King County

Metropolitan King County Council
Budget and Fiscal Management Committee

Staff Report

Agenda item No.:	4	Date:	June 28, 2012
Proposed No.:	2012-0202	Prepared by:	Wendy Soo Hoo Mark Melroy John Resha

SUBJECT

Proposed Ordinance 2012-0202 would authorize the King County Executive to execute agreements related to a sports and entertainment arena in the SoDo neighborhood in Seattle. The agreements include a memorandum of understanding (MOU) with the City of Seattle and a private entity proposing to develop the arena (ArenaCo), and an interlocal agreement (ILA) with the City.

Today's briefing includes an analysis of the tax revenues and rent projected to support the public financing, a review of literature on public financing of sports facilities, and a review, in executive session, of legal issues. A timeline of the proposal is included in Attachment 1. The analysis of the proposal is ongoing.

BACKGROUND

The Seattle Supersonics (Sonics) played in Seattle from 1967 to 2008. In 2006, the team was purchased by an Oklahoma-based ownership group, which moved the team to Oklahoma City before the 2008-2009 National Basketball Association (NBA) season.

On February 16, 2012, the Seattle Mayor and King County Executive announced that they were working with Chris Hansen, a private investor and representative of ArenaCo, on a proposal to develop an arena south of Safeco Field and Century Link Field. The proposed arena would be designed to host a NBA and National Hockey League (NHL) team. According to transmittal documents, the 700,000 square foot arena would accommodate approximately 19,000 attendees for concerts, 18,500 for NBA games, and 17,500 for NHL games.

Summary of the Proposal

Under the proposal, the first contribution of public funds to the project would occur when the City acquires the site from ArenaCo. This also represents the point at which the land would enter public ownership. *Note that the County would not be party to this transaction.*

The City would acquire the site only after:

- The permitting and SEPA review of the project is complete;
- A call for bids, consistent with the Municipal Leasing Act, is made and ArenaCo is the winning bidder;
- Transaction documents, including an Umbrella Agreement, are approved by the City and County;
- The NBA team is acquired with a non-relocation agreement in place;
- The City and County have been satisfied regarding the financial ability of ArenaCo and its investors to meet obligations specified in the MOU; and
- ArenaCo has funded a required reserve account with money or securities in an amount equal to the first year's debt service on the City's bonds.

It is worth highlighting that site acquisition would not occur until State Environmental Policy Act (SEPA) requirements are met. SEPA requires state and local agencies to consider the likely environmental consequences of a proposal before approving or denying the proposal. Elements of the environment identified in SEPA include both the natural environment and the built environment, including land use, transportation, and public services.

Then, the parties would use a Lease-Purchase method to construct the facility. The City would ground lease the site to ArenaCo for $1 million annually during construction of the arena. ArenaCo would be responsible for all construction costs, including cost overruns. The arena would be required to meet any NBA and NHL requirements for arenas, and be substantially similar in quality to three mutually agreed-upon arenas.[1]

Following completion of construction, the City and County would then lease the arena from ArenaCo with the option to purchase the arena on the day after the Arena Facility is added to the property tax rolls or at a later date within six months (at ArenaCo's request). This date is the "Transfer Date." If the City and County exercise the option to

[1]The arena would also be required to comply with City requirements for sustainable construction and ArenaCo would commit to using the City of Seattle's Inclusion Plan.

purchase the facility, they would then lease the arena back to ArenaCo.[2] Note that, while the City and County would own the arena itself, ArenaCo would own all or a portion of the tenant improvements inside the arena (such as scoreboards, etc.) until the termination of the lease. The delineation of ownership of tenant improvements would be defined in the Transaction Documents.

Note that the Transfer Date would be the point at which the second installment of public financing occurs. *This would involve both the City and the County.* The amount of this second installment is contingent on whether a NHL team has been secured.

- **If the NHL team has been secured:** The second installment would be an amount that (along with the amount the City contributed for the purchase of the site) totals $200 million, with the City contributing up to $120 million in total and the County contributing up to $80 million.

- **If the NHL team has not been secured:** The second installment would be an amount that (when combined with the amount the City contributed for the purchase of the site) is the lesser of the amount of debt that could be supported by the tax revenues and rent at the site or $120 million. Notably, the County's contribution would be capped at $5 million and would be limited to an amount of debt that the County reasonably determines can be supported by its anticipated share of property taxes attributed to the arena.

In the first scenario, the public contribution for both the City and County is capped at $200 million. In the second scenario, the public contribution is capped at $120 million with the County's participation being limited to up to $5 million. The public financing would be in the form of limited tax general obligation bonds or certificates of participation, with a duration of approximately 30 years. Under the proposal, the debt service would increase at one percent annually for the first 10 years, then level off for the remainder of the term.

Terms of the Arena Lease

The term of the lease would be at least 30 years and no less than the term of any public financing. The total annual debt service is referred to as the Annual Reimbursement Amount with the Annual Reimbursement Amount being paid by the following sources:

- **"Base Rent"** paid by ArenaCo in the amount of $2 million annually;

[2]Alternatively, the City and County could exercise an option to have a trustee prepay the facility lease – in this case, the City and County would lease the facility for 30 years and sub-lease the facility to ArenaCo. This is a less likely scenario.

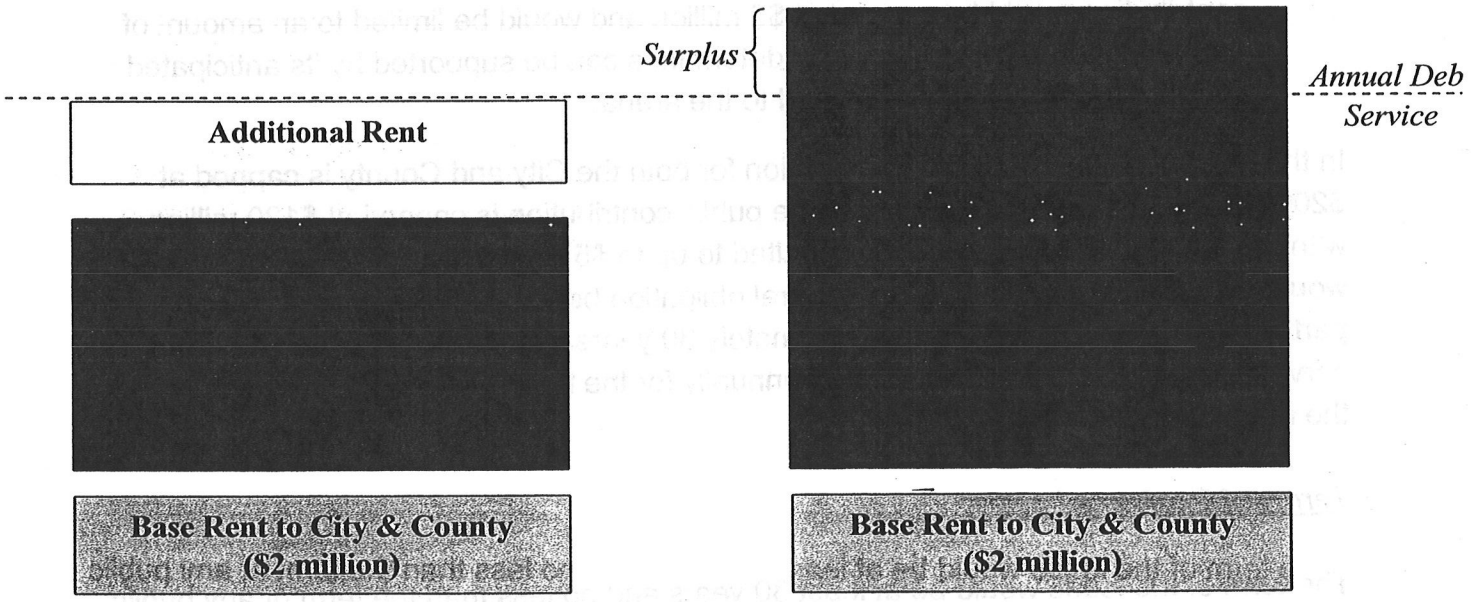
- **"Arena Tax Revenues"**, which include the amount of property, sales, leasehold excise, admissions, and business and occupation tax revenues attributable to the arena and arena tenant improvements (except that property taxes would not be included if tax-exempt debt is issued based on such revenue);
- **"Additional Rent"** paid by ArenaCo if the combination of Base Rent and Arena Tax Revenues described above do not meet the City and County's total debt service obligations (i.e., the Annual Reimbursement Amount).

This is displayed in Exhibit 1 below.

Exhibit 1
Shortfall vs. Surplus

Shortfall Scenario:
If Base Rent plus Arena Tax Revenues is not sufficient to cover the City's & County's annual debt service, ArenaCo will pay Additional Rent

Surplus Scenario:
If Base Rent plus Arena Tax Revenues exceeds the City's and County's annual debt service, surplus can be applied to the City-County Capital Account or to repayment of the bonds

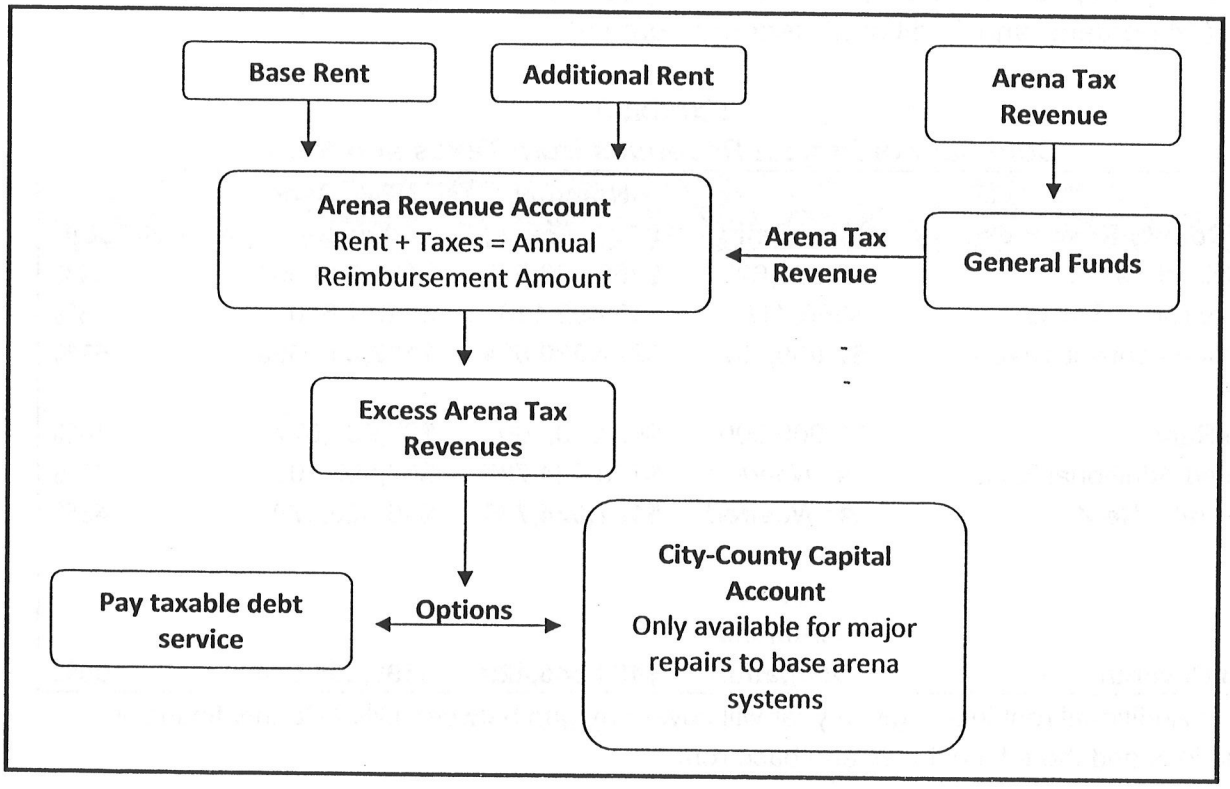


Note that tax revenues generated for restricted purposes, such as dedicated sales taxes for Metro Transit or dedicated property taxes for Emergency Medical Services, would not count towards repaying the debt service.

In the event that the combination of Arena Tax Revenues and Base Rent exceeds the Annual Reimbursement Amount, then the City and County could apply the surplus to

pay down the outstanding financing or deposit the surplus revenues into a City-County Capital Account.[3] The flow of funds is shown in Exhibit 2 below.

Exhibit 2
Flow of Funds



In addition, ArenaCo would be responsible to operate and maintain the facility, make all necessary capital improvements, and fund a Capital Account with $2 million annually to provide for improvements, though ArenaCo's obligations to make capital improvements are not limited by how much funding is available in this account.

[3]The City-County Capital Account would have a cap of $10 million during the first 10 years. The cap would grow by $2 million annually until Year 15, when the cap would reach $20 million. The City-County Capital Account is intended to be used only for major repairs to components of base arena systems, such as the roof, HVAC, lights, etc. Once the public financing is paid off, the cap on this account would be removed.

Details on Revenues Supporting the Project

As discussed above, the revenues supporting the project would be generated by a combination of Arena Tax Revenues, Base Rent and Additional Rent. As shown in Exhibit 3 below, Mayoral and Executive staff estimate that tax revenue would support 57 percent of the public financing. The remaining revenue would be comprised of Base Rent (14 percent) and Additional Rent (29 percent).

Exhibit 3
Summary of Project Revenues from Taxes and Rent

City/County Revenues	Annually	Nominal (Over Lease)	NPV (Over Lease)	% of Total
City Direct Taxes	$6,699,620	$258,528,579	$106,839,561	54%
County Direct Taxes	$369,717	$13,492,116	$5,841,830	3%
Subtotal - Direct Taxes	**$7,069,337**	**$272,020,694**	**$112,681,390**	**57%**
Base Rent	$2,000,000	$62,000,000	$27,962,077	14%
Imputed Additional Rent	*As Needed*	$119,524,735	$57,563,103	29%
Subtotal – Rent	***As Needed***	**$181,524,735**	**$85,525,179**	**43%**
Total Revenues	***Covers Financial Obligation***	**$453,545,429**	**$198,206,570**	**100%**

NOTE: Additional rent in any given year will cover any gap between City / County financial obligations and the total of taxes and base rent.

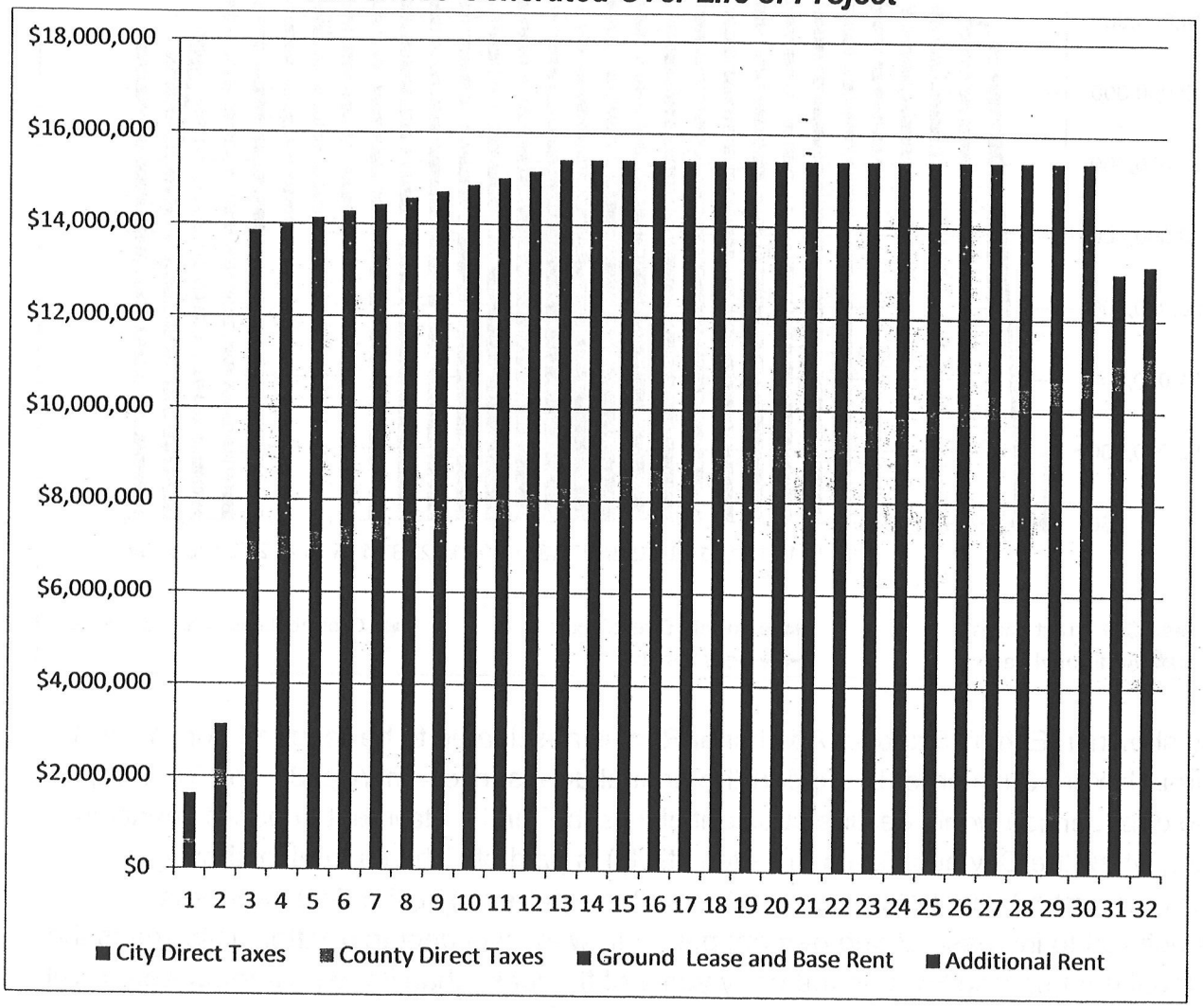
The model makes a number of assumptions regarding ticket prices, attendance rates, and novelty and concessions purchases per attendee. For example, the model assumes starting regular season ticket prices of $55 for both the NBA and the NHL and 1.67 percent annual ticket price growth. Note that the figures shown above assume no playoff games and no lockouts. In a scenario in which both teams made the playoffs every four years and played two additional home games, the increase in tax revenues generated would be about $3.3 million in nominal terms or $1.3 million net present value. If lockouts occur three times over 30 years in both sports with a 25 percent revenue reduction in those years, the reduction in tax revenues would be $3.9 million in nominal terms or $1.6 million net present value.[4]

[4] Lockouts have occurred in the NBA four times, but only affected the number of games played in two seasons: 1998-1999 and 2011-2012. The 1998-1999 lockout reduced the number of games played by about 40 percent and the 2011-2012 lockout reduced the number of games played by about 20 percent. A NHL lockout occurred during the 2004-2005 season, resulting in the cancellation of the complete season.

The two charts below display the revenues generated over the life of the lease from Year 1 through Year 32, including taxes collected by the City and the County, Base Rent, and Additional Rent. Note that Year 1 and Year 2 represent the construction period, so the "Base Rent" actually represents rent for the ground lease ($1 million annually) that ArenaCo pays the City during construction. The tax revenues collected during these years are primarily sales taxes associated with the construction project and property taxes collected during the second year of construction based on the partially completed construction.

