

Field\$ of Dream\$:
An Examination of the Effects of Financing Structure on
Basketball Facility Design and Surrounding
Real Estate Development

by
James C. Cole, Jr.
B.S., Business Administration, 1988
University of North Carolina

Submitted to the Department of Urban Studies and Planning
in Partial Fulfillment of the Requirements for the Degree of
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Signature of Author:

Department of Urban Studies and Planning
August 1, 1997

Certified by:

Timothy Riddiough
Assistant Professor of Real Estate Finance
Thesis Supervisor

Accepted by:

William C. Wheaton
Chairman, Interdepartmental Degree Program
in Real Estate Development

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ABSTRACT

Spending on basketball arena development in the 1990's will likely exceed \$3 billion. Historically, funding for these facilities has come from the public sector. However, the trend is shifting toward a portion, if not all, of the costs being funded by the private sector. This financing shift has implications for the design and siting of the facility as well as surrounding real estate activity and values. I begin with a discussion of trends in sports facility development and political motivations driving the development of new facilities over the last ten years. I follow with a discussion of public and private financing mechanisms and the economic benefits of owning facilities. Writings on the subject of the regional fiscal impact of sports facilities are reviewed to provide a frame of reference. I also address the interaction of facility economics and financing on the physical issues of siting, exterior appearance and internal design.

In order to test the thesis, I analyzed data on facilities developed since 1987 both quantitatively and qualitatively. The quantitative tool selected was linear regression analysis, with financing, design and siting as the dependent variables and real estate impact as the independent variable. The regression results supported the thesis that financing influences interior and exterior design and siting, which affect how the facility influences the adjacent real estate. The case study method was selected as the qualitative tool. I conducted two case studies on recently developed basketball arenas, to examine the interrelationships of these variables. The case study results also confirmed that financing, design and siting factor into the amount of spillover generated by a facility. The conclusions include a summary of the findings as well as a matrix for predicting the impact of a facility on the surrounding real estate, considering the financing structure, design focus, siting and political environment.

Thesis Supervisor: Timothy J. Riddiough
Title: Assistant Professor of Real Estate Finance

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Chapter One: Introduction

“It’s no secret. Its going on in every NBA market. The development of new arenas is critical to the future of the franchise.”¹

Clayton Bennet, Board Member of the San Antonio Spurs

Overview

The business of sports facility development is on the pages of many media publications. Estimates vary, but the decade of the 1990’s will see a tremendous expansion in this industry, with between \$6 billion and \$9 billion of new facilities. Sports facilities are costly in and of themselves and the franchise owners are not afraid to look to the public sector or financial support making this issue very controversial. This thesis will examine the issues of financing, ownership, and siting for basketball arenas developed in the last ten years. Football and baseball facilities of the same age will also be incorporated in order to examine a thoroughly large data set.²

Because of the enormous cost of each facility, team owners look to the public sector for contributions. By asking for governmental investment, facility deals are subject to wide scrutiny. The level of scrutiny is raised if the citizens are asked to bear the economic burden through higher taxes. With this level of attention, how do deals receive public approval? The funding is approved because of the strength of its emotion. The civic pride of a successful franchise or receiving an expansion or relocating team cannot be quantified. Similarly, the emotional and

¹ Charlotte Lucas. “Spurs Owners’ Like S.A., Dislike Potential Money Losses,” *San Antonio Express-News*, May 10, 1997, p. 1.

² This thesis was prepared in parallel with works by Aubrey Cannuscio on Football Stadium development and Michael Jammen on Baseball Facility development. Accordingly, any statements or conclusions reached by the three of us may be referred to with the pronoun “we” instead of “I.”

fiscal cost of losing a franchise can be tremendous. To the elected officials, it may be a politically damaging powder keg.

In this paper I focus on the public's role as financier and briefly discuss the emotional and political issues. My thesis explores the interrelationships between siting, financing and design and impact on surrounding real estate. How does financing influence the siting and design of the facility? How does the design of the facility influence surrounding real estate? If financing influences design, then what is the interaction between financing and surrounding real estate? These three questions form the basis for the thesis.

Location, a major tenet of any real estate development project, defines the focus of the project. The vast majority of proposed sports facilities are now planned for urban locations. Urban planners across the country are united in their efforts to restore the inner core of our cities. If sports facilities spark development activity in the surrounding area, then urban siting appears reasonable. If they do not generate new activity but cause additional problems, then suburban locations may be justified.

In a private market development, land cost determines site selection as much as any other factor. Accordingly, privately financed facilities have historically located in suburban settings where the land was cheapest and publicly financed facilities have located in urban settings as a tool for revitalization. A private owner may also prefer a suburban site to internalize the patron revenue.

Revenue generated for a franchise from its facility, referred to as venue revenue, separates teams in their ability to attract and retain talent. Venue revenues flow directly to the team and are not subject to revenue sharing. Assuming that all teams want to beat their competitors on the court, maximizing venue revenue translates into on court success. The

amount of venue revenue collected by owners is correlated to the internal design of the facility. The greater the amount of arena amenities, such as concessions, restaurants and premium seating, the greater the venue revenue. Theoretically, the greater the amount of venue revenue received inside of the facility, the less economic impact the facility will have on its surroundings. If a primary reason of public sector financing is to stimulate economic activity in the vicinity of the arena, then public financing should play a role in the design of the facility. If a facility is privately financed, the owner presumably should seek an internal design that maximizes venue revenue as a return on investment.

Although often mentioned as an aside, we know of no study examining the effect of sports facilities on the neighboring real estate. I explore this relationship and draw conclusions using inductive and empirical methods. Through this study I will show that the financing and design of an arena influence the spillover benefits to adjacent operators and owners of real estate.

Findings

The findings suggest that certain characteristics of facility design have a direct relationship on the adjacent real estate. Specifically, the inclusion of premium seating, such as luxury suites and club seats, as well as a high relative number of concession stands per seat has historically reduced the positive impact of the facility on adjacent rental rates. In addition, my analysis indicates that the siting of a facility in an urban location contributed to the ability of the project to increase rental rates on adjacent property. A low quality internal and external design as well as a higher percentage of private financing both negatively impacts local rents.

Private financing appears to be less important than my thesis suggested. I attribute this outcome to the interaction of financing structure and interior design. All franchises attempt to maximize venue revenue. Maximizing venue revenue includes the internalization of amenities

which would otherwise be situated around the facility, thereby *decreasing* the impact of the facility on its surroundings. It is possible that franchises in 100% publicly financed facilities attempt to maximize venue revenue without regard to economic return on cost. Conversely, franchises in privately financed facilities seek to include only those amenities that provide the required return on investment. Examining this theory, franchises in publicly financed facilities would accept every additional dollar of venue revenue since they have no equity or downside, upon which to measure the investment. Franchises in privately financed facilities only accept additional venue revenue if it provides an acceptable return when compared to their equity or investment required. This paradox has created a potentially contradictory result.

As a part of the analysis, I examined two facilities through the use of case studies. The case study chapter reviews two recently developed arenas, Arco Arena in Sacramento and Gund Arena in Cleveland. These examples contrast the use of public and private financing, urban locations and suburban locations and newer and older designs. Through the review of journal articles, media articles, site visits and interviews, I was able to confirm and question certain findings from our quantitative analysis.

As expected, the case studies presented a stark contrast. Arco Arena, a 100% privately financed facility in Sacramento, was planned as the initial piece of a large mixed use development. Today, almost ten years after opening, the arena itself has been a success, hosting a record of 11 years of consecutive sellouts despite marginal on-court success. The area around the facility has languished under a mountain of problems, and the facility is still the only phase of the planned 7,500 acre development to be completed. Arco contains a restaurant and cocktail lounge, both open before and after the game, as well as plenty of parking, consistent with our internalization theory. In Cleveland, a downtown renaissance is underway, sparked by almost \$3

billion in municipal investment. Gund Arena, a mostly publicly financed building, is part of the Gateway Sports Complex that also includes publicly financed Jacobs Field. These facilities have attracted the fans back to downtown and real estate rents have rebounded. Despite the presence of both a restaurant and a sports bar in the facility, new businesses have opened around Gund, contributing to the turnaround in the area.

Organization

Current trends and a synopsis of the recent direction of development, including deal structures are discussed in Chapter Two. Ownership structures, public/private financing structures and the political climate are also discussed in Chapter Two. Chapter Three provides an overview of facility economics as well as writing of the fiscal impact of stadiums. Chapter Four outlines the effect of financing source upon internal and external design as well as siting issues. Chapter Five focuses on the results of the regression analysis. Chapter Six contains the case study section of this work. Through these studies, I will review the design and siting of these developments to explore the impact of these developments on their surrounding neighborhood market. Finally, in Chapter Seven, I present conclusions and their implications, and discuss areas for further research.

*Chapter Two: Trends in ownership structures, the political climate and
public/private financing*

In this chapter I review recent trends in the structuring of facilities deals including ownership options, the political climate surrounding the public's participation in the financing of new facilities and the financing structure. Each of these areas has experienced significant changes in the past ten years. More importantly, each of these areas influence the design of the facility and the impact of the facility on surrounding real estate values.

Ownership interests, siting options, and the local political climate are unique to each development. Ownership of a facility may be held by a municipal, private, or a quasi-governmental entity. Generally, title is held by the entity responsible for funding the development costs. However, given the myriad of economic structures, the general rule does not always apply. Sports authorities are gaining increased popularity due to the flexibility of merging private and public sector interests. They also have certain financing advantages over municipal ownership. Future municipal ownership may come under scrutiny with the proposed changes in the tax status of municipal debt.³

Lease agreements with franchises typically are between ten and twenty years in length with options to extend the lease held by the franchise. Unlike most other forms of real estate, the owner of the facility does not necessarily receive the revenues from the property. The lease agreement with the franchise (tenant) determines the distribution of the facility revenues. These

³ Keith Olberman. "Tax Free at Last." *ESPNET Sportszone*. July 25, 1996.

revenues include naming rights, advertising, personal seat licenses (PSL's), branding rights, and patron dependent revenues. Each of these revenue sources will be discussed in detail in Chapter Three.

Most basketball facilities are privately owned. The breakdown of publicly held versus privately owned facilities is 22/6, 25/4, and 14/14 for baseball, football, and basketball facilities respectively. Two theories may explain this disparity in ownership. These theories focus on the number of events at a facility and the development cost of the facility. Baseball and football facilities average 85 and 22 events annually, respectively, while basketball arenas average 173 events annually.⁴ This suggests that basketball arenas may be self-supporting while baseball and football facilities require public ownership to cover any operating deficits. The “dual purpose” facilities of the 1970's were developed to close the gap in operating deficits. Three Rivers Stadium in Pittsburgh, Riverfront Stadium (now Cinergy Field) in Cincinnati, and Candlestick Park (now 3Com Park at Candlestick Point) are examples of stadiums used by baseball and football franchises. Another theory involves the development cost of the facility. In most cases baseball and football facilities are more than twice as expensive as their basketball counterparts and now exceed \$200,000,000 on a regular basis. It is most likely that the combination of these factors; higher usage/lower cost for basketball and lower usage/higher cost for baseball and football, influence the ownership profile for these facilities.

In the case of municipal ownership or quasi-governmental authorities, the team leases the facility from the municipal authority. Depending upon the deal that is reached, the rent amount could range from a market rate rent to rent free. The lease agreement is directly affected by the

⁴ David C. Petersen. *Sports, Convention and Entertainment Facilities* (Washington, D.C.:ULI-Urban Land Institute, 1996), pp. 29,34.

percentage of public versus private financing used in the development of the facility. Charging a franchise below market rent for use of the facility or the land underneath it is a popular form of public financing. This strategy is often employed when the goal for the donor is the enhancement of the value of land adjacent to the facility.

The public/private financing structure of each facility is perhaps the most controversial and politically charged phase of the development process. Until recently, it had been commonplace for the public to finance up to 100% of the cost of a sports facility. This was accomplished through general obligation bond financing, municipal guarantees, land leases, and the newest technique, tax increment financing (TIF) bonds. Each of these techniques will be discussed in Chapter Three. Public sentiment toward subsidizing sports facilities has changed dramatically in recent years. Groups opposed to the public subsidies have forced referendums to decide the issue at the ballot box. These groups target the high net worth owners of franchises like Edward DeBartolo of the San Francisco 49'ers and Paul Allen of the Seattle Seahawks and ridicule them for seeking public assistance to enhance the value of their privately-owned franchises.

The threat of relocation to another city is a popular technique employed by franchise owners and their consultants. The excess of demand over supply for sports franchises provides the support for this threat. The recent relocation of the Cleveland Browns to Baltimore is fresh in the mind of city politicians and sports fans. The deals reached in St. Louis for the Rams and Baltimore for the Ravens are cited as examples that the cost of replacing a lost franchise exceeds the demands of the incumbent franchise seeking a new facility. The table on the next page summarizes some of the public referendums calling for public money to build sports facilities.

