Estimating Market Rent for Major League Stadiums

by William N. Kinnard, Jr., CRE, & Mary Beth Geckler, CRE

Introduction: Background to the Research

In April 1997, an article titled "Team Performance, Attendance, and Risk for Major League Baseball Stadiums,"[1] was published as part of the ***Real Estate Issues*** series on counseling opportunities in the major league sports industry. That presentation noted the growing importance of venue revenues[2] to both the owner of the stadium (typically a municipality, county, or public authority) and the owners of the team franchise. The emphasis in the article was on Major League Baseball stadiums, although many venues were dual-sports facilities housing National Football League (NFL) teams as well.

The reported findings demonstrated the importance of gameday ticket revenues to both the stadium owner and the franchise. In recent years, however, gross ticket revenues have represented a declining percentage of total venue revenues. Not surprisingly, on-field performance by Major League Baseball (MLB) teams was a major determinant of attendance, which determines revenues from ticket sales as well as concessions and parking. Moreover, the dollar volume from sales of short-term licenses on luxury boxes/suites and club seats tends to fluctuate directly and nearly proportionately with on-field team success (particularly in the preceding year).

Within the framework of subsequent assignments to value leasehold/possessory interests of major league teams in both MLB and the NFL, we have been required in each instance to estimate market rent. Moreover, we served as consultants in the 1989-1990 property tax appeal of SkyDome in Toronto, as well as its 1995 sale. In both those cases, the identification of market rent payable by the tenant MLB franchise was a major issue.

About the Authors

William N. Kinnard, Jr., Ph.D., CRE, *is president of the Real Estate Counseling Group of Connecticut; Professor Emeritus of Real Estate and Finance at the University of Connecticut; and a principal in the Real Estate Counseling Group of America. Dr. Kinnard has participated in the valuation of ownership and leasehold interests in major league stadiums in the U.S. and Canada and also testifies regularly as an expert witness on appropriate methodology for valuation of property and intangible assets. (E-mail: recgc@mail.snet.net)*

Mary Beth Geckler, CRE, *served as a commercial real estate lender at*

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Table 1

New/Renovated or Planned Major League Baseball Facilities Since 1990			
STADIUM	**TEAM**	**YEAR BUILT**	**STATUS**
Reds Stadium	Cincinnati Reds	2001	New
Ball Park at Union Square	Houston Astros	2000	New
Miller Park	Milwaukee Brewers	2000	New
Pacific Bell Park	San Francisco Giants	2000	New
Tigers Ballpark	Detroit Tigers	2000	New
Twins Ballpark	Minnesota Twins	2000	New
Mariners Ballpark	Seattle Mariners	1999	New
Bank One Ballpark	Arizona Diamondbacks	1998	New
Qualcomm Stadium	San Diego Padres	1998	Renovated
Tropicana Field	Tampa Bay Devil Rays	1998	Renovated
Edison Field	Anaheim Angels	1998	Renovated
Oakland-Alameda County Coliseum	Oakland Athletics	1996	Renovated
Turner Field	Atlanta Braves	1996	New
Coors Field	Colorado Rockies	1995	New
Ballpark at Arlington	Texas Rangers	1994	New
Jacobs Field	Cleveland Indians	1994	New
Camden Yards	Baltimore Orioles	1992	New
Comiskey Park	Chicago White Sox	1991	New
Olympic Stadium	Montreal Expos	Planning Construction/Renovation	
Shea Stadium	New York Mets	Planning Construction/Renovation	
Veterans Stadium	Philadelphia Phillies	Planning Construction/Renovation	
Three Rivers Stadium	Pittsburgh Pirates	Planning Construction/Renovation	
Fenway Park	Boston Red Sox	Planning Construction/Renovation	
Yankee Stadium	New York Yankees	Planning Construction/Renovation	
New/Renovated or Planned National Football League Facilities Since 1990			
New Seattle Stadium	Seattle Seahawks	2002	New
Ford Stadium	Detroit Lions	2000	New
Paul Brown Stadium	Cincinnati Bengals	2000	New
Nashville Stadium	Tennessee Oilers	1999	New
New Baltimore Stadium	Baltimore Ravens	1998	New
Qualcomm Stadium	San Diego Chargers	1998	Renovated
Tampa Bay Community Stadium	Tampa Bay Buccaneers	1998	New
Jack Kent Cooke Stadium	Washington Redskins	1997	New
Ericsson Stadium	Carolina Panthers	1996	New
Oakland-Alameda County Coliseum	Oakland Raiders	1996	Renovated
Alltel Stadium	Jacksonville Jaguars	1995	Renovated
Transworld Dome	St. Louis Rams	1995	New
Georgia Dome	Atlanta Falcons	1992	New
3Com Park	San Francisco 49ers	Planning Construction/Renovation	
AstroDome	For Possible NFL Team	Planning Construction/Renovation	
Foxboro Stadium	New England Patriots	Planning Construction/Renovation	
Los Angeles Coliseum	For Possible NFL Team	Planning Construction/Renovation	
Metrodome	Minnesota Vikings	Planning Construction/Renovation	
Mile High Stadium	Denver Broncos	Planning Construction/Renovation	
New Cleveland Stadium	For Possible NFL Team	Planning Construction/Renovation	
Soldier Field	Chicago Bears	Planning Construction/Renovation	
Sun Devil Stadium	Arizona Cardinals	Planning Construction/Renovation	
Three Rivers Stadium	Pittsburgh Steelers	Planning Construction/Renovation	
Veterans Stadium	Philadelphia Eagles	Planning Construction/Renovation	