Exhibit 4

Revenues Generated Over Life of Project



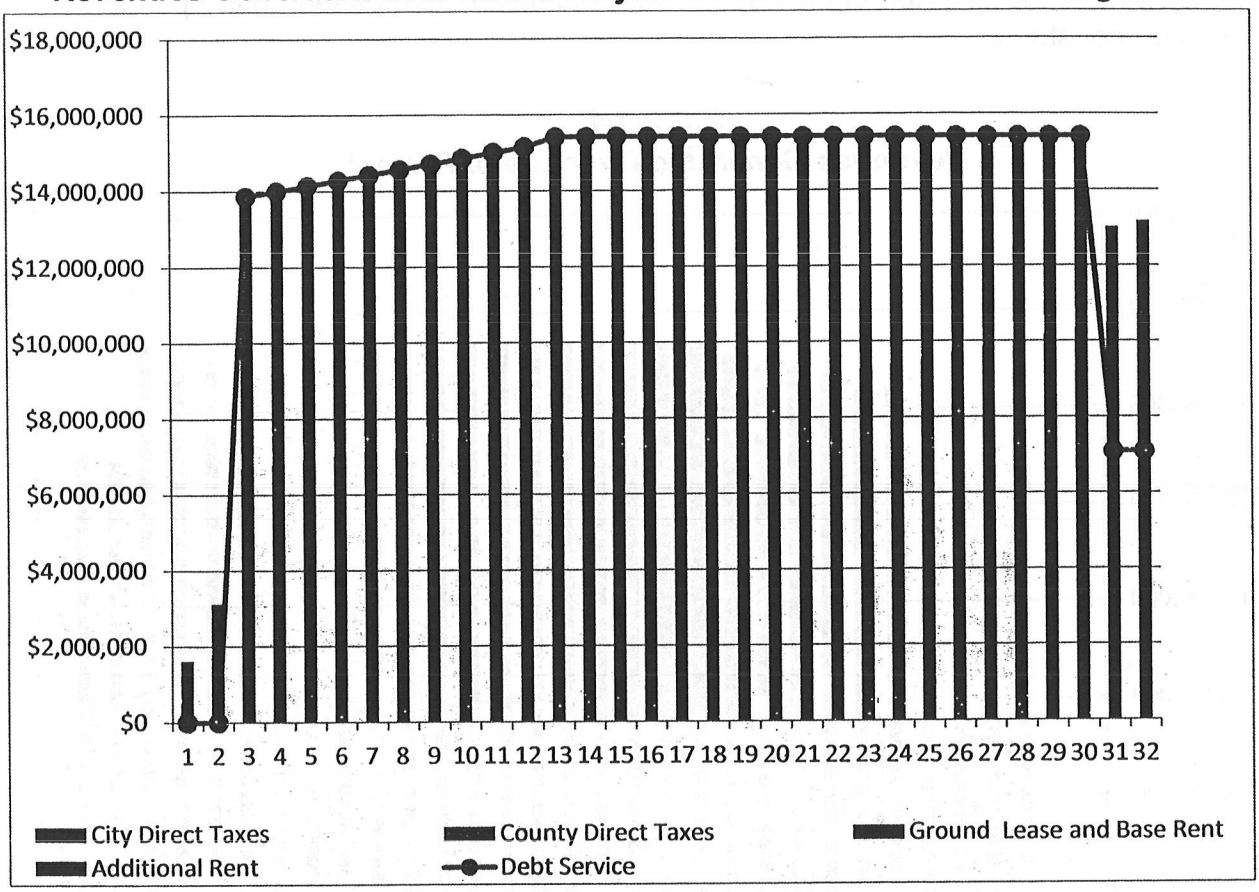
In the chart above, each bar displays the tax revenue collected by the City (red), tax revenue collected by the County (green), Base Rent paid by ArenaCo (purple), and Additional Rent paid by ArenaCo (blue). Again, the revenues collected during the term

of the lease and thereafter (after Year 3) would be split by the City and County with 60 percent going to the City and 40 percent going to the County.

The chart below is the same, but includes a yellow line representing the annual debt service.

Exhibit 5

Revenues Generated Over Life of Project & Annual Debt Service Obligation



As shown in Exhibit 5 above, Additional Rent is anticipated to be required from Year 3 through Year 30 in order to support the annual debt service. In Year 31 and Year 32, the debt service would decline substantially as the First Installment of public financing (i.e., when the City purchases the site initially) is paid off. The chart also shows that over the first 10 years of the lease (Year 3 through Year 12), the debt service is structured to increase at one percent per year, with level debt thereafter. This keeps the annual debt service lower in the early years of the lease than if the payments were level throughout the life of the lease; as a result, the debt payments for the latter years are higher than if the payments were level throughout.

A breakout of the City and County tax revenues is shown in the table below. As discussed previously, in the absence of an agreement to share the tax revenues based

on the City and County proportionate shares of debt, the majority (95 percent) of tax revenues would flow to the City.

Exhibit 6
City and County Tax Revenues

Tax Revenue Detail	Annually	Nominal (Over Lease)	NPV (Over Lease)	% of Total
CITY TAX REVENUES				
Property Tax	$781,950	$27,395,046	$11,565,202	11%
Sales Tax	$177,795	$9,427,875	$4,875,106	5%
Admissions Tax	$4,543,998	$176,186,700	$71,770,543	67%
B&O Tax	$993,878	$38,492,409	$15,686,346	15%
Leasehold Excise Tax	$202,000	$7,026,548	$2,942,363	3%
TOTAL	**$6,699,620**	**$258,528,579**	**$106,839,561**	**100%**
COUNTY TAX REVENUES				
Property Tax	$237,342	$8,315,099	$3,510,335	60%
Sales Tax	$31,376	$1,663,743	$860,313	15%
Leasehold Excise Tax	$101,000	$3,513,274	$1,471,181	25%
Total	**$369,717**	**$13,492,116**	**$5,841,830**	**100%**

These projected tax revenues are based on the assumption that a NHL team will have been secured by the Transfer Date, which is the date on which the City and County provide the Second Installment of public financing and the facility would be transferred to public ownership. The NHL team is estimated to account for about 40 percent of the admissions and sales tax revenues (compared to 41 percent from the NBA and 19 percent from major concerts and other minor events). The NHL team is also projected to account for about 40 percent of the business and occupancy (B&O) tax revenues, as compared to 50 percent from the NBA and 10 percent from other events. The higher percentage of B&O tax projected to be generated by the NBA is largely due to TV contracts. The property tax and leasehold excise tax revenues would not vary depending on whether the NHL team has been secured.

Note that the MOU sets a deadline of six months after the day the arena is added to the property tax rolls for acquisition of the NHL team. The six month period is intended to allow additional time for the team to be secured prior to the Transfer Date – again, if the team has not been secured by that time, the public financing is reduced to a maximum $120 million, including a maximum of $5 million from the County. Even if the NHL team is acquired after the Transfer Date, the City and County contribution would not increase beyond the lower obligation of up to $120 million. In this scenario, however, all Arena Tax Revenues – including those generated by the NHL team – would be utilized to support the repayment of the public financing.

Property Tax Revenues

As reported to the City Council previously, property taxes for King County property owners will increase as a result of the arena financing proposal. As discussed previously, the City would purchase the site after the permitting and SEPA processes are complete and after the NBA team has been secured. It would then ground-lease the site to ArenaCo for construction. The arena would be constructed by ArenaCo, and during the construction period, the arena (not the site) would be owned by ArenaCo, a private entity. The arena would be maintained in private ownership until it was added to the tax roll.

In Washington state, property tax revenue growth is capped at one percent per year plus the value of new construction. Therefore, keeping the arena in private ownership until the value of the newly constructed arena is added to the tax roll results in an increase to the levy base that will be used to calculate property taxes for subsequent years.

After the arena is added to the tax rolls, the City and County would presumably exercise their option to purchase the arena, which would transfer the shell of the facility into public ownership, after which no property taxes would be assessed on the asset in public ownership. However, the increase in the base property tax revenues initially caused by the addition of the new arena construction would still be collected – it would be shifted to all other property tax payers in the county. This additional amount of property tax would be credited toward debt service on the bonds. Note that the total annual property taxes collected and applied to debt service on the bonds is estimated at $781,950 for the City and $237,342 for the County.

According to Office of Performance, Strategy and Budget and the City Budget Office staff, the amount of property tax a typical King County property owner outside the City of Seattle would pay as a result of the arena financing would be about $0.22 cents annually based on a median home value of $318,000 (see Exhibit 7 below). In the City of Seattle, a property owner would pay an additional $2 to $3 (according to City staff) as a result of the arena financing. The property taxpayer would also pay slightly more in *dedicated* property taxes (e.g., EMS, Flood, etc.) that are increased due to the arena construction being added to the tax roll, but these amounts would not go to support repayment of the arena bonds. That impact is estimated at an additional 26 cents per year.

Exhibit 7
Property Tax Impacts to King County Taxpayers by Fund based on $318,000 Median House Value

General Fund	***$0.22***
Inter-County River*	$0.00
Veteran's Aid*	$0.00
Mental Health*	$0.00
Councilmanic Bond Redemption	$0.02
Parks	$0.02
Zoo/Open Space/Trails	$0.02
Veterans/Human Services	$0.01
AFIS	$0.01
Transportation	$0.02
Conservation Futures	$0.01
Bond Fund Unlimited	$0.02
EMS	$0.08
Ferry*	$0.00
Flood District	$0.03
King County (All)	**$0.46**

**More than $0.00 but less than $0.01.*

Security Provisions

ArenaCo would be required to fund a Reserve Account that totals at least the Annual Reimbursement Amount for the following year. The MOU calls for an account control agreement, the terms of which would be consistent with the MOU and that are mutually agreed upon in good faith by the three parties. The account control agreement would be a Transaction Document. The MOU specifies that the money in the Reserve Account shall only be invested in investments reasonably acceptable to the City and County.

ArenaCo would also be required to certify annually that the preceding fiscal year's Net Arena Revenues (or revenues less operating costs) are at least two times the Annual Reimbursement Amount for the following year – this is referred to as the Coverage Ratio. If the Net Arena Revenues fall short, ArenaCo must fund the Reserve Account such that the total of the Net Arena Revenues and the Reserve Account is three times the following year's Annual Reimbursement Amount.

The City's and County's right to receive rent payments would have a first priority payment position from arena revenues before any private financing payment obligations. The City's and County's right to receive rent payments as well as the amounts in the Reserve Account and Capital Account would be secured by a lien on ArenaCo's revenues (such as facility naming rights, suite and premium seating sales, and other revenues), though not team revenues (such as ticket revenues). Note that the

lien position would need to be agreed upon by ArenaCo's lenders, the City and the County. This is a change from the original proposal concept announced in February – at that time the City's and County's right to receive rent payments was anticipated to be secured by a first lien position.

However, to increase the security to the City and County, the parent company that owns the equity in both ArenaCo and the NBA team would provide a guaranty of ArenaCo's obligations under the Arena Lease. Further, in the event of default, the City and County would have first rights to the proceeds of the sale of an NBA team, subject only to repayment of any NBA team obligations to the NBA. Debt obligations to the NBA by the NBA team owner would be capped to ensure that there is sufficient equity in the team to meet the City's and County's obligations in a default scenario. Note that beyond the NBA team and tenant improvements within the arena, it is unclear what assets would be held by the parent company.

In addition, the non-relocation agreements for the team(s) would include specific performance requirements, liquidated damages and injunctive relief provisions.

Notably, under the ILA, in the event of a payment default by ArenaCo, any Arena Tax Revenues and Base Rent received from ArenaCo would be divided between the City and County based on their proportionate share of the outstanding public financing. After Year 15 of the lease, up to 50 percent of the tax revenues would be allocated first to pay the County's debt service with the balance allocated to pay the City's debt service. Aside from the tax revenues, any additional rent and withdrawals from the Reserve Account, Capital Account, and City-Capital Account would be allocated first in any year to the support County debt service, then to support City debt service.

Review of Literature on Sports Stadiums and Arenas

LITERATURE REVIEW

Much has been written about professional sports facilities and government involvement in the financing, construction, ownership and operational oversight of sports facilities. For the purposes of our analysis, council staff have selected a few pieces from this body of work to help focus the review of the current proposal. The selected pieces tend towards more recent and local contributions to the discussion of sports facilities. They are as follows:

- **Sports, Jobs and Taxes - The Economic Impact of Sports Teams and Stadiums; Published in 1997, Editors Roger G. Noll and Andrew Zimbalist**

- **Municipal Bonds - Batter Up: Public Sector Support for Professional Sports Facilities; Released 5 April 2012, UBS Wealth Management Research**

- **Report on Issues Concerning the Seattle-King County Arena Proposal; Released June 6, 2012, King County Municipal League Foundation, Authors Bill Alves and Jane Hadley**

- **Open Letter From Chris Hansen to the Community; Released June 22, 2012, Authored by Mr. Chris Hansen, Current Arena Proposal Sponsor**

Each of these works makes its own particular contribution to the discussion of the current arena proposal. However, the most comprehensive review of the underlying economics and associated risks is the work of Mr. Noll and Mr. Zimbalist.

Sports, Jobs and Taxes *(Noll, Zimbalist 1997 – Attachment 2)*

The goal of this work is nicely summarized in the book's forward, which was written by Michael Armacost. Mr. Armacost describes that sports facilities have been supported by local, state and federal governments "in many cases, the total subsidy for sports facilities exceeds $10 million a year for as long as thirty years". Project proponents arguing for this type of government support often make claims of associated local economic benefits associated with the project that would not otherwise be realized. The objective of Mr. Noll and Mr. Zimbalist's work is to test the validity of such economic benefits claims. As Mr. Armacost writes, "In every case, the authors find that the local economic impact of sports teams and facilities is far smaller than proponents allege." It is important to note that this book was published in 1997 and reviews projects conceived or completed prior to that time. The work, however offers some helpful guidelines for analysis.

On pages 1 and 2, Mr. Noll and Mr. Zimbalist write: "Although the details of campaigns for sports facilities differ from city to city, the basic case for subsidizing them is the same everywhere. First ... a major facility is said to generate new jobs... Second, a team or an important sports event reputedly makes a community a 'major league city' thereby garnering free publicity and attracting new businesses. Third, although a city might pay hundreds of millions of dollars in subsidies to attract or to retain a team ... the additional tax revenues and lease payments are claimed to be sufficient to offset these subsidies and to make a publicly financed stadium a good investment."

The third point made by Mr. Noll and Mr. Zimbalist is the most applicable and significant in reviewing the current arena proposal. Before further discussion of the third point, however, *it is worth noting why the first two points are rendered less significant to the current proposal.* Proponents of the current project have been careful to avoid the use of specific economic benefit arguments to the extent they were used for projects prior to 1997. While there has been discussion about appropriate 'multipliers' (an economic term for potential associated job creation) Mr. Hansen has been careful not to employ

this argument as a reason for the City and County to move forward with this proposal in contrast to other stadium proposals, as cited in the chapter "Build the Stadium – Create the Jobs."

It is the third point that is critical to the current proposal and is being considered by Council staff and the Arena Proposal Expert Review Panel (APERP). Under the proposal, the tax revenues and lease payments would be sufficient to offset the financial responsibilities of the County and the City, as ArenaCo would be required to make additional rent payments if the base rent and tax revenues fall short of covering the City and County debt service obligations. Mr. Noll and Mr. Zimbalist discuss revenue sources, assumptions and associated risks in their book. Several issues raised in the book are being considered in our ongoing review. A few are noted here:

- Clarify the difference between stadium financing and stadium economics. Financing is the way in which the facility is paid for; economics include the arena's potential effect on the local and regional economy. In the current proposal these two concepts are somewhat related as economic issues are embedded in financial assumption about revenues generated within the arena, the proceeds of which are used to pay for the facility. One salient difference between the current proposal and some of those described in the book is that "the team and the locality usually share responsibility for site preparation and the direct construction costs". The current proposal contemplates all responsibility for site prep and construction cost management to the developer.

- Thoroughly analyze revenue sources such as luxury box and personal seat license revenue; naming rights; concession revenues; determine who has control over and is responsible for ensuring that these revenues are maximized; ensure the financial models account for potential team popularity effects and how this issue is accounted for in the debt repayment structure.

- Federal tax subsidy - Mr. Noll and Mr. Zimbalist spend time in their book discussing the federal tax subsidy associated with sports facility financing. According to Executive staff, little (if any) tax-exempt financing is expected to be utilized. The absolute maximum would be the amount that could be supported by property taxes, which make up about 13 percent of the anticipated tax revenues generated by the arena..

- Analyze the revenues associated with the facility in terms of a percentage of the metropolitan area's effective buying income (EBI) or total disposable income.

- Entertainment dollar substitution considerations should be reflected in economic analyses (i.e., would money spent in an arena be otherwise spent in City of Seattle or King County?).

- Related to substitution is the effect of potential 'leakage'. This is an economic term used to describe money that would otherwise stay in Seattle finding its way out of the local economy as a result of the arena project. In a conversation with Council staff, Mr. Zimbalist described the following example. Money spent at the arena would likely be spent elsewhere if the arena project did not occur - local restaurants, theater, the symphony, etc. This is the substitution effect. However, if money spent at the arena accrues to Mr. Hansen for example, who resides in San Francisco, and if Mr. Hansen spends that money in San Francisco instead of Seattle that money is diverted from the local economy (based on the assumption that the alternative venues are owned and operated by people who reside in the Seattle area). This situation would also occur for basketball and hockey players who do not reside in the Seattle area. Additionally, total taxes generated with and without an arena should be considered. Of specific consideration is the issue of where the teams are domiciled. Additionally, if Mr. Hansen, saves his share of profits associated with the arena but the waiter at the restaurant that might otherwise receive those entertainment dollars spends his money locally, then a net loss to local tax revenues could be realized. Leakage is a valid consideration for any professional sports activity – revenues generated among pro sports venues does not necessarily by itself create substantially greater or smaller amounts of leakage. Tax revenues may be a different matter under the current proposal.

- Review the "opportunity cost" of making the government investment – i.e., if this proposal did not proceed, what would the government otherwise do with the associated resources. King County appears to be in a particularly unusual situation related to this issue. King County's bonding authority is limited by state law and is tied to assessed value. Because of its relative inability to raise revenues the County has a considerable amount of bonding capacity ($2.8 billion) that is likely to go otherwise unused. The City of Seattle is in a different position on this issue.

- Employment levels and the timing of construction activity are an important consideration in the evaluation of the economics of sports facilities. Expected job creation could just be 'job diversion' in the event employment levels are high.

- Multipliers (or the extent to which revenues associated with a sports facility increase local economic activity) should carefully consider the extent to which stadiums do, or do not, attract tourists. Mr. Noll and Mr. Zimbalist note in the book that typical values for multipliers range between 1.5 and 2.0 but they further analyze the situation for sports facilities and describe conditions under which a more conservative estimate of 1.2 might be more appropriate. (pg 75)

"All major sports are controlled by monopoly leagues" pg 26. This helps to explain why sports leagues are in a better position to bargain with governments around where teams will locate.

Perhaps the most interesting statement in Mr. Noll and Mr. Zimbalist's book in the context of the current arena proposal is found on page 28. As they examine the financial feasibility of stadiums, including that "Stadium subsidies exist also because stadiums are seldom financially attractive as private investments", they go on to say that:

"First, a dual-purpose basketball and hockey facility could plausibly pay for itself. In these sports, game revenues are not shared, so all of the revenue enhancements from a new facility is kept by the home team. In addition, arenas can be used for other events, such as circuses and trade shows".

It would appear that the current arena proposal has been crafted to maximize its potential as a successful business venture.

Municipal Bonds - Batter Up: Public Sector Support for Professional Sports Facilities *(April 5, 2012 - UBS Wealth Management Research – Attachment 3)*

This report was recently released by UBS Financial Services Inc. The targeted audience appears to be those parties considering the financial strength of municipal bonds issued by governments involved in arena financing.

It is a very readable report that highlights and restates many of the findings of Mr. Noll and Mr. Zimbalist's book without discussing changes in sports facility financing since the book was published in 1997. The report often cites the work of academics Dennis Coates and Brad Humphreys, much of which dates back to 1999.

The UBS report notes that "states and local governments often have relied on the sale of tax-exempt bonds to finance the construction of new arenas and stadiums". As discussed previously in this report, the current proposal is expected to use little, if any, tax-exempt financing although the report does note that "tax-exempt municipal bonds represent the least expensive source of capital available to most team owners and are the preferred method of financing stadium construction." Even without the "tax-exempt" part this statement remains true and applicable to the current proposal because King County and the City of Seattle can borrow at lower cost than private funders because they have exhibited the strong financial prudence that results in a superior debt rating.

Substitution effects, opportunity costs (also referred to in the report as "misallocation of scarce public resources") and investor perspective are also covered in the report including the following statement:

> "We expect the debate regarding the use of sports facilities as an economic development tool to continue. Despite consistent evidence that subsidies are

> counterproductive in the long run, the public sector remains intent on directing expenditures for this purpose. Rather than dwell any further on whether such a policy is prudent, we must examine the type of subsidies offered and whether the resulting bond issues represent a good investment."

UBS goes on to caution that "All too often, however, they (bond issues) have been marketed with ascending debt service schedules." This issue arose during negotiations between the City, the County and Mr. Hansen's group. Mr. Hansen's initial proposal to 'back-load' the debt was significantly reduced upon the advice and involvement of King County Director of Policy, Strategy and Budget. The report also suggests that "Bond issues that are ultimately backed by the general credit of municipal governments offer reasonable strong security but also pose more ratings volatility than bonds backed by a general sales tax. As municipal governments are squeezed by higher pension payments and reductions in state aid, their ratings are more susceptible to revision...Atlanta, Memphis and Glendale are good examples." It is worth noting that King County's bond rating has been upheld at the highest possible level in recent years.

