includes land parcels held by public or private

entities related to club or venue holding parties. This venue complex status was initially ascertained by a review of Google Maps, using the secondary process. For a potential development found through maps and street view, the history, ownership, and prospective relationship to the venue was obtained and recorded through a combination of search terms to obtain sources (and then snowball additional sources) that could support the presence or absence of a relationship to the club or venue holding parties. For instance, parcels occupied by parking lots owned or leased on a long-term basis by a club, a stadium-related authority, or a municipality (in connection to a stadium construction agreement) are considered part of a facility complex. At the same time, parking lots held by private parties unrelated to club or venue owners, or municipal parking structures with no clear relation to the venue, are not included in the facility complex definition.

Where a TIF district is deemed present, the strength of the district's connection to the venue is further evaluated as either "strong" or "not strong." A strong connection includes districts established by governments with the intention to primarily stimulate, subsidize, or capture real estate growth in the immediate proximity of the facility. The TIF district need not fund the venue directly (through bond repayment contributions or otherwise). Instead, the intention is assessed through the role of the venue in the collected and synthesized sources. The key guiding question for this connection test is: "but for" the venue, would the scope and intent of the TIF district be substantially different? Generally the sub-categories fitting this definition are: direct subsidy of a new or renovated venue, subsidy of infrastructure, subsidy of ancillary real estate, and subsidy of immediate legacy venue redevelopment.

Even TIF district sites some geographic distance from a venue can garner a "strong" connection through what happens with a direct legacy venue. A direct legacy venue means the

facility previously hosting a team within the same jurisdiction – a city for a municipally subsidized venue, or a county for a county subsidized one. A good illustration of this is found in Memphis. While there is otherwise no TIF district with a strong connection to the FedEx Forum in Memphis, the previous Memphis Pyramid arena across downtown has been redeveloped into a Bass Pro Shop with a significant TIF contribution. Accordingly, through creating the impetus to redevelop the Memphis Pyramid that would not have otherwise existed, this TIF use meets the threshold for the FedEx Forum to have a strong connection.

Conversely, an example of a “not strong” connection is found in Orlando, with the Amway Center. While the arena is within a TIF district, this district encompasses most of downtown Orlando, and would exist without the arena’s presence. Further, the arena was not a listed goal of the TIF area’s creation (the district has been around since 1982) and instances of increment paying for arena related improvements or infrastructure have not been identified.

5.1 Conceptualizing Real Estate Development Related Variables

Beyond TIF strength, venues were coded on three further real estate development related variables: whether the venue was intended to spur ancillary development, whether the original development plan included major concurrent development on the blocks consisting of the venue or immediately adjacent, and whether master-planned or block sized development on adjacent blocks later occurred. As with TIF district strength, each of these variables is coded on a binary basis. The purpose of these three variables is to at a very basic level see if there is overlap between TIF use and various development intentions and outcomes.

For the first variable, sources were examined to derive intent from key actors at the time a venue deal was made. The threshold here is relatively low – there do not have to be concrete development plans at the time of the deal. Rather, a broadly stated intent from key public and

private actors for the venue to generate development is all that is required. Key public actors include municipal council members, county commissioners, mayors, city managers, governors, bureaucrats, state legislature leadership, as well as local state and federal representatives. On the private side, these key actors include team owners and business managers, real estate developers associated with the team, and vocal members of the so-called local growth coalition (as espoused by Delaney and Eckstein, 2006).

With the original development plan and the issue of whether that plan included block-sized construction adjacent to the venue, this variable is also measured through synthesis of sources using the primary coding process. These documents are either contemporaneous to the time of the deal (prior to construction), or are from a later date and demonstrate that at the time of the venue deal, there was substantial development planned that had not been made public.

Importantly, the ancillary development itself does not have to be constructed at the same time of the venue – rather it is the time of the planning that matters. For example, while the plans for what became Patriot Place were not public knowledge at the time Gillette Stadium opened, later accounts from the Kraft family show that the development was part of the vision at the time of the initial facility development.