SOURCE: Price-Waterhouse LLP's, Sports, Convention, and Entertainment Facilities, Advisory Group, Tampa, Florida.

This manuscript presents the results of analyzing the body of lease and rental data for MLB, NFL and dual-sport stadiums. The indicated market rent model derived from that analysis is also shown.

FEASIBILITY ANALYSIS AND VALUATION OF LESSEE INTERESTS

Table 1 lists the new MLB and NFL stadiums built in the 1990s, major renovations of existing stadiums, and new construction under way or planned as of 1998. Virtually every existing or planned MLB and NFL venue is on that list. At least one feasibility study was conducted for each project, whether completed, in process, or proposed. Feasibility studies are necessary to obtain project financing, much of which takes the form of debt plus "equity" participations represented by the sale of such intangibles as naming rights, exclusive product sales rights, or advertising rights in the new or renovated stadium. Indeed, sale of these intangibles has provided a major proportion of the up-front money that constitutes "equity" in recent major league stadium construction projects.

In any feasibility study, anticipated revenues are necessarily forecast (often optimistically). One of the major elements of revenue, but far from the only source, is the rent to be paid by the tenant franchise for the use of the stadium. Because the lessor is typically a public body, that rent is required to be "market rent," which is defined by the Appraisal Institute as, "the rental income that a property would most probably command on the open market, as indicated by current rentals being paid and asked for comparable space, as of the date of the appraisal."[3]

Over 30 MLB and NFL leases were studied as part of the research on which this article is based, to identify what (if any) market pattern of rentals exists. Information on other leases came from the publication, ***Inside the Ownership of Professional Sports Teams: 1999***.[4] Both NFL and MLB leases specify and distinguish carefully between "rent" paid by the lessee franchise and revenue-sharing by the stadium owner (nearly always a public body) with the lessee franchise owner. These leases are signed well in advance of construction, and provide an important basis for acquiring both equity participations and debt financing. Typically, therefore, the analysis of "feasibility" incorporates a consideration of market rent.

In addition, property tax authorities in many states are empowered to assess and tax the leasehold interest that a private lessee-user holds in tax-exempt real estate (especially that which is publicly-owned). In some jurisdictions (e.g., California), the "Possessory Interest" held by a private lessee on publicly-owned property is taxed as the present worth of net operating income based on market rent (or occasionally as the present worth of *net* market rent). In other states (e.g., North Carolina), the leasehold interest of a private lessee in publicly-owned real property is taxable when the present worth of market rent exceeds that of contract rent. In either set of circumstances, the market value of the lessee's interest in the stadium real property is measured via income capitalization, which in turn requires an estimate of market rent.

Finally, in the relatively rare instances of privately-owned major league stadiums whose owners are not the team franchises themselves (e.g., SkyDome in Toronto, the New Baltimore stadium, Ericsson Stadium in Charlotte), income capitalization is also employed to value the stadium real estate for property tax purposes. Once again, market rent is one of the necessary ingredients in the analysis.