Year	City/Team(s)	Outcome	Issue
1995	Cleveland/ Browns	Approved	Extension of alcohol and cigarette sales tax that would raise \$175 million for a new downtown football stadium in 1999
1996	Cincinnati/ Reds and Bengals	Approved	Hamilton County approves half-cent sales tax that would raise approximately \$50 million/year to build new baseball stadium and new football stadium
1996	Detroit/Tigers	Approved	\$40 million bond issue for baseball stadium
1996	San Francisco/ Giants	Approved	Change in city ordinances so that new baseball stadium may be built at China Basin
1996	Nashville/ Oilers	Approved	\$80 million bond issue for new football stadium
1996	Tampa/ Buccaneers	Approved	Half-cent increase in sales tax increase for 30 years to finance football stadium and other civic needs.
1996	Detroit/Lions and Tigers	Approved	Wayne County increases in hotel and car rental tax, as well as \$80 million bond issue, to help finance new baseball and adjoining football stadium
1996	Houston/ Astros and new football team	Approved	Financing plan for Harris County to build \$265 million baseball stadium and \$200 million renovation to Astrodome for future football team or to build new football stadium
1997	Columbus	Rejected	Three year, half-cent sales tax for hockey arena and soccer stadium
1997	Miami/Heat	Approved	Dade County use of county taxes and bonds for new basketball arena
1997	San Francisco/ 49'ers	Approved	\$100 million bond issue to help finance stadium and shopping/entertainment complex
1997	Seattle/ Seahawks	Approved	\$300 million bond issue for a new football stadium
1997	Denver/ Broncos	TBD	Fate of new football stadium
1997	Pittsburgh/ Steelers and Pirates	TBD	Fate of new football and baseball stadium
1998	Phoenix/ Cardinals	TBD	Fate of new football stadium and multiple use entertainment complex

Sources: NFL; Horrow Sports Ventures

The trend of privately financed facilities began with football facilities in 1987, with Joe Robbie Stadium, now Pro Player Park, serving as the pioneer. Ericsson Stadium is the most recent example of a privately financed football facility. The trend has continued into basketball arenas with the Palace at Auburn Hills serving as the pioneer in this area. The Fleet Center, United Center, and the Rose Garden are among the recently privately financed basketball arenas. Pacific Bell Ballpark at China Basin, the proposed home of the San Francisco Giants, will be the first privately financed baseball facility in over thirty years. Other deals under consideration include the New York Mets, who are seeking a \$100,000,000 public financing component to their \$450,000,000 proposed stadium, and the New York Yankees who are rumored to be seeking 100% public financing for their proposed *one billion dollar* replacement for Yankee Stadium.

The trend in the financing of basketball arenas is not as pronounced. I believe the recent addition of four expansion teams, Orlando, Miami, Charlotte, and Minnesota has distorted the trend of private arena financing. These communities were able to attract the expansion franchises because of their generous arena proposals. When the expansion teams are removed from consideration, it is apparent that the average percentage of public financing for basketball arenas is much less than baseball stadiums.

The Alamodome in San Antonio, built in 1993, is the only deal which was financed completely through the public sector. Is it a coincidence that the Spurs are seeking a new arena already? The Alamodome has been a success in that it expanded their convention facilities and has allowed San Antonio to host major events. However, the Spurs may move to a new location, challenging the economic viability of this facility in the future.

Football stadiums are beginning to show a trend toward a smaller public financing component. Three proposed, Baltimore, Seattle, and Nashville illustrate examples of extenuating circumstances that increased the negotiating power of each of these franchises. Baltimore was replacing a team that had relocated to Indianapolis in 1984. Baltimore had also developed a successful publicly-financed stadium in Camden Yards. Seattle was faced with the reality of losing the Seahawks to Los Angeles if the public financing package was not approved by the voters, and Nashville used the above average public financing to entice the Oilers to relocate from Houston. The large public contribution to these facilities represents an exception to the norm.

Preliminary research indicates that the new facilities will have an even greater amount of amenities than their predecessors. This would be consistent with the theory that the greater the amount of private financing, the more amenities that will be internalized within the confines of the facility. Only when these facilities are completed and the costs totaled will an examination of construction efficiencies be possible. If the final cost of these facilities is consistent with their projections, it would seem that private financing is more efficient.

The actual construction cost of all types of facilities is often less than half of the total development costs. Architectural and engineering fees, site acquisition and improvements, furniture fixtures and equipment, financing costs, infrastructure improvements, and parking facilities all are a part of the total development cost of a new facility. When public financing is used, it is important for the facility developer to determine the total cost accurately before construction begins or face the prospect of additional public referendum and the problems associated with it, or use private equity to cover the financial shortfall.

In summary, ownership structures and public/private financing partnerships are evolving to solve the increasing costs of facility development. No prototype exists for a sports facility deal although trends in financing structures are emerging for each facility type. Local groups opposed to public contributions to the financing structure of facility deals are increasing. Groups opposed to public funding are sure to use the Pacific Bell Ballpark at China Basin as the model upon which all future deals should be based. The Giants were forced to structure the deal this way after losing *five* referendums calling for partial public funding of a new facility. The political climate for these deals continues to be uncertain and the recent relocations of franchises in Los Angeles and Cleveland remind fans of the potential consequences of refusing to allocate public funding for a new facility. The recent football stadium deals struck in Baltimore, Nashville, and Seattle support this conclusion. Does the decision of the public to participate in the financing of sports facilities affect the design of the facilities? In the next chapter, I discuss the economics of facilities. This information serves as the background for Chapter Four when the interaction of financing structure, siting, and design are explored in depth.

Chapter Three: The Economics of Facilities

In Chapter Two, I discussed the recent trends in public and private financing structures for new sports facilities. In this chapter, I discuss the various financing mechanisms employed by the public and private participants and overview facility economics and fiscal impacts. I also detail the innovative revenue streams driving the demand for new facilities. Throughout the discussion, I cite examples where a particular strategy was used. I close with an overview of writings on the economic impact of sports facilities for the communities where they are located which express a view on the justification for the governmental investment.

Public Financing Mechanisms

The public sector has funded a portion of the development cost of every facility developed within the last ten years.⁵ The amount of the contribution has varied from an indirect contribution of infrastructure to 100% of the total development cost. When the public contribution involves an outlay of funds as opposed to a tax abatement or other ongoing subsidy, the financing techniques used are not unlike those used for other large municipal capital improvement projects. Does the choice of financing technique impact the adjacent real estate activity? I propose possible answers to this question while providing an overview of some of the most popular techniques as excerpted from The Practice of Local Government Planning.⁶ I also

⁵ Considering infrastructure, favorable zoning and below-market land leases, all facilities have had some form of governmental subsidy. Some of these contributions are monetary, such as land leases, and some are non-monetary, such as favorable zoning.

⁶ Frank So, et al, ed., The Practice of Local Government Planning, Washington, DC; 1979, pp.131-132.

include a table on the following page to show how each facility developed within the last ten years has been financed.

General obligation bonds The full taxing power of the jurisdiction is pledged to pay interest and principal to retire the debt. The bonds are tax-exempt but the use of the proceeds is restricted to a “public purpose” to insure this status. Voter approval may be required as the municipality is ultimately at risk for the repayment of the bonds. This form of financing is highly scrutinized by rating agencies and public watchdog groups. Many older facilities, financed with general obligation bonds, were sited in areas of urban revitalization to meet the public purpose requirement of the bonds. Consequently, when the team requests a new facility, it is rare for the value of the vacant facility and the land under it to exceed the outstanding indebtedness. However, the municipal guarantee of the bonds removes the city’s default option. As a result, the municipality has to factor in the cost of debt service on the old bonds in conjunction with any new commitments. An inability to default makes the use of general obligation bonds a risky proposition without a long term commitment from the tenant. The TWA Dome as well as the new Oilers facility in Nashville are using general obligation bond financing. Many facilities developed for expansion or relocating teams are funded with general obligation bonds.

Revenue bonds These bonds are sold for the financing of revenue generating projects. Water and sewer systems are common examples of projects using revenue bond

Facility	General Obligation Bonds	Sales Revenue	Other Revenue	Grants	Land	Infrastructure	Project Revenues	Team Obligation	PSL's	Sponsor ship	Vendor
Basketball											
Alamodome		✓									
America West Arena			✓					✓		✓	
ARCO Arena							✓	✓		✓	
Bradley Center	✓		✓		✓	✓	✓	✓			
Charlotte Coliseum	✓		✓			✓					
CoreStates Center							✓	✓		✓	
Delta Center				✓			✓	✓		✓	
Fleet Center						✓	✓	✓		✓	
Gund Arena	✓	✓		✓	✓	✓	✓			✓	
Miami Arena	✓		✓								
Orlando Arena			✓								
Palace at Auburn Hills							✓	✓			
Target Center			✓		✓	✓	✓	✓		✓	
Rose Garden			✓		✓	✓		✓			
United Center								✓		✓	

Sources: Public Financial Management, Horrow Sports Ventures, Sportscorp, Ltd.

financing. These bonds are not backed by the full taxing power of the municipality and are not included in state imposed debt limits. Unlike general obligation bond financing, revenue bond financed projects have a much less stringent requirement on their use. They may be taxable or tax-exempt. Revenue bonds have been backed by sales taxes and excise taxes such as hotel taxes, car rental taxes and liquor or cigarette taxes. The advantage of bonds backed by hotel and car rental taxes is that the burden falls upon tourists and business travelers, not the local population. New Comiskey Park, which is owned by the Illinois Sports Facilities Authority, was financed with revenue bonds backed by a two percent hotel/motel tax and rent from the White Sox.⁷ This facility has had little positive impact on the neighboring real estate, which may be due to its siting more than its financing.

State and federal grants Funding comes from the federal or state government through a grant-in-aid. This funding has been used to acquire land which is then used for the facility. A land grant can allow a facility to be constructed on land deemed too expensive absent the grant money. These grants are generally used to prevent the exodus of a sports facility from an urban location or to prompt an urban revitalization. The purpose of these types of grants is often to spur economic activity, so one could expect to see greater activity where these sources have been used. The Delta Center was developed on land purchased with a state land grant in a downtown Salt Lake City. As expected, the area around the arena has experienced growth over and above that of the overall market.

⁷ Petersen, p. 100.

Tax increment financing (TIF) TIF, a recently popular facility financing strategy, is used to provide funding based upon the increase in the tax base within a district around the stadium or arena. The municipality sells bonds to redevelop the district where the sports facility will be located. The bonds are repaid with tax revenues from the redeveloped property. The increment refers to the increase in the value of the property within the district over its value prior to redevelopment. Tax revenues associated with this increase in value are designated for the repayment of the bonds. Tax revenues on the base property value are allocated to the general fund of the municipality. Reinvestment of the tax revenues back into a TIF district should lead to a general increase in values if for no other reason than by the amount of the reinvestment. However, many TIF districts are drawn tightly around the facility, having little direct impact on the neighboring property.⁸ A portion of the cost of the Target Center (Timberwolves) was originally financed with TIF bonds. Activity in the nearby Warehouse District has boomed since the opening of the arena.⁹ The San Francisco Giants are using TIF for their new ballpark at China Basin.

Land leases are another common form of public subsidy. Ericsson Stadium, the Georgia Dome and Joe Robbie Stadium are using below-market ground leases as a form of public subsidy. The land under Ericsson Stadium is leased to the team for \$1 a year and has a 30-year term. The City of Charlotte's total expenditure for the land and related improvements approximated \$57 million.¹⁰ Similar to state and federal land grants, one should expect some form of revitalization around stadiums located on leased land. The area around Ericsson, further

⁸ Telephone interview with Michael O'Sullivan of Arthur Andersen on June 25, 1997.

⁹ Arthur Andersen, Economic Impact Report on Target Center, Unpublished Paper, February 1994, p. 5.

¹⁰ Michael Lowrey, "Economic Consequences of NFL Team/Don't Expect the Panthers to Bring an Economic Windfall to the Carolinas," *Greensboro News & Record*, p. A18.

discussed in Chapter Eight, has experienced new activity while the area around Pro Player has not. Is this contrast due to the different siting choices for each facility?

In analyzing the benefits of a particular site for the new Miami Heat arena, Jay Cross, President of the Heat, pointed out that “no amount of municipal incentives will make bad real estate, good real estate.” Mr. Cross’ point was that the siting decision is an important one and that it may make more sense to locate on land other than the site loaded with the municipal incentives. To a larger extent, the acceptance of municipal funding means that the developers must answer to the municipality on matters such as internal and external design, cost overruns, and future modifications to the facility. Therefore, the words of Mr. Cross should not be overlooked in a cost-benefit analysis of public funding mechanisms.

Private Financing Mechanisms

Now I turn to private mechanisms and ask how they differ from public mechanisms from a design and real estate perspective. Here, I refer to privately financed facilities as those where at least two-thirds of the development cost is funded from private sources. I do not believe that any facility is totally devoid of public investment.¹¹ According to Moody’s Investor Service, facilities have traditionally been publicly financed, but many recent developments have been financed with a combination of public and private contributions.¹² In Chapter Two, I showed the trend of basketball arenas toward private financing, the success of private financing in football stadiums and the plans for the first privately financed ballpark since Chavez Ravine, in 1962. Private investments typically consist of equity contributions by team owners and/or

¹¹ Again, considering roads and other infrastructure as well as favorable zoning.

¹² Moody’s Investor Service, Perspective on Entertainment and Tourism, Moody’s Approach to Rating Stadium, Arena, and Convention Center Bonds, February 13, 1995.

conventional debt from a local bank or Wall Street firm. The United Center was privately funded with loans from First Bank of Chicago totaling \$140 million and \$35 million in equity from the Bulls and Blackhawks.¹³ Other privately owned facilities have placed debt through Wall Street. Large institutions generally prefer private placements where the debt is no more than 60% of the facility value.¹⁴ Uniting ownership of the facility and ownership of the franchise, as in the case of the United Center, creates a successful venue.¹⁵

Privately financed does not necessarily mean financed by the franchise ownership. Many public-private ventures tout naming rights and corporate purchase of luxury suites as private investments. Private investment may also take the form of corporate citizens contributing, either overtly or through foundations, to the development costs. Eli Lilly and the Allen-Bradley Company are examples of corporate citizens making substantial contributions toward the cost of the TWA Dome and the Bradley Center, respectively.

Facility Revenue Streams

Generally, privately placed debt is backed by revenues generated from the facility such as naming rights, personal seat licenses (or PSL's), branding rights, club seats, luxury suites, advertising and possibly the franchise. Pro Player Stadium was initially financed with a pledge of the Miami Dolphins franchise.¹⁶ Because of the frequency with which certain revenues are pledged to secure debt financing, the phrase contractually obligated income (COI) has been

¹³ Petersen, p. 96.

¹⁴ Comments from Angela Brock-Kyle, Associate Director - Private Placements of TIAA at Sports Facilities Finance Conference, New York City, May 6, 1997.

¹⁵ The Bulls ranked fifth in the NBA in venue revenue according to Financial World.