Likewise, these plans do not necessarily have to have been realized. Prior to the Great Recession, the ownership of the Philadelphia Union had comprehensive retail and residential development plans for the waterfront brownfields surrounding Talen Energy Stadium in Chester. However these plans were downsized and little has happened besides an office complex at one end of the planned development area. Still, because there were clearly documented development plans at the time the stadium deal was made, Talen Energy Stadium is classified in the affirmative.

Conversely, there are many facilities where the “build and hope development follows” strategy was embarked upon, and there are instances these aspirations have been made real even if there are significant time lapses between facility and ancillary construction. Here there need not be a direct relation between the club or facility and the resulting development. Instead, it is the scale – as described below – that matters. With this variable, the secondary coding process was used.

For instance, with the Google Village primed to take over surface parking and neighborhood around San Jose’s SAP Center, the potential for rail and transit connections are likely the primary development driver and Google is not related to the club. Indeed, the San Jose Sharks are actively opposing plans that threaten the arena’s surface parking. Still, the planned development of all available land around the arena is deemed sufficient for this categorization.

As for the scale of development, the minimum threshold is a substantial use beyond the club or event traffic. In locales such as Charlotte and Oklahoma City, this has been a mid-sized chain hotel integrated into the arena block – a Hyatt House with the former and a Courtyard Marriott with the latter. Office space, residential, or retail developments also qualify. However substantial does include office space primarily used by the sports club (e.g., Pittsburgh’s PNC Park) or retail limited to storefronts in parking garages (e.g., Marlins Park in Miami). From significant construction within the venue block such as a hotel or office tower, the scale can range up to multi-block neighborhood development such as those seen with San Diego’s Petco Park or Edmonton’s Rogers Place.

Venue locations were also coded in four ways. The first category represents facilities located in downtown or adjacent areas in historic core cities. Downtown adjacent means a neighborhood with a strong connection to the central business district (CBD), but separated by a

physical barrier (e.g., a river, railyard, or freeway) or with a distinctive land use pattern from the CBD. A historic core city has a history of urbanization and urban land uses going back through the pre-war period. While there may be more than one historic core city in a metropolitan area (e.g., Minneapolis and St. Paul, or Dallas and Fort Worth), most have only one. A historic core city does not include suburban downtowns, or old suburbs that have urbanized in the post-war period (e.g., Anaheim).

The second heading includes facilities within the borders of a historic core city, but outside a CBD or adjacent area. This category includes the ballparks in New York and Chicago, which are integrated into existing mature neighborhoods outside of CBDs. While there may be plenty of low density parcels surrounding the venue, the facility area is well within the bounds of the core city. These stadiums can be differentiated from the third category, sports complexes within core cities such as those found in Philadelphia, Oakland, and Kansas City. Although complexes combining more than one facility may appear suburban in form, land use, and transportation patterns, they remain within the taxing boundaries of core municipalities. Finally, there are suburban venues. These can be in low density locations like sports complexes, or suburban downtowns. The unifier is that these facilities are outside the jurisdiction of core cities.

6. TIF and Development Outcomes at the League Level

6.1 Major League Baseball (MLB)

Of 30 MLB parks, 27 are in jurisdictions that would have allowed for TIF to be used for direct stadium costs at the time of construction or substantial renovation (Minneapolis, Phoenix, and Toronto were not). However there are only three that have used direct TIF contributions to the public share of capital costs: (a) Detroit; (b) San Diego; and (c) San Francisco. These ballparks respectively opened in 2000, 2004, and 2000. While TIF had a central role in San

Diego, the other two instances saw TIF contributions not exceed \$40 million and a tenth of the total capital cost. From this vantage point, TIF has not been a significant contributor to MLB stadium financing and where it has been used, it was in the early 2000s with nothing to indicate this being a growing trend in recent years.