THE NATURE AND MEANING OF MARKET RENT

For purposes of this analysis, the differently worded definition of "market rent" from the International Association of Assessing Officers, with the same meaning, is more to the point:

> "The rent currently prevailing in the market for properties comparable to the subject property. Market rent is capitalized into an estimate of value in the income approach."[5]

The critical point in both the Appraisal Institute and IAAO definitions is that rental data are to be derived from "the market" for comparable or competitive properties, which consists of major league stadiums located throughout the U.S. and Canada. The data reviewed for this research were the rents called for in 22 MLB leases and 25 NFL leases in force as of 1998. The results of those lease reviews are summarized in *Tables 2 and 3* for NFL leases, and *Table 4* for MLB leases.

It is important to reiterate the fact that both NFL and MLB leases differentiate carefully between payments made by tenant team franchises that are labeled "rent," and allocations of revenues from such items as naming rights, concessions, advertising, or parking. All of these latter items, unless identified explicitly as part of "rent" (e.g., Denver

Table 2

NFL Rentals, By Franchise, in (Mostly) Ascending Order

RENTAL TERMS	YEAR	FRANCHISE	AVERAGE ATTENDANCE (1992-1996)[4]	AVERAGE 1996 TICKET PRICE
0 (Zero Rent)	1995	Baltimore Ravens[1]	534,520	$40.53
0 (Zero Rent)	1995	Baltimore Ravens[2]		
$25,000 per Game vs. 5% Ticket Gross ($800,000 Maximum)	1993	New Orleans Saints	452,500	34.84
$250,000 Per Year	1995	St. Louis Rams	413,120	33.57
$250,000 (Yrs. 1-5); $500,000 (Yrs. 6-10); $1,000,000 (Yrs. 11-20); $1,250,000 (Yrs. 21-25)	1995	Jacksonville Jaguars	544,150[3]	36.59
5% Gross Revenues $7.5-12.5MM; 4% $12.5-17.5MM; 2% over $17.5MM vs. Base $450,000	1980	Kansas City Chiefs	606,560	34.20
$250,000 + $25,000 per Playoff Game + 5% Admissions Tax	1984	Indianapolis Colts	415,020	31.76
$25,000 per Game + $15,000 + $2 per Ticket	1989	Green Bay Packers	464,280	30.61
$500,000 + $1 per Ticket Use Surcharge	1994	Oakland Raiders	420,060	51.41
$63,000 Per Game[3]; $3,000,000 After 1996	1996	Tampa Bay Buccaneers	389,900	33.06
$852,000 + Average Above 10% Revenues	1970	Pittsburgh Steelers	448,260	35.76
7% Ticket Revenues	1976	Seattle Seahawks	401,660	34.14
7% Gross Event Revenues vs. $12,000 Per Month	1973	Detroit Lions	539,380	33.70
10% 1st $6MM Ticket Revenues; 8% Above $6MM	1985	San Diego Chargers	454,220	38.96

Table 2 *(Continued)*

RENTAL TERMS	YEAR	FRANCHISE	AVERAGE ATTENDANCE (1992-1996)[4]	AVERAGE 1996 TICKET PRICE
10% Gross Ticket Revenues	1990	Atlanta Falcons	472,640	31.49
10% Gross Ticket Revenues	1979	Minnesota Vikings	457,000	36.95
10% Gross Ticket Revenues	1970	San Francisco 49ers	494,080	45.00
6% Gross Ticket Rev. + 8% Lux. Seat Revenues	1987	Denver Broncos	587,120	35.83
Minimum $500,000 vs. 9% Ticket Rev. to $5MM; 4% to $7.5MM; 2% above $7.5MM; plus $0.25/Ticket Surcharge	1972	Buffalo Bills	599,620	33.46
$950,000 vs. 8% Ticket Rev. + 8% Lux. Seat Rev.	1985	Dallas Cowboys	513,100	38.25
10% Ticket Revenues + 6% Club Seat Revenues	1987	Arizona Cardinals	386,080	35.49
10% Ticket Revenues + 10% Use Tax	1967	Cincinnati Bengals	389,980	34.28
13% Ticket Revenues, Decreasing to 11%, 10%	1975	New York Giants	559,700	35.59
12% Ticket Revenues + 20% Luxury Box Revenues	1980	Chicago Bears	486,560	38.18
15% Ticket Revenues	1984	New York Jets	600,360	30.00
$3,000,000 + "x"% Ticket Revenues	1968	Houston Oilers	378,860	31.33
			Mean: 472,580	Mean: $35.89