The report also notes that in the example of the recently considered Sacramento NBA facility proposal the "risk of cost overruns over and above those accommodated by the construction contract is borne by the city." Under this proposal, cost overruns will be borne by the developer.

Report on Issues Concerning the Seattle-King County Arena Proposal *(June 6, 2012, King County Municipal League Foundation, Authors Bill Alves and Jane Hadley – Attachment 4)*

The Municipal League released their report with a related intention statement:

> "This report is intended to advance the public discussion about the proposed new SODO stadium. However, this report does not present the final or official position of the Foundation on any issue presented. The Foundation does not make any recommendation about the proposal at this time. We invite your questions and comments, with a view to sparking additional study and discussion about the proposal."

The Municipal League report focuses on identifying questions for further study and is centered around the criteria and discussion set forth by the Mayor and the Executive's Arena Review Panel. (The Mayor and Executive's Review Panel is a separate group from the Panel currently serving the Council Budget Committee's review of the proposal.)

The Mayor and Executive's Review Panel considered three fundamental questions:

1. Does the proposal protect existing general fund resources?

2. Does the proposal significantly protect the City and the County from financial risks?

3. Will the partnership result in an investment in the community and the region?

On the first point, the Municipal League's report astutely raises the questions of substitution and externalities. These areas are identified as needing further analysis. The Council's Review Panel (APERP) is currently exploring these issues.

Also on the first point, the Municipal League's report offers some commentary on potential externalities and potential project impacts. In addressing potential mobility impacts the report calls for further study and review, which is prudent and helpful. Other comments are less helpful in reviewing the proposal as they include considerable speculation.

> "Costs of congestion are possibly of a scale that makes the entire arena project infeasible."
>
> "When traffic is already congested, the response of the system to additional stresses can mean a small change in the traffic can result in a big change in congestion"

The Municipal League's report calls for further review of a transportation and parking study that was performed by Parametrix Consulting Engineers. The Parametrix report was funded by Mr. Hansen at the request of City and County officials and managed by the City of Seattle's Department of Transportation. The suggestion for further review of the Parametrix study has been heeded and additional analysis of the transportation report was performed by County Council staff and discussed at the June 21 meeting of the Budget and Fiscal Management Committee. The Municipal League report cites concern about the claims made by Parametrix that infrastructure improvements in the area will help accommodate additional traffic and parking requirements. The Municipal League questions whether some of the improvements will be delayed or whether they will happen at all. A response to this particular concern was offered in that the improvements identified are either recently completed (overpass work near intersection of 1st Avenue South and Spokane Street), already under construction (Spokane Street Viaduct) or in the contract award phase (the "little h" project).

One of the closing comments related to mobility externalities is that "Decision makers need to understand the potential impacts early in the process since the general funds would bear the cost of building infrastructure to address increasing demands placed on

the system by the new arena and ancillary development." It is not clear what provides the basis for the connection between infrastructure demands and the City and County general funds - this connection is not reflected by the budgeting practices of the County government.

On the second point regarding protection from financial risk, the Municipal League raises the issue of whether Seattle can support two additional professional sports teams and whether enough money would be set aside, per the proposed agreement language, to maintain the arena as a "first class" facility. These are important issues and obviously sensitive to the region given the City's experience with Key Arena.

The report states that "the proposal has been characterized by elected officials and proponents as 'risk free'..." It is not clear to whom this quote is attributed. In recent public discussions, the Mayor and Executive's review panel members and, separately, Mr. Hansen have indicated that the proposal is not void of any and all risk. In his most recent "open letter to the community," which is discussed later in this report, Mr. Hansen does offer nearly definitive statements about City general fund protection from risk. However, County Council staff have clearly stated that the proposal is not without risk and in the June 19th Budget and Fiscal Management Committee meeting, the Director of the Office of Performance, Strategy and Budget also acknowledged that some level of risk exists. The simple mechanism by which to completely protect the City and County from any and all risk associated with this arena proposal is to prohibit their involvement in the project and reject the proposal.

Also on the second point, the Municipal League discusses the difference between the project as an NBA-only proposal - as opposed to a combined NBA/NHL type facility. The report notes that an NBA-only proposal would cause the arena-related financial burden to be carried by a smaller investment group. The report goes on to say that "This, of course, increases the financial risk for the investors but ultimately for their City and County partners as well." This sentence does not correctly recognize the County's limited involvement in the project (capped at $5 million total) should the project move forward as an NBA-only proposal.

Open Letter From Chris Hansen to the Community *(June 22, 2012, Authored by Mr. Chris Hansen, Current Arena Proposal Sponsor – Attachment 5)*

In Mr. Hansen's recently released letter he states his intent to:

> "Address certain concerns and correct several misconceptions and inaccuracies about my proposal to build a state-of-the-art, multi-purpose Arena in Seattle's Stadium District and bring NBA basketball and professional hockey back to the Pacific Northwest"

This letter somewhat follows the form of the Municipal League's report in responding to the 3-point charge issued by the Mayor and Executive's charge to their review panel as well as following up on other economic, financing and tax issues.

One of the main points raised by Mr. Hansen is to differentiate between substitution of entertainment dollars and substitution of related tax revenues that are used to support the financing of the arena. This seems to be a fair call for clarification given that many other major sports venues have received exemptions from collecting the admissions tax, which represents a significant revenue source in the proposal.

Several other taxes that will likely generate some amount of revenue as a result of the project are also discussed in the report. These tax streams have a less significant role in the proposal than the admissions tax.

Of particular concern to Council staff is the language Mr. Hansen uses with respect to general fund protection. Mr. Hansen's letter states that "the MOU transaction virtually guarantees the SoDo Arena will have a positive net impact on the General Fund of Seattle. It is also demonstrably clear that it will be a net-positive to both the County and the State." While these statements may eventually prove true they are a departure from the conservative way Mr. Hansen has portrayed the proposal prior to this letter. Mr. Hansen had been careful to make sure policymakers and the public were aware that risk is involved. This latest description may be Mr. Hansen's response to opinions offered by the Municipal League about risk without an acknowledgement or understanding of the efforts made by his group to help mitigate and defend against those risks (contractual payment obligations, public ownership of the land and facility, etc.). Nevertheless, Council staff maintain that risk is inherent in this arrangement while noting that the budgeting/forecasting practices of King County are markedly more conservative than many other governments, as evidenced by its AAA rating.

Mr. Hansen also goes on to clarify his concerns regarding, and his potential plans for, Key Arena. Much of the rest of the letter merely restates terms of the agreement under consideration and offers some responses to the questions regarding market support for two additional professional teams in Seattle.

In conclusion, the letter from Mr. Hansen offers some helpful clarity around a few economic analysis principles as they apply to this arena proposal and offers his view on the financial viability of the proposal. Many of the remaining issues were already under consideration by Council staff and the Budget Committee's Expert Review Panel.

As this staff report was going into production, the New York Times published an article by Mary Williams Walsh on June 25, 2012. The article begins:

> Surprised local taxpayers from Stockton, Calif., to Scranton, Pa., are finding themselves obligated for parking garages, hockey arenas and other enterprises that can no longer pay their debts.
>
> Officials have signed them up unknowingly to backstop the bonds of independent authorities, the special bodies of government that run projects like toll roads and power plants.

Council staff will further review this article, its content and any applicability to the current arena proposal. However, it is worth noting that the economic condition of both King County and the City of Seattle differs significantly from Stockton and Scranton.

Issues Identified in Review of the Legal Agreements

Technical and policy issues have been identified in the analysis of the MOU and ILA. The legal implications of these issues will be discussed in executive session by the Prosecuting Attorney, the County's bond counsel, and the Council's legal counsel.

Upcoming Hearings & Analysis

Analysis of this proposal is ongoing. This item will next be discussed at the next regularly scheduled meetings of the Budget & Fiscal Management Committee on July 3rd and July 17th. Another special meeting is planned July 12th at 1:30 p.m. A special joint meeting of the City and County councils is scheduled for July 19th at 5:30 p.m. in the Bertha Knight Landes Room at City Hall.

ATTACHMENTS

1. Arena Proposal Timeline
2. Roger G. Noll and Andrew Zimbalist, *Sports, Jobs & Taxes: The Economic Impact of Sports Teams and Stadiums*
3. UBS, *Batter Up: Public Sector Support for Professional Sports Facilities*
4. Municipal League Foundation, *Report on Issues Concerning the Seattle-King County Arena Proposal*
5. Chris Hansen, *Open Letter from Chris Hansen to the Community*

ATTACHMENT 1

Arena Proposal Timeline

The timeline below gives an overview of the transaction, based on information provided by Executive staff.

Key Actual and Projected Dates for the Project

- **May 22nd:** Executive transmitted Proposed Ordinance 2012-0202
  - **MOU** – agreement between the City and County and ArenaCo
  - **Interlocal Agreement** – agreement between the City and County that identifies the debt split and establishes the governance structure and process

- **May 23rd:** Transportation study released

- **To Be Determined – 2012:** Legislative action on the proposed agreements

- **Mid-2012 through Mid-2014:** ArenaCo works to get the site ready for construction (permitting, SEPA, etc.) and the City, County and ArenaCo would negotiate the final Transaction Documents, including an Umbrella Agreement, that will further define the details of the transaction. ArenaCo would concurrently work to acquire the NBA team.

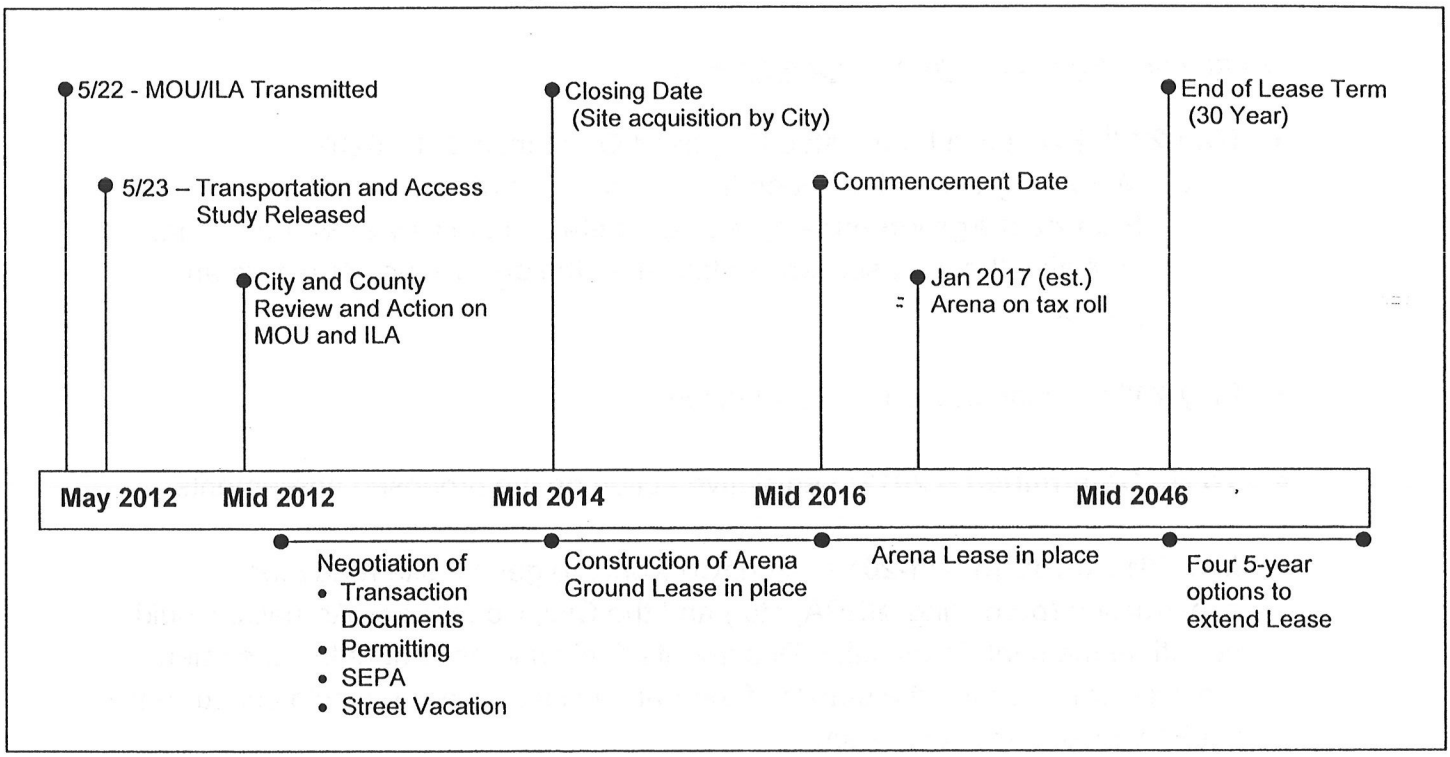
- **Mid-2014:** Following approval of the Transaction Documents and acquisition of the NBA team, the City would acquire the site (on the "Closing Date"), making the first installment of public financing. The City would then ground lease the site to ArenaCo to begin construction.

- **Mid-2016:** Once construction is complete and the arena is ready for occupancy ("Commencement Date"), the City and County would carry out a lease-purchase and lease the arena back to ArenaCo. This marks the second installment of public financing.
  - **No County bonds would be issued until the construction is complete.** *Council action would be required to authorize the sale of bonds.*
  - **Public financing is reduced if NHL team is not secured**. The County's involvement would be limited to the amount that the County reasonably determines can be supported by its anticipated share of property taxes attributed to the arena, with a maximum of $5 million.

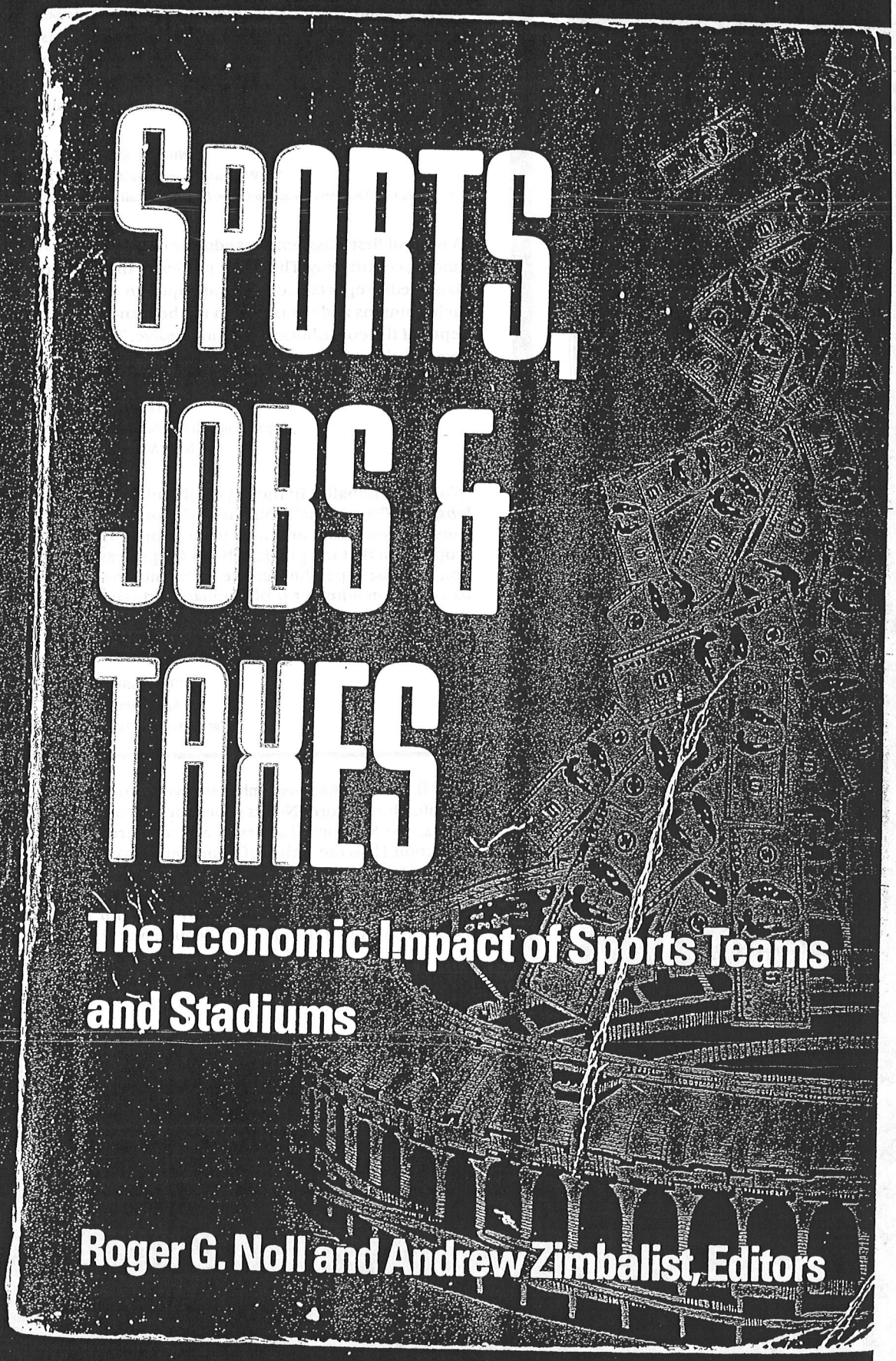
- **Mid-2046:** End of arena lease term, which would be no earlier than the term for any public financing. MOU includes five-year options to extend the arena lease.

This timeline is also shown below in the exhibit below.

Key Actual & Projected Dates for SODO Arena Project



ATTACHMENT 2



"*Sports, Jobs and Taxes* is the hardest broadside yet on the presentation of sports facilities as absolute panacea for America's cities. Anyone seeking balance to the often biased public relations presentations for and against the construction of new facilities should look here for guidelines for the formulation of the informed answer to the always complex problems in this arena. There is more to the sports franchise game than 'build it and they will come.' Those complex parameters are analyzed by some of America's foremost scholars focusing on this issue."

KENNETH L. SHROPSHIRE
The Wharton School of the University of Pennsylvania
Author of *The Sports Franchise Game: Cities in Pursuit of Sports Franchises, Events, Stadiums, and Arenas*

"A team of first-class scholars address every possible nuance and angle of the stadium funding controversy. They have produced the definitive resource for government officials, media reporters, community opinion leaders, and taxpayers who want to base their opinions and decisions on the best knowledge available. Both the breadth and depth of the contributions are impressive. The analyses are meticulous and carefully detailed; the interpretations and discussions are thoughtful and thought-provoking. This is a landmark publication that over time will be regarded as a classic work."

JOHN R. CROMPTON
Department of Recreation, Park, and Tourism Sciences
Texas A&M University

"Noll and Zimbalist, in their typical tradition of excellence, have assembled *Sports, Jobs, and Taxes,* which contains collaborative essays that critically analyze the sports construction boom and its true economic impact. The essays fairly question the proposition that the public subsidy for professional sports induces economic expansion, increases spending, creates jobs, and provides other positive externalities. They also question whether professional sports simply realign economic activity within a municipality's leisure industry rather than add to it, and whether professional sports has been oversold as a catalyst for economic development. This book is absolute 'must reading' for anyone interested in the economics of stadiums and sports."

MARTIN J. GREENBERG
Sports Attorney
Marquette University Law School

Roger G. Noll and **Andrew Zimbalist** have consulted for players' associations and owners in professional sports. Noll is professor of economics and director of the Public Policy Program at Stanford University and a nonresident senior fellow at the Brookings Institution. He is the author of numerous books, including the classic *Government and the Sports Business* (Brookings, 1974). Zimbalist is professor of economics at Smith College and the author of several books, including *Baseball and Billions: A Probing Look Inside the Big Business of Our National Pastime* (Basic Books, 1992). He was also a consultant for the nine-part documentary on baseball in America by Ken Burns.

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FOREWORD

America is in the midst of an unprecedented boom in construction of sports facilities. Nearly half of U.S. professional sports teams either are playing in a new facility or expect to have one within a few years. This book examines the economics, finance, and politics of the stadium boom.

With rare exceptions, facilities for professional sports are heavily subsidized. State and local governments frequently contribute to the capital cost of stadiums and forgive their owners some taxes. The federal government helps out by granting a tax exemption for interest on the debt of state and local governments that is used for financing stadiums. In many cases, the total subsidy for sports facilities exceeds $10 million a year for as long as thirty years. The total subsidy for all of these facilities runs into the billions of dollars. Advocates of stadium projects frequently justify subsidies by arguing that teams and facilities have a beneficial effect on the local economy. These claims are buttressed by numerous reports showing annual economic benefits from new stadiums in excess of $100 million.