Insert Table 1

However TIF has been a stronger presence in development efforts near or related to ballparks. Of 19 ballparks that were designated as having been intended to spur development, 12 have an ancillary TIF presence, with eight classified as “strong.” Of these 19, eight are found to have had significant original development plans, while nine have seen such plans emerge after the deal making stage.

With the eight facilities deemed to have a strong ancillary TIF connection, all were also found to have been intended to spur development with half being accompanied by immediate development plans. Two more stadiums have seen major development plans emerge in later years. Of these eight stadiums, seven are located in downtown or downtown adjacent areas. In terms of ancillary real estate construction, the strongest results have been seen in San Diego, San Francisco, and Washington – each of the areas surrounding these ballparks has been transformed from low density brownfields to vibrant urbanist neighborhoods in the years following facility construction. In the remaining cases however, the results have been mixed.

6.2 Major League Soccer (MLS)

There are 23 MLS stadiums in use during the 2018 season and 18 are soccer primary. Of these 18 stadiums, 14 would have been eligible for TIF at the time of construction or substantial renovation. Six stadiums have used TIF in capital costs. Despite MLS stadiums being generally the cheapest facilities in the major leagues, two stadiums account for some of the largest TIF

contributions in gross and percentage terms: (a) Dick's Sporting Goods Park in Commerce City; and (b) Children's Mercy Park in Kansas City. No stadiums beyond the six directly TIF funded venues have strong connection TIF districts.

Insert Table 2

Thirteen of 18 stadiums were intended to spur ancillary development, with 10 delivering on these plans. Four of six TIF using stadiums had ancillary development intentions, with some significant development plans having been seen in the vicinity of each. Only one is found in a downtown or adjacent location (Houston), with one otherwise within a core city (Columbus) and the remaining four in suburbs. Generally, MLS stadiums are less likely to be found in downtown locations, with only six meeting the criteria. Another five are within core cities outside of downtowns, and the remaining seven are in suburbs. The lower costs of MLS stadiums relative to other major leagues perhaps creates a larger range of municipalities within a metro area with the fiscal capacity to compete for hosting the facility.

6.3 National Basketball Association (NBA)

Twenty-six of 29 NBA arenas in the data set would have been theoretically eligible for TIF in their jurisdictions at the time their project finance structure was determined (Minnesota, Sacramento, and Toronto would not). Seven have seen direct TIF contributions in their construction or substantial renovation: (a) Dallas; (b) Detroit; (c) Denver; (d) Los Angeles; (e) Milwaukee; (f) Salt Lake City; and (g) Washington DC. Direct TIF funding has ranged from a low of \$12 million in Los Angeles, to \$324 million in Detroit, the latter which represents the largest ever venue TIF spend.

There are ancillary TIF zones near 18 arenas, with 10 having a substantial connection to the facility. Twenty-five of 29 facilities can be viewed as having been intended to spur ancillary

development. Of the 10 arenas with strong TIF connections, five had initial plans for development (Detroit, Dallas, Los Angeles, Memphis, and Milwaukee), and a further five saw plans materialize later (Chicago, Denver, Indianapolis, Salt Lake, and Washington DC). Two cities are notable for using major TIF contributions (as a percentage of the project value) to subsidize redevelopment of previous arenas (Indianapolis and Memphis).

Insert Table 3

Of these 10 arenas with substantial TIF connections, nine are found in downtown or adjacent locations, while one is otherwise within a core city (Chicago). Of all NBA arenas in the data set, 24 have downtown or adjacent locations, three are otherwise within core cities, and two are in sports complexes. Basketball arenas are far more frequently found in central locations than football or baseball stadiums, which may be associated with lessened land and parking requirements, as well as relatively more fathomable financial costs.