¹⁶ Petersen, p. 98.

coined to identify them. The emergence of COI also directly alters the facility design. The desire of team owners to maximize venue revenues has created amenities which elevate the facility to a “massive entertainment center.”¹⁷ In fact, newer facilities are replete with such an abundance of entertainment and dining choices that they are often open all day, even on non-game days, suggesting that team owners want the facility to be the attraction as much as the team. The various types of COI derived from the newer venues are outlined below:

Naming rights or sponsorship equity Naming rights agreements give an entity the right to name a facility in return for payments to the facility owner or tenant. These rights are purchased for the potential media exposure during televised events. Sponsorship equity is generated through the sale of servicing rights.¹⁸ It may help the reader to think of sponsorship equity as a form of “junior” naming rights. The Fleet Center, TWA Dome and Coors Field are examples of facilities utilizing naming rights. Typical naming rights deals can generate between \$1 million and \$3 million per year for as long as 30 years.

Personal seat licenses (PSL's) PSL's entitle the purchaser to buy tickets for particular seats. The term of the PSL and the price varies across teams. The use of PSL's enables the facility owner or tenant to obtain up-front money, even in advance of the opening season. The Carolina Panthers successfully raised over \$140 million through the sale of PSL's.¹⁹ After the fact, they discovered that PSL revenue was taxable as income when received. Because the

¹⁷ Alan Snel. “High-Tech Playgrounds,” *The Denver Post*, January 2, 1997.

¹⁸ Public Financial Management, Inc., Draft - Report on Financing Options for Professional Sports Stadium, Prepared for the City of Philadelphia, April 2, 1996, p. 8.

¹⁹ Public Financial Management, Inc., p. 9.

payments were received in advance, the tax liability was significant.²⁰ The San Francisco Giants will also employ PSL's for the new ballpark at China Basin. The cost of the PSL's for the Carolina Panthers ranged from \$600 to \$5,400.²¹ After the purchase of the PSL, the holder was still required to pay for season tickets. The escalation in the cost of acquiring PSL's and tickets suggest that the economic status of the patron is shifting to a more affluent group. This shift could translate into the greater potential for patron spending inside as well as outside the facility and might also suggest that malls and other retail centers could survive outside the stadium.

Luxury suites and club seats Suites and club seats are premium ticket revenues. Premiums are generally paid annually in addition to the price of a ticket and entitle the purchaser to special seating. Suites and club seats are generally serviced by wait staff. The seats are larger and generally separated from the rest of the seating. Suites are usually located in a ring around the playing area and may be totally enclosed. Corporations often purchase premium seating for entertaining clients, creating a decidedly business-like crowd at events. Corporate purchasers of luxury suites or club seats, considering new office space may prefer to lease nearer the facility suggesting that adjacent development of office space is encouraged by this trend.

Miscellaneous The new revenue streams also include the sale of branding rights (exclusive rights to sell certain concessions, also known as vending rights or pouring rights), interior advertising in view of television cameras and entertainment amenities. The interior

²⁰ Comments from Mark Richardson, Director of Business Operations, Richardson Sports, at Sports Facilities Finance conference, New York City, May 6, 1997.

²¹ Carolina Panthers Media Guide.

design of facilities has also been modified to include team sportswear stores, restaurants and theme bars. With each new development, owners and designers are adding more unique revenue generating amenities. The inclusion of amenities within the facility may reduce the likelihood of similar uses locating adjacent to the stadium or arena.

Economic Impacts Of Municipal Investments In Sports Facilities

Many people have researched the topic of sports facilities as municipal investments. Critics of municipal investment in sports facilities argue from a regional economic point of view. For example, Nunn and Rosentraub argue that professional sports is a small industry in the scope of a larger metropolitan economy.²² In counties with at least 300,000 residents, employment by professional sports teams or managers represents .06% of the total employment. Payroll for this group represents only .10% of the total payroll. Even considering the impact of related spending, Nunn and Rosentraub argue that the economic impact is negligible.²³ Rosentraub, et al studied the City of Indianapolis to determine the connection between sports and downtown development. Their conclusions were that the sports strategy followed by the City of Indianapolis was not able to attract a substantial level of other forms of economic activity. They did temper their findings with the statement that absent this strategy, the economic fortunes of the city may have declined precipitously.²⁴

Robert Baade, an outspoken critic of municipal investment in professional sports facilities, tested the economic development potential of professional sports. In one of his studies,

²² Samuel Nunn and Mark S. Rosentraub. "Sports Wars: Suburbs and Center Cities in a Zero Sum Game," Indiana University School of Public and Environmental Affairs, October, 1995, p. 6.

²³ Nunn and Rosentraub, pp. 7,9.

²⁴ Mark S. Rosentraub, David Swindell, Michael Przbyski, Daniel R. Mullins. "Sports and Downtown Development Strategy," *Journal of Urban Affairs*, vol. 16, number 3, p .237.

he concluded that there was no significant relationship between the presence of a sports team and real, trend-adjusted, per capita personal income growth.²⁵ The objective evidence from Baade and others does not sway the herd mentality of municipalities to continue giving team owners what they ask for in new facility negotiations.

Economists and professional consultants propose another point of view. Michael O'Sullivan, a principal with Arthur Andersen, believes that the economic impact of a professional sports franchise must be compared to the impact of a relocating business. He believes that some sports investment is good and some is not. He urges that the analysis cannot be oversimplified. He views sports investment as discretionary, not essential, and that cities should make sure that essentials, such as schools and infrastructure, are solid before considering sports investments.²⁶

The conclusions of Baade and Rosentraub are debatable. Proponents of facility development argue that the presence of the team adds to the attraction of a city from a tourism point of view. Laurence Baer, Executive Vice President of the San Francisco Giants argued this point in explaining the defeat of bond referendums for their new ballpark. Baer stated that a survey of the Giants patrons revealed that one-third of their fans come from outside the Bay Area. John Harrington of the Red Sox echoed these sentiments in comments on a local sports talk show. He cited a team conducted survey which showed that the Red Sox were the number one tourist attraction in Boston, drawing 800,000 tourists from outside the Boston area. Regardless of the objectivity, the point of these studies is that a substantial portion of the patron

²⁵Robert A. Baade. "Stadiums, Professional Sports, and Economic Development: Assessing the Reality," April 4, 1994, p. 15.

²⁶ "Professional Sports in the United States: A Welfare System for the Rich," National Council for Urban Economic Development, vol. XXI, number 22, December 1, 1996, pp. 2,7.

revenues represent net inflows to the community. The presence of the team and their facility creates the demand from outside the area. Baade and Rosentraub argue strongly that the patron revenues are not net inflows, but a re-distribution of entertainment spending from residents that would have gone elsewhere *within* the community assuming that there was no team present. It seems that municipalities have agreed with the team's opinion that new dollars are pulled into the community rather than re-distributed, as certain economists argue.

In a lecture at Harvard University, Marc Ganis of Sportscorp, LTD argued that, when facility funding is turned over to a ballot initiative, if the fanaticism of the fans overlooks fiscal responsibility, this unique interaction of loyalty and fiscal responsibility can make for uneconomic decisions when it comes to public sector financing. Dean Baim quotes Adam Smith in his well known text, *An Inquiry into the Nature of Causes of the Wealth of Nations* in stating that a legitimate role of government is to provide,

“those public institutions and those public works which, though they may be in the highest degree advantageous to a great society, are, however, of such nature, that the profit could never repay the expense to any individual or small number of individuals, and which it therefore cannot be expected that any individual or small number of individuals should erect or maintain.”²⁷

The problem here is that in funding Smith's public good, it is difficult to determine if the tangible and intangible benefits to the fan and the community outweigh the economic benefits to the team.

Economists are decidedly split on the economic impact of sports facilities as municipal investments. Despite the lack of a consensus, municipalities and state governments are taking risks by investing huge sums in new venues. They are using debt limits at the possible expense

²⁷ Adam Smith, *An Inquiry into the Nature of Causes of the Wealth of Nations*, ed. Edwin Cannan, vol. 2 (Chicago:

of other community services. Private sources invest alongside in order to tap into the rapidly escalating revenues available from the facilities. As ownership and control of the facility and the surrounding real estate are separated, facility owners begin to provide services within their walls that were previously available outside but adjacent to the facility. Has this shift in design increased traffic to the facility and improved overall values around it or has the facility soaked up all potential adjacent spending? In the next chapter, I examine the recent trends in the facility development issues of siting and architectural design and the interaction of financing structure with these issues.

Chapter Four: Facility Development Issues

Chapter Three discussed the economics of facilities, specifically the mechanisms employed by the public and private sectors to finance sports facilities as well as the economic benefits and impacts of sports facilities. In this chapter I discuss the recent trends in the facility siting, architectural design and amenities and the influence of financing structure on these issues. The issue of location is also one of the more controversial facility development issues. The recent failure of the New England Patriots to develop a privately financed stadium in underutilized land in South Boston suggests that the concept of NIMBY, (not in my back yard), may apply to sports facilities as well as nuclear power plants, prisons, and landfills. This chapter examines the choice of an urban or suburban facility site and the role that the financing structure of the deal plays in this choice. I also examine the recent trends in facility design. This includes the use of luxury suites, club seating, facility contained restaurants, and other revenue generating mechanisms. The importance of these amenities is used to establish the framework for the examination of the interaction between financing and internal facility design, and financing and surrounding developments, which will be addressed through quantitative analysis in Chapter Five.

The siting choice for a sports facility is one of the most important factors in the success or failure of the project. Similar to almost all other forms of real estate, the mantra, location, location, location is applicable. The siting of sports facilities has changed dramatically in the past five years. Our hypothesis is as follows: the siting choice for a facility is directly attributable

to the amount of public versus private financing. The *greater* the amount of public financing, the *more* likely that a facility will be located in an *urban* setting. Underutilized land or urban renewal locations often serve as facility sites when public funding is involved. When publicly financed, sports facilities are often used as catalysts to spur development in the areas surrounding the location of the facility.

The success of Oriole Park at Camden Yards (1992) in an urban setting broke the trend of suburban ballparks over the last thirty years. While this trend included all baseball and football facilities, it also was evident in many basketball arenas. The Palace at Auburn Hills, the Arco Arena, and The Charlotte Coliseum were all arenas located in suburban locations and built during the last ten years. Camden Yards was financed 100% by the public including site and infrastructure improvements. Coors Field (1995) and Jacobs Field (1994), financed 93% and 100% by the public, respectively, followed the urban location trend. A contrary example is the Ballpark in Arlington (1994), which features the greatest amount of private financing (29%) of the baseball facilities constructed in the 1990's, which is in a suburban location. For football facilities, the TWA Dome in St. Louis, the Baltimore facility under construction and the proposed Cleveland facility are located in urban districts. The Baltimore and Cleveland facilities are located in close proximity to the baseball facilities in these markets. Each of these projects is financed primarily by the public. The most recent privately financed football facilities, Pro Player Park in Miami and Jack Kent Cooke Stadium in Rajon, Maryland, are all located in the suburbs. Land costs, an important consideration, are less expensive in the suburbs and therefore reduce development costs for the privately financed facility. Ericsson Stadium in Charlotte is the single exception to this trend. Located in the heart of the city, Ericsson Stadium was privately

financed. However, the City of Charlotte leases the land to the Carolina Panthers at a cost of \$1.00/year, effectively publicly financing the land portion of the development.

The issue of infrastructure is a significant consideration when selecting a site. While urban land locations may be more expensive to purchase, these locations most often have infrastructure in place including roads, utilities, parking, and most importantly access to public transportation. If the urban location does not have adequate infrastructure, the infrastructure improvements are usually publicly financed as an additional incentive to encourage the development of the urban site. The Fleet Center and Coors Field are examples of urban locations which have publicly financed infrastructure improvements. The suburban locations, while less expensive, often require significant infrastructure improvements including the construction or modification of roads and utility services, and the development of parking facilities. In many cases, these costs may outweigh the reduced cost of suburban land. Furthermore since the suburban facility site is more likely to be privately owned, public subsidies for infrastructure improvements are not likely to be available. Why do some franchises insist on suburban locations? An answer maybe that these franchises develop facilities that attempt to internalize the amenities that surround an urban ballpark. This effort begins with the design of the facility. To understand this effort, I now examine the design of certain representative urban sports facilities.

Camden Yards is located in an urban setting and features an architectural design reminiscent of the former Ebbets Field in Brooklyn. It is considered the model for a successful urban ballpark. Although Comiskey Park opened one year earlier, and was located in an urban setting, it is isolated by the parking lots that surround the stadium. An existing urban neighborhood was cleared out to accommodate some of the 6,000 adjacent parking spaces. For

this reason, Comiskey Park is developing a reputation as a white elephant among the new urban ballparks. Attendance has declined since the opening year of the park despite the competitiveness of the park's tenant, the Chicago White Sox. During the summer of 1987, an executive of HOK Sport, a leading architectural firm that has designed many of the newest facilities, when speaking about the design of Chicago's new Comiskey Park contended that it did not make sense to design facilities in proximity to low income housing and unrelated commercial activities.²⁸ Within 18 months, the same executive reversed his course when discussing the design of Camden Yards and said,

“When you design something as emotionally significant as a Major League baseball park, you don't start out with a blank sheet of paper, you start out with the city.”²⁹

Camden Yards started the trend of the return to urban sited ballparks. Jacobs Field in Cleveland and Coors Field in Denver also follow this trend. The goal of these developments is to recreate the ambiance of the original urban ballparks; Wrigley Field in Chicago, Fenway Park in Boston, and Tiger Stadium in Detroit. However, the aforementioned “classic” parks are located within neighborhoods that included residential, commercial, and civic buildings. The classic parks are built up to the street, to the edges of their property lines and are shaped in part by the physical constraints of the urban blocks in which they are located. New baseball facilities are program driven and therefore not constrained by city blocks. The program is the provision of luxury seating, team facilities and broad concourses. Building footprints tend to be 40-70% larger with a 500 percent greater interior area than their predecessors. The new structures tend to be 30-40 feet taller than the previous generation. Rather than being located in neighborhoods,

²⁸ John McCarron. “Expert Offers His Dream Sox Stadium,” *Chicago Tribune*, July 26, 1987.

²⁹ Moss, Irv. “Baltimore Planning Old-fashioned Ballpark,” *Denver Post*, January 1, 1989.

they tend to be located in underutilized land such as old railroad yards. For example, Camden Yards and Coors Field were formerly railroad yards.