One objective of this book is to examine the validity of these claims. The authors explain the appropriate methodology for calculating the costs and benefits of a sports facility and then examine several recent stadium projects and proposals. In every case, the authors find that the local economic impact of sports teams and facilities is far smaller than

proponents allege; in some cases it is negative. These findings are valid regardless of whether the benefits are measured for the local neighborhood, for the city, or for the entire metropolitan area in which a facility is located.

The unattractive economics of stadiums raise a second issue: if stadiums are poor investments, why, in the era of limited government and skepticism about the value of public construction projects, are expensive stadiums still being subsidized? The studies in this book reach two conclusions: local politics, and the bargaining power that sports teams now enjoy because of their scarcity.

Stadium proponents typically comprise some very well organized interests that have much to gain from these projects. In cities where stadium measures are placed on the ballot, stadium proponents typically outspend the opposition by more than twenty to one. Because stadium referendums are usually held in special elections with low turnout, this spending differential gives stadium proponents considerable advantage.

In addition, stadium proposals usually are accompanied by a threat that a local team will move elsewhere or by a larger agreement to bring a new team to the community. Hence the stadium proposal is inextricably linked to the presence of a team. As a result sports fans must consider the value of having a local team as well as the cost of a new stadium. Because the annualized per capita cost of a new stadium typically is only a few dollars, fans may vote for a stadium that they believe is excessively lavish because they are given no reasonable alternative except not having a team.

In the introduction and conclusion, the editors offer their views about the cause of lavish public investments in sports facilities. The primal cause is the monopoly status of each professional sport, which keeps the number of teams lower than the market can support. The relative scarcity of teams forces cities that could be financially viable franchise locations into competitive bidding whenever a team becomes available through expansion or the termination of a lease. Monopoly leagues maximize their profits in part by creating this competition among cities for teams. Thus, the editors conclude, the most effective remedy for the escalating subsidies of sports facilities is competition: forcing each sport to form several separate leagues that make independent decisions about how many teams to include and where they should be located.

The original versions of the chapters in this book were presented at a conference at the Brookings Institution on October 7–8, 1996. The editors are especially grateful to Gemma Park for organizing the conference and shepherding the manuscript through the publication process. Among the sources of financial support for authors of the case studies were the Fisher Center for Real Estate and Urban Economics at the University of California, the Ohio Urban University Program, and the Lilly Endowment.

The authors gratefully acknowledge the following sources for providing extensive data: the Florida Sports Foundation, the Florida Department of Revenue, the Sporting News, the Baseball Hall of Fame, Edward Cline of the Maryland Stadium Authority, Joe Foss of the Baltimore Orioles, and Martin Greenberg of the Sports Law Institute of the University of Wisconsin-Milwaukee.

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The views expressed in this book are those of the authors and should not be ascribed to the persons or organizations whose assistance is acknowledged or to the trustees, officers, or staff members of the Brookings Institution.

MICHAEL H. ARMACOST
President

September 1997
Washington, D.C.

CONTENTS

SPORTS, JOBS, AND TAXES

1

"Build the Stadium—Create the Jobs!"

Roger G. Noll and
Andrew Zimbalist

The title of this chapter captures the essence of the issues explored in this book. It was the campaign slogan for the proponents of a publicly subsidized football stadium in San Francisco to replace Candlestick (3-Com) Park.[1] On June 3, 1997, the citizens of San Francisco voted on two measures. The first proposed to dedicate the land now occupied by Candlestick Park for a new football stadium and a shopping center, to be owned in part by 49ers owner Eddie DeBartolo. The second authorized the city to float a $100 million bond issue to contribute to stadium construction. Both measures squeaked through with winning margins under 1 percent of the vote.[2]

As is apparent from the slogan, proponents argued that a new football stadium and shopping center would bring substantial economic benefits to the city through increased spending and jobs, especially in the economically depressed Hunters Point district just north of the project. Stadium advocates also predicted that new revenues from sales and other taxes would pay the interest and amortization on the bond and so ensure that these benefits would be costless to the city.

Although the details of campaigns for sports facilities differ from city to city, the basic case for subsidizing them is the same everywhere. First,

as in San Francisco, a major facility is said to generate new jobs, primarily because people who attend sports events spend money at the facility and on other activities while traveling to and from it. Second, a team or an important sports event reputedly makes a community a "major league city," thereby garnering free publicity and attracting new businesses. Third, although a city might pay hundreds of millions of dollars in subsidies to attract or to retain a team or a regular national sporting championship, the additional tax revenues and lease payments are claimed to be sufficient to offset these subsidies and to make a publicly financed stadium a good investment. The purpose of this book is to examine the validity of these assertions.

Publicly subsidized facilities for professional sports are hardly a new phenomenon. The Los Angeles Memorial Coliseum, built to host the 1932 Olympic Games, has served as the home for a series of professional football teams, the collegiate USC Trojans and UCLA Bruins, and even the Los Angeles Dodgers baseball team.[3] Likewise, Municipal Stadium in Cleveland served the football Browns and the baseball Indians for four decades, beginning soon after World War II. Another Memorial Stadium, this one in Baltimore, has welcomed a baseball team (the Orioles) and three football teams (two in the National Football League [NFL], and one in the Canadian Football League). But, historically, publicly financed stadiums were exceptions to the rule. Until about 1960, the vast majority of new facilities were privately owned, usually by one of the teams that played in them.

Stadium ownership and financing began to change when major league professional sports became a national rather than a regional phenomenon with all teams snugly packed into the northeast quadrant of the country. Economic and population growth in the South and West, combined with improved and less expensive transportation, caused teams and leagues to look to the Sun Belt for places to relocate or to place an expansion franchise. Some teams apparently preferred being a monopolist in a western or southern city to being a competitor in a multiteam market and so departed Boston (Braves) for Milwaukee, Cleveland (Rams) for Los Angeles, Philadelphia (A's) for Kansas City, St. Louis (Browns) for Baltimore, Chicago (football Cardinals) for St. Louis, and New York (Dodgers and Giants) for Los Angeles and San Francisco. Other teams left smaller monopolies (Milwaukee Braves, Minneapolis Lakers, St. Louis Hawks) for larger Sun Belt markets (Atlanta, Los Angeles, Atlanta, respectively). At the same time, leagues

began an expansion process that, over three decades, added more than fifty teams to the four major professional sports: baseball, basketball, football, and hockey.

The process of relocation and expansion enabled many cities to become prospective sites for a major league franchise and to compete to be the next lucky recipient of a team. Competition took the form of providing a subsidized playing facility. Only rarely did the team end up owning the stadium: the Dodgers are one such case, but even then the site was donated by the city. The more common arrangement was that the city owned the stadium, although sometimes, as in Cleveland and St. Louis, the city let the team or a corporate affiliate operate it.

Since the late 1950s, the sports industry has experienced a prolonged economic boom. Revenues from attendance, broadcasting, and concessions have shown rapid, steady growth. Meanwhile, the proportion of team revenues needed to cover stadium costs has declined because of the increasing eagerness of state and local governments to compete for teams by subsidizing them. In response to these attractive financial prospects, the industry has burgeoned. Established leagues have created new teams, and new leagues have emerged in all the major professional sports, with several surviving long enough to see many of their teams incorporated into existing leagues. Although the growth in revenues was the most important reason for this expansion, the willingness of cities to provide subsidized stadiums cannot be discounted as a significant additional incentive.

Since the beginning of the new stadium arrangements around 1960, most major league teams have been the beneficiaries of at least one new, subsidized facility. Almost all have had facilities built or substantially renovated. And many have had more than one new home.

Anaheim Stadium, to cite one example, was built for baseball's California (now Anaheim) Angels in the early 1960s and then was massively renovated to accommodate the NFL's Rams in the late 1970s. This renovation made the stadium a far better site for football, but less attractive for baseball. Then poor on-field performance caused Rams' attendance to fall, and less than twenty years after the renovation the Rams fled to a new stadium in St. Louis.

Atlanta and San Francisco have similar stories, but with happier endings. Fulton County, Georgia, built a new stadium in the 1960s that attracted baseball's Braves and football's Falcons, then gave the teams separate new homes in the 1990s. San Francisco's much maligned Candle-

stick Park was built for the National League Giants in the late 1950s, was renovated substantially for the NFL 49ers in the 1970s, and now is slated for replacement by separate facilities by the year 2000.

In Boston and New York, the ultimate outcome remains in doubt. The NFL New England Patriots built their own stadium in Foxboro in the early 1970s, but likewise now seek a publicly subsidized facility and have initiated a competition among Boston, Foxboro, and Providence to provide it. New York City built Shea Stadium in the 1960s for new teams in the National League (Mets) and American Football League (Titans/Jets) plus the established NFL team, the Giants. The Giants and Jets left in the 1980s to play in a new stadium in the New Jersey suburbs. New York also substantially renovated Yankee Stadium in the 1970s, but now the Yankees are threatening to leave the city, also for New Jersey, if a new stadium is not constructed within a few years.

In Salt Lake City, the Utah Jazz, a member of the National Basketball Association (NBA), is playing in its second Salt Palace (now named the Delta Center), which replaced the first after less than two decades. The NBA San Antonio Spurs, having played in the Hemisphere Arena and the Alamo Dome for the past twenty years, now seek a third new facility. And the Houston Oilers plan to move to Nashville in 1998, where a new stadium is being built for them. Less than a decade earlier, in 1987, Houston had made $67 million in improvements to the Astrodome, after the Oilers threatened to move to Jacksonville.[4]

The all-time winner in per capita frequency of facility construction is probably the Twin Cities, whose almost farcical experience with sports is recounted in detail in chapter 7. The Twin Cities' major league franchises in baseball and football began playing in renovated Metropolitan Stadium in 1960–61, then moved to the Humphrey Metrodome in 1982, whereupon the former facility was torn down. In 1996 the Twins grew unhappy again, and now another stadium is in the planning stages. The Met Center was built to welcome a National Hockey League (NHL) team in 1967. A few years later St. Paul built a similar facility, the Civic Center, which for a while housed a World Hockey Association team. In 1990 a third arena, the Target Center, opened for the NBA expansion Timberwolves. In 1993 the NHL team moved to Dallas. In 1995, in the wake of this departure and competition from the other arenas, Minneapolis razed the Met Center. At present St. Paul is trying to attract another NHL team by promising a major renovation of the Civic Center.

These are by no means isolated examples. In 1997 the number of franchises in the major professional sports, including the most recent expansions, total 113. Between 1989 and 1997, thirty-one new stadiums and arenas were built. At least thirty-nine additional teams are seeking new facilities, are in the process of finalizing the deal to build one, or are waiting to move into one.[5]

These new sports facilities are not cheap. One recent study estimated that the average cost of six new arenas for basketball and hockey that opened in 1995 and 1996 exceeded $150 million.[6] As reported in chapter 11, the new Gund Arena in Cleveland's Gateway Center cost approximately $150 million, not including the site. A new stadium for baseball or football, along with site acquisition and preparation, now runs at least $200 million, which, as reported in chapters 8 and 11, was roughly the cost of the new baseball parks in Baltimore and Cleveland. Frequently these costs are far more: the total cost of the new baseball stadium in Milwaukee is expected to hit $322 million, which is also roughly the expected cost of the new football stadium for the San Francisco 49ers.[7]

By contrast, Tampa's Houlihan Stadium, built in 1967, cost $14 million. The Civic Center in St. Paul, built in the 1970s, cost $19 million. The New England Patriots spent approximately $20 million to build Foxboro Stadium, and Rich Stadium in Buffalo was built for $23 million. (In current dollars, these costs would be in the neighborhood of $60 million.) Kansas City built a baseball stadium and a football stadium on the same site for $55 million (about $150 million in current dollars). In the 1980s the Dallas Cowboys and the Miami Dolphins spent about $75 million (about $100 million in 1997 dollars) on new stadiums.

The harbinger of things to come was the New Orleans Superdome, which was completed in 1975 at a cost of about $163 million, approximately $450 million in today's dollars. For a long while this project stood out as a wild anomaly. Today it would fit nicely in the upper range of standard experience.

The trends in the number and expense of stadiums and arenas raise several related questions. First, are these facilities worth it: to the teams, the leagues, and the cities that foot part of the bill? Second, what are the effects of teams and stadiums on a metropolitan area, a city, and its local neighborhood? Third, who actually pays for stadiums, and who benefits from them? Fourth, why do cities subsidize

sports facilities, and what determines the amount of subsidy that a team receives?

Stadium Economics versus Stadium Financing

These questions cannot be addressed without a precise sense of the economic and financial issues surrounding sports facilities. The public debate typically conflates the issues. Most serious is its failure to distinguish between stadium economics and stadium financing. (For simplicity, we call these issues "stadium economics and financing," but when we use these terms, we mean to include all types of sports facilities.) Stadium financing refers to the narrow question of who pays for constructing and operating the stadium. Stadium economics refers to the wider question of how the stadium (and the events inside it) affect aggregate economic welfare.

Typically, the debate over stadium economics focuses on job and income creation in the community in which a facility is built, but the range of potential economic effects is far broader: it encompasses regional and national wealth, as well as the welfare of sports fans and the distribution of income. Indeed, the debate is so broad in scope that it cannot proceed satisfactorily without considering the total costs and benefits to society arising from the stadium.

To reiterate, stadium financing strictly refers to the expenditures and revenues directly associated with building and operating the stadium. Typically, the financial responsibility for these expenditures is shared by the team, other private sector entities, local government, and, occasionally, state government. To pay for its contribution to a new sports facility, the public sector relies on some combination of rents, taxes, and fees on activities related to the stadium; other taxes; and cuts in other public services. Stadium financing provides the link between the expenditures on the stadium and these sources of revenues. Clearly, stadium financing is both a narrower and a less important issue than stadium economics.

Most of this book is about stadium economics. Subsequent chapters explore the basic economic rationale for publicly subsidized sports facilities. The overriding conclusion of this discussion is that the economic case for publicly financed stadiums cannot credibly rest on the benefits to local business, as measured by jobs, income, and investment. Thus, as explained in some detail in chapter 2, the case for subsidies must rest

on consumption benefits, which in this case is consumer satisfaction from the presence of a local team that is not reflected in traditional market transactions such as selling tickets, concessions, broadcast rights, and other goods and services.

The case studies that constitute the second half of the book deal with both economics and financing. The two subjects are certainly closely linked, but the relationship is incomplete and complicated. By way of introducing these complexities, in this chapter we lay out the basics of stadium financial arrangements and explain why stadium financial plans typically overstate the extent to which a stadium can be said to pay for itself.

Stadium Financing

The life of a stadium proceeds in three (sometimes four) stages. First, a site is acquired and existing facilities that are not usable for the stadium are destroyed. Second, the stadium and its supporting infrastructure—sewage linkups, utility connections, parking, transportation access—are built. Third, repair, maintenance, and operations activities are undertaken to support the events in the facility.

Occasionally, there is a fourth stage: the stadium may be razed for some other use. Of course, if the purpose of tearing down the stadium is to build another sports facility, this activity coincides with the first phase in building a new facility, so one should be careful not to double-count these expenditures; however, if the stadium site is to be used for something other than a sports facility, the phase four costs, to the extent that they exceed the costs of replacing the original alternative use for the stadium, represent the last payment for the life of the facility.

On the cost side, most (but not necessarily all) of these activities must be paid for by someone. Thus one aspect of stadium financing is to decide who will pay which bills. The standard practice is for local and sometimes state government to pay for most, if not all, site preparation. In some cases, governments will also pay for acquiring the land but as often as not will already own it. In that case, dedicating the land to a stadium does not require a cash payment and so does not figure into the financing arrangements. The proposed new stadiums in San Francisco and for the Yankees in New York City, for example, are all on publicly owned land. As a result the reported "cost" of these stadiums does not include any

value for the site, even though in all cases the site could be sold for other valuable activities and so has a real economic cost to the community.

The team and the locality usually share responsibility for site preparation and the direct construction costs, although the nature of this arrangement varies greatly among stadiums. Once constructed, lease terms regarding the sharing of stadium revenues, defrayal of operating and maintenance costs, and responsibility for stadium management also differ substantially among the teams. (See the appendix to this chapter for a compilation of stadium lease agreements.)

Sources of Revenues

One of the most important recent trends in professional sports has been the growth in nontraditional sources of revenue. In the 1950s most of a team's revenues came from inside the stadium, and stadium-related revenues consisted almost entirely of ticket sales, with minor additional amounts collected from concessions, publications, and in-stadium advertising. In the 1960s, because of the growth in the popularity of sports and the unfortunate policy decision to grant antitrust immunity to leagues in selling their broadcast rights, revenues from broadcasting shot up and, in some cases, surpassed in-stadium revenues; nonetheless, ticket sales in the 1970s continued to dominate in-stadium revenues.[8] Reflecting this reality, league revenue-sharing rules (and, later, collective bargaining over the share of revenues that went to players) focused primarily on the two main sources of revenues: broadcasting and ticket sales.

Then came a new trend in the 1980s: a rapid growth in revenues from other sources. Concessions became a far more important part of revenues, as can be seen in the dramatic improvement in the quantity and quality of food, beverages, and sports memorabilia that are available for sale at sporting events. Because of the growing profitability of concessions, providers of concessions products have been willing to pay increasingly large amounts for the right to have access to the stadium. Financial plans typically include between $5 million and $15 million for the sale of rights related to concessions.

In some cases, concession rights are exclusive. A soft drink or beer manufacturer, for example, may purchase exclusive "pouring rights" at all concession stands. These rights have two sources of value: the profits

from sales within the stadium, and the additional marketing value of association with the team or stadium as its "official soft drink." In other cases, vendors purchase nonexclusive rights simply to have a location inside the stadium. Several restaurant chains may acquire the right to place competing outlets in the stadium. Sometimes these rights are accompanied by an authorization to associate the team or stadium with the license holder in marketing.

The significance of the pure association with the stadium, unrelated to in-stadium sales, is apparent from the emergence of another significant source of revenues: stadium naming rights. The good old days of Fenway Park, Yankee Stadium, and the several Memorial stadiums are quickly waning as companies purchase the right to have the stadium named after them. Of course, some stadium names always have had a business connection, such as Wrigley Field and Busch Stadium, but these were limited to instances in which team ownership was linked to another product. (Recent commercial uses of stadium names are summarized in table 1-1.)

The practice of giving names to facilities that have no connection to ownership, history, or the city began when the New England Patriots financed the construction of their Foxboro facility by selling the name to the Schaefer Brewing Company. Although still relatively rare, selling a facility's name is growing in frequency. The San Francisco Giants plan to move from 3-Com Stadium (née Candlestick) to Pacific Bell Park, which in the original plans was named after its location in China Basin. Other examples are the Arco Arena, the home of the Sacramento Kings, the Great Western Forum, the home of the Lakers and Kings in Los Angeles, and the aforementioned Delta Center in Salt Lake City. The money involved in selling stadium names has become substantial, ranging from $20 million to $50 million for Pacific Bell Park. Because these prices are so high, selling names of facilities is likely to become common.