6.4 National Football League (NFL)

Twenty-nine active and permanent NFL stadiums are included, of which 27 were in a jurisdiction where they could have been eligible for direct TIF funding (Arizona and Minnesota were not). Although two venues have used TIF directly in construction (Detroit and San Francisco), TIF has been an even less substantial contributor to stadium finance in the NFL than in MLB. As with baseball stadiums, TIF is more relevant in ancillary development. Fifteen NFL stadiums that have seen some intent of spurring ancillary development. Twelve of these 15 have ancillary TIF districts and seven have strong connections to the facility. Seven stadiums had initial development plans, while eight had plans emerge in the years following construction. With the seven TIF districts that had strong connections to NFL stadiums, three had initial plans

for ancillary development (Detroit, Green Bay, and San Francisco) and three had plans that followed years after facility deals (Cincinnati, Dallas, and Tennessee).

Insert Table 4

Fifteen of 29 stadiums were intended to spur ancillary development, with 15 eventually delivering related ancillary development (although only 14 of 15 overlapped). In terms of geography, three of seven venues are downtown or downtown adjacent, one is otherwise within a core city, and three are in suburbs. More broadly, while 15 stadiums are downtown or downtown adjacent locations, suburban locales are next most common (eight), with three apiece in sports complexes or on inner city sites.

6.5 National Hockey League (NHL)

With the greatest proportion of Canadian based clubs of the five major leagues, and TIF being less widespread in Canada, only 24 of 31 NHL arenas would have been eligible for direct TIF at the time of their construction or substantial renovation. Despite a smaller eligible pool, eight NHL arenas have used TIF in their capital costs: (a) Columbus; (b) Dallas; (c) Denver; (d) Detroit; (e) Edmonton; (f) Los Angeles; (g) San Jose; and (h) Washington. Although Detroit obviously remains the largest TIF contribution to an NHL arena, it is followed somewhat closely by Edmonton and San Jose (the latter when accounting for inflation).

Insert Table 5

There are ancillary TIF zones near 15 venues, with 14 having a strong connection to the arena. Where the 14 strong TIF connection facilities are concerned, five can be viewed as having initial development plans (Columbus, Dallas, Detroit, Edmonton, and Los Angeles), and six as having these plans later emerge (Chicago, Denver, Nashville, San Jose, Washington, and Winnipeg). Thirteen of 14 arenas with strong TIF connections are found in downtowns or

adjacent locales, with the remaining facility being Chicago's United Center. 21 NHL arenas in general have downtown or adjacent sites, with three otherwise within core cities, one in a core city sports complex, and four in suburbs. Nineteen of 31 arenas were intended to spur ancillary development, with 21 eventually delivering related ancillary development.

7. Comparing Leagues and 125 Venues

Of the 125 non-temporary major league venues in 2018, 107 were located in jurisdictions where TIF could have been used in their direct costs at the time of construction. Of these 107 eligible facilities, 22 have seen TIF contributions to direct capital costs, while a further 17 have TIF uses deemed as having a strong relation to the facility. These 39 venues with a strong TIF relation represent almost a third (31%) of stadiums and arenas in the five major North American leagues and 36% of venues where TIF use was possible. Incidences of direct TIF contributions are most often found in arenas and soccer-specific MLS stadiums. Non-direct but strong TIF connections are seen on a roughly equal basis in all leagues except MLS. The total direct TIF expenditure was \$1.817 billion and the average direct TIF spend was \$82.9 million, both in 2017 dollars. Where TIF was directly used, it accounted for an average of 60.3% of public capital costs, and 24.4% of total capital costs.

Insert Table 6

7.1 TIF Over Time

When considering the dates of construction or substantial renovation completion for the 125 major league venues more generally, there is a roughly one third each split between the pre 2000 (43), 2000 through 2009 (41), and 2010 to 2018 periods (41). Starting with facilities with no direct TIF funding but an otherwise strong connection to a facility, the distribution is exclusively concentrated in the latter two periods, with eight coming between 2000 and 2009,

and six since 2010. Although some TIF districts in this category have been in existence since well before 2000 (such as the downtown area encompassing Tampa’s arena), their facility connection has only developed later (in Tampa, with a major redevelopment partnership connected to the Lightning’s ownership emerging).