Not Included: Team-Owned Stadiums: Charlotte, Miami, New England, Washington
Rent Not Given: Philadelphia Rent Not Announced: Nashville (Cleveland Reported at $250,000 per Year, Fixed)

[1] Municipal Stadium [2] New Baltimore Stadium [3] 1995, 1996 Only [4] Average Attendance: Charlotte 606,840 (1995/1996)

SOURCE: ***Inside the Ownership of Professional Sports Teams: 1997***, Team Marketing Report, Inc., Chicago, IL; Selected Leases.

Table 3

National Football League Leases
By Year Signed (Newest First)

Lease Date (Year)	Term (Years)	Rent Percentage[a]	Team
1996	30 (+[4x5])	12.0%	Tampa Bay (New)
1995	3	0.0%	Baltimore (Old)
1995	30	0.0%	Baltimore (New)
1995	25	2.5%[f]	Jacksonville
1995	30	2.0%	St. Louis
1994	16	6.6%[b]	Oakland
1993	25 (+[2x5])	6.5%	New Orleans
1990	30	10.0%	Atlanta
1989	Yr.-to-Yr. to 2024	9.5%	Green Bay
1987	20	7.4%	Denver
1987	30 (10 + [4x5])	14.0%	Arizona
1985	35	8.7%	San Diego
1985	24 (+25)	15.7%	Dallas
1984	25	15.0%	New York Jets
1984	20	2.0%[b]	Indianapolis
1980	25	4.3%	Kansas City
1980	20	21.5%	Chicago
1979	30	10.0%	Minnesota
1976	30	7.0%	Seattle
1975	50	11.0%	New York Giants
1973	30	7.8%	Detroit
1972	25[e]	4.8%[b,c]	Buffalo
1970	30	7.5%	Pittsburgh
1970	27 (+[3x5])	10.0%	San Francisco
1968	30[d]	25.3%	Houston
1967	40	10.0%[b]	Cincinnati

NOTES:
(a) Percentage of Gross Ticket Revenues Only
(b) Tax Surcharge Omitted
(c) Plus Stadium Maintenance
(d) Departed
(e) Expired; Year-to-Year
(f) Graduated

SOURCE: See Table 2.

Broncos, Dallas Cowboys, Arizona Cardinals, Chicago Bears, as indicated in *Table 2*), are revenues that would normally come to the owner of the stadium. In the current market, however, they are increasingly shared by the stadium owner with the franchise team as an inducement either to come to the stadium, remain at the stadium, or both. Nevertheless, they do not represent "rent," nor do they serve as indicators of market rent.

If revenues from concessions, parking, advertising, luxury boxes/seats, or naming rights are shared between the stadium owner and the franchise team, it is because the stadium owner chooses to do so. A tenant has no inherent legal right to venue revenues which are generated at or by the real estate. Accordingly, such revenue sharing (or allocation solely to one party or the other) is not part of rent, regardless of the method of collection and distribution. This is analogous to the collection of taxes by the team as part of ticket revenues, and their subsequent distribution to the taxing authority (local, county, or state).

THE MARKET RENT MODEL FOR MAJOR LEAGUE STADIUMS

Market rent information from 25 NFL franchise leases is presented in *Tables 2 and 3*. One tenant franchise (Philadelphia Eagles) would not provide the requested information. Moreover, three NFL stadiums are owned by the team, while the Carolina Panthers' stadium is owned by a related private corporation.