The successful architectural design of a facility incorporates the favorable attributes of a site into the design to enhance both the spectator's experience and facility revenues. Keeping with the desire to recreate the urban ballpark setting, architectural design for sports facilities, especially baseball facilities, has attempted to recreate the classic ballparks. As facility or venue revenues become a greater percentage of overall revenues for franchises and as development costs increase, the architectural design of a facility assumes a greater importance than purely improving facility aesthetics.

Architectural design for sports facilities can be described by two approaches; the "Classic" approach and the "Modern" approach. These terms address the aesthetics of the facility in terms of the facade and seating capacities, not the overall design of the facility. All new facilities are modern in terms of amenities including improved seating angles and reduced distance from the playing field, increased numbers of concession stands and restrooms, improved handicapped access, and wider concourse and circulation areas. The classic approach dominates the recent development of baseball stadiums. To date, football stadiums and basketball arenas have been exclusively designed with the modern approach. The proposed Indiana Pacers arena will be the first basketball arena to adapt the classic approach with a concept of field house design. The classic approach rejects the use of steel and other high-tech facade materials and is characterized by the use of masonry materials for facades. Camden Yards, Coors Field, Jacobs Field, and the Ballpark in Arlington are all examples of the classic approach. Ebbets Field, the home of the Brooklyn Dodgers before they relocated to Los Angeles is the model from which the classic approach is judged. The new Comerica Park is the last example of the modern

architectural approach in baseball facilities. This generation of facilities, known as the cookie cutter approach and built during the 1960's and 1970's, includes Shea Stadium, Busch Stadium, Cinergy Field, Three Rivers Stadium and 3Com Park. It is no coincidence that the teams that play in each of these facilities are seeking new ballparks or football stadiums.

Baseball facilities, in particular, have become smaller and more elegant.³⁰ While bigger may be better in many sectors of real estate development, many new baseball facilities have been scaled down in terms of seating capacity from their predecessors. The Cleveland Indians for instance, moved from Cleveland Stadium, also known as "the mistake by the lake", with its capacity of over 80,000 to Jacobs Field with a capacity of 42,000. New football facilities have remained the relatively the same in terms of seating capacity when compared to their predecessors. Basketball facilities have increased their seating capacities with the Fleet Center, the United Center, and the Rose Garden illustrating this trend. The increase in capacity of basketball facilities is directly related to the success of the National Basketball Association (NBA) in the past fifteen years. The new basketball facilities are replacing smaller facilities that were adequate in terms of capacity when they were built and the NBA was considered a third-tier sport behind baseball and football.

While the trend in seating capacities varies according to the type of facility, the trend in luxury suites and club seating is consistent. Luxury suites and club seating are on the increase for all types of facilities. Returning to the Cleveland example, Jacobs Field contains 125 luxury boxes and 2,400 club seats while Cleveland Stadium had none. When a facility is labeled as economically obsolete this label most often applies to the amount of luxury suites in the facility. In basketball arenas in particular, the lack of luxury suites and club seating has made the homes

of the Charlotte Hornets, Miami Heat, and San Antonio Spurs, all developed within the last ten years, economically obsolete.

Architectural design for sports facilities is divided into two areas: external and internal. The design goals for each of these areas can be similar in many respects, but vastly different in others. External architectural design focuses on the relationship of the facility to its surroundings and the establishment of the atmosphere to draw the patron inside the facility. The classic urban ballpark design of Camden Yards and Coors Field are excellent examples of these design principles. The playing field at Camden Yards is below street level. This reduces the above grade height of the ballpark to five stories from seven stories, and enables Camden Yards to live in harmony with the neighboring buildings. The brick facade of Camden Yards replaces the steel edifices that characterized the 1970's cookie cutter parks and enhances the classic atmosphere of old-time baseball. This design accomplishes the goal of linking the ballpark with its surroundings. Once inside the facility, the internal architectural design exerts its influence. While the visible focus of the internal design seems consistent with the external design focus of the development of the classic ballpark, another interior design principle is in direct conflict with the exterior design focus. While the *exterior* design focuses on *integrating* the ballpark with its surroundings, the *interior* design focuses on *isolating* the ballpark from its surroundings. In this case, *isolating* does not refer to location, but rather to *capturing the patron's dollar, or venue revenue*.

In terms of maximizing *facility* or *venue revenue*, interior architectural design focuses on four major areas: viewing locations, premium seating, concession, and advertising opportunities. A successful interior design maximizes the seating capacity in preferred viewing locations. In

³⁰ Baade, December 1996, p. 9.

baseball this is behind home plate, in football, near the fifty yard line, and in basketball, in proximity to center court. Premium seating is offered in many varieties with a successful design. Luxury suites, skyboxes, and club seating are all located in preferred viewing areas to appeal to the higher end of the spectator market. Concession revenue is maximized with a successful design. The optimum ratios of linear feet of concession counter space, and points per sale per thousand attendees, maximize revenue from food and beverage sales. In Ericsson Stadium, there are over 50 concession stands. In contrast, Bradley Arena has 14. Advertising revenue is another critical source of venue revenue. The design should incorporate dedicated locations such as scoreboards, time clocks, videoboards, aisle entrances and exits, and concourse walls, all with prominent visibility by fans, to advertising opportunities.

The tables that follow list the top five teams in terms of venue revenue for the 1995-1996 season and the year the facility opened or was most recently renovated. Venue revenue includes revenue from the rental of luxury suites, concession sales, parking, and advertising. Venue revenue does not include gate receipts or one-time revenues from the sale of personal seat licenses. In basketball all of the venue revenue leaders have been built or renovated within the last ten years.

<i>Basketball franchise</i>	<i>Venue Revenue</i>	<i>Year Open</i>
Detroit Pistons	\$24,500,000	1988
New York Knicks	\$19,600,000	1991 *
Portland Trail Blazers	\$15,200,000	1994
Cleveland Cavaliers	\$13,400,000	1994
Chicago Bulls	\$12,200,000	1995

* = *Year renovated*

Source: Financial World

Maximizing venue revenue may directly conflict with encouraging economic development around the facility. For privately financed facilities, this is a favorable condition. The private sector has taken the risks of financing the facility, and in turn, it will reap the rewards of its investment. For publicly financed facilities, this is an unfavorable condition. The return to the public sector is diminished when economic development surrounding the facility does not take place. Therefore, it would hold that the interior design features of a publicly financed facility *should not* maximize venue revenue. This hypothesis could be extended so that *any* interior design feature that attempts to maximize venue revenue, i.e. luxury suites, club seating, etc., should be privately financed or the public should receive a portion of the proceeds of these amenities. In most cases, the public sector has not negotiated this concession from franchise owners. In some cases such as Pro Player Park, Ericsson Stadium, and the Palace at Auburn Hills, which are financed either entirely or primarily through private financing, the number of concessions, luxury suites, club seats, and ultimately venue revenue greatly exceed their publicly funded counterparts. This concept has quietly been practiced for some time. Madison Square Garden, Texas Stadium, and Dodger Stadium, the only three facilities with the top venue revenues that have not been built from the ground up in the last 10 years, were *privately* financed and are *privately* owned.

Concluding this section, it is clear that a number of trends are emerging. First, the siting choice for a facility is directly related to the percentage of public financing in the deal structure. The greater the percentage public financing, the more likely a facility will be sited in an urban location. Second, the amount of infrastructure improvements required for a site can often offset the reduced acquisition cost of the land. In the case of urban sites requiring infrastructure, the infrastructure is often included as an incentive in the deal structure. Third, while trends in facility

capacity vary with facility type, the provision of premium seating is increasing for all facility types. Fourth, architectural design is critical to the success of a facility from a revenue standpoint as well as a spectator standpoint. The reversion to a classic style of facility is overwhelmingly popular with baseball facilities and is making inroads in the development of basketball and football facilities. Fifth, venue revenue for new facilities are generally greater than venue revenue of older facilities and finally sixth; privately owned and financed facilities must increase venue revenues to provide a return on their investment. Individually, three of these trends form the theories that represent the first half of the foundation for our thesis. When linked together, they form a final theory that is the second half of our foundation. These theories are as follows:

- 1) There is a relationship between financing structure and facility siting.
- 2) There is a relationship between financing structure and facility design.
- 3) There is a relationship between financing structure and venue revenue.
- 4) Together, these relationships influence surrounding real estate.

Up to this point, we have laid the groundwork for our thesis by exploring the explosive growth in sports facility development, examining the economics of facilities and their impact, and discussing the recent trends in facility siting, design, and financing structures. We have presented theories about the influence of public and private financing structures on sports facility siting and design. In the next chapter we examine these theories quantitatively and extend our analysis to the real estate surrounding these facilities. Through regression analysis, we examine the impact of siting, financing structure, and design on surrounding real estate. Each of these issues become variables and their interactions are examined to determine their individual and collective impacts.

Chapter Five: Regression Analysis

The previous chapters have provided an overview of recent facility design and economics. Throughout, we have suggested interrelationships between financing structure, siting and design and the affect of those variables on the local real estate. In this chapter, we will test data collected for each facility and market through regression analysis. We attempt to substantiate our earlier conclusions while exploring other interrelationships produced from this analysis. The final product of our regressions is an econometric model that could be used to predict the local impact of a sports facility.

With twenty-five professional facilities constructed in the last ten years, covering twenty real estate markets and twenty-four submarkets, our sample set is small. Upon examination of the deal structures for each of these facilities, we chose to narrow the sample further. We limited our data set to facilities developed within the last ten years that *replaced* existing facilities, excluding those facilities located in Canada. We have excluded facilities that were developed for expansion teams and teams that have relocated from one market to another. The rationale behind this decision is our belief that the development of these facilities was not a “market deal.” Cities that have attracted expansion or relocating franchises have often offered facility packages that dramatically exceed the typical deal offered to existing franchises. In most cases, this package includes developing the facility with 100% public financing. We excluded facilities developed in Canada because differences in governmental involvement and lack of available data could bias our results.

The independent variable in the regression was our measurement of the real estate impact. We obtained this variable by surveying real estate professionals within each market. The “Real Estate Survey” requested the respondent’s opinion of the performance of the market, submarket and *local zone*. *Local Zone* has been defined as being the area within walking distance of the stadium or arena. Potential respondents to our survey included commercial real estate brokers, researchers, appraisers, developers and other real estate professionals. We polled at least one professional in each market. The survey covered a respondent’s assessment of market rents, land prices and development/redevelopment activity for four product types: retail, residential, office, and industrial (See Exhibit). The respondent assessed the change in rents or activity by selecting the survey answer that described the change. The possible answers for the change were: negative, no change, minimal (<5%), moderate (5%-10%) and strong (>10%). For the purpose of evaluating the answers, each response was assigned a score on a “1 to 5” scale, with a score of “1” for a negative change and a score of “5” for a strong change.

The responses from each survey were tabulated and a comparison of the Market, Submarket and *Local Zone* was undertaken to determine how the local rents compared to the overall market. For example, if the local zone scored a “4” (moderate impact: 5%≤10% increase) versus a “3” (minimal impact: 1%≤5%) for the facility submarket, the result would be “+1.” We term a positive result as *Bonus Rent*, while negative results represent local zone under performance. A result of “0” is defined as no significant differential between the market and local zone. The independent variable utilized in the regression is the mean score of all the property types within the submarket subtracted from the mean score for the local zone.

We recognize that there are drawbacks associated with the use of this variable as a proxy for the impact of a facility on the surrounding property. The survey has shortcomings in that it

relies solely on the “expertise” of one market participant and that our survey methods and questions were qualitative and subjective in nature. Depending on the participant and their motivations, the variation in responses could significantly impact the results of the survey. In the future, to compensate for these shortcomings, the survey could be administered to a broader range of respondents to achieve an average market performance. Survey responses falling out of a certain range could be excluded from the results.

Our initial attempts at collecting “objective” real estate market specific information were not met with complete success. We began our data collection by utilizing the research infrastructure of national brokerage firms. Two major issues with these national firms is that they 1) did not cover all geographical markets and submarkets in our sample and 2) do not consistently cover all product types from market to market. The issue of market and product coverage cannot be easily solved. Real estate data, especially retail and residential data, is not typically broken down at the submarket level. Additional proxies that could be used for our independent variable are building permits around the facility, property tax assessed value increases over two time periods and sales tax collections before and after the introduction of the facility. To the best of our knowledge, these potential variables are also noisy and are not readily available.

We selected five dependent variables representing design, siting and financing. The design variables assist in measuring the degree of internalization of patron revenues, as well as the aesthetic design of the facility. Two variables were used to explain the internalization philosophy: (i) *PREMIUM*, the total number of club seats and luxury suite seats, and (ii) *SEAT/CON*, the number of seats per concession stand. The remaining design variable (*DESIGN*), encompassed both the internal design of the venue from a spectator’s point of view

as well as the external appearance of the facility. The variable was represented in the data as the “overall assessment” from our expert survey. It is unclear which aspect of the design, the internal or external, weighed more heavily in the respondent’s assessment. The financing element was measured by %PRIVATE, the private financing expressed as a percentage of total development costs. The importance of siting was measured through the dummy variable, URB/SUB, with zero assigned to urban and one to suburban.

PREMIUM, our seating dependent variable, is described as the total club seats in a facility plus the total number of suite seats (# of suites x average # of seats per suite). We assumed a universal average of 12 seats per suite. The expected sign of this coefficient is negative. The rationale is that the presence of club seats and luxury suites in the facility reduces the likelihood that patrons will entertain or dine outside the facility, reducing the spillover to the surrounding real estate. This variable is not an exact measurement of premium seating due to our assumption that each suite contains 12 seats, regardless of venue. Future researchers could quantify this variable for each specific facility to develop a more exact figure.

SEAT/CON, our seats-to-concessions ratio, is calculated by dividing the maximum seating capacity of each facility by the number of permanent concessions (i.e. food and alcohol). Restaurants, team stores and bars are not included in this ratio. The logic in using this variable is that concession stands represent the owner’s desire to internalize patron spending, and by including more stands, they become more convenient and offer a wider variety of foods, reducing the likelihood of additional food spending outside the facility. The expected sign of this coefficient is positive. A positive coefficient means that there are more seats per concession, representing less of a degree of internalization. Concession figures and seating were abstracted from numerous sources, including the Internet, books, studies and interviews.