Direct TIF use however, is more back-loaded with the same three periods respectively accounting for four, 11, and seven venues. Direct TIF contributions over these three periods average \$74.5 million, \$65.1 million, and \$114.7 million. While the basic grouping of facilities by decade shows that TIF use has indeed become more common since 2000, the average amounts are warped by significant variance between different projects – some venues have used hundreds of millions in TIF as the entirety of public funding, while others have only seen relatively minor TIF contributions.

7.2 Substantial TIF Contributions

The grouping of venues by construction timeframe reveals coding venues by the substance of their TIF contributions may also have some value to understanding facility TIF use. Substance of TIF contribution is measured in three ways: the share of total and public contribution, as well as the gross amount of TIF funding. For total contribution, substantial was defined at 20%, while 30% was used for public contribution, and \$50 million was the threshold for gross TIF funding. All three are intended to represent an element of a larger proxy for “substantial” TIF commitment, where TIF by no means has to be the primary source of funding, but where the absence of TIF would create a significant financial gap.

With total cost share there are nine venues that have a least 20% of their capital costs covered by TIF. Four of these are soccer-specific MLS stadiums (Colorado, Dallas, Houston, and Kansas City), and with the exception of Houston, these stadiums actually use TIF for at least half

of their total capital costs. These three stadiums are also located in suburbs. A further four arenas (Denver, Detroit, Edmonton, and San Jose) and one MLB stadium (San Diego) meet the 20% threshold, with all but Denver's Pepsi Center having TIF contributions measured in the hundreds of millions of dollars.

As for public cost share, 14 venues meet the threshold of 30% TIF. The list includes Columbus and the same four MLS stadiums, along with seven arenas, Petco Park, and Levi's Stadium. The other venues present not qualifying under the total cost category are arenas in Columbus, Salt Lake City, and Washington DC. This category generally captures largely privately financed facilities or renovations that used TIF as a high proportion of a relatively low gross public contribution.

Finally there are gross TIF contributions. Eleven venues have adjusted gross 2017 TIF contributions of at least \$50 million: (a) Detroit and San Diego (MLB); (b) Detroit (NFL); (c) Denver, Detroit, Edmonton, San Jose, and Washington DC (arenas); and (d) Dallas, Colorado, and Kansas City (MLS). Here the list mostly mirrors that of total cost share. Also worth noting is Milwaukee's new arena which has \$47 million in TIF funding, but misses the three thresholds of substantial contribution.

Eight venues, however, reach all three thresholds: (a) San Diego (MLB); (b) Denver, Detroit, Edmonton, and San Jose (arenas); and (c) Dallas, Colorado, and Kansas City (MLS). Two (Denver and San Jose) are from the pre-2000 period, while three apiece are found between the 2000-2009 (San Diego, Dallas, and Colorado) and the 2010-2018 periods (Detroit, Edmonton, and Kansas City). Although the MLS stadiums are found in suburbs, the remaining venues are located on downtown or adjacent sites. This poses the issue for future work of

whether venue TIF is used in different ways by core cities and suburbs based upon available revenue sources, fiscal capacity, and team willingness to locate.

7.3 Renovations and Redevelopments

TIF has become a notable inclusion in several renovations and redevelopments of former stadia sites. TIF has been a primary financial source or public contribution for arena renovations or capital upgrades in Salt Lake City, Washington DC, and Winnipeg. Likewise, TIF has been central to transforming the former Memphis Pyramid into a Bass Pro Shop, and Indianapolis' Market Square Arena into mixed-use developments.

7.4 Property and Sales Taxes

Beyond questions concerning where and in what dollar amount TIF has been used, are issues of which types of TIF have been utilised to what extent. The first of these is whether property or sales taxes (or both) were available for increment capture. These two sources are the most significant forms in terms of usage and ability to generate revenues, and thus allow for a more straightforward reference to the TIF literature. While some jurisdictions permit incremental income or payroll taxes to be collected, these sources are generally minimal revenue generators relative to property or sales taxes.