In addition, a variety of seating categories have been invented that, for a fee, provide fans with special perquisites. Examples are the luxury box and the personal seat license (PSL), both of which usually do no more than provide the holder with the option to buy a ticket in a particular stadium location. Usually this location has special amenities, although the PSL frequently provides nothing more than a better view of the game. Stadium financial plans vary with respect to the importance of these revenues. The financial plan for Pacific Bell Park

Table 1-1. *Sports Facility Naming Rights*

Facility	*Location*	*Price*[a] *(millions of dollars)*	*Term (years)*	*Price per year (millions of dollars)*	*Team (league)*
Stadiums					
Banc One Ball Park	Phoenix	66.00	30	1.00+	Diamondbacks (MLB)
Pacific Bell Park	San Francisco	50.00[a]	24	2.08	Giants (MLB)
Ericsson Stadium	Charlotte	20.00	10	2.00	Panthers (NFL)
Miller Park	Milwaukee	41.20	20	2.00	Brewers (MLB)
Trans World Dome	St. Louis	26.00	20	1.30	Rams (NFL)
Coors Field	Denver	15.00[a]	10	1.50	Rockies (MLB)
Cinergy Field	Cincinnati	6.00+	5	1.20	Reds (MLB), Bengals (NFL)
Turner Field	Atlanta				Braves (MLB)
Tropicana Field	St. Petersburg	30.00			Devil Rays (MLB)
Pro Player Park	Miami	20.00	10		Marlins (MLB), Dolphins (NFL)
Jacobs Field	Cleveland	13.90	20	0.70	Indians (MLB)
Houlihan's Stadium	Tampa Bay	10.00	5		Buccaneers (NFL)
Arenas					
MCI Center	Washington, D. C.	44.00[a]	10+	Undetermined	Bullets (NBA), Capitals (NHL)
Pepsi Center	Denver	68.00[a]	20	3.40	Nuggets (NBA)
Continental Airlines Arena	East Rutherford, N.J.	29.00	12	2.40	Nets (NBA)
Fleet Center	Boston	30.00	15	2.00	Bruins (NHL), Celtics (NBA)
Core States Spectrum	Philadelphia	40.00	29	1.37	Flyers (NHL) 76ers (NBA)
Molson Centre	Montreal	30.00	20	1.50	Canadians (NHL)
Target Center	Minneapolis	18.75	15	1.25	Timberwolves (NBA)
RCA Dome	Indianapolis	10.00	10	1.00	Colts (NFL)
USAir Arena	Landover, Md.	10.00	10	1.00	Bullets (NBA), Capitals (NHL)
Canadian Airlines Saddledome	Calgary	10.00	20	0.50	Flames (NHL)
GM Place	Vancouver	18.50	20	0.93	Grizzlies (NBA), Canucks (NHL)
Key Arena	Seattle	15.10	15	1.00	Supersonics (NBA)
America West Arena	Phoenix	26.00	30	0.87	Suns (NBA)
United Center	Chicago	36.00	20	1.80	Bulls (NBA), Blackhawks (NHL)
Marine Midland Arena	Buffalo	15.00	20	0.75	Sabers (NHL)
Delta Center	Salt Lake City	25.00	20	1.25	Jazz (NBA)
Air Canada Center	Toronto	14.00	20	0.70	Raptors (NBA)
Gund Arena	Cleveland	14.00	20	0.70	Cavaliers (NBA)

Sources: Alan Friedman (Team Marketing Report) and Paul J. Much (Houlihan Lokey Howard and Zukin), *1997 Inside the Ownership of Professional Sports Teams: The Complete Directory of the Ownership and Financial Structure of Pro Sports* (Chicago: Team Marketing Report, 1997).

a. These deals involved more than naming rights. The Coors Field deal includes pouring rights and some equity in the team; the Pacific Bell deal includes rights to develop a theme park; the MCI Center deal includes signage rights inside; the Pepsi Center deal includes pouring rights in two buildings. The details of these deals are generally proprietary, and full information is not available. Auxiliary rights for other facilities are probable.

anticipates about $40 million from this source, whereas the plan for the Carolina Panthers' facility raised $150 million from various types of seating licenses.

All of these revenue sources typically are committed at least in part to financing a new stadium. The standard financial plan divides the expenditures on stadium construction into three components: those to be financed by the various forms of up-front payments such as pouring rights, naming rights, and special seat licenses; those to be paid by team owners out of their own pockets (perhaps financed by a loan); and those to be paid initially from either the budget of a local government or the sale of bonds. Of course, bond sales simply spread the city's payment over a number of years, rather than concentrate them during the period of construction.

Public or Private Financing?

What makes stadium financing particularly confusing is that the allocation of responsibility for expenditures and revenues varies greatly from one location to the next. Arrangements are generally regarded as "public" if the facility is paid for and managed by the local government authority and any deficit is covered by that government. Examples of this form of public financing are the renovations to the Oakland Coliseum for the relocation of the Raiders back to Oakland and the construction of the new stadium in St. Louis to attract the Rams. By contrast, when direct construction costs are paid by the team, the financing is considered "private." Examples in this category are the new football stadium for the NFL expansion team in Charlotte, the Carolina Panthers, and the new baseball stadium in San Francisco for the Giants.

Another difference between these two types of arrangements is who receives the revenues from the sale of the special rights. In Oakland and St. Louis, the stadium authority sold these rights (and allocated the revenues to various stadium costs), whereas in Charlotte and San Francisco the team performed this function. In both cases, the source of a significant portion of the revenues for paying for the facility was neither the team nor the city, but the people who purchase these rights. The nature of these arrangements depends primarily on who owns the facility, the team or a government authority. Ownership, in turn, determines

whether the team or the city will absorb the risk that the revenues from these rights will be less than the amount that is assumed in the financial plan.

A government's financial commitment is more uncertain if it retains both ownership and control over the sale of these rights, which means that the cost to the local government is more open-ended and unlikely to be known in advance. Thus the extent to which a facility is publicly subsidized is not accurately measured by the formal allocation of responsibility for paying for the stadium. Transferring the responsibility to sell stadium naming rights, pouring rights, executive boxes, club seats, and PSLs from the team to the city does not increase the magnitude of the city's financial commitment by the amount of the transfer. Instead, the effect is far more subtle and difficult to predict in advance. The subsidy arising from this transfer is derived completely from the reallocation of the risk that the cost of the stadium and the revenues from these rights sales will differ from the original estimate. Whereas these risks can be substantial, they are always much less than the gross cost of the facility.

Another important aspect of the financing plan is the mechanism by which the local government compares its expenditures on and revenues from the stadium. On the cost side is the government's share of the direct expenditures in all phases of the life of the stadium, perhaps including interest if the government's cost is financed in part by borrowing. On the revenue side are the rents paid by the team, the incremental tax revenues arising from the stadium, and whatever additional revenues are derived from sources that are unrelated to the stadium, such as general tax increases or expenditure reductions.

Stadium financial plans differ substantially in the scope of stadium-related tax collections that are balanced against city expenditures. In almost all cases, the plan includes rents and taxes on in-stadium revenues. In some cases (though rarely), the stadium pays some form of property tax, and if so these also are counted as stadium-related tax revenues. Inside the stadium, concession revenues typically pay standard state and local sales taxes, and ticket sales pay special ticket taxes and sometimes special assessments that are earmarked for covering stadium construction costs. In addition, some financial plans attribute to the stadium certain tax revenues collected on the outside. If the stadium is said to generate new business in the surrounding community, for example, the financial plan may attribute some sales, income, and property taxes off-site to the

existence of the facility. This type of revenue is called "tax increment financing" and was used in San Francisco to generate a financial plan for the new 49ers facility that shows no net expected cost to the city.

A stadium financing plan might also include an earmarked tax that is unrelated to the sports facility. Many stadium financial plans include new taxes that are specifically used for financing the stadium: the Maryland state lottery is used to help pay for the new facilities at Camden Yards (see chapter 8); a special sales tax will finance new stadiums in Cincinnati; and similar arrangements pay for the Alamo Dome in San Antonio, Coors Field in Denver, Arlington Park (Texas Rangers), and the new facilities for the Arizona Diamondbacks and Seattle Mariners. Alcohol and tobacco taxes are paying for Jacobs Field in Cleveland (see chapter 11); hotel taxes help to pay for New Comiskey Park in Chicago, the Trans World Dome in St. Louis, and new arenas in Miami and Orlando; and a special assessment on car rentals is dedicated to pay for America West Arena in Phoenix.

Frequently, stadium proponents claim that a facility is "self-financing." The meaning of this term is that rent plus tax collections directly attributable to and earmarked for the stadium are expected to be sufficient to cover the city's expenditures. It does not mean that the net increase in revenues due to the stadium is sufficient to pay for it.

Sources of Errors in Financial Plans

In view of all these sources of revenues, one potential pitfall in devising a stadium financing plan is that gross and net revenues may be confused. The gross revenues from rent and taxes are the total collections from activities attributed to the stadium. But this sum overstates the contribution of the facility to local government revenues, for three reasons.

First, unless the team that will play in the new stadium is certain not to play in the city if the new stadium is not built, the appropriate baseline is the revenues that would be collected if the team played in an existing facility. In the contemporary environment of professional sports, most teams credibly can threaten to leave their present home, or not to locate in a new one, if their demands are not met, although the threat that the city will lose a team forever may be far less credible. The departure of the Raiders and Rams from Los Angeles, for example, is likely to cause only a temporary loss of professional football there because the city

remains attractive as a franchise site to many teams in lesser metropolitan areas and to the entire league. Furthermore, Cleveland, Baltimore, and St. Louis lost their NFL teams but eventually landed replacements. A similar deal is said to be in the works for Houston, which lost its Oilers after the 1996 season.

Second, as discussed in greater detail in several chapters of this book, the gross revenues spent at the stadium (and hence the tax collections derived from them) are in part substitutes for other entertainment and recreation expenditures by sports fans. To the extent that the departure of the Rams and Raiders has increased attendance at college football games, games in other professional sports, motion pictures, and restaurants, the lost tax revenues from the stadiums is offset to a significant degree by increased tax revenues from these sources. Thus all of the gross tax collections within a stadium cannot properly be attributed to it because some of that tax revenue would have been collected elsewhere had the stadium not been built or used.

Third, if a financial plan includes substantial "indirect" tax revenues arising from increased expenditures outside the stadium, coming first from an anticipated increase in tourism and then from the so-called multiplier effect of these expenditures in the local economy, the tax revenues are almost certainly overstated. Several chapters of this book contain detailed analyses of the overall economic growth effect of stadiums. The overwhelming consensus of opinion in these studies is that the local economic effect of a sports facility is between nonexistent and extremely modest. If stadiums do not contribute to an increase in local economic activity, they cannot cause a significant increase in revenues from local taxes.

To illustrate these pitfalls in stadium financing, consider the proposal for the new football stadium in San Francisco. This plan contemplates building a shopping mall adjacent to the stadium. The financial plan for the stadium dedicates rent, in-stadium taxes, and the tax revenues from the shopping mall to help pay for the interest and amortization on $100 million in bonds that will be used to pay for part of the stadium. As a result, according to San Francisco 49ers president Carmen Policy, the city "is almost not at risk for anything."[9]

The implicit assumptions behind the conclusion that this deal is self-financing are, first, that no development would occur at the site if the stadium were not constructed, and second, that not a penny of business in the stadium or at the new shopping center will substitute for sales at

other retail outlets in San Francisco. As to the first assumption, the presence of the stadium actually makes the shopping center a little less financially attractive because the shared parking facilities will be clogged with fans attending the home games. Hence building the football stadium would be more costly to the city than a plan that contemplated a shopping center with no stadium (and hence no subsidy). As to the second assumption, the shopping center intends to feature the low-end shops of national chains (Nordstrom's Rack and the Gap's Old Navy), plus branches of several famous San Francisco restaurants. It is difficult to imagine that this would not compete with stores of the same and similar chains that are located elsewhere in the city. For these reasons, the assessment by state assembly member Don Perrata, who represents Oakland, is probably on target: "Getting the public to believe it's not going to cost any money . . . is a fool's errand."[10]

Another problem that can plague a stadium financial plan arises from the uncertainty surrounding revenue forecasts, particularly those relating to the future popularity of the team. Sales taxes, ticket taxes, and usually rental payments depend on attendance at games. If a financial plan assumes that the stadium will cause a permanent, substantial increase in rent and tax collections, it is implicitly expecting the stadium to generate a nontransitory increase in attendance. This is a dangerous assumption.

Historical experience indicates that a team's attendance usually does increase sharply when a new or renovated facility is opened. The novelty of the new facility attracts fans, and an additional boost to attendance occurs because the quality of a team usually improves when a new facility is opened. This is indeed what happened after the opening of Oriole Park in Baltimore, Jacobs Field in Cleveland, and Coors Field in Denver. The typical explanation for this effect is that the improved financial position of the team enables it to hire better players; however, this explanation reverses the cause-effect relationship. Teams in new facilities hire better players because the effect of doing so on revenues is greater in a new facility. Thus a team can prolong the attendance effect of stadium novelty by fielding a stronger team. This effect is weakest in football, which has far greater sharing of in-stadium revenues and so a weaker incentive for a team to increase attendance.

At the level of an entire league, revenue enhancements that depend on improved team quality cannot be sustained if all teams are in the process of acquiring new facilities. If all teams build a new stadium, each one cannot possibly expect to win more games and thereby hold onto the

attendance increase arising from the effect of a new stadium on team quality. In the end, all teams, on average, will be as good as they were before the stadium boom took place; therefore, average revenue will be permanently enhanced only insofar as better facilities induce additional attendance and more and better concessions stands generate extra sales. Because the construction of new stadiums in a league is sequential, the fortunes of the team generally are such that, for a few years, it will experience a large revenue enhancement arising from both having a new stadium and an improved team, but as other new stadiums open and other teams improve, attendance and revenue will gradually decline until, two or three decades later, the team is given another new facility.

A realistic financial plan must take into account this long-term effect of new stadiums: that is, it should exhibit an initial increase but then a general decline in the revenues associated with a new stadium. A plan based on the assumption that the initial revenue increase will be sustained over the life of the stadium is likely to be too optimistic. And, if the plan indicates that on an annual basis tax revenues and expenditures are roughly balanced, then the reality is that in the back half of the plan, tax revenues are unlikely to cover these costs.

The Economics of Stadium Financing

Because the sale of various rights within a stadium plays a prominent role in stadium financing, it is essential to know exactly how these markets operate. An extremely important source of the incessant and seemingly endless demand for new playing facilities lies in these nontraditional sources of revenue. The growing popularity of sports has caused attendance to increase, but there are very real limits to pure attendance growth as a source of revenue.

To begin, in responding to demand a team usually can do almost as well by increasing ticket prices as by increasing the number of tickets sold. Studies of the market for sporting events typically find that the demand elasticity is close to 1, so that revenues from the sale of tickets—ticket price times attendance—do not exhibit a great deal of variance with respect to changes in ticket prices. In addition, the nature of each sport creates a physical limit to the number of good seats that can be created. As a result, the "ideal" stadium size and seating configuration for each sport has not changed a great deal for several decades.

For these reasons, concessions, special seating arrangements, and marketing connections have accounted for a growing fraction of revenues in sports. As with traditional in-stadium sources, each team is either a local monopolist or duopolist in marketing these rights locally within its sport. Hence the team can extract more than competitive profits from these sources.

Commercial Licensing Arrangements

The first two types of rights sales—concessions and marketing connections—are similar to each other, but distinct from the various seating rights. A team or stadium authority has basically two approaches to generating revenues from commercial licensing. One is to charge a royalty that is based on sales, and the other is to charge a fixed fee that is not based on sales. This distinction signifies, of course, that there is a trade-off between these two sources of revenues.

The profitability of a commercial license has an upper bound, and no matter how the rights are sold the team cannot collect more than these profits. Hence, if the up-front payment is increased, the team's maximum royalty payment must decline. Thus, in negotiating a stadium financing plan, the initial fee for gaining the commercial license is paired with a subsequent royalty rate. In this sense, to use commercial up-front rights fees as a means to finance a stadium entails an agreement to reduce future royalties from these same sources.

At the same time, the trade-off between up-front rights fees and continuing royalty rates gives rise to a puzzling question: what difference does it make how these arrangements are patterned, and whether the team or the commercial licensees pay for the stadium? Presumably the team or the stadium authority is free to charge nothing for, say, pouring rights and other concessions rights, to borrow money to pay for the stadium, and then to pay off the loan with the higher royalty rates that concessionaires would be willing to pay, given that they paid no up-front rights fees. Why, then, is so much emphasis placed on these sources of revenue?

One answer is an artifact of the 1986 Tax Reform Act, which, as discussed below, accords a more favorable tax status to up-front license fees than to royalties. Another answer is purely economic. A team or stadium authority wants to give commercial licensees the maximum in-

centive to sell concessions and products with a marketing connection to the team. A royalty is a form of sales tax, which creates a disincentive to expand sales. Moreover, the royalty can create inefficiencies in that the person holding the license rationally will not sell products to a customer who is not willing to pay the cost of the product plus the royalty, but who is willing to pay some intermediate amount between cost and cost plus a royalty. By discouraging such sales, a royalty system reduces the profits that can be extracted from the licensed product.

The preceding argument seems to suggest that a team should never structure a rights agreement that includes any royalties at all. The entire deal should be based on an up-front payment, with the commercial licensee collecting all of the revenues from product sales. Unfortunately, this arrangement creates another problem. The value of the license depends on the quality of the team. Better teams will have higher attendance and so will sell more concessions and confer greater value on firms that hold the right to market a connection with the team. Hence, in order to create an incentive for the teams to be strong, the holder of a commercial license will want the amount it pays for the license to depend on sales of licensed products, whether cola and beer in the stadium, sports clothing in and out of the stadium, or unrelated products outside.

The upshot of this argument is that the optimal method for the team to market its rights is to combine up-front fees and royalties. The former sharpens the incentive of the licensee to sell licensed products, and the latter sharpens the incentive of the team to field a team that will have higher value to the commercial licensee.

With respect to stadium financing, the connection between up-front fees and a new stadium is subtle and indirect. Most apparently, if a team or stadium authority sets the up-front fees too high, the consequences will be, first, lower royalty rates, and second, a reduced incentive by the team to maintain its quality. In an earlier era, when concession revenues and other commercial licenses were not very important, this effect would not be particularly important; however, as the significance of these revenue sources grows, this disincentive has ever greater relevance. Hence an overemphasis on commercial rights fees to finance a stadium can undermine the likely future quality of the team, the revenues derived from the stadium, and, to the extent that the financing of the stadium depends on these revenues, the financial viability of the stadium financing package. This argument, then, constitutes one more source of concern about the out-years in stadium financing plans.

Special Seating and the Strange Case of PSLs

The second type of license fee is for access to certain types of seats: luxury boxes, premium seating, and the like. Typically, financing plans use revenues from these sources to pay for the stadium. An especially interesting source of revenue is the personal seat license, whereby a customer pays a fixed fee to obtain the right to buy season tickets. PSLs can be perpetual, as they are for the new San Francisco Giants ballpark, but more commonly they cover a fixed period, such as the ten-year life of a PSL for tickets to the Oakland Raiders games.[11] Likewise, the rights inhering in a PSL usually can be sold, but sometimes a change in ownership requires a payment to the team.

PSLs were first used by the Dallas Cowboys in 1968 to help finance Texas Stadium.[12] Called "seat options," they were priced at $300 to $1,000 and had a life of forty years. The next use did not occur until 1986, when a variant of the PSL, called "charter seat rights," was used to collect advance ticket revenues of sufficient magnitude to persuade the NBA to expand to Charlotte, which it did by creating the Hornets. These revenues were converted to a down payment on the first year's season tickets.

The contemporary model for PSLs was implemented in 1993 by the owners of the NFL expansion team in Charlotte, the Carolina Panthers. The team raised $150 million through the sale of PSLs, of which $50 million went for taxes and $100 million was used to help pay for a new stadium. PSL prices ranged from $600 to $5,400. In 1995 St. Louis followed suit to attract an NFL team by selling PSLs for between $250 and $4,500. The sale raised $70 million, which eventually paid for, among other things, the relocation fees to the Rams and the NFL. Later that year, the Oakland Coliseum launched a PSL plan, charging $250 to $4,000 for ten-year PSLs, with a target revenue of nearly $100 million. PSLs subsequently have been adopted as part of the financing plan of new baseball parks in Cincinnati, Milwaukee, and San Francisco, and new football stadiums in Baltimore, Boston, Cincinnati, Nashville, and the Maryland suburbs of Washington, D.C.

PSLs and similar seating licenses have obvious attractions as a means of financing a stadium. First, they reduce the financial exposure of teams and governments for a new stadium. Second, in comparison with taxes, they place the financing burden on sports fans, who derive the benefits of a new stadium. Moreover, whereas sales and property taxes tend to be regressive, seat licenses tend to be progressive. Thus the movement toward financing stadiums partly by selling seat licenses has many desirable effects.

The economics of PSLs is deceptively complicated. At one level, they should have the same basic relationship with ticket prices that up-front commercial rights fees have with subsequent royalties. From the demand side, a fan has a maximum willingness to pay for season tickets to a sports team for each of the next ten years. Ignoring possible variability in team quality, the fan is willing to pay either a sequence of payments each year, the discounted present value of that sequence of payments today, or any combination of fixed payments and annual ticket purchases that has the same discounted present value. Thus the immediate effect of a PSL system should be to reduce the price of season tickets by a corresponding amount.