DESIGN, our dependent design variable, was derived from a second survey we designed and administered. This survey was developed to rank each facility based on certain internal and external design criteria. These criteria included: Access (Location), Food, Sight Lines, Seating, Exterior Design and an Overall Assessment. A “1 to 5” scale was also utilized for this survey with similar definitions for each ranking, with “1” being the worst and “5” being the best score. Surveys were delivered to a wide range of potential respondents, which included sports franchise representatives, design and architecture professionals, stadium consultants, engineering professionals and finance professionals. Responses were then tallied and averaged for each facility and the resulting score incorporated as the *DESIGN* variable in our regression model. A higher score from the survey represents a “better” or more architecturally significant design which should have a positive impact on the local real estate. Accordingly, the expected sign of this coefficient is positive.

The design survey allowed us to poll a range of sports facility professionals to determine how each facility compares to others within their sport or across sports. However, due to the qualitative nature of the survey, caution should be taken when analyzing the results. Our respondent pool consisted of persons who had “vested interests” in certain projects in the survey. The survey may suffer from selection bias because of a respondents tendency to have a “my child is cuter than your child” mentality, with respect to their projects versus the competitions. Difficulties will always be present in selecting respondents, but future researchers should be cognizant of these issues and attempt to weed out potentially-biased respondents.

%PRIVATE, our financing variable, quantifies the amount of private financing in each sports facility financing deal. This variable is a critical component of our analysis. The expected sign of this coefficient is negative, with the hypothesis that the owners of a privately financed

facility will attempt to internalize the revenue producing components, which will limit real estate activity around the facility. The methodology for collecting data included first determining the total development costs for each project. Figures for construction cost and financing percentages were acquired from many sources, including economic impact studies, newspaper articles, press releases, books and various Internet web pages. A “private financing” percentage was derived simply by dividing the privately financed portion of development costs by the total development cost. Private financing includes equity investments by team owners, private debt, club seat and suite revenue, advertising revenue, as well as other sources.

URB/SUB, our location dependent variable, defines the siting of the facility. The categorization of each facility was determined based on research and the writer’s knowledge of stadiums and arenas. Each facility was assigned a “0” or “1”. A “1” being assigned to suburban sites and a “0” being assigned to urban sites. The expected sign of this coefficient is negative. Our interpretation of this is that urban locations will have a greater impact on surrounding real estate. Census information and classifications were not utilized for classification purposes, but could be used for future research.

Regression results

The regression produced the following table:

Independent Variable	Coefficient	t Statistic	p-Value
PREMIUM	-0.000168136	-3.927248238	0.002832845
SEAT/CON	0.000620932	3.102950811	0.011194254
URB/SUB	-0.788693052	-2.264199937	0.047031779
DESIGN	0.245447817	1.246962590	0.240826233
%PRIVATE	-0.310406800	-0.985570041	0.347589368
Intercept	-0.723449020	-0.973203868	0.353404410
R Squared = .80			

The negative coefficients for PREMIUM, URB/SUB, and %PRIVATE indicate that a facility with an urban siting, a low number of premium seats and a low percentage of private financing is likely to produce bonus rents. The positive coefficients for SEAT/CON and DESIGN indicate that a large number of seats per concession stand and an architecturally significant are likely to produce bonus rents. It is noteworthy that the PREMIUM, SEAT/CON and URB/SUB came through as the most significant variables

The number of premium seats (PREMIUM) appears to have the greatest impact on the local rents. The Ballpark in Arlington (MLB-Rangers), United Center (Bulls) and Pro Player Stadium (Dolphins) have the most premium seats. The local market rents around these stadiums lagged the submarket rents by between 5% and 15% according to our survey scoring system. The number of seats per concession stand also has a tremendous impact on the bonus rents. This variable was the highest for the Georgia Dome followed by Camden Yards, both of which have produced bonus rents, according to our survey.

The design survey score comes through our results with a moderate level of significance. Given the subjective nature of the survey and the fact that the survey addressed both internal and external design, it is unclear whether the respondent was rating the facility based on its exterior appearance or based on the quality of the event experience. These viewpoints may have produced offsetting results. This subjectivity may explain why this variable did not come through as significant as the other design variables. A regression with design as the dependent

variable and age as the independent variable showed that the design score was higher for the newer facilities.³¹

The private financing variable did not come through as strongly as expected. However, given the recent trend described in Chapter Four regarding the incorporation of premium seating into all facilities, regardless of financing, and the strength of this variable in our results, the low significance is not surprising. The theory mentioned in Chapter Four regarding the lack of economic underwriting of recent publicly financed facilities may also be supported by the regression results.

The third prong of our thesis, the siting issue, showed up significantly in the measurement of bonus rents. The dummy for siting was significant and negative, meaning that facilities sited in urban location have a much greater potential for bonus rents. A review of the data suggests that the result may be an indictment of suburban locations as much as an endorsement of urban locations. Once again, Ballpark in Arlington and Pro Player Stadium, both located in the suburbs, with lower local rental performance contribute to the strength of this variable. To this list of suburban underperformers, the Palace at Auburn Hills and Arco Arena in Sacramento are added. The story behind Arco is chronicled in Chapter Six.

Our results indicate that the inclusion of luxury suites and club seats as well as a high number of concession stands per seat has historically reduced the positive impact of the facility on the adjacent rents. However, selecting an urban location and designing the facility to maximize the viewing experience while providing a pleasing external appearance may minimize the effect of the premium seating. The method of financing, whether or not the public funds the majority of the cost, appears to be of some importance but may be declining as facilities

³¹ The equation for this regression was: $DESIGN=3.955 - 0.1202 AGE$. The t-Statistic for AGE is -2.119.

financings trend toward a greater percentage of private investment. This outcome may have been generated from the standardization of premium seating in the newer venues, regardless of the financing source. In the following chapters, we take a closer look at two specific facilities in each sport. In these studies we will explore the impact of each facility on the surrounding real estate from a qualitative standpoint. In the final chapter, we will merge our qualitative observations with the empirical output from this chapter to form the basis for our conclusions.

Chapter Six: Case Studies

Last chapter I discussed the regression analysis. Here, I examine two basketball arenas developed since 1988: Arco Arena (1988) and Gund Arena (1994).³² I attempt to contrast the approaches taken for financing and designing these two facilities within the context of today's standards as described in Chapter Three. I also address the level of real estate activity around the arena and attempt to draw conclusions between the financing source, the design and the real estate activity.

ARCO ARENA

The ARCO Arena has lived a soap opera-like existence. The name has been used on two different buildings. The financial misfortunes of its owners have led to its sale and subsequent financial restructuring. Rumors of its vacancy due to team relocation have swirled, creating political controversy. But all the while, the Sacramento fans have attended, leading the NBA with 490 consecutive sell-outs.³³

Home to the Sacramento Kings, the first ARCO (referred to as ARCO 1), opened for the 1985-86 season in conjunction with the Kings relocation from Kansas City. ARCO 1 was constructed so that it could be converted to a three-story, 120,000 square foot office building upon completion ARCO 2. The design of ARCO 1 was also used as a test pilot for the eventual

³² Special thanks to Aubrey Cannuscio for the work on Gund Arena. Many of the words and thoughts on this arena come directly from him.

³³ Kelly Johnson. "Kings' Value Up, Income Down, Figures Magazine," *The Sacramento Business Journal*, June 9, 1997, p. 3.

design of ARCO 2. ARCO 2 opened for the 1988-89 season and was sold, along with the franchise, in 1992 to an investment group headed by Jim Thomas, a Los Angeles real estate developer. The Kings are the only “major league” franchise located in Sacramento and have sold out the arena for 11 consecutive years. For purposes of this case, I will confine the majority of our discussion to ARCO 2.

ARCO 2 is located in a community three miles north of downtown Sacramento known as North Natomas. The arena was planned as the initial phase of a 7,681 acre, master planned development known as the Capital Gateway project.³⁴ Apparently the proximity to downtown and the availability of cheap land convinced the Sacramento Sports Association (SSA) and the other 15 developers that this site was prime for development. The Capital Gateway project was to include residential, office, industrial, commercial, manufacturing and parks with a projected buildout cost of \$8 billion.³⁵ This area is still waiting for the remaining phases to be developed.

Arena Financing

The arena-sports complex was originally conceived by an investment partnership known as the SSA, a group committed to bringing major league sports to the Sacramento area. The SSA agreed to privately finance the development cost of an arena, to attract a franchise, in exchange for rezoning of the Capital Gateway land from its agricultural status. The development rights on not only the arena site but also the other North Natomas acreage were a key part of the SSA’s offer due to the anti-growth, development averse, political climate that existed. Despite lukewarm reception from the City to its proposal, the SSA purchased the Kansas City Kings in 1983. By 1985, the SSA had received approval to build the arena in North

³⁴ Petersen, p. 169.

³⁵ Petersen, p. 171.

Natomas,³⁶ but the City also required the SSA to build a football/baseball stadium before additional land development began.³⁷

The SSA announced that the Kings would begin playing in Sacramento at the start of the 1985-86 season. The team began playing their games in ARCO 1, where they played through the end of the 1987-88 season.³⁸ ARCO 1 seated 10,333 and had only four luxury suites. It was designed so that the mechanical systems could be reused in the permanent arena and the remaining structure could be converted into a three story, 120,000 square foot office building.³⁹

In 1988, the permanent arena, ARCO 2, was completed at a total construction cost of \$41 million. ARCO 2 sits on 105 acres of land that cost \$1.8 million.⁴⁰ The total development cost of approximately \$100 per square foot is among the lowest of any basketball facilities developed within the last ten years. The SSA also paid the infrastructure costs for the sports complex, which approximated \$20 million. The arena and infrastructure cost was privately financed by the SSA through a \$65 million bond issue underwritten by Prudential-Bache Capital Funding with assistance from the Sports Finance Group of Fuji Bank Ltd.⁴¹

Naming rights were purchased by Atlantic Richfield Company in the mid-1980s. The original deal was a 99-year lease for \$1 million annually, with some nominal annual increases.⁴² The SSA renegotiated the annual payment portion of this deal several years later taking a lump sum payment of \$7 million and relieving ARCO of the annual payment. Consequently, Thomas'

³⁶ Petersen, p. 169.

³⁷ The SSA poured a foundation for the adjacent stadium in 1989. At that point, their funds ran out, and to this day, the foundation sits, waiting for the rest of the stadium.

³⁸ NBA.com, Sacramento Kings, Team History, "1983-86: New Owners and Soon A New Home."

³⁹ Petersen, pp. 169-170.

⁴⁰ Petersen, p. 171.

⁴¹ Offering Prospectus, Sacramento Sports Association, Inc., April 17, 1989.

⁴² Staff Writer. "Kings Owner Thomas Felt Betrayed by City Hall," *The Sacramento Business Journal*, January 27, 1997, p. 4.

ownership group did not receive any money from ARCO due to this renegotiation. Recently, Thomas approached ARCO with the veiled threat of moving the team and rendering their naming rights on an empty arena worthless. ARCO responded with an advertising-naming rights package reported to be worth \$8 million and with a term of ten years.⁴³

The renegotiation of the naming rights deal with ARCO was part of a recent recapitalization of the team and the arena. Thomas' ownership group was incurring operating losses of \$5 million annually due to debt service on loans incurred to purchase the team and the arena. The recapitalization plan included: (i) a \$73 million loan from the city of Sacramento at 6% interest, secured by ARCO Arena and \$20 million of the franchise value, (ii) a \$1 to \$2 ticket fee charged by Thomas, a portion of which must go to the city, (iii) Thomas was relieved of the obligation to commit funds toward an interchange project (estimated savings to Thomas - \$2 million).⁴⁴

With this recapitalization, the team is on more solid financial footing and the city is guaranteed that the Kings will remain in Sacramento for the long term. Ironically, the City now has a vested interest in the success of the arena through its mortgage. This interest may stymie future development if local politicians perceive that it could hurt the revenues of the arena. On the other hand, if they perceive a benefit from adjacent development, financial prudence may persuade them to ease their restrictive growth policy.

Interior Design

ARCO's internal design is amazingly up-to-date in light of its age. The arena contains only 16,400 seats, generally small by the standard of newer facilities. The design includes 30

⁴³ Staff Writer. "Kings, Arco 'Making Progress,'" *The Sacramento Bee*, February 18, 1997, sacbee.com.

⁴⁴ Kelly Johnson. "Kings Loan Faces Challenges," *The Sacramento Business Journal*, March 24, 1997, p. 2.

luxury suites and a recent modification added 400 club seats.⁴⁵ Interestingly, the luxury boxes have not sold out in recent years possibly due to the limited number of corporate headquarters located in Sacramento.

The arena houses The Skyline Lounge, a buffet restaurant, and The Coors Light Party Place, an in-house cocktail lounge designed to capture pre- and post-game traffic. There are, however, only 10 concession stands and four merchandise stands, but there are plentiful bathroom facilities. The experience with ARCO 1 was the genesis of the increase in the number of restrooms. The design architect, Rann Haight of Sacramento, used ARCO 1 as a pilot, incorporating the successful elements and improving on the unsuccessful ones. Parking for 6,000 cars,⁴⁶ almost one for every 3 fans, is available on surface lots adjacent to the arena.

The inclusion of abundant parking, a restaurant and sports bar is consistent with the belief that a privately owned facility will include more amenities to internalize patron spending. Given the siting of the arena and lack of other development for miles around, the owners are wise to provide amenities to meet all possible needs of the fans.

Exterior Design

As previously stated, the arena was planned as part of a 200 acre sports complex that was also to include a baseball stadium. This sports complex was Phase One of the much larger Capital Gateway project. It made sense to develop the arena in the first phase because the consecutive sell-out streak is testament to the fact that fans will drive out to a complex in the middle of nowhere for a game. These same fans are more reluctant to be the first movers into an office or residential development in the same area. Unfortunately, the arena is the only part of

⁴⁵ Johnson, March 24, 1997, p. 3.