As with TIF in general, property TIF is far more frequently used in both direct and strong connection facility TIF districts. Twenty direct TIF facilities have used property tax increments: three MLB stadiums, two NFL stadiums, 10 arenas, and five MLS stadiums. A further 16 venues have strongly related property tax increment use, although this includes some overlap in that multiple neighboring facilities have strong connections (e.g., the Cincinnati stadiums). Unlike with almost any other venue TIF measure, the most strong connections are found in MLB (five) and NFL (five) stadiums, leagues where direct TIF use is much more limited. One explanation

may be that while it is difficult for property-based TIF to make a significant dent in the often massive public capital costs accompanying football and baseball stadiums, TIF is more appropriate to try and stimulate ancillary real estate development around these venues.

On the other hand, sales tax increment is not frequently seen in direct capital costs, with only two venues using a form of sales TIF (Washington DC's arena and the Kansas City soccer stadium). From the disastrous experience of Louisville with a roughly one-third sales TIF funded college basketball arena (detailed by Sroka, 2019), this relatively limited sales TIF reliance may well be a positive. Indeed, even one of the two direct facility sales TIF uses (the Washington DC arena) is limited in scope to incremental sales taxes from merchandise and concession sales. This sales TIF component also came to fund a renovation a decade after the arena's opening, at a time where merchandise and concession sales should have been predictable and not subject to whims of the broader economy and retail business movement of a more traditional sales TIF district (Smith, 2009).

Sales TIF is present in a further four strong connection TIF districts: (a) St. Louis and Washington DC in MLB; (b) the Memphis Pyramid redevelopment; and (c) the St. Paul events district. The St. Louis district currently operates similarly to the DC arena sales TIF use, with sales TIF directly reliant on club controlled restaurant and bar outlets. The Memphis Pyramid's conversion into a Bass Pro Shop represents another limited sales TIF zone where revenues directly stemming from the project dominate the scope and risk of the sales TIF use. The DC Ballpark TIF Area is the only traditional open zone sales TIF area, but sales TIF revenues are not actually securing any debt at this point.

Insert Table 7

7.5 Debt and Reimbursement

Generally a TIF project will either issue public debt backed by anticipated future incremental proceeds, or “pay as you go” in which increment funds improvements as it is generated. In the latter instance, private parties may use a reimbursement commitment to secure their own financing. With sports venues, public debt is most commonly issued for both direct capital costs, and facility related TIF projects. A total of 18 venues have seen the issue of TIF backed debt for capital costs, while a further 12 strong TIF connection venues have seen debt issues for their TIF related projects. The 18 include all MLB and NFL stadiums with TIF contributions to their direct capital costs, as well as five of six MLS stadiums, and eight NHL arenas. Only more NBA arenas saw reimbursement based TIF contributions than debt issues. Indeed direct TIF funded NBA arenas were the only stadia subset that saw significant instances of reimbursement based TIF, accounting for four of six instances of direct costs.

Although there has been no comprehensive study of all TIF districts in the United States, the proportion of debt issues to “pay as you go” is likely to be weighted far more in the direction of the latter than it is in this data set. Reasons for divergence may include the higher profile and higher cost nature of stadia projects, as well as the increased availability of federally tax-exempt bonds, which allow local governments to effectively provide a higher rate of subsidy with the federal government bearing the cost. However further research is needed.

7.6 Local and Sub-Federal Jurisdictions

Venue TIF use can also be seen at the jurisdictional level, with the enveloping question being whether there are certain local and sub federal jurisdictions where facility TIF use is also more common? While comparison is limited by jurisdictions having more or fewer teams and facilities from any combination of factors, there are some trends worth noting from both a gross and realization of potential perspective. Starting with cities, Detroit and Columbus stand out as

having all their professional venues directly TIF subsidized, although Detroit's TIF use is much more substantial than Columbus' in terms of gross and share contributions and Columbus only has two major professional facilities. The District of Columbia also stands out for using TIF in two of three venues, with the arena renovation and Ballpark TIF Area. With metropolitan areas, the comparison issues are somewhat muted by more metro areas having clubs in at least three leagues than cities. Beyond Detroit, Columbus, and DC, the metro areas with the most TIF facility contributions or strong relations are Dallas (two direct and two strong of four facilities), Denver (two direct of four), and Salt Lake City (two direct of two).