The main problem with the preceding analysis is that one cannot assume the sale of PSLs will have no impact on team quality. As with commercial rights, PSLs affect the incentives of both teams and fans. If PSLs lower long-term season ticket prices, they reduce the incentive of the team to field good teams. Moreover, this effect is amplified by the incentive that the system gives fans to continue to buy season tickets. First, a PSL expires if the ticket is not purchased, so a fan must either buy tickets or sell the license to avoid losing all of its value. Second, if PSLs lower season ticket prices to PSL holders, the minimum quality of team that must be fielded in order to keep the fan buying tickets will be lower. Of course, if fans recognize that a PSL system has poor incentive properties for the team, they will not pay as much for a PSL, and the introduction of a PSL system will lower the sum of the revenues a team will receive from PSLs and subsequent ticket sales.

Whether teams somehow do charge lower season ticket prices over the duration of the license is not at all clear. Most agreements do not specify future pricing rules. The one that does, the Oakland Raiders' PSL, states that ticket prices will remain below $50 through 1997 and will increase by no more than 5 percent a year thereafter; however, $50 is already at the top of NFL ticket prices, the team is not selling out its games, and in any case the 1997 prices average $51, so it is not clear that this price cap has any effect or value.[13]

The actual nature of the rights conferred by a PSL are obscure. If good season tickets are in excess demand, as is the case in some cities, a PSL might be interpreted as guaranteeing the holders that they will not be excluded. In reality, teams typically allow season ticket holders auto-

matically to renew their tickets each year, and one's position in the season ticket queue is lost only if season tickets are not renewed. Hence ensuring access under excess demand does not seem to be the motivation for buying PSLs.

If a PSL can be sold, this might appear to ensure a certain value to one's season tickets; as a practical matter, however, season ticket renewal rights can be sold in any case simply by not changing the name associated with the tickets. A sports team has no way of knowing whether a ticket is used by the person who bought it, and whether a change of address entails a change of residence or the identity of the purchaser. Hence it is simply not obvious that a PSL confers any rights beyond those held by a normal season ticket holder.

The implication of the preceding discussion is that as a purely economic matter PSLs appear to be a very bad idea for everyone concerned—teams, fans, and stadium authorities—because they confer no extra benefits, generate no extra sources of revenues, and tend to reduce team quality and thereby team revenues. Why, then, do they exist?

The first possible reason is that PSLs are induced by a perversity in the institutional arrangements of baseball and football. In these sports, ticket revenues are shared between the home and visiting team. In baseball, ticket license revenues and premium seating fees are not shared, and in football these revenues are not necessarily shared if they are used to pay for a stadium.[14] The baseball and football rules create a strong financial incentive to pay for stadiums through PSLs rather than through stadium rents on ticket sales. If a team sells a PSL and in return credibly commits to charge lower ticket prices, the effect is to cause other teams in the league to pay part of the cost of its stadium. (By contrast, concession revenues are not shared, whether they are collected as up-front fees or royalties.)

Suppose that the relevant discount rate is 10 percent. In the NFL, if a ten-year PSL costs $700, the equivalent reduction in season ticket prices is $100 a year for ten years. If this reduction occurs, visiting teams lose 40 percent of the cut in ticket sales ($40 a year), which has a present value of $280. If the present value of the team's share of stadium costs is really $700, the visiting teams are actually paying $280 of this cost by forgoing the share of revenues that they would have received had ticket prices been higher but no PSL had been sold.

The second explanation for the existence of PSLs is that they also are encouraged by a perversity in the federal tax system.[15] The Tax Reform

Act of 1986 withdrew the right to use tax-exempt bonds to finance sports facilities if more than 10 percent of interest and amortization was accounted for by revenues from the stadium. Tax exemption is important, because it reduces the city's interest cost of indebtedness by as much as 30 percent, as explained in chapter 4.

The rule about tax exemption was written in such a way that PSL sales did not count in the 10 percent limitation, but rental payments do. If a city is collecting money from ticket sales to pay for the stadium, it can do so in two ways. It can charge rent and tax ticket sales, or it can sell PSLs. The former count toward the 10 percent limit, but the latter do not; hence the city prefers to use PSLs in order to preserve its tax exemption. Likewise, the city would rather have the team sell PSLs and pay lower rent and taxes than finance the stadium itself from higher rents and taxes.

The same incentive is present for using up-front commercial licensing fees to pay for a stadium. If the trade-off is between, say, higher rents and taxes on concessions versus an up-front rights fee, federal tax rules count the former toward the 10 percent limit but not the latter. Hence the team and stadium authority will prefer up-front fees if doing so enables them to retain the tax exemption for the bonds that finance part of the stadium.

The preceding analysis leads to a rather sobering conclusion that one often encounters in analyzing federal tax policy. The recent boom in seat licenses, stadium naming rights, and other up-front licensing fees may have been artificially induced by yet another loophole in the tax code. Cities, teams, and their tax consultants may have done nothing more than invent a legal evasion of the 1986 tax reform. And the 1986 attempt to reduce the use of state and local debt to subsidize private businesses may have succeeded only in creating yet another distortion, in this case leading to practices that reduce the incentive to field high-quality teams.

A third possible reason for the existence of PSLs is that they may increase total revenues from the stadium. The argument that PSLs increase revenues is that the act of purchasing a PSL confers a special benefit: a sense of participation in bringing in a new team or keeping an old one, and a sense of personal ownership in the new stadium. In essence, a PSL is a kind of private good for achieving a public purpose, something akin to voluntary contributions to a charity.

Charitable contributions generally are subject to the problem of free riding. Because a single person has little effect on whether the charitable

goal is achieved, each potential donor has little instrumental incentive to make a contribution. Hence one would expect total donations to be substantially less than the value of the civic purpose to which the funds are put. Nevertheless, this argument alone does not support the conclusion that PSLs must have no charitable component. The key point is that even if people are prone to contribute less to a civic purpose than the value of that purpose to them, they still might contribute a significant amount. If so, some nontrivial portion of PSL revenue may be a net increment to the revenue stream of teams and stadiums.

If this motivation explains part of the revenue from PSL sales, PSLs make a real contribution to stadium financing, and the various distortions discussed above are less important than they otherwise would be. Moreover, the argument would apply with equal force to long-term sales of other premium seats, such as luxury boxes, if these revenues also are used to help finance a stadium. One implication of this account, of course, is that part of PSL charges for stadium construction should not lead to a comparable reduction in season ticket sales over the life of the PSL. Likewise, higher premium seating charges for stadium finance should be feasible if they are used to pay for a stadium. And, finally, if the thrill of participating in attracting a new team to a city is part of the motive, this component of the value of a PSL should evaporate when the team begins to play, so that the price of subsequent resale of PSLs should fall more rapidly than the remaining life in the first few years after they are issued.

Unfortunately, too few teams and stadium authorities have used PSLs and other premium seating revenues to finance stadiums to permit an empirical test of these propositions. Nevertheless, one interesting fact has emerged: the success of PSLs has been quite variable. The most successful PSL can be found in Charlotte, where sales achieved expectations, but others have fallen short. The worst experience is in Oakland.[16]

Oakland sold PSLs through a local government entity, the Oakland Football Marketing Association, whose proceeds net of selling costs went to the city and county to offset their investment in renovating the Coliseum to accommodate the Raiders. In the original financial plan, PSL revenues (including fees from special clubs for PSL holders) were expected to produce $99.1 million. After one year, the actual revenues were $58.9 million, a shortfall in excess of $40 million.

Also, the Oakland financial plan expected renovation to cost $100 million, but the actual cost was $130 million because the plan failed to

include several important items: notably, a scoreboard, improved seat covers, and field drainage to accommodate rain (which occurs only in the football season). Instead of breaking more or less even (with an expected loss of less than $1 million), the stadium renovation was $70 million in the red after the first year. Although some of this loss may be recovered through PSL sales in subsequent years, it would be optimistic to believe that most of the cost of the stadium renovation will not be paid out of increased taxes and reduced public services.

The extent to which PSLs distort the decisions of teams and stadium authorities, and reflect additional distortions created by federal taxes and league revenue-sharing arrangements, remains quantitatively uncertain. Nevertheless, the distortions arising from revenue sharing and taxation are likely to be an important part of the attractiveness of PSLs to both teams and stadium authorities. Regardless of altruistic motives behind the sale of PSLs and other seating rights, an extremely attractive feature of these revenue sources is that they are not paid by the team, the fans, or local government. Instead, these financing arrangements pass part of the cost of stadium construction on to teams in other cities and to federal taxpayers through the tax-exempt status of local bonds.

Why Cities Subsidize Sports Facilities

The upshot of the discussion of stadium financing to this point is that the government pays a significant fraction of the cost of sports facilities. Most financing plans actually do conclude that the facilities are subsidized, but the actual magnitude of the subsidy is typically greater than the estimate in the plan owing to numerous systematic errors in estimating the costs and revenues of a stadium.

The obvious question that arises is why such subsidies exist. Part of the answer probably lies in the fact that the social and psychological significance of sports substantially exceeds its economic value, so that in the absence of economic and political distortions in the relationship between teams and cities, some subsidies are bound to emerge (see chapter 2). Part of the answer may lie in a widespread belief that sports facilities are an engine of local economic development. Most of this book is devoted to demonstrating that this belief is mistaken. Still another part of the answer is that public ownership enables teams and cities to capture federal tax benefits for constructing stadiums, thereby causing people

who live elsewhere to pay part of the cost of a facility for the hometown team (see chapter 4). And, part of the answer also may lie in the peculiar politics of sports, in which teams, other interests that benefit from sports facilities, and their political representatives control the agenda of public decisionmaking about sports facilities and make use of that power to give the public a choice among bad alternatives (see chapter 5).

The preceding are only some of the economic and political reasons for public subsidies. The fact that teams want subsidies and that governments are willing to provide them does not necessarily mean subsidies will emerge. In virtually all lines of business, providers would love to charge more, and most consumers would be willing to pay more rather than do without. Nevertheless, firms and consumers continue to transact at prices below the level that would extract the maximal feasible amount from consumers and maximize industry profits. Two additional factors explain why subsidies actually are paid: the relatively weak bargaining position of cities, and the fundamental economic irrationality of most new stadiums as purely private investments.

Monopoly Leagues

Although professional sports has expanded considerably since the 1950s, the number of teams in each sport remains substantially lower than the number of cities that can support a major league team. Moreover, because of the rising popularity of professional sports, the minimum size of a metropolitan area that can support a team is shrinking. Consider what happens when expansion is contemplated or an established team plans to relocate. In either case, many more cities bid for franchises than the number of teams that are available. Until the 1980s, cities such as Charlotte, Jacksonville, Nashville, Phoenix, and St. Petersburg would have been unlikely candidates to bid for a franchise, let alone win one. The success of these small-city franchises indicates that many comparable cities are also good candidates for new teams. Likewise, multiple teams seem to be viable in the largest markets.

The reason for the excess demand for teams among cities is the structure of the sports industry. All major sports are controlled by monopoly leagues. Like monopolists anywhere, these leagues profit from a scarcity of teams. By creating a situation in which several cities that are viable franchise sites do not have teams, the leagues set up competitive bidding

for any team that becomes available, whether through expansion or relocation. Cities that lack a team then become credible threats to induce an existing team to move, as well as provide a hungry pack of suitors when a league decides to expand. This situation bids up the price for franchises and the subsidy that a city must expect to pay in order to capture or to retain a team. The underlying economics of this process are discussed in chapter 2.

Normally, monopolistic behavior such as this would attract entry in the form of new leagues. Indeed, several leagues have tried to enter professional sports throughout the postwar era, but none has succeeded since the World Hockey League and the American Basketball Association merged some of their teams into the established NHL and NBA in the 1970s. The lack of successful entry since the 1970s also is based on the structural features of sports. The success of a professional sports team depends greatly on the success of its league. The problem is not just that one team needs other teams to play, but that a league must include some major cities. The presence of at least some teams from large cities has two major benefits, both of which are related to the media.

First, national television has become a very important source of revenue for all sports and is essential to the success of a major league. A league must include big cities to offer an attractive package of television rights, partly because so much of the TV audience is in large cities and partly because fans in smaller communities are more likely to watch a team from a large city than from a smaller one.

Second, the free publicity that arises from coverage of a league by national media is far more extensive if the league includes teams in national media centers such as Chicago, Los Angeles, and New York. The relationship between the media and sports is synergistic: sports coverage sells newspapers and increases audience ratings, but it also enhances interest in sports.

For these reasons, a presence in at least some of the largest metropolitan areas is essential to the success of a major professional sports league. The great problem for new leagues entering large cities is to find the necessary sports facilities. Because existing teams have exclusive rights to nearly all facilities of major league caliber, a new team usually must gain access to a new facility soon after it is created. Of course, established teams also play in facilities that are subsidized, so that to compete on equal footing, the new league must be able to obtain comparable subsidies. But cities are less likely to subsidize a new team in a

new league if the city already has a team or two in the established league. Hence a new league faces enormous problems, not just in locating in big cities but also in getting the league off the ground, even though there are many other cities that would welcome the new league, subsidize its teams, and support its games. For these reasons, competitive entry is no longer a serious threat to existing monopoly sports leagues.

Stadiums as Poor Investments

Stadium subsidies exist also because stadiums are seldom financially attractive as private investments. As already explained, stadiums are not financially viable if they must both improve the profitability of a team and pay for themselves. That is why local governments have difficulty finding a combination of rents, fees, and taxes to pay for a stadium.

If a team were not subsidized directly by payments from state and local governments and indirectly by the federal interest subsidy on government debt, interest and amortization for a stadium would be roughly 10 percent of its construction costs, including site acquisition and clearance. In no sport would the incremental revenue that is kept by a team be sufficient to pay for the stadium, except in two cases.

First, a dual-purpose basketball and hockey facility could plausibly pay for itself. In these sports, game revenues are not shared, so all of the revenue enhancement from a new facility is kept by the home team. In addition, arenas can be used for other events, such as circuses and trade shows. Second, the baseline revenues for an expansion team are zero, which means that the revenues from a new facility are entirely a gain to the team. At the same time, all of the team's costs are incremental to building the stadium. Thus a privately financed facility is worth building if the excess of revenues over costs exceeds the interest and amortization on the stadium, in other words, if the annual profit is $20 million to $30 million, depending on the sport. Whereas such profits are conceivable, they would be exceptional in all sports.

For established teams, stadiums are extremely unlikely to pay for themselves. The gross incremental revenue from a stadium frequently does exceed its annualized cost, but these greater revenues also cause increases in other costs, especially player salaries. Professional athletes receive salaries that are roughly proportional to the revenues that they generate, so that much of the revenue enhancement from a new stadium

inevitably goes to players. As shown in chapter 5, most of the incremental revenues from Oriole Park at Camden Yards were spent on player salaries. This increase would have been less if baseball had an effective salary cap, but because Camden Yards would have caused the salary cap to increase, and because no salary cap is completely free of loopholes, even with a cap players can be expected to capture a substantial part of the revenue increase.

The bottom line is that for the most part facilities are not financially viable when assessed on the basis of the incremental profit that a team can expect over the life of the facility. If teams had to pay for their own facilities, stadiums would have to be much smaller and much less elaborate.

Why Build a Stadium?

The foregoing analysis suggests the possibility of a cheaper way to subsidize teams: simply pay them the incremental profits that a stadium would provide, rather than pay for a stadium. To return to the case of Camden Yards, the owners of the Baltimore Orioles seem to benefit from the presence of the new ballpark by only a few million dollars a year. Hence, if Baltimore and the state of Maryland had simply paid the Orioles $5 million a year, these governments could have saved a substantial amount of money, the Orioles' bottom line would be improved, and the federal government would avoid several million dollars in annual interest subsidies.

Why, then, do cities and teams fail to follow that course? The answer to this question most likely lies in the politics of stadiums. One possibility, of course, is that the new stadium provides the city with sufficient spillover benefits to make the facility worthwhile. However, as the remaining chapters of the book indicate, this is unlikely to be the case. We suspect that, as a political matter, the explanation lies in two areas. First, some of the interests behind a stadium, such as local contractors and construction unions, cannot benefit unless the stadium is actually built. Second, people in general are more willing to subsidize a team indirectly by providing a stadium, even if it costs more. Perhaps they prefer to have a better team, in which case the benefit to fans of the extra expenditures on players more than offsets the cost to the team. Of course, this benefit is likely to be temporary if, as time progresses, other teams also acquire new stadiums.

Conclusions

Stadium financing is a complicated business. The effect of stadiums on the cash flow of teams and cities suggests that new facilities rarely, if ever, are worthwhile. Sometimes they can be financially catastrophic.

Subsidized sports facilities do not exist because they are financially valuable assets in their own right. They exist, instead, because most cities have decided that a subsidized team is better than no team at all, and because scarcity in the number of teams gives owners the advantage in bargaining with cities.

Appendix
Summaries of Lease Agreements in Professional Sports

Major League Baseball

ANAHEIM (CALIFORNIA) ANGELS (name changed for 1997 season). Anaheim Stadium built in 1996/97 (till construction complete). Capacity in 1996: 64,593. Luxury suites in 1996: 104 @ $22,000–$32,000, but none in 1997 season owing to renovation construction.

Lease began in 1996 for thirty-three years (until 2029). Team can escape lease after twenty years. Lease can be extended for three-year period. Team controls *all* stadium revenue. Team pays city $2 ticket surcharge for every admission over 2.6 million. Team pays city 25 percent of revenues exceeding $2 million from non–baseball events. The team is controlled by the Walt Disney Co. (general partner). Disney also helped finance stadium renovations (Disney, 70 percent; city, 30 percent).

ATLANTA BRAVES. Atlanta-Fulton County Stadium, opened 1964. Capacity: 60,700. Luxury suites: 60 @ $125,000–$200,000 per year. Lease expired December 31, 1996.

Rent: equal to 5 percent of gate on first 1.2 million paid admissions plus 10–16.5 percent of gross concessions receipts plus game-day expenses of stadium authority minus $193,368. Team also pays $20,000 for stadium club rental and $192,000 for stadium cleaning yearly. Authority keeps all parking and signage (except at concessions spaces) revenues. Braves retain 39 percent of net concessions revenue.

TURNER FIELD. Built 1996. Capacity: 49,831. Private suites: 59. Party suites: 3. Lease expires in 2017.

Annual operator's fee: $500,000 per year, plus any annual revenues from naming rights above $1.5 million up to a maximum of $250,000 per year. Braves retain 91.5 percent of parking revenues, 100 percent of concessions revenues, 100 percent of advertising revenues, 100 percent of suite revenues, and 50 percent of revenues from non–baseball events. Braves are responsible for operations and maintenance. Opened for baseball in 1997.

BALTIMORE ORIOLES. Oriole Park at Camden Yards, built in 1992 for $210 million. Capacity: 48,262. Luxury suites: 72 @ $55,000–$110,000 per year. Club seats: 3,800 @ $30 per game plus $500 annual fee, or $2,075 per season. Lease is for thirty years.

Rent: 7 percent of net admissions receipts. Team pays Maryland Stadium Authority (owner) between 1.7 percent and 7.5 percent of gross concessions revenues. Authority operates parking but team receives 50 percent of net receipts. Team retains 90 percent of luxury suite rentals, signage, and club seat revenues. Authority is responsible for all maintenance except field conditions.

BOSTON RED SOX. Team owner, John L. Harrington, owns park.

CHICAGO CUBS. Team owner, Tribune Co., owns park.

CHICAGO WHITE SOX. Comiskey Park, built in 1991. Capacity: 44,321. Luxury suites: 102 @ $60,000–$90,000 a year. Club seats: 1,800 @ $1,620 a season. Lease is through 2009.

Rent: $1 per year. Illinois Sports Facility Authority receives 35 percent of sum of local broadcast revenues and signage exceeding $10 million. Team retains all signage except that stipulated above and retains all parking revenue. Team retains all income from stadium club and concessions. City pays for stadium insurance and all capital repairs above $500,000.

CINCINNATI REDS. Cinergy Field. Formerly Riverfront Stadium, built in 1970. Capacity: 52,952 (baseball), 59,754 (football). Luxury suites: 20 @ $77,220 a year, including tickets for all Reds and Bengals games. Lease is through 2017.

Rent: $175,000 plus 7.5 percent of ticket revenue above $2.3 million. Team retains 90 percent of gross concessions revenue and 30 percent of suite rental fee (Bengals receive 62.5 percent and city 7.5 percent). City retains all parking revenue.

CLEVELAND INDIANS. Jacobs Field, built in 1994. Capacity: 42,865. Luxury suites: 122 @ $36,000–$96,000 a year plus tickets ($23 each). Club seats: 2,064 @ $1,600 club fee plus $23 a game. Lease is through 2014.

Rent: $.75 per ticket sold after 1.85 million paid admissions up to 2.25 million, $1 per ticket between 2.25 and 2.5 million attendance, and $1.25 per ticket for attendance above 2.5 million. Team retains all parking, signage, concessions, and luxury and club seat revenues.