⁴⁶ ARCO Arena Website, "Parking."

the Capital Gateway project that was ever completed so it stands alone among acres of flooded, formerly agricultural, undeveloped land.⁴⁷

The building has an octagonal shape and a relatively plain facade. The area around ARCO is heavily landscaped with more than 3,900 trees and 8,000 shrubs. The name, “ARCO ARENA” is displayed prominently on the outside of the building. Its location, near the intersection of Interstate 5 and I-80 is conveniently sited between downtown and the Sacramento International Airport.

Impact on Surrounding Real Estate

The arena site in North Natomas is north of downtown Sacramento and would seem an obvious direction for development. However, the North Natomas area has had a host of problems dating back to the original development. Part of the problem is that the SSA and 15 other developers, collectively own the acreage planned as the Capital Gateway project. The inability of the SSA to complete the required baseball stadium has halted future development. Additional complications arose early on, when the area experienced severe flooding and environmentalists raised opposition to the development plan.⁴⁸ The sale of a majority interest in the SSA to Jim Thomas’ investment group did little to spark development. With flood problems, environmental concerns and a lack of infrastructure, residential and commercial development has been stymied.⁴⁹

Most of the development in Sacramento has gone to the south and northeast, along I-80 and toward Lake Tahoe. The downtown has remained active, probably due to the presence of the state government. Unfortunately, this has not been the panacea it once was as California’s fiscal

⁴⁷ Mary Vellinga. “Growth Prospects Brighten in Natomas,” *The Sacramento Bee*, September 11, 1994.

⁴⁸ Vellinga, September 11, 1994.

difficulties have caused Sacramento's economy to suffer.⁵⁰ When ARCO 2 was constructed in 1988, office and retail were in the middle of strong cycles, while apartment and industrial were in equilibrium.⁵¹ Since that time, all property types have crashed with office and industrial expected to remain in soft conditions, while retail and apartments show some signs of recovery. Several astute developers have begun acquiring land from the bankrupt estates of former 1980s era developers and syndicators.⁵² Many expensive obstacles stand in the way of future development and it remains to be seen if any of the original plans can be implemented.

Recent steps have been taken to jump start development in North Natomas, around the arena. In December 1995, three local financiers donated to the City the 100 acres of land adjacent to ARCO 2. This land contained the foundation for the proposed baseball stadium, started in 1989, but left derelict after the SSA ran out of money. The City had planned to lease this land to Thomas for \$1 per year with the agreement that he would complete the baseball stadium. Recent foreclosure and bankruptcy sales have changed the ownership of some North Natomas property. The new owners have talked about both residential and commercial developments in the area.⁵³ The Sacramento Coca-Cola Bottling Co. reactivated plans for a warehouse and distribution facility near the arena. Recently, Thomas announced plans for an 8,000 seat amphitheater, a 200,000 square foot recreation center, a 24 screen theater, bars, restaurants and sports-related retail stores.⁵⁴ Thomas is apparently running into competition with efforts to attract similar uses in downtown Sacramento.

⁴⁹ Vellinga, September 11, 1994.

⁵⁰ Aldrich Eastman Waltch Research, Sacramento, CA, Summer 1996, p. 1.

⁵¹ Aldrich Eastman Waltch Research, Sacramento, CA, Summer 1996, pp. 5-8.

⁵² Vellinga, September 11, 1994.

⁵³ Vellinga, September 11, 1994.

⁵⁴ Tony Bizjak. "Kings Owner's Dream," *The Sacramento Bee*, March 2, 1996, Metro Final, p. 1.

Conclusion

ARCO started out as a privately financed development with only the simple request of zoning relief in an agricultural area. The thought may have been that the arena, and then the stadium, would have such a positive effect on the surrounding land that additional development of all types would be justified. Even in 1990, Mayor Anne Rudin speculated that in three years time, North Natomas land prices “will have skyrocketed.”⁵⁵ Perhaps this misconception persisted, causing the City to delay action to correct the serious development defects in the Capital Gateway development.

The ARCO Arena draws over 1.5 million people to its events annually.⁵⁶ Currently, Jim Thomas and his partners capture all the fan spending on site. Thomas has announced plans to develop a theater complex, which would seem to be a complementary use. On the other hand, others are starting to buy land in the North Natomas area which, if developed, could infringe on Thomas’ monopolistic position. The other developers will face the same development hurdles that Thomas and the SSA have faced. Ironically, the City has a vested interest in keeping the revenues inside the arena by virtue of their participation in the arena revenues. This interest coupled with the growth adverse populace in Sacramento may quell further development in the area. This irony is a fitting conclusion to a project that has taken down the hopes and dreams of many a developer. The commentary on the privately financed arena with a public mortgage is this. The City wants responsible growth but they also want to be repaid on their \$70 million loan to avoid negative political ramifications. Even if they are presented with a responsible development that may capture some of the patron revenue, they may feel the pressure to turn it

⁵⁵ Chris Bowman. “Lukenbill Asks City to Back Natomas Loan,” *The Sacramento Bee*, October 9, 1990, p. B1.

⁵⁶ *The Sacramento Bee* Website, “Arco Arena: Facts and Features.”

down until they are repaid. If this is true, it may be a long time until any further development occurs around ARCO Arena.

GUND ARENA

A case study of Gund Arena cannot be analyzed singularly due to the fact that the City of Cleveland and the State of Ohio developed a vision and urban design plan consisting of two adjacent sports facilities: Gund Arena and Jacobs Field. The proposal for development of a new sports complex was first delivered in 1983. A countywide property tax increase to fund the domed stadium was rejected in 1984. City officials were intent on keeping the Indians downtown and attracting the Cavaliers back to downtown from their suburban Richfield Coliseum. David and Richard Jacobs, owners of the Indians and wealthy real estate developers, were equally interested in a new home for their team.

“The City and the business community’s interest in a new stadium was also tied to the need for a large development anchor on the southern edge of downtown. Cleveland needed an anchor for redevelopment to accomplish what the RCA Dome and Market Square Arena had accomplished for Indianapolis: establish brackets or physical borders for the downtown redevelopment effort.”⁵⁷

In this case study, I will look at the following: arena cost and financing, design characteristics and the impact of the development of Gund Arena and Jacobs Field on the surrounding real estate market.

⁵⁷ Mark S. Rosentraub. *Major League Losers: The Real Cost of Sports and Who’s Paying for It*. (New York: Basic Books, 1997), p. 257.

Arena Financing

In May 1990, Cuyahoga County approved a 15-year excise tax on cigarettes and alcohol to finance the public portion of development costs associated with the Central Market Gateway Project (“Gateway Project”), which included both Gund Arena and Jacobs Field.⁵⁸ This “sin tax” was projected to generate \$270 million. Based on those projections, Gateway sold a \$117 million bond issue to finance construction.⁵⁹ The Cavaliers had the luxury of negotiating their lease agreement after the Indians had executed their agreement with the Gateway Economic Development Corporation (“Gateway”), the quasi-public owner of the facilities. The Cavaliers knew exactly what the Indians had negotiated in their lease and would not settle for anything less.

The two sports facilities cost an estimated \$462 million. This figure includes approximately \$420 million in construction costs for Gund, Jacobs Field and the Commons Area that surround the facilities. The creation of three parking structures (approx. 3,000 spaces) that are shared by the two facilities added an additional \$42 million to the development cost.⁶⁰ Total cost estimations for the completion of Gund Arena range from \$127 million⁶¹ to \$155 million.⁶² Preliminary estimations pegged the total cost for the Arena at \$75 million.⁶³ The original estimates soon jumped due to cost overruns and miscalculations. “Cuyahoga County taxpayers got stung for \$21.5 million in cost overruns for the Gateway Complex, which also did not generate the money expected to pay off bonds for construction.” Due to favorable lease terms to

⁵⁸ Rosentraub, p. 259.

⁵⁹ John J. Kosowatz. “Cleveland’s Double Play,” *Engineering News Record* (September 13, 1993), pp. 27-32.

⁶⁰ Rosentraub, p. 242.

⁶¹ H. Carleton Godsey. “Arena Estimate Defended-Editorial,” *The Courier Journal*, June 2, 1997, p. 6A.

⁶² Lynda Mapes. “Stadium Projects Teeming: Thirty Completed Since ’87; Dozens More Sought,” *The Spokesman Review*, June 6, 1997, p. A1.

⁶³ Rosentraub, p. 259.

the Cavaliers, the public will have to shell out \$70 million to cover the construction debt over the next 10 years.⁶⁴ The Gund brothers, owners of the Cavaliers and operators of the arena, were given additional “inducements” to execute a deal. These benefits included a luxury restaurant named *Sammy’s* (\$2.5 million cost), 30,000 square feet of office space within the arena (\$1.4 million cost) and free use of a luxury box.

Private sector investment in Gund Arena included the proceeds from the sale of club seats and luxury suites. The Cavaliers agreed to pay 27.5% of suite revenue and 48% of club seat revenue to Gateway. In a best case scenario, Gateway will receive approximately \$60.5 million, while in a worst-case scenario the figure is closer to \$41.6 million. These figures are the estimated present value of club seat and suite sales over the thirty year lease.⁶⁵ Rental payments to Gateway would only occur if attendance levels surpassed 1,850,000. If that threshold was met Gateway would receive \$0.75 per ticket (1,850,000 to 2,500,000) and \$1.00 per ticket (>2,500,000). Additionally, a thirty year *naming rights* agreement was negotiated with the Gund Family for the following lease payments: \$400,000 annually (1994-2003) and \$986,930 annually (2004-2013). *Cleveland Tomorrow* and other non-profit organizations provided additional financing. Approximately \$28 million was raised by these foundations, which consisted of corporate donations and state grants.⁶⁶ The Cavaliers also receive the first \$1.5 million in parking revenue, with Gateway receiving 67% of receipts in excess of \$1.5 million. To date, the parking facilities, which cost \$42 million, have been operating at a deficit, which Gateway is obligated to fund.

⁶⁴ Mapes, p. A1.

⁶⁵ Rosentraub, p. 275.

⁶⁶ Francisco J. Acoba, James C. Cole and R. Brad Thornburg. Unpublished Research Paper. Spring 1997.

Cavs/Gund Arena Company, an affiliate of the team, operates the arena and has discretion over management and operation of the facility. The Cavaliers' lease also calls for their receipt of all concession revenues, with no split to Gateway. This inequitable division of cash flow provides incentive to the team to internalize amenities and capture fan spending.

During initial planning of Gateway Sports Complex, officials estimated that the percentage of private funding for the construction of both facilities would be 50%, thus creating a true "public/private" partnership. In analyzing the Cavaliers' deal it is difficult to determine the exact public/private financing percentage. One thing is for certain, public investment far exceeds private and the financial returns to the private exceed the financial liabilities of the public.

Arena Siting and Design

The 20,750 seat Gund Arena shares a 28-acre parcel with Jacobs Field, home of the Cleveland Indians. The downtown area in which these facilities are located is commonly referred to the *Gateway District*. This district is bounded by Interstate 90 to the south, *Theater District* to the east, the Cuyahoga River to the west and *Warehouse District* to the north. Prior to the development of the Gateway Sports Complex, the site was home to surface parking and mostly vacant industrial buildings. This area was not considered safe or desirable and did not receive much attention from pedestrians or municipal officials. The site now consists of Gund Arena, Jacobs Field, a five-level parking garage attached to the stadium and arena, a 1,000 foot underground pedestrian passageway connecting the site with public transportation and a two acre parcel of open park space.⁶⁷

To integrate the arena into the arena's street grid and architecture, design was coordinated with overall planning guidelines by Sasaki Associates, Inc. of Watertown, MA. The arena lines

extend to the sidewalk to keep an urban context. To minimize building height, a portion of Gund Arena was built below grade level. Not only does this allow the building to fit into the neighborhood, it offers sports fans easy access to their seats.

Ellerbe Becket was the lead architect and designer for the Gund Arena. The architects main design objective was to create a structure that fit in with the existing cityscape, as well as its adjacent baseball park neighbor. To keep within the context of the city, architects limited the height of the structure and selected similar facade materials. In an attempt to keep the project costs under control, pre-cast concrete was used in place of more expensive limestone.⁶⁸ Thoughtful design and material selection make for an attractive and “fitting” addition to the Gateway District.

Internal amenities at the arena include approximately 3,000 Club Seats, 106 Suites, the 350-seat restaurant *Sammy's At the Arena, The Depot*, a below-grade sports bar, and *The Arena Club*, a private bar for Club and Suite ticket holders. The arena also features Cavs Town, a 2,500 square foot retail outlet and *Gordon's Sports Bar*. Additionally, Gund Arena includes three food courts, 40 permanent concession stands and 25 portable stands serving a wide variety of foods. Extra wide concourses with a high level of finish and large elevators allow for efficient fan circulation throughout the building.⁶⁹

The high level of finish found throughout the concourse levels of the arena permeates through to other sections of the facility. The Suites, located 15 and 30 rows from the court, accommodate 12 spectators and are fully furnished with a wet bar, refrigerator and television. Polished wood, plush carpet and high-end furniture furnish the Suites. Club Seat holders are

⁶⁷ Kosowaltz, p. 26.

⁶⁸ Interview with Stephen Hotujac of Ellerbe Becket.

furnished with higher quality seating and excellent views of the court. The design of the internal structure is column-free which results in unobstructed views of the court.

Impact on the Surrounding Real Estate

“Cleveland has shed its burning river image and has become a city with real tourist attractions like the Rock & Roll Hall of Fame and the Gateway Sports & Entertainment Complex, increasing tourism 20% over the past year. The metro is trying to stage a downtown revitalization in an attempt to attract new businesses, crucial to developing new sources of job creation, which the area needs to do.”

AEW Research, Summer 1996⁷⁰

Municipal officials in the City of Cleveland knew that something had to be done to resurrect the negative images of Downtown Cleveland. Racial riots, burning rivers, a depressed and decaying downtown-“Mistake by the lake!”, were ‘they’ referring to Municipal Stadium or the City of Cleveland in general.