The same cast dominates the sub-federal jurisdiction list, with the caveat being that relatively few jurisdictions have multiple major league markets. Not surprisingly, California leads the way with five direct TIF using venues (out of 11 eligible), followed by Michigan (three of three), Texas (three of nine), Utah (two of two), Colorado (two of four), Ohio (two of seven), and another five jurisdictions with one facility (Alberta, Kansas, Missouri, Washington DC, and Wisconsin). Of these five, two used TIF on the only eligible facility in the jurisdiction (Alberta and Kansas). When strong connections are included, Florida (three), Tennessee (two), Ohio (two beyond direct contributions) are also notable, with one strong connection (or additional strong connection) also found in each of Illinois, Indiana, Missouri, Washington DC, and Wisconsin.

The list of jurisdictions with a significant number of venues not using direct TIF funding is perhaps just as interesting. Jurisdictions with at least three facilities and no direct TIF use include: (a) Florida; (b) New York; (c) Illinois; (d) New Jersey; (e) Pennsylvania; (f) Ontario; (g) Georgia; (h) North Carolina; (i) Washington; (j) Massachusetts; (k) Minnesota; (l) Tennessee; and (m) Arizona. This list includes 10 of the 15 largest (by population) sub-federal jurisdictions in the US and Canada. While Florida and Illinois have strong connection TIF districts, the latter

is one of the most prolific TIF users in the country, making the absence of direct TIF especially surprising. Conversely, Arizona does not have TIF, and Minnesota has a statutory bar on direct TIF contributions to professional sports facilities. Of the remaining jurisdictions, Tennessee may be most worth mentioning with all three of its facilities having strong TIF connection. While the issue of sub-federal legislative impact on TIF use in major league stadia is beyond the scope of this work, this initial survey brings up broader questions concerning potential relationships between certain elements of TIF legislation and the presence or absence of venue TIF use.

8. Preliminary Considerations for Venue TIF Use

Although this article is primarily intended as an inventory and jumping off point for future work on venue TIF, the research process has also revealed three primary and related preliminary considerations for cities that may use TIF in a venue project: (a) ensuring “but for;” (b) being cautious of overlaying capture; and (c) shifting underperformance risk. With the first, jurisdictions using TIF in a venue context should evaluate whether there is really “but for” actually present. This means that the incremental revenue would not be generated, or generated to the same net fiscal benefit in present value terms without the TIF subsidies. While clubs and developers may argue that they would not move ahead in a particular location, or move as quickly without TIF subsidy, these claims should be scrutinized. Where there is not “but for” in a TIF project, the project may effectively be an exercise in rent-seeking.

Second, if a project is predicated on overlaying capture of revenue more than new incremental revenue, “but for” is effectively absent. However, overlaying capture as a motivation for, and deleterious impact of, venue related TIF use justifies its own heading as the primary revenue source available for capture is school taxes. Although often school losses are informally backstopped by state minimum per student allocations, this creates new issues of allocative

fairness where taxpayers across a state will indirectly pay for something they cannot easily see they are paying for. Additionally, sub-federal jurisdictions may wish to consider percentage caps on TIF use as a share of assessment value. An increment cap limits the potential damage of capture and incentivizes local jurisdictions to allocate TIF to projects that will maximize increment creation – ostensibly those projects with “but for” present.