COLORADO ROCKIES. Coors Field, built in 1995. Capacity: 50,200. Luxury suites: 52 @ $73,000–$110,000 a year. Club seats: 4,400 @ $28 per game. Lease expires 2012.

Rent: Team retains all revenues generated at the stadium, including all suite, club seat, signage, and concessions revenues. Team also receives all revenue from the sale of naming rights. Team is responsible for park maintenance and operations. There is also a provision for the team to pay the authority 2.5 percent of the team's net taxable income if the partners take a 5 percent cash return in any given year on their paid-in capital (and this return shall be deducted from the taxable basis).

DETROIT TIGERS. Tiger Stadium, built in 1912. Capacity: 52,416. Luxury suites: 4, 2 of which are sold to the public at $2,500 per game. Club seats: 3,773 @ $1,620 a year. Lease expires 2008.

Rent: $1.00 a year plus $.90 per ticket sold, not to be less than $150,000 or more than $400,000. Team retains signage, concessions, and parking income. Team covers operations and maintenance.

FLORIDA MARLINS. Team owns park.

HOUSTON ASTROS. The Astrodome, built in 1965. Capacity: 54,350. Luxury suites: 65 @ $21,000–$68,000 a year. Skyboxes: 72 @ $288 per game. Club seats: 100 @ $60 per game. Lease expires on August 16, 2005.

Rent: $735,020 for 1997 season plus a $100,000 special-purpose additional rent; plus 2 percent of parking or $125,000, whichever is greater.

All revenue from baseball events and non–baseball events goes to the team. Team covers operations and most maintenance expenses.

KANSAS CITY ROYALS. Ewing Kauffman Stadium, built in 1973. Capacity: 40,625. Luxury suites: 19 @ $32,000–$42,000. Lease expires 2015.

Rent: $450,000, plus 5 percent of gross gate receipts between $7.5 and $12.5 million, 4 percent of gross receipts between $12.5 and $17.5 million and 2 percent of gross receipts above $17.5 million. The team retains all revenues from signage, suite rentals, and concessions. Authority covers operations and maintenance.

LOS ANGELES DODGERS. Team owns park.

MILWAUKEE BREWERS. County Stadium, built in 1953. Capacity: 53,192. No luxury suites or club seats.

Rent: $1 per ticket sold up to 1 million tickets; 5 percent of gross receipts from 1 to 1.5 million tickets; 7 percent of gross receipts from 1.5 to 2 million tickets and 10 percent of gross above 2 million tickets. County retains 100 percent of parking revenues. Signage is shared on roughly a 50/50 basis. Team retains all net concessions revenue up to 1 million attendance and above 1 million pays the county 10 percent of gross concessions revenues. County covers maintenance and shares operations expenses with the team.

MINNESOTA TWINS. Hubert H. Humphrey Metrodome, built in 1982. Capacity: 48,678. Luxury suites: 113 owned by the Vikings and 2 owned by the Twins @ $39,000–$78,000. For Vikings-owned suites, Twins tickets must be purchased at $17 a seat. Lease expires in 2009.

Rent: 10 percent ticket tax. Team retains between 75 percent and 100 percent of signage, but cannot use scoreboard for commercial advertising. Team receives 35 percent of gross concessions receipts until 1 million tickets sold and 45 percent thereafter. Team retains no parking revenue. Team pays utility and insurance costs. Authority covers other operations and all maintenance costs.

MONTREAL EXPOS. Olympic Stadium (Le Stade Olympique), built in 1976. Capacity: 46,418. Luxury suites: 36 @ C$44,000–C$62,144. Club seats: 151 @ C$3,483.

Rent: 6.5 percent on gross receipts up to 1 million tickets sold; 7.5 percent on next 800,000 tickets and 9.5 percent on ticket sales above 1.8 million. Expos receive no income from luxury suite sales.

NEW YORK METS. Shea Stadium, built in 1964. Capacity: 55,601. Luxury suites: 46 @ $95,000–$205,000. Club seats: 3,885 @ $25 per game. Lease expires 2004.

Rent: The greater of $300,000 or a percent of gross receipts. Team receives 15 percent commission on luxury suites revenue. City receives 8 percent of development cost of suites. Team retains remaining 50 percent of luxury suite rentals. Team controls and retains 100 percent of signage and concessions revenues. City retains all parking revenues. City is responsible for all maintenance and shares in operations expenses.

NEW YORK YANKEES. Yankee Stadium, built in 1923. Capacity: 57,545. Luxury suites: 19 @ $102,000. Club seats: 5,000 @ $2,187 per season. Lease expires 2002, with two five-year renewal options.

Rent: minimum rent is $200,000. Five percent of gross gate and gross concessions for attendance up to 750,000; 7.5 percent of gross gate and concessions for attendance between 750,000 and 1.5 million; 10 percent of gross gate and concessions for attendance above 1.5 million. Team receives 100 percent of signage revenues, except signage on stadium exterior. Team retains 100 percent of all luxury suite income and 50 percent of parking. Team pays operations and normal maintenance costs, but may deduct many of these costs from its rental obligations. In practice, the Yankees, claiming various deductions, have paid less than $1 million in rent since the late 1980s.

OAKLAND ATHLETICS. Oakland-Alameda County Stadium, built in 1966. Capacity: 47,313. Luxury suites: 53 skyboxes and 10 plaza suites @ $35,000–$65,000. Club seats: 2,700 @ $1,620–$2,025 per season. Lease expires 2004.

Rent: $250,000 a year, plus $100,000 for parking rights, $100 for each club seat membership and 10 percent of net club seat revenue, and $10,000 a year for use of DiamondVision. Team retains all luxury suite income up to $750,000 and 50 percent thereafter, 100 percent of signage, and 50 percent of concessions. Beginning in 1997, city will collect a $.25 surcharge per ticket.

PHILADELPHIA PHILLIES. Veterans Stadium, built in 1971. Capacity: 62,530. Luxury suites: 89 @ $90,000–$180,000, and 59 super boxes @ $22,000–$80,000. Club seats: 1,296 @ $1,539 a year. Lease expires 2011, with two five-year renewal options.

Rent: greater of $160,000 or 10 percent of ticket sales in excess of $1.6 million, with provision that city credits team against rental obligation equal to 50 percent of the city's gross concession receipts. City retains all parking revenue. Phillies retain 100 percent of luxury suite income, but must reimburse Eagles for value of football tickets. Phillies must also pay the city 10 percent of gross receipts from pay television. Phillies cover the bulk of operations expenses.

PITTSBURGH PIRATES. Three Rivers Stadium, built in 1970. Capacity: 47,972. Loge boxes: 110 @ $18,000 per season plus $25 per game. Lease expires in 2010. Rent: 10 percent of net receipts plus a 10 percent amusement tax on every ticket. Team retains no revenue from parking, 70 percent of net concessions revenue, 33 percent of signage from concourse, and no revenues from loge box rentals. Team covers operations and maintenance expenses.

SAN DIEGO PADRES. Qualcomm Stadium at Jack Murphy Field (renamed in 1997), built in 1968. Capacity: 47,750. Luxury suites: 78 @ $34,000–$70,000 a year. Club seats: 582 at $27 a game. Lease expires 2000.

Rent: 10 percent of first $15 million in ticket sales and 8 percent thereafter. Team retains 29 percent of luxury suite rentals, 50 percent of parking revenues above $1.5 million, and 100 percent of gross concessions revenues.

SAN FRANCISCO GIANTS. 3-Com Park, built in 1960. Capacity: 63,000. Luxury suites: 85 @ $29,880–$74,700 a year. Club seats: 6,900 lower seats @ $1,660 a year, and 2,000 upper seats @ $1,286 a year. Lease is through 2008.

Rent: Team pays greater of $125,000 minimum rental, or 5 percent of paid admissions. Team pays $.25 per ticket to city-sponsored after-school sports program. City controls all parking and retains revenues.

SEATTLE MARINERS. Kingdome, built in 1976. Capacity: 59,158. Luxury suites: 19 @ $35,000–$190,000 a year. Lease expired March 14, 1997. Team has two five-year renewal options.

Rent: greater of 7 percent of gate receipts for first 1 million tickets sold or $160,000 plus 5 percent of gate from first 1 million. Team retains approximately 45 percent of gross concessions and parking revenues, 100 percent of baseball novelty revenues, and 40 percent of net revenues from suite rentals for 48 suites, and 100 percent of net revenues from remaining 29 suites. Mariners pay $318,000 for signage rights and keep 75 percent of signage revenue, except DiamondVision, in which case the team keeps 50 percent. Team pays county $9,750 for game-day expenses for 1996 season and 5 percent of any reported net operating profits for the franchise. County covers operations and maintenance.

ST. LOUIS CARDINALS. Team owns park. Busch Stadium, built in 1966. Capacity: 57,078. Luxury suites: 64 @ $30,000–$33,000. Club seats: 592 @ $8,505 per season.

TAMPA BAY DEVIL RAYS. Tropicana Field (formerly ThunderDome, 1990), completed for baseball in 1997. Capacity: 46,000. Luxury suites: 65 @ $40,000–$140,000. Lease expires 2027.

Rent: $.50 for each ticket sold up to 3.3 million tickets and $.75 above 3.3 million, with the first $250,000 of these funds paid into a maintenance account. Team operates and maintains stadium and receives a $4.2 million management fee from the city. Team retains all revenues generated for baseball and non–baseball events. Team also retains between 80 and 85 percent of naming rights to stadium.

TEXAS RANGERS. The Ballpark at Arlington, built in 1994. Capacity: 49,178. Luxury suites: 121 @ $40,000–$200,000. Club seats: 5,386 @ $1,215–$1,328 per season. Lease expires in 2024.

Rent: base rent of $2 million a year, and until bond obligations retired an additional $1.5 million a year, along with a $1 surcharge per ticket sold. Team retains 100 percent of parking and signage, and 95 percent of luxury club suite rentals through 1999 and 100 percent thereafter. Team receives all revenues from non-baseball events. Team pays operations and maintenance costs above sum collected by the ticket surcharge.

TORONTO BLUE JAYS. SkyDome, built in 1989. Capacity: 50,516. Skyboxes: 161 @ $100,000–$225,000. Club seats: 5,700 @ C$4,000.

Rent: A consortium of thirty businesses owns the facility.

National Basketball Association

ATLANTA HAWKS. The Omni, built in 1972. Capacity: 16,378. Luxury suites: 16 @ $175,000–$180,000. New facility planned for 1999.

Rent: 10 percent of gross ticket sales. Atlanta-Fulton County Recreation Authority controls 100 percent of parking revenue. All suite revenue goes to the Authority, but team is paid for the tickets.

BOSTON CELTICS. FleetCenter, built in 1995. Capacity: 18,600. Luxury suites: 104 @ $125,000–$200,000. Club seats: 2,350 @ $10,650–$12,250 a year.

Rent: no payment made. Suite revenue divided among Celtics, Bruins, and loan debt. Celtics receive suite ticket money.

CHARLOTTE HORNETS. Charlotte Coliseum, built in 1988. Capacity: 24,042. Luxury suites: 12 @ $73,500–$126,000. Lease expires in 2000.

Rent: the greater of 12 percent of net ticket sales or $3,500 per home game up to a maximum of $9,000 per home game. Team and city split luxury suite net revenue. City retains all parking revenues (approximately $100,000 per game) and all concessions revenues, except game-day sales of basketball novelties. Team retains all signage revenues. Operating and maintenance expenses are the responsibility of the Authority, but the team reimburses the Authority for game-day personnel.

CHICAGO BULLS. United Center, built in 1994. Capacity: 21,711. Luxury suites: 216 @ $85,000–$175,000. Club seats: 3,300 at $40 per ticket plus $1,000 annual fee.

Rent: United Center Bulls and Blackhawks Joint Venture own the arena. They are assessed a reduced rate property tax of between $600,000 and a maximum of $1 million per year.

CLEVELAND CAVALIERS. The Gund Arena at Gateway, built in 1994. Capacity: 20,562. Luxury suites: 92 @ $85,000–$150,000. Club seats: 2,000 @ $6,955, $7,955, and $8,587 per season a year. Lease expires in 2024.

Rent: 27.5 percent of suite revenue, 48 percent of club seat revenue and $.75 per ticket in excess of 1.85 million tickets up to 2.5 million tickets, and $1.00 per ticket in excess of 2.5 million. These ticket thresh-

olds apply to all basketball and non–basketball events held at Gund Arena. Team retains all parking, signage, and concessions revenues from all events at the arena. Provisions are made for additional rental payments if an NHL hockey team plays at the arena or if parking revenues exceed $1.5 million annually. Team retains any proceeds from arena naming rights. Cavs are responsible for operations and routine maintenance expenses.

DALLAS MAVERICKS. Reunion Arena, built in 1980. Capacity: 18,042. No suites or club seats. Lease expires 2008, with two five-year renewal options.

Rent: If per game receipts are less than or equal to $324,000, team pays $10,000 or 7 percent of receipts, whichever is less. If per game receipts exceed $324,000, team pays $10,000 plus 5 percent of receipts in excess of $324,000. Team retains 50 percent of signage revenues from static advertising and 100 percent from nonstatic advertising. Team receives 10.8 percent of gross concessions up to $4,320 per game when sales exceed $40,000. Team receives 25 percent of parking revenue from season parking passes. The city is responsible for most operations and all maintenance expenses.

DENVER NUGGETS. McNichols Sports Arena, built in 1975. Capacity: 17,171. Luxury suites: 27 @ $90,000. Lease expires 2008.

Rent: greater of 5 percent of net ticket income or $250,000, with maximum of $350,000. Nuggets receive a fixed payment of $140,000 for concessions. Nuggets retain no parking revenue, all luxury suite revenue, and 70 percent of signage revenue until city share reaches $200,000, and 100 percent thereafter. Except for game-day expenses, city covers operations and maintenance costs.

DETROIT PISTONS. Palace of Auburn Hills, built in 1988. Capacity: 21,454. Luxury suites: 180 @ $40,000–$200,000. Club seats: 1,000 @ $6,500. Team owner owns facility.

GOLDEN STATE WARRIORS. Oakland Coliseum, built in 1966; opening night, November 8, 1997. Capacity: 19,200. Luxury suites: 72 @ $95,000–$125,000 a year. Club seats: 3,000 @ $75–$200 per ticket; $8,200, $6,150, $3,690, $3,075 per season.

Rent: Team pays $1.5 million a year and $500,000 management fee. Team pays Coliseum $7.4 million per year for rental of suites, club seats, courtside seats. Team pays ticket surcharge not to exceed 5 percent. Net income will be split between team and Coliseum up to $7.5 million. After that figure is reached, team receives 75 percent and Coliseum 25 percent.

HOUSTON ROCKETS. Summit Arena, built in 1975. Capacity: 15,997. Luxury suites: 20 @ $65,000–$70,000. Lease expires 2003.

Rent: minimum payment of $22,500 per game. Team retains 50 percent of signage income. Arena is subleased from IHL Houston Aeros.

INDIANA PACERS. Market Square Arena, built in 1974. Capacity: 16,530. Patio boxes: 36 @ $10,650. Lease expires in 2023.

Rent: $150,000. If team makes a profit, team reimburses city for maintenance and utilities. Team retains 100 percent of signage, 50 percent of parking, and gross concessions revenues. Under terms of the lease, city has right of first refusal on sale of the team. Except for fire insurance, Authority pays for operations and maintenance.

LOS ANGELES CLIPPERS. Memorial Sports Arena, built in 1959. Capacity: 16,021. Luxury suites: 2 @ $7,500 per seat. Lease expires June 30, 1998, with a five-year renewal option.

Rent: $15,000 per game. For playoff games, 6 percent of gross ticket sales. Team retains 50 percent of luxury suite income, 100 percent of signage for basketball events and 50 percent for other events. Team receives 22.5 percent of concessions sales from all events. Team retains 67 percent of income from Clipper Club and 42.5 percent of parking.

LOS ANGELES LAKERS. Team owns arena. Great Western Forum, built in 1967. Capacity: 17,505. No suites. Club seats: 2,400 @ $9,200 per season.

MIAMI HEAT. Miami Arena, built in 1988. Capacity: 15,200. Luxury suites: 16 @ $70,000–$120,000. Lease expires in 1998.

Rent: $600,000. Team receives between 47.5 percent and 100 percent of net concessions from basketball games. Team retains 100 percent of suite revenues minus $225,000, 100 percent of signage minus $275,000, and 50 percent of parking revenues. The Authority covers operations and maintenance costs. Team covers liability insurance.

MILWAUKEE BUCKS. Bradley Center Arena, built in 1988. Capacity: 18,633. Skyboxes: 68 @ $50,000–$70,000.

Rent: no rental payment. The team receives between 13.75 percent and 30 percent of gross concessions revenue, 100 percent of courtside signage, and approximately 50 percent of skybox revenues. Other than insurance for the Bradley Center, the Authority covers operations and maintenance expense.

MINNESOTA TIMBERWOLVES. Target Center Arena, built in 1990. Capacity: 19,006. Luxury suites: 68 @ $50,900–$100,000. Club seats: 702 @ $64, $84, or $175 per game. Lease expires 2024.

Rent: $2.9 million in 1995, rising at a maximum of 2 percent per year over the next thirty years. Team and Ogden Entertainment Services share all revenues from suites at games.

NEW JERSEY NETS. Continental Airlines Arena, built in 1981. Capacity: 20,039. Luxury suites: 29 @ $145,000–$200,000. Club seats: 66 @ $205 per game. Lease expires after 1999–2000 season.

Rent: 5 percent of gross ticket sales of sales between $5 and $6 million, 12.5 percent for sales between $6 and $7 million, 10 percent for sales between $7 and $8 million, 15 percent for sales between $8 and $11 million, 5 percent for sales between $11 and $15 million, and 15 percent for sales above $15 million. In addition, a 10 percent admission tax is levied on all tickets. Team receives 25 percent of net suite revenues, 50 percent of parking for first 4,000 vehicles and 25 percent thereafter, 50 percent on concessions.

NEW YORK KNICKS. Team owns arena. Madison Square Garden, built in 1968. Capacity: 19,763. Luxury suites: 89 @ $250,000–$300,000 a year. Club seats: 2,600 @ $110–$115 per game.

ORLANDO MAGIC. Orlando Arena, built in 1989. Capacity: 16,010. Luxury suites: 26 @ $80,000. Lease expires in 1998, with two five-year renewal options.

Rent: $9,000 per game and 25 percent of revenue from luxury suite rental. Team retains 100 percent of signage except in concourse areas, where city retains 100 percent. Team receives 50 percent of net concessions income from team events. Team receives no parking revenue. City is responsible for operations and maintenance costs.

PHILADELPHIA 76ERS. Team owners own facility. CoreStates Center, built in 1996. Capacity: 18,168. Luxury suites: 126 @ $75,000–$135,000. Club seats: 1,880 @ $6,000, $9,000, or $12,500 per season.

PHOENIX SUNS. America West Arena, built in 1992. Capacity: 19,023. Luxury suites: 88 @ $60,000–$70,000. Club seats: 2,270 @ $3,300 per season. Lease expires in 2032.

Rent: team pays zero rent. Team retains 90 percent of hard concessions revenue and 60 percent of gross suite revenue. Team receives no parking revenue and 60 percent of signage. Team pays for insurance and utilities. City covers other operations and all maintenance expense.

PORTLAND TRAIL BLAZERS. Team and arena owned by team owner. Rose Garden, built in 1995. Capacity: 21,538. Luxury suites: 70 @ $65,000–$135,000. Club seats: 2,505 @ $4,000–$13,000 per season.

SACRAMENTO KINGS. Arena owned by team. ARCO Arena, built in 1988. Capacity: 17,317. Luxury suites: 30 @ $110,000–$130,000. Club seats: 412 @ $2,500.

SAN ANTONIO SPURS. Alamodome, built in 1993. Capacity: 20,662. Luxury suites: 64 available for basketball @ $61,000–$100,000. Club seats: 6,000 available for basketball @ $22–$46 per game. Lease expires May 25, 1999.

Rent: $5,000 per game. Team retains 80 percent of suite and club seat revenue. Team receives 100 percent of signage from arena and concourse; for other signage team receives 40 percent. Team retains 100 percent of parking revenue on 3,200 spaces after paying a $50,000 yearly rental on these spaces for Spurs games. Team pays operations and city pays maintenance expenses.

SEATTLE SUPERSONICS. Key Arena, built in 1994. Capacity: 17,072. Luxury suites: 58 @ $50,00–$135,000. Club seats: 1,702 @ $4,100–$5,125 a year. Lease expires 2009.