“We spent a lot of money here on stadiums and an arena - \$700 million. It would be difficult to make the case that it’s a good investment. But it’s a feel-good issue for people. The facilities look nice and, for us, they’re considered part of our city’s renaissance.”⁷¹

Steve Letsky, Cuyahoga County Director of Accounting

“Cleveland is now attracting more than five million people to its downtown areas for baseball and basketball games and other forms of entertainment. These five million people who attend events are coming to a downtown that just one decade ago was avoided.”⁷² This additional pedestrian traffic in the Gateway District legitimizes the area and promotes it as a safe section of downtown. The addition of the Gateway Sports Complex has filled in a void in the southwestern

⁶⁹ Figures taken from Ellerbe Becket “Gund Arena Information Package.”

⁷⁰ AEW, Aldrich Eastman Waltch, is a Boston-based real estate investment advisor.

⁷¹ David A. Markiewicz. “Stadiumania.” *The Fort Worth Star Telegram*, June 22, 1997, p.1.

⁷² Rosentraub, p. 279.

corner of downtown and, in a sense, has created an “anchor” and stimulus for further downtown redevelopment.

The Gateway District is the primary area of arena-related redevelopment. Not only did the City of Cleveland develop two sports facilities, they implemented infrastructure improvement programs that have facilitated urban renewal. In addition to roadway and parking improvements, the city created a pedestrian walkway linking the Gateway area with the retail district to the north. This walkway ‘links’ Gateway with the Tower City District, home to many of downtown’s mid to high-end retailers. Although difficult to measure, offering Gateway fans access to other retail districts throughout downtown creates a “spillover effect”, which translates into a positive impact on retail sales and performance.

An important catalyst in the redevelopment of the Gateway District has been *Historic Gateway Neighborhood (HGN)*, a non-profit community development organization with the mission of leading the redevelopment and revitalization in the Gateway area. HGN assists local building owners by providing financial and technical assistance in redeveloping and improving historic structures.

The redevelopment of the Gateway area has been ongoing since the arena was completed in October 1994. The product sectors that have benefited the most are the retail, housing and most recently hotel sectors. In the next section I will assess which product types have been impacted by the introduction of Gateway and will document this by describing past, current and future market trends.

“More than 30 restaurants and retail shops have opened on Prospect, Huron and Carnegie Avenues, the main arteries feeding the ballpark (arena). Plans include a new Radisson Hotel and

\$100 million in additional private investment. ‘You’ll have to be incompetent not to make it (here),’ a banker told one restaurant owner.”⁷³

Most retail projects in the Gateway area consist of local retail tenants moving into ground floor space in close proximity to the sports facilities to capture event-related business. From a tour of the Gateway area it is apparent that there has been a positive change in the physical landscape of this area. The restaurants, microbreweries, and retailers that have surfaced over the past few years derive a large amount of their business from arena and stadium events. People who had not visited the Gateway area in years are now coming back to share in the revitalization of the area.

In *Grubb & Ellis’ 1997 Real Estate Forecast*, they refer specifically to the “Gateway Influence Area,” where Gund Arena and Jacobs Field are located. “A high level of activity already exists in the area surrounding the Gateway Sports Complex and it looks as if the bar will be raised even higher in 1997.” Nearly 100,000 square feet of retail lease activity has been transacted since 1995, with more activity in the pipeline.⁷⁴ During a July 1997 market tour, the owner of a sports memorabilia shop noted that a recent move to a location closer to Gateway resulted in 300% increase in rent. This could not be substantiated with additional tenant rent information. Not only are rental rates increasing, but local retailers are relocating and expanding to locations closer to Gateway. In addition, approximately 30,000 square feet of new and renovated retail space is projected to come on line by Spring 1998 in the Gateway area.

Another sector of the downtown real estate market that has recently experienced increased activity is the hotel market. “Gateway Neighborhood currently is aware of six active

⁷³ Jack Torry. “Stadium, Arena Find Life in Cleveland, but Critics Complain of Cost to Taxpayers; Poverty Still Issue,” *Pittsburgh Post-Gazette*, May 22, 1997. p. A1.

hotel proposals totaling over 950 rooms. Historic Gateway Neighborhood anticipates at least three to four resulting projects adding 600 to 800 rooms by 1999.”⁷⁵ Although this figure appears high, one hotel project was completed during 1996 in close proximity to Gateway, a 141-room hotel project is underway and a key parcel adjacent to Jacobs Field is being marketed for sale.

The vacant parcel, just over the center field fence of Jacobs Field, was recently offered for sale in a sealed bid auction. A hotel developer offered nearly \$2.5 million for the half-acre site, or nearly \$117 per square foot. The demand for this site is directly correlated to its proximity to the stadium. Developers will have an opportunity to design a hotel or alternative use that will be greatly enhanced by its prime site. This site would be worth considerably less if Gateway were not developed. The residential housing market has also been positively impacted by the introduction of the Gateway Complex. Adaptive reuse of historic, class ‘C’ commercial buildings has been the main vehicle for delivery of new product to the market. Approximately 50 residential units have been completed in Gateway since the completion of Gund Arena. Momentum and interest in residential housing has increased over the past year. Approximately 100 more residential are projected to be completed by mid-1997. The delay in construction of new residential housing can be linked to the public’s change in perception of the safety of the Gateway area. The revitalization of the Gateway area has been a gradual transformation, which is finally taking hold. The following excerpt summarizes the forecasted performance of the downtown residential market:

⁷⁴ Grubb & Ellis 1997 Real Estate Forecast (Cleveland).

⁷⁵ The Historic Gateway Neighborhood. “Your Guide to the All-Star Neighborhood.” p.47, 1997.

“Downtown multifamily will continue to gain momentum. Fueled by nearly \$1 billion in new development over the past 3 years, investors will continue to capitalize on the downtown housing boom. Of the 390 units put on the market last year, nearly 95% were occupied. This year expect to see another 600 units come on line, with most of them being rehabs of older, obsolete office and industrial buildings. Monthly rents should rise another 10% from the current level of \$1.05 per square foot.”⁷⁶

The office market has been impacted in the sense that many Class “C” buildings have been targeted for adaptive re-use projects: office-to-residential. The area where Gund Arena is located is home to many occupied Class “B” office buildings, but vacancy is still apparent in some corners of the district. Class “A” space is in limited supply and no new office development has occurred since the introduction of the sports facilities. In order to make way for the sports facilities, many vacant industrial buildings were demolished and replaced with open space or parking structures.

Conclusion

The “public/private” partnership between the Cavaliers and the City of Cleveland is not as equitable as the public would desire. The favorable lease terms that the Cavaliers were able to negotiate allowed the team to retain a majority of cash flow. Thus, the Cavaliers, knew that containing venue revenue within the facility would be in their best interest. Keeping the revenue producing amenities internal to the arena gives the fan an opportunity to direct their spending into the pockets of the Cavaliers.

If a real estate investor reviewed the public’s investment in the Gund Arena deal, the return on the public’s investment would be negative. Due to the City’s inability to negotiate a fair lease deal, the City is now covering shortfalls in the operation of the arena.

⁷⁶ Grubb & Ellis 1997 Real Estate Forecast (Cleveland).

However, the positive externalities that have been generated by the Gateway Complex cannot be overlooked. The City of Cleveland has created an anchor and stimulus for additional development around the facilities. Ridding the area of vacant commercial buildings, underutilized surface parking and replacing it with architecturally-sound sports facilities legitimizes the area and creates a needed link to other areas of the city. Pedestrian activity and the addition of mainstream entertainment adds life to a previously stagnant area of the city. The greatest return to the “public” has been to the morale and reputation of a once suffering city. Although not accurately measurable, the development of Gund Arena was a driving force behind Cleveland’s revitalization.

SUMMARY

The examples of Arco and Gund represent two opposite extremes. Arco started out as a 100% privately financed, suburban sports complex that was to include a baseball stadium. A wide range of problems have prevented in development of the surrounding property. Now, after ten years of frustration, the City has intervened with a loan to the team to prevent their departure. In Cleveland, the City started with a plan that included an urban baseball and basketball sports complex. Today, Gund Arena and Jacobs Field, both mostly publicly funded, embody that plan which has contributed to a downtown renaissance. Consistent with our thesis, the two cases differ in their siting choice and funding source, with a resulting difference in the surrounding real estate activity. The private financing and suburban siting in Sacramento came at the hands of growth averse populace. Regulatory restraints on growth around Arco have prevented any development around the arena. Thus, I do not know if development would have occurred as a result of the traffic to the arena. The public funding and urban location in Cleveland came about

due to the desire to revitalize and reshape a crumbling downtown. The Gateway Complex has exerted strong influence on the neighborhood, but with the regulatory and financial backing of the City. Interestingly, the design focus of both Arco and Gund is internal, including such amenities as restaurants and bars. Regardless of the particulars of each case, one scenario has seen no growth and the other has seen significant growth.

Chapter Nine: Conclusions and Implications for the Future

My research suggests that basketball arenas, and sports facilities in general, can generate real estate development activity and rental increases. Ownership, and specifically financing, plays an important role, but less so than in the past. Private financing of basketball arenas is increasing and public financing is decreasing. This trend is perplexing, given that today's facilities generally include more "bells and whistles" such as luxury suites, club seats, concessions, restaurants and other entertainment features. The high volume usage of basketball arenas for events such as hockey, arena football, indoor soccer and the recent addition of the WNBA contributes to the ability of these arenas to self-finance. The America West Arena will reportedly host 240 events this year. The absence of public funding could mean the exodus of arenas from the central cities to cheaper suburban land. More private financing could also mean that real estate around these facilities will suffer.

The predicted flight to the suburbs and absence of spillover benefits is not occurring. Most new arenas are located in urban settings. In addition, the urban setting appears to generate more traffic for adjacent operators. This outcome seems unusual absent the realization that private ownership stresses return on investment. Features common to many new facilities in other sports are excluded from many private arenas because they do not provide the required return on investment.

The economics of sports facilities is evolving. Financing mechanisms are becoming more creative and venue revenue streams more important. The emergence of venue revenue is

directly related to the revenue sharing agreements that are present in each of the professional leagues. While gate receipts and national television contracts are divided among the franchises of a league, venue revenue is not. Naming rights, advertising, branding rights, and premium seating generate significant amounts of revenue for franchises with new facilities. The enhancement of venue revenue, and ultimately franchise value, is a driving force behind the stadium development boom.

The direction of external and internal architectural design in the next ten years will be directly related to the public/private financing structures of the new facilities. Two contradictory theories are offered here: *either* privately financed facilities will have greater amenities than publicly financed facilities as they attempt to internalize more of the patron's dollar, *or* privately financed facilities will have less amenities than publicly financed facilities as they will only include the amenities that provide an acceptable return on investment to the private investors. The current data available is not sufficient to forecast which theory will prevail. The answer however, is vital to both municipalities and sports franchises.

Siting is a major factor in the success of a new sports facility. Trends and data indicate that facilities sited in urban locations are more successful in stimulating surrounding development than facilities sited in suburban locations. Camden Yards, Coors Field, Jacobs Field, the Delta Center, the Rose Garden, and the Georgia Dome are all examples of facilities sited in urban locations that have experienced *extraordinary* increases in surrounding real estate market activity. Pro Player Stadium and the Ballpark in Arlington are examples of suburban facilities that have seen little or no impact on surrounding real estate. The market is well aware of this trend as the vast majority of proposed facilities will be located in urban settings. This trend represents a complete reversal of the suburban siting trend of the thirty years preceding

Camden Yards. Facilities in an urban setting are successful in stimulating development, *independent* of their financing structure. However, the decision to site a facility in an urban location is often *dependent* on financing structure.

The background information presented formed the framework for our thesis. Based upon this information, we presented three basic theories and a hypothesis to be analyzed quantitatively. There is a relationship between financing structure and facility siting. There is a relationship between financing structure and facility design. There is a relationship between financing structure and venue revenue. Together, these relationships influence surrounding real estate.

The quantitative analysis section of this thesis extended the analysis to the real estate surrounding these facilities. Beginning with the twenty-five professional facilities constructed in the last ten years information was collected on facility age, financing structure, development cost, seating capacity, premium seating, concessions, and locations. To enhance this data, a survey (see appendix) was administered to measure the quality of the facility's design. This survey was sent to design professionals and members of the sports industry. Finally, to observe the effect of the facility on the real estate market real estate professionals with local market knowledge of the facility and its surroundings were surveyed (see appendix).

While the data available was limited and in some ways subjective, the regression analysis confirmed the basic theories. The variables of premium seating, seats per concession, and siting all significantly affected real estate rents in the surrounding area. Premium seating and seats per concession represent attempts by franchise owners to internalize revenue. As a result, both of these variables had a negative impact on the surrounding real estate. The siting variable indicated that an urban facility location had a much more significant impact on the surrounding

real estate as opposed to a suburban location. The design variable, while not significant, exhibited a positive relationship to real estate rents. The financing structure variable was also marginally significant, which is consistent with the theory that financing structure affects the surrounding real estate indirectly, through its affect on siting and design.

The impact of these facilities should not be measured purely in economic terms. Jerry Colangelo, owner of the Phoenix Suns discussed the impact on downtown Phoenix of the America West Arena. In the five years since America West Arena opened:

1. Downtown Phoenix has enjoyed steady growth in sales tax revenues generated from restaurants, retail stores, hotels, and motels.
2. More than \$1 billion of public and private investment has gone into the downtown core and that number continues to climb.
3. There has been a dramatic change in public perception about downtown Phoenix. Since the arena opened in 1992, people have discovered that downtown is a safe, clean environment, with lots of attractions and things to do.
4. Attendance at other arts and entertainment venues in downtown has steadily increased.
5. Downtown Phoenix is now among the top generators of new jobs, new tax revenues, and new investment in the region.⁷⁷

While it is difficult to quantify, the perceptual and emotional impact of a new sports facility does exist. The impact associated with the loss of a franchise or the opportunity cost, must also be considered. St. Louis and Baltimore are two examples presented here that illustrate the cost of replacing a lost franchise.

Future Implications

The classic design approach, which first appeared at Camden Yards, is the dominant approach in ballparks and will make its debut in basketball arenas with the development of the Indiana Pacers Fieldhouse. The Fieldhouse takes the Camden Yards, classic design approach

⁷⁷ Jerry Colangelo, keynote address at Sports Facility Conference, New York, NY May 5, 1997.

and applies it to basketball arenas. Since almost half of the NBA teams will be playing in new arenas when this project opens, the Pacers have a chance to be trendsetters with little worry that their ideas will be duplicated like Camden Yards.