Similarly, *Table 4* provides rental information for 22 MLB leases. Five MLB stadiums are owned by the team, and one stadium (SkyDome) is privately owned by an investment group.[6]

The information provided in *Tables 2 and 3* for NFL franchise leases and *Table 4* for MLB franchise leases indicates that there is a rather wide range of percentage rent payments. Yet the underlying formula is remarkably consistent: Rent is paid as a percentage of gross ticket sales revenues. This is the NFL stadium market rent model. As noted earlier, four NFL franchises also pay a percentage of "luxury" seat revenues: the Arizona Cardinals, Chicago Bears, Dallas Cowboys, and Denver Broncos. It is noteworthy, however, that these four leases all pre-date 1990, with the most recent (Broncos and Cardinals) dating from 1987. No such arrangements are found in any subsequent leases.

As *Table 3* shows, with the exception of the Tampa Bay Buccaneers lease of 1996, the leases signed after 1990 generally called for a lower rent percentage than did earlier leases. It is also instructive to note the effective rent percentage being paid by the Tennessee Oilers in their former Houston venue, which may help explain the relocation of the franchise.

Table 4 summarizes the effective rental rate for 22 MLB franchises, in ascending order of percentage. All of the MLB leases also provide that rent shall be calculated as a percentage of gross ticket sales revenues. Thus, the market rent model for major league sports stadiums is simple and straightforward: the lessee team franchise pays rent as a percentage of gross revenues from ticket sales.

Calculation of Market Rent

For NFL franchises, the median and modal rent percentage is 10 percent of gross ticket sales revenues. More leases call for less than 10 percent than require rent in excess of 10 percent. Moreover, the percentage rents for most of the reported leases signed in the 1990s are at substantially less than 10 percent of gross ticket sales revenues. Nevertheless, 10 percent of gross ticket sales revenues was selected and used as the best indicator of market rent for NFL stadiums over the past three to five years.

For MLB stadiums, on the other hand, the mean effective rental percentage rate is 6.7 percent of gross ticket sales receipts, while the median is 6.75 percent. This is noticeably lower than the percentage for NFL stadiums. A number of factors combine to explain this difference.

First, MLB teams play eight times as many home games (81) as do NFL teams (10, including two exhibition games). Second, home attendance at MLB stadiums averaged 2,150,000 in 1996, which is approximately 4.5 times the average of NFL home attendance between 1992 and 1996. At the same time, average ticket prices for MLB teams were approximately one-third the average ticket price for NFL games. Interestingly, however, the average gross ticket sales revenues were approximately the same for all NFL teams combined, as compared with the average for all MLB teams combined.

The important finding is that rent payments for NFL team franchises and for MLB team franchises are both calculated effectively as a percentage of gross ticket sales revenues. Over the period covered by the data in our analysis, the indicated market

Table 4

Major League Baseball Rentals, By Franchise
In (Mostly) Ascending Order

Year Signed	Term (Years)	Effective Rental Rate[1] (Percent of Ticket Revenues)	Franchise	1996 Attendance (000,000)
1994	20	0.9%[2]	Cleveland Indians	3.32
1977	20[3]	3.4%	Seattle Mariners	2.72
1983	23	3.7%	Houston Astros	1.98
1996	20[3]	5.0%	Atlanta Braves	2.90
1973	35	5.0%	San Francisco Giants	2.61
1990	25	5.4%	Kansas City Royals	1.44
1979	30	6.0%	Minnesota Twins	1.44
NA	NA	6.4%	Milwaukee Brewers	1.33
1995	20	6.5%	Oakland A's	1.15
1970	40	6.6%	Cincinnati Reds	1.86
1994	17[3]	6.6%	Colorado Rockies	4.48
NA	NA	6.9%	Montreal Expos	1.62
1991	30	7.0%	Baltimore Orioles	3.64
1994	30	7.4%	Texas Rangers	2.89
1996	33	7.5%	California (Anaheim) Angels	1.82
1985	20	7.5%	New York Mets	1.59
1972	30[3]	7.7%	New York Yankees	2.25
1979	30	8.1%	Detroit Tigers	1.17
1971	40[3]	9.5%	Philadelphia Phillies	1.80
1970	30	10.0%	Pittsburgh Pirates	1.33
1988	12	10.0%	San Diego Padres	2.18
1990	20	10.4%	Chicago White Sox	1.68

Mean Percentage: 6.70%
Median Percentage: 6.75%

Not Included: Team-Owned Stadiums: Boston Red Sox, Chicago Cubs, Florida Marlins, Los Angeles Dodgers, St. Louis Cardinals
Private Stadium: Toronto Blue Jays (Leased Land, $2 Per Year)
Not Yet Operating: Arizona Diamondbacks, Tampa Bay Devil Rays

(1) 1997 Lease Data
(2) Plus 7.4% "Pro Bono" Payments
(3) Plus Renewal Options

SOURCE: ***Inside the Ownership of Professional Sports Teams: 1997***, Team Marketing Report, Inc., Chicago, IL; Selected Leases.

rent for NFL teams and stadiums is 10 percent, while for MLB teams and stadiums it is 6.75 percent.