Finally, if a venue project is premised on incremental revenue gains from a venue anchor, and the subsidy is sold to the public as being part of a greater real estate transformation of an area, then the private parties should hold the risk of both increment creation and development underperformance. The primary way to ensure risk shifting is through contractual consequences for failure. There are several potential means to address this objective: (a) TIF reimbursement only delivered upon the completion of proposed real estate construction to promised specifications; (b) performance bonds or collateralization of club owner assets to cover underperformance; and (c) options to purchase related development lands at prices that will entail significant losses for club related parties.

9. Limitations

Given the review and baseline setting intent of this study, there are many limitations. These include work on associative relationships between variables and controls for non-TIF influences, the consistency of collected data across a range of public and media sources, and the coding of many variables on a simple “yes or no” basis. The presence of other forms of subsidy and the statutory nuance across sub-federal jurisdictions are largely unaccounted for. Likewise there are TIF uses in minor league and college venues that are not reviewed.

10. Conclusion and Implications

This article has documented the extent to which TIF has become a significant means of public finance for major league sports facilities in North America, as well as a frequent presence alongside redevelopment projects associated with stadiums and arenas. A primary purpose of this article is to provide a previously missing general reference resource to governments and citizens of jurisdictions considering venue TIF use on the scope, nature, extent, and identity of TIF projects related to major league sports venues. To this end, this article has found that over one-third of the 107 TIF eligible permanent stadiums and arenas studied in the five major leagues have a direct or strong TIF connection. Further, total direct TIF usage totaled over \$1.8 billion in 2017 dollars. Where direct TIF was present, TIF averaged 24.4% of total capital costs and 60.3% of public capital costs.

Direct TIF contributions to sports venues, as well as TIF use intended to generate real estate development around these venues, are most frequent and financially significant in arenas and soccer-specific stadiums. Additionally, arena and stadium projects using TIF often accompany ancillary real estate development. More generally, the inventory and assessment of TIF use in professional sports venues offered by this article sets the stage for future research on associative relationships between TIF contributions and venue finance outcomes as well as the normative value of venue related TIF.

Work on the normative aspect is particularly important. With TIF being in some ways a more difficult to understand and critique form of subsidy, it poses the risk of being more successful in helping rent-seeking actors overcome a strong literature indicating that public subsidies for sports stadiums are poor investments. Yet in cases where governments have already chosen to invest in a venue project and the decision centers on the means, the normative objective may then center on harm reduction and fairness. With the former, the question becomes

of the numerous facility subsidy options, which one limits the public's financial risk and maximizes utility? With the latter, the issue is more who should pay what?

On its face, TIF has the potential to beneficially address both goals. If the venue project is premised on anchoring ancillary real estate redevelopment, and reimbursement is only received upon increment generation, then TIF can be designed to force proponents to deliver on construction promises or be left without the subsidy, in turn limiting public financial risk. However, performance risk should truly be with the private partner. Conversely, a TIF deal can be structured to rely upon capturing incremental taxes from overlaying jurisdictions, such as schools.

TIF also can be seen as conforming to the “benefitting party pays” principle in that TIF ostensibly comes from activity that “but for” the activity, the revenue would not have been produced or produced as quickly. In the many instances where “but for” is something of a fiction however, TIF becomes predatory on general and overlaying revenues. The relative benefit of TIF is then tied to what role the TIF subsidy plays in getting a deal completed. If TIF is crucial in closing a bargaining gap, then its risk shifting function provides relative utility over many alternative means to close the gap, and the revenue relied upon stems from the activity in question. If TIF has nothing to do with whether and when a project moves forward, then it has less fairness utility – effectively everyone's tax burden share is higher than it would have been absent TIF.

Thus TIF may be a worthwhile form of major league venue subsidy if several conditions are met: (a) “but for;” (b) the shifting of underperformance risk to a private partner; and (c) protection from predatory overlaying capture of revenues that would otherwise go to schools. If these components are not present, politicians may be using TIF as a means to mask the true

subsidy cost and limit their own political risk as opposed to protecting against the financial risks that such facility investments pose to the public. However future work is needed to test these hypotheses as well as shine more light on thresholds for a potentially beneficial venue related TIF project.

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