Development rights around arenas could be exploited by team ownership in the future. If private owners realize that internal restaurants and amenities that cannot be supported from a return objective, can be supported outside the facility due to continuous daily traffic, development around arenas may be proliferated by the team owner. Development rights for the area around the CoreStates Center (76'ers) and land adjacent to the new Hawks facility in Atlanta were given to the teams to promote associated development.

Each new facility seeks to be unique when compared to their contemporaries. The attraction of a unique facility can maintain high attendance even when the franchise is not performing well in terms of wins and losses. As the design of these proposed facilities shows, owners are pushing the design of the facility to create the perfect attraction so that fans are attracted to the game to experience the facility, not just the performance of the team.

Topics for additional research

When discussing the future, we cannot help but think about additional areas to be explored within the topic of sports facility financing, development, and design. Each of these areas require more data to produce meaningful results. An economic model can be developed to measure the distance of the impact of the facility. The distance of the impact can then be measured against the public/private financing structure. Land prices may be forecast and this model used by real estate developers to profit from the real estate impact of proposed facilities.

The public/private financing versus quantity of amenities debate can also be answered with additional data. A key issue in this debate is the efficiency of private versus public money.

If privately developed facilities cost less, all other things equal, then municipalities should subcontract the entire sports facility development process to a fee developer. The measure of return on amenities requires some refinement. Separating the cost component of these amenities should be simple. The revenues from these amenities is more difficult to define.

Appendix

- Broker Survey*
- Design Survey*
- Regression Data*

M.I.T. SURVEY

Facility _____

Respondent _____

Submarket _____

Company _____

Date _____

Circle all answers

1) Define location of facility Suburban Urban

2) Has municipality enacted any legislation to stimulate development or renovations Yes No

3) Do people come to events using public transportation Yes No

4) For the following product types and since the opening of the facility, rents in the market have:

			<5%	>5%,<10%	>10%
Retail	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Housing	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Office	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Industrial	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>

5) For the following product types and since the opening of the facility, rents in the submarket have:

			<5%	>5%,<10%	>10%
Retail	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Housing	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Office	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Industrial	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>

6) For the following product types and since the opening of the facility, rents within walking distance of the facility have:

			<5%	>5%,<10%	>10%
Retail	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Housing	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Office	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Industrial	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>

7) For the following product types and since the opening of the facility, development/redevelopment activity as a result of the stadium has:

			<5%	>5%,<10%	>10%
Retail	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Housing	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Office	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>
Industrial	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>

8) How have land prices in the area surrounding the facility changed since the development of the facility

			<5%	>5%,<10%	>10%
	<i>Decreased</i>	<i>No Change</i>	<i>Minimal ↑</i>	<i>Moderate ↑</i>	<i>Strong ↑</i>

9) For retail, which type of development has been most prevalent?

Small family owned *Local investors* *National investors*

SPORTS FACILITY THESIS SURVEY

Please rate only the facilities that you have attended!

Rate each category 1-5
1 being the worst score, 5 being the best

		Access/ Location	Food	Sight Lines/ Views	Comfort/ Seating	Exterior Design/ Attractiveness	Overall Assessment
Baseball Stadia							
Coors Field	Denver						
Jacobs Field	Cleveland						
New Comiskey Park	Chicago						
Camden Yards	Baltimore						
Ballpark in Arlington	Arlington						
Tropicana Field	St. Petersburg						
Turner Field	Atlanta						
Basketball Arenas							
Alamodome	San Antonio						
America West Arena	Phoenix						
ARCO Arena	Sacramento						
Bradley Center	Milwaukee						
Charlotte Coliseum	Charlotte						
CoreStates Center	Philadelphia						
Delta Center	Salt Lake City						
Fleet Center	Boston						
Gund Arena	Cleveland						
Key Arena	Seattle						
Miami Arena	Miami						
Orlando Arena	Orlando						
Palace at Auburn Hills	Auburn Hills						
Target Center	Minneapolis						
Rose Garden	Portland						
United Center	Chicago						
Football Stadiums							
Allnet Stadium	Jacksonville						
Ericsson Stadium	Charlotte						
Georgia Dome	Atlanta						
Pro Player Park	Miami						
Trans World Dome	St. Louis						

Categories: Use a 1-5 rating, 1 being the worst and 5 being the best.

Access/Location - Is the facility easily accessible? Are adequate public transportation and parking available? Is it conveniently located?

Food - Rate the quality of the food and number of concession stands, are lines too long?

Sight Lines - Views - Rate the views of the field from the stands. Consider the angle of the seats in the upper deck and the closeness to the field of the best seats.

Comfort/Seating - Are the seats comfortable and wide enough is this sufficient space between the rows.

Exterior Design/Attractiveness - Rate the attractiveness of the facility from the outside and how it fits into the surrounding neighborhood.

Overall Assessment - Rate your overall experience at the sports facility.

Stadium Name	Cost	Public	% Public	Year Open	Private	%private	Rel% Pvt	%Pvt -Avg
New Comiskey Park	\$137,000,000	\$137,000,000	100%	1991	\$-	0.00%	0%	-7%
Camden Yards	\$205,000,000	\$205,000,000	100%	1992	\$-	0.00%	0%	-7%
Jacobs Field	\$180,000,000	\$180,000,000	100%	1994	\$-	0.00%	0%	-7%
Ballpark in Arlington	\$191,000,000	\$135,000,000	71%	1994	\$56,000,000	29.32%	400%	22%
Bradley Center	\$84,000,000	\$26,040,000	31%	1988	\$57,960,000	69.00%	96%	-3%
ARCO Arena	\$40,000,000	\$-	0%	1988	\$40,000,000	100.00%	139%	28%
Palace at Auburn Hills	\$75,000,000	\$-	0%	1988	\$75,000,000	100.00%	139%	28%
Delta Center	\$168,000,000	\$20,000,000	12%	1991		88.10%	122%	16%
					\$148,000,000			
America West Arena	\$102,000,000	\$46,000,000	45%	1992	\$56,000,000	54.90%	76%	-17%
Alamodome	\$186,000,000	\$186,000,000	100%	1993	\$-	0.00%	0%	-72%
Gund Arena	\$155,000,000	\$120,000,000	77%	1994	\$35,000,000	22.58%	31%	-50%
United Center	\$180,000,000	\$-	0%	1994		100.00%	139%	28%
					\$180,000,000			
The Rose Garden	\$262,000,000	\$34,000,000	13%	1995		87.02%	121%	15%
					\$228,000,000			
Fleet Center	\$160,000,000	\$-	0%	1995		100.00%	139%	28%
					\$160,000,000			
Pro Player Park	\$181,500,000	\$-	0%	1987		100.00%	200%	50%
					\$181,500,000			
Georgia Dome	\$188,500,000	\$188,500,000	100%	1992	\$-	0.00%	0%	-50%
TWA Dome	\$298,000,000	\$298,000,000	100%	1995	\$-	0.00%		-50%
Ericsson Stadium	\$180,000,000	\$136,000,000	76%	1996	\$44,000,000	24.44%		-26%
Coors Field	\$215,000,000	\$200,000,000	93%	1995	\$15,000,000	6.98%		0%
Miami Arena	\$53,000,000	\$40,000,000	75%	1988	\$13,000,000	24.53%		-47%
Target Center	\$136,000,000	\$136,000,000	100%	1990	\$-	0.00%		-72%
Orlando Arena	\$100,000,000	\$100,000,000	100%	1989	\$-	0.00%		-72%
Charlotte Coliseum	\$52,000,000	\$52,000,000	100%	1988	\$-	0.00%		-72%

Stadium Name	Suites	Club Seats	Venue Revenue	Revenue per seat	Total Revenue	% of Total	CS/CAP	Age	Premium	Urban /Sub	Design
New Comiskey Park	93	1,822	\$20,900,000	\$471.56	\$70,300,000	29.73%	4.1%	6	2,938	0	2.1
Camden Yards	66	3,800	\$21,400,000	\$443.36		20.32%	7.9%	5	4,592	0	4.3
					\$105,300,000						
Jacobs Field	125	2,400	\$22,900,000	\$545.24	\$95,400,000	24.00%	5.7%	3	3,900	0	3.8
Ballpark in Arlington	120	5,386	\$25,500,000	\$518.52	\$87,700,000	29.08%	11.0%	3	6,826	1	3.5
Bradley Center	68	-	\$2,800,000	\$150.27	\$36,400,000	7.69%	0.0%	9	816	0	3.0
ARCO Arena	30	400	\$9,400,000	\$542.82	\$50,400,000	18.65%	2.3%	9	760	1	2.5
Palace at Auburn Hills	180	-	\$24,500,000	\$1,141.98	\$77,300,000	31.69%	0.0%	9	2,160	1	3.0
Delta Center	22	1,176	\$11,500,000	\$577.57	\$61,400,000	18.73%	5.9%	6	1,440	0	4.0
America West Arena	87	700	\$10,900,000	\$572.99	\$78,800,000	13.83%	3.7%	5	1,744	0	3.8
Alamodome	38	3,500	\$6,000,000	\$290.39	\$59,700,000	10.05%	16.9%	4	3,956	0	2.5
Gund Arena	156	3,000	\$13,400,000	\$651.69	\$64,500,000	20.78%	14.6%	3	4,872	0	4.3
United Center	216	3,000	\$12,200,000	\$561.93	\$86,800,000	14.06%	13.8%	3	5,592	0	3.3
The Rose Garden	70	2,400	\$15,200,000	\$713.62	\$86,100,000	17.65%	11.3%	2	3,240	0	3.9
Fleet Center	104	2,441	\$7,400,000	\$397.34	\$64,600,000	11.46%	13.1%	2	3,689	0	3.3
Pro Player Park	215	10,209	\$20,000,000	\$273.97	\$95,400,000	20.96%	14.0%	10	12,789	1	2.8
Georgia Dome	203	5,600	\$6,500,000	\$91.68	\$79,200,000	8.21%	7.9%	5	8,036	0	3.3
TWA Trans World Dome					\$85,800,000	13.99%	8.86%	2	7,688	0	3.0
Ericsson Stadium					\$75,100,000	21.57%	14.56%	1	13,098	0	3.3
Coors Field					\$95,600,000	25.00%	8.76%	2	5,024	0	4.0
Miami Arena					\$44,300,000	9.93%	0.00%	9	-	0	2.0
Target Center					\$44,000,000	15.45%	0.00%	7	816	0	3.0
Orlando Arena					\$62,800,000	7.64%	0.00%	8	312	0	3.0
Charlotte Coliseum					\$53,700,000	11.55%	0.00%	9	144	1	3.0

Stadium Name	Ownership	Rev/seat	Sport Var	Avg Loc-Sub	Local -Mkt	Local -sub	CBD	Premium/cap	Potential Attend	Capacity	SEAT/CON
New Comiskey Park	0	471.6	0	0	-1	0	1	6.63%	3,590,001	44,321	738.68
Camden Yards	0	443.4	0	0.5	1	1	0	9.51%	3,909,708	48,268	1856.46
Jacobs Field	0	545.2	0	0.25	0	0	0	9.29%	3,402,000	42,000	1615.38
Ballpark in Arlington	0	518.5	0	-1.75	-2	-2	1	13.88%	3,983,418	49,178	655.71
Bradley Center	0	150.3	1	-0.5	-1	0	0	4.38%	838,485	18,633	1330.93
ARCO Arena	1	542.8	1	0	0	0	1	4.39%	779,265	17,317	1731.7
Palace at Auburn Hills	1	1,142.0	1	0	2	1	1	10.07%	965,430	21,454	1787.83
Delta Center	1	577.6	1	0.25	0	0	0	7.23%	895,995	19,911	765.81
America West Arena	0	573.0	1	-0.25	0	0	0	9.17%	856,035	19,023	422.73
Alamodome	0	290.4	1	-0.25	-1	0	0	19.15%	929,790	20,662	765.26
Gund Arena	0	651.7	1	0.25	0	0	0	23.69%	925,290	20,562	514.05
United Center	1	561.9	1	-0.75	-1	-1	1	25.76%	976,995	21,711	471.98
The Rose Garden	1	713.6	0	0.5	1	1	0	15.21%	958,500	21,300	1121.05
Fleet Center	1	397.3	0	-0.5	0	0	0	19.81%	838,080	18,624	517.33
Pro Player Park	1	274.0	0	-2.5	-2	-2	1	17.52%	730,000	73,000	1825
Georgia Dome	0	91.7	0	0.75	-2	1	0	11.33%	709,000	70,900	2625.93
TWA Trans World Dome				0	-0.25	0			700,000	70,000	
Ericsson Stadium				0	0	0			755,200	75,520	
Coors Field				0	2	0			4,066,200	50,200	
Miami Arena				-2.5	-2.5	-2			675,360	15,008	
Target Center				0.25	-0.5	1			855,270	19,006	
Orlando Arena				-0.25	-0.75	1			776,160	17,248	
Charlotte Coliseum				0	0	0			1,081,890	24,042	

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INTERVIEWS

Browning, David. CB Commercial, Cleveland, OH.
Dewine, John. Director of Facilities, CAVS/Gund Arena Company, Cleveland, OH.
Engel, Tory. NBBJ, Los Angeles, CA.
Garofalo, Dan. Owner, Outta the Park, Cleveland, Ohio.
Hammerschlag, Mike. Grubb & Ellis, New York, NY.
Hotujac, Stephen. Ellerbe Becket, Kansas City, MO.
Klimko, Jennifer. AEW Capital Management, Boston, MA.
Nungester, Debbie. Public Financial Management, Philadelphia, PA.
Smith, Janet-Marie. TBS Sports & Entertainment, Atlanta, GA.
Southard, Jon. Research Economist, Torto/Wheaton Research, Boston, MA.
Thornhill, Pam. Cushman & Wakefield Research, St. Louis, MO.
Tuseo, Nicola. Cushman & Wakefield Research, New York, NY.