CONCLUSIONS

There is a pattern in the rentals paid by NFL and MLB teams. The model is that market rent is a percentage of annual gross ticket sales revenues: 10 percent for NFL teams and stadiums, and 6.75 percent for MLB teams and stadiums. These are not immutable percentages, however. Both MLB and NFL leases show wide ranges in effective rental percentage rates. Moreover, with increased competition among cities for both NFL and MLB franchises, new stadiums and new leases show trends toward lower levels of percentage rents for the team franchise tenants. It is reasonable to expect market rents to decline as even lower percentages of gross ticket sales revenues are experienced for new stadiums, new leases, and renegotiated lease renewals in the foreseeable future.

From the point of view of financial feasibility for NFL or MLB stadiums (dual-sports stadiums are currently out of vogue), rental payments from the tenant team do not represent the only revenue source to the public owner. With increased competition for franchises as *local* tenants, however, the trend is toward giving away larger shares of those other, alternative revenue sources, either to attract or to retain the MLB or NFL franchise tenant.

Market rent remains an important consideration in valuing the leasehold interest/possessory interest of the tenant team franchise, or in evaluating project feasibility. Therefore, ticket sales and attendance still matter. Attendance determines not only gross ticket sales revenues, but also revenues from concessions and parking, and even on-site advertising rates. Attendance also affects revenues from those luxury boxes or club seats available for sale on a game-by-game basis, which in turn influences total venue revenues.

In the final analysis, it is still preferable for both the franchise owner and the stadium owner to have a winning team. As our April 1997 article demonstrated unsurprisingly, winning teams enjoy higher average attendance. If no-shows have already paid for season tickets, their absence still has an impact on concession and parking revenues. In a zero-sum game, which is what NFL and MLB teams play, winning more often than losing enhances market rent, leasehold value, and stadium feasibility. REI

ABOUT THE AUTHORS

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two regional banks in Connecticut, after nearly a decade in conducting market research, analysis, and providing advice to public agencies and educational institutions. Since 1990, Ms. Geckler has specialized in market proximity impact studies; the evaluation of investment risks associated with acquisition, disposition, or development; identification/quantification of investment risks associated with property contamination and stigma; review of special purpose property appraisals; and litigation advice/support activities. (E-mail: recgc@mail.snet.net)

NOTES

1. Kinnard, William N., Jr., Mary Beth Geckler and Jake W. DeLottie, "Team Performance and Risk for Major League Baseball Stadiums: 1970-1994," *Real Estate Issues*, April 1997.
2. In the literature of US major league sports (baseball, basketball, football and hockey), stadiums and arenas are termed "venues." The proceeds from ticket sales, premium seating licenses or fees, food and beverage sales, program sales, souvenir sales, parking and on-site advertising are all called "venue" revenues. See, for example, Friedman, Alan, and Paul J. Much, *Inside the Ownership of Professional Sports Teams: 1999*. Chicago, IL: Team Marketing Report, Inc., 1999.
3. Appraisal Institute, *Dictionary of Real Estate Appraisal*, Third Edition. Chicago, IL: Appraisal Institute, 1993, p. 221.
4. Friedman, Alan and Paul J. Much, *Inside the Ownership of Professional Sports Teams: 1999*. Chicago, IL: Team Marketing Report, Inc., 1999.
5. International Association of Assessing Offices, *Glossary for Property Appraisal and Assessment*. Chicago, IL: IAAO, 1997, p. 84.
6. As an interesting aside, both SkyDome (Toronto Blue Jays) and Ericsson Stadium (Carolina Panthers) are privately-owned facilities on leased publicly-owned land. Contract Rent for each is $1.00 per parcel per year. SkyDome is on two parcels.

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