Rent: $800,000, adjusted yearly by the consumer price index and 8.5 percent of ticket sales for pre- and post-season games. Team receives 100 percent of signage income after $750,000 payment to city over fifteen years of lease. Team receives 20 percent of suite revenue with share increasing to 40 percent by 2004. Team receives 40 percent of club seat

revenue with share rising to 60 percent by 2004. Team invests in equipment for concessions and receives 100 percent of game-day net revenues and 60 percent of gross concessions revenues for other events, with share declining to 30 percent by 2004. City receives 100 percent of parking, and the first $750,000 of naming rights, and 50 percent thereafter. The city covers maintenance and most operations and game-day expenses.

TORONTO RAPTORS. Arena owned by consortium of thirty businesses. Air Canada Arena, built in 1996. Capacity: 25,356 skydome. Luxury suites: 55 @ C$150,000. Club seats: 1,400 @ C$2,960 per season and C$4,000 subscription fee.

UTAH JAZZ. Arena owned by team owner. Delta Center, built in 1991. Capacity: 19,911. Luxury suites: 56 @ $40,000–$90,000. Skyboxes: 18 @ $40,000–$90,000 a year. Club seats: 668 @ $90–$160 per game.

VANCOUVER GRIZZLIES. Arena owned by Orca Bay Sports and Entertainment. General Motors Place, built in 1995. Capacity: 19,193. Luxury suites: 88 @ $C65,000–130,000. Club seats: 2,200 @ C$89 per game.

WASHINGTON BULLETS. Arena owned by team owners. USAir Arena, built in 1973. Capacity: 18,756. Luxury suites: 40 @ $31,000–$75,000. MCI Center opening 1997/98 season. Luxury suites: 110 @ $100,000–175,000. Club seats: 3,000 @ $7,500 per season.

National Football League

ARIZONA CARDINALS. Stadium owned by Arizona State University. Sun Devil Stadium, built in 1958. Capacity: 73,273. Skyboxes: 67 @ $42,500–$46,500. Club seats: 4,928 @ $675–$1,800 per season. Lease expires in 1998 with four five-year renewal options.

Rent: greater of 10 percent of ticket receipts or $50,000 per game. Team receives 100 percent of suite revenues and revenues from advertising on message board and video display. Team receives 50 percent of net parking revenues and 50 percent of net concessions income. The university is responsible for all operations and maintenance expense.

ATLANTA FALCONS. Georgia Dome, built in 1992. Capacity: 71,228. Luxury suites: 203 @ $20,000–$120,000. Club seats: 5,600 @ $1,800 a year. Lease expires 2022.

Rent: 10 percent of net ticket proceeds, but Authority pays Falcons $4 million each year of lease. Team receives 70 percent of net stadium revenues up to $2,857,144 and 50 percent of revenues thereafter. Otherwise, Authority retains all concessions, parking suite, and signage income.

BALTIMORE RAVENS. Memorial Stadium, built in 1954. Capacity: 68,400. No luxury suites. Club seats: 1,850 @ $35,000–$75,000 for boxes of 15–31 seats.

Rent: All stadium revenues to team until new park at Camden Yards is built. Zero rent. Stadium Authority pays all operations and maintenance expenses. Team pays day-of-game expenses.

Camden Yards, projected completion for 1998 season. Capacity: 70,000. Luxury suites: 108. Club seats: 7,500. Lease is for thirty years.

Rent: zero rent. Team (actually the stadium operator corporation, owned by Art Modell) receives 100 percent of stadium revenues. The team pays no rent but is responsible for day-of-game expenses and maintenance.

BUFFALO BILLS. Rich Stadium, built in 1973. Capacity: 80,024. Luxury suites: 88 @ $25,000–$50,000. Club seats: 1,002 @ $1,669 per season. Lease expires in 1997.

Rent: 9 percent of gross ticket sales up to $5 million, 4 percent between $5 and $7.5 million, and 2 percent thereafter. Team receives 50 percent of net concessions and parking revenue, and 100 percent of signage and suite revenues. Team pays for stadium maintenance.

CAROLINA PANTHERS. Stadium owned by team owners. Ericsson Stadium, built in 1996. Capacity: 72,500. Luxury suites: 160 @ $40,000–$296,000 a year. Club seats: 10,998 @ $975–$2,975 per season plus $600–$5,400 PSL fee.

CHICAGO BEARS. Soldier Field, built in 1924. Capacity: 66,944. Luxury suites: 116 @ $65,000–$80,000. Lease expires January 31, 2000.

Rent: 12 percent of gross ticket receipts plus $1 surcharge per ticket. Team retains 80 percent of suite revenue, and no parking, concessions,

or signage revenue. Team covers operations and city covers maintenance expenses.

CINCINNATI BENGALS. Cinergy Field, built in 1970. Capacity: 60,389. Luxury suites: 20 @ $47,220 plus $30,000 for tickets (or $77,200 total), for Bengals and Reds.

Rent: 10 percent of gross ticket receipts. Bengals retain 62.5 percent of suite rental fee and 10 percent of gross food and beverage concessions revenues at football games and 100 percent of football novelty sales. Team does not earn revenue from parking or signage. Team maintains the football field during season. Other maintenance is done by the city. This lease was renegotiated in 1993, when the city agreed to pay the Bengals a $2.75 million annual subsidy and to add luxury boxes as well as a club section to the facility. New lease terms negotiated in 1996 hold until new stadium is ready; see chapter 9.

DALLAS COWBOYS. Texas Stadium, built in 1971. Capacity: 65,675. Luxury suites: 379 @ $250,000–$1.5 million per term of lease. Lease expires 2009 with an option to renew for twenty-five years.

Rent: greater of $950,000 or sum of 8 percent of stadium revenue. Team controls all stadium operations and retains all revenues, except parking.

DENVER BRONCOS. Mile High Stadium, built in 1948. Capacity: 76,273. Luxury suites: 60 @ $38,000–$80,000. Lease expires in 2018.

Rent: 6.5 percent of gross gate receipts plus 8 percent of gross luxury suite revenues. City and county levy a 10 percent seat tax and retain all concessions, parking, and signage revenues. City covers operations and maintenance.

DETROIT LIONS. Pontiac Silverdome, built in 1975. Capacity: 80,368. Luxury suites: 102 @ $24,000–$27,500. Club seats: 7,384 @ $45 per game. Lease expires 2004.

Rent: $12,000 per month or 7 percent of gross ticket receipts, whichever is greater. City collects a $1.50 surcharge per ticket, and retains all signage, concessions (except football novelties), luxury suite, and parking income. The city pays most operations and all maintenance expense.

GREEN BAY PACKERS. Lambeau Field, built in 1957. Capacity: 60,789. Boxes: 198 @ $24,000–$30,000. Club seats: 1,920 @ $85 per game. Team has the option of a series of one-year leases through 2024.

Rent: $25,000 per game plus $15,000 of city services and $2 per ticket, and 10 percent of gross revenues for all non–football events. Team controls parking, concessions, and advertising and retains all income from these sources and luxury suites. Except utilities, city covers operations and maintenance expense.

HOUSTON OILERS. Astrodome, built in 1965. Capacity: 59,969. Luxury suites: 65 @ $37,500–$52,500. Lease expires in 1997. Team moving to Nashville.

Rent: approximately $3 million. Team retains suite revenue and 25 percent of parking for Oilers games.

INDIANAPOLIS COLTS. RCA Dome, built in 1983. Capacity: 60,272. Luxury suites: 96 @ $22,500–$45,000. Lease expires in 2014.

Rent: $250,000 per year plus $25,000 for playoff games. Team receives greater of $500,000 or 50 percent of luxury suite rental revenues. Team receives no parking, concessions, or signage income and is not responsible for maintenance, operation, or game-day expenses, except ticket takers and security. City collects a 5 percent tax on tickets.

JACKSONVILLE JAGUARS. Jacksonville Municipal Stadium, built in 1946 and renovated in 1995. Capacity: 73,000. Luxury suites: 75 @ $50,000–$80,000. Club seats: 11,000 @ $1,537. Lease expires in 2020.

Rent: $250,000 per year through 2000, $500,000 next five years, $1 million next ten years, and $1.25 million last ten years. There is also a $2.50 ticket surcharge. Team receives all suite, concessions, signage, and parking revenues but pays a $2 per car surcharge to the city. Any naming rights revenue will be split 50/50 between the city and the team.

KANSAS CITY CHIEFS. Arrowhead Stadium, built in 1972. Capacity: 79,239. Luxury suites: 80 @ $27,500–$82,250. Club seats: 10,199 @ $700 annual fee plus $41 per game. Lease expires 2015.

Rent: $450,000 a year, plus 5 percent on ticket sales for sales between $7.5 and $12.5 million, 4 percent on sales for sales between $12.5 and $17.5 million, and 2 percent for sales above $17.5 million. Team retains all signage and luxury suite revenues, and a percentage of parking revenues. The team is responsible for operations and normal maintenance. City covers all game-day, operations, and maintenance expenses, except liability insurance, which is provided by the team.

MIAMI DOLPHINS. Stadium owned by team owner. Pro Player Stadium, built in 1987. Capacity: 74,916. Luxury suites: 215 @ $55,000–$150,000. Club seats: 10,209 @ $600–$1,500 a year.

MINNESOTA VIKINGS. Hubert H. Humphrey Metrodome, built in 1982. Capacity: 64,035. Luxury suites: 113 @ $24,000–$61,000 for all events, or $24,000–$26,000 for Vikings games only. Lease expires 2009.

Rent: 10 percent of ticket receipts. Team receives 10 percent of gross concessions sales at football games plus 100 percent of football novelty sales. Team pays $1 million annual fee for right to retain luxury suite revenue up to 1997, then $1.3 million a year after 1997; Twins receive base ticket revenue only. Authority retains signage revenue, except in a few spaces designated for the Vikings. Vikings cover game-day expenses and associated utility charges. Authority covers other operations and maintenance costs.

NEW ENGLAND PATRIOTS. Stadium owned by team owner. Foxboro Stadium, built in 1971. Capacity: 60,292. Luxury suites: 42 @ $33,000–$125,000.

NEW ORLEANS SAINTS. Louisiana Superdome, built in 1975. Capacity: 70,852. Luxury suites: 137 @ $26,000–$57,000 a year. Club seats: 14,077 @ $50 per game. Lease expires 2018 with two five-year extension options.

Rent: greater of $25,000 per game or 5 percent of gross ticket receipts, with a yearly cap of $800,000. Team receives 100 percent of signage, suite, and parking revenues. Team also receives 42 percent of gross concessions receipts. The Authority pays all operations and maintenance expenses, and all game-day personnel expenses up to 650 employees.

NEW YORK GIANTS. Giants Stadium, built in 1976. Capacity: 78,024. Luxury suites: 72 @ $115,000. Lease expires in 2026.

Rent: 13 percent of gross ticket sales in 1996, 11 percent in 1997, and 10 percent in 1998 and after. Team receives 50 percent of net signage income (except for scoreboard), 50 percent of net concessions revenue, and 20 percent of gross parking receipts.

NEW YORK JETS. Giants Stadium, built in 1976. Capacity: 78,024. Luxury suites: 72 @ $115,000. Lease expires in 2008.

Rent: 15 percent of gross ticket sales. Team receives 50 percent of net signage income (except for scoreboard), 50 percent of net concessions revenue and 25 percent of net parking revenues. Authority covers all operations and maintenance expenses.

OAKLAND RAIDERS. Oakland Alameda Coliseum, built in 1966, renovated in 1996. Capacity: 62,500. Luxury suites: 143 @ $30,000–$150,000. Club seats: 9,000 @ $1,610 per season. Lease expires in 2010.

Rent: $500,000 plus $1 surcharge per ticket. Team retains 100 percent of suite rentals; 50 percent of club seat rentals for 10 years, and 100 percent thereafter; and 50 percent of revenues from parking, signage, concessions, and naming rights.

PHILADELPHIA EAGLES. Veterans Stadium, built in 1971. Capacity: 65,352. Luxury suites: 89 @ $78,000–$180,000. Lease expires 2012.

Rent: team retains 100 percent of suite revenue (percentage falls to 30 percent in 2001), 15 percent of gross concessions revenue, and no parking revenue. Team maintains skyboxes and pays utilities. City is responsible for other operations and all maintenance expenses.

PITTSBURGH STEELERS. Three Rivers Stadium, built in 1970. Capacity: 59,600. Loge boxes: 110 @ $18,000 per season plus tickets. Lease expires April 30, 2009.

Rent: minimum is $450,000, capped at $852,000. Team receives 10 percent of loge box revenue, 30 percent of net concessions revenue, and no parking and 33 percent of net concourse signage revenue. A 5 percent amusement tax is levied per ticket.

SAN DIEGO CHARGERS. Qualcomm Stadium, built in 1967. Capacity: 60,794. After renovation, luxury suites: 110 @ $34,000–$70,000. Club seats: 7,800. Lease expires in 2020.

Rent: 10 percent on first $6 million ticket sales and 8 percent thereafter. Team retains 71 percent of suite revenue, 33 percent of net parking revenue, 33 percent of gross concessions revenues up to $705,207 and 100 percent thereafter, and 25 percent of signage. City ticket surcharge of $.75.

SAN FRANCISCO 49ERS. 3-Com Park at Candlestick Point, built in 1960. Capacity: 70,140. Luxury suites: 94 @ $35,000–$88,000. Lease expires in 2008 with three five-year renewal options.

Rent: 10 percent of gross ticket sales, plus the greater of $7,500 per luxury box or 15 percent of gross suite revenues. Team retains 58 percent of gross parking revenues, 100 percent of concessions up to gross revenues of $4.5 million and 85 percent thereafter, 100 percent of scoreboard, and no signage revenue. The rent is reduced by 50 percent of payments to the city for concessions and parking from football games, as well as by the sum spent by the team on repairs and improvements to the facility. City is responsible for maintenance.

SEATTLE SEAHAWKS. Kingdome, built in 1976. Capacity: 66,400. Luxury suites: 48 @ $55,000–$80,000. Lease expires in 2005.

Rent: 7 percent of gross ticket sales, plus 7 percent of gross rental proceeds from fifteen press-level loges. Team receives 30 percent of gross concessions revenue and 100 percent of concessions rights payments, no parking or signage revenue, and a proportion varying from 10 percent to 50 percent of suite and loge income.

ST. LOUIS RAMS. TransWorld Dome, built in 1995. Capacity: 65,321. Luxury suites: 124 @ $55,000–$110,000. Club seats: 6,500 @ $700–$2,200. Lease expires in 2025.

Rent: $250,000 plus 50 percent of game-day expenses (estimated at $250,000). Team retains 75 percent of signage income up to $6 million and 90 percent thereafter, 100 percent of concessions, 100 percent of suite and club income, 75 percent of naming rights income, and $1.50 per parking space sold for the season. Authority covers the rest of game-day and operations expenses, as well as all maintenance.

TAMPA BAY BUCCANEERS. Houlihan's Stadium, built in 1967. Capacity: 74,301. Luxury suites: 59 @ $32,000–$90,000.

Rent: $63,000 per game. The team retains all revenue from ticket sales, signage, suite, concessions, naming rights, and parking. Team also receives 27.5 percent of concessions and parking revenue from non–football events. Houlihan's restaurant chain is 70 percent owned by Malcom Glazer, the owner of Bucs, and pays $10 million for naming rights, but this money reverts to Glazer. Authority pays operations and maintenance, as well as day-of-game expenses.

WASHINGTON REDSKINS. RFK Memorial Stadium, built in 1961. As of opening of Redskins Stadium 1997, capacity: 78,000. Luxury suites: 280 @ $59,950–$159,950. Club seats: 15,044 @ $995–$1,995 per season.

Rent: estimated at $2 million. Team receives 50 percent of concessions revenue.

National Hockey League

ANAHEIM MIGHTY DUCKS. Arrowhead Pond of Anaheim, built in 1993. Capacity: 17,174. Luxury suites: 84 @ $69,000–$99,0000. Club seats: 2,731 @ $4,000–$6,900 per season. Lease expires in 2023.

Rent: 7.5 percent of gross gate receipts. Team retains between 45 and 55 percent of all suite and club seat revenues, 50 percent of net parking receipts, 22.5 percent of gross concessions revenues plus 15 percent of food and beverage sales to club seats, and 5 percent of food and beverage sales to suites, 100 percent of hockey-related advertising, and 50 percent of non-hockey advertising, 50 percent of naming rights up to $1 million annually, and 100 percent above this. Facility manager, Ogden, on behalf of the city, is responsible for all operations and maintenance expenses.

BOSTON BRUINS. Arena and team owned by New Boston Garden Corp. FleetCenter, built in 1995. Fleet Bank paid $30 million for fifteen-year naming rights. Capacity: 17,565. Luxury suites: 104 @ $175,000–$258,000. Club seats: 2,350 @ $10,650–$12,250, includes all Bruins and Celtics games. Suite revenue divided among Bruins, Celtics, and loan debt.

BUFFALO SABRES. Marine Midland Arena, opened September 21, 1996. Capacity: 18,595. Luxury suites: 80 @ $55,000–$100,000. Club seats: 5,000 @ $2,537 per season. Team controls all arena revenue.

Rent: $1.75 million. Team gets 85 percent of concessions, 70 percent of net signage, and 100 percent of luxury suite revenues. City is responsible for maintenance.

CALGARY FLAMES. Canadian Airlines Saddledome, built in 1983. Capacity: 18,700. Luxury suites: 72 @ C$36,000–$85,000. Club seats, 1,400 @ C$3,100 per season. Lease expires in 2015.

Rent: 12 percent of first $5 million in ticket revenue; 11 percent of next $5 million; 10 percent of revenue above $10 million. Team receives 40 percent of luxury suite revenue, 70 percent of dasherboard advertising, and no revenue from parking. Team manages arena.

CHICAGO BLACKHAWKS. Arena jointly owned with owner of Chicago Bulls. United Center, built in 1994. Capacity: 20,500. Luxury suites: 216 @ $53,000–$175,000. Club suites: 3,300 @ $1,000 annual fee plus $50 per game.

COLORADO AVALANCHE. McNichols Sports Arena, built in 1975. Capacity: 16,061. Luxury suites: 27 @ $90,000. New arena planned.

Rent: Team pays 5 percent of gross ticket receipts or an amount based on per game attendance. Team receives 100 percent of net concession revenue received by city and 68 percent of parking receipts.

DALLAS STARS. Reunion Arena, built in 1980. Capacity: 16,924. No suites. Club seats: 5,154 @ $52.50–$82.50 per game. Lease expires in 2003 with three five-year options to renew.

Rent: For gate receipts up to $324,000 per game, the lesser of 7 percent of gate or $10,000; above $324,000, $10,000 plus 5 percent of receipts above this level. Team receives 50 percent of net advertising profits, 10.8 percent of gross concessions revenues of first $40,000 in sales, and 100 percent of net revenues above this level, 25 percent of parking revenues from season's passes and 30 percent of gross parking revenues after city receives $20,000 annually. The city is responsible for most operations and all maintenance expenses.

DETROIT RED WINGS. Joe Louis Sports Arena, built in 1979. Capacity: 19,275. Luxury suites: 83 @ $55,000–$175,000.

Rent: 10 percent of ticket receipts plus 10 percent of gross concessions revenues, 5 percent of merchandise sales, and approximately 7 percent of suite revenues. The team retains the balance of net arena revenues.

EDMONTON OILERS. Edmonton Coliseum, built in 1974. Capacity: 16,437. Luxury suites: 39 @ C$32,000–$125,000. Club seats: 3,000 @ C$55–$60 per game. Lease expires in 2004, with six five-year renewal options.

Rent: team receives 50 percent of luxury suite revenue and no parking revenue.

FLORIDA PANTHERS. Miami Arena, built in 1988. Capacity: 14,703. Luxury suites: 16 @ $70,000–$120,000, includes Miami Heat and Panthers games. Yearly lease.

Rent: $9,000 minimum per game or 7.5 percent of gross ticket sales above $200,000, plus a $.75 per ticket surcharge. Team receives 45 percent of all concessions revenues paid to the city, and 100 percent of net revenues from NHL or team-related merchandise sales. Suite revenue and advertising controlled by Heat.

HARTFORD WHALERS. Hartford Civic Center, built in 1975. Capacity: 15,635. Luxury suites: 45 @ $60,000–$72,000. Club seats: 300 @ $5,000 per season. Team bought out lease in 1997.

Rent: No rent paid. Team receives 85 percent of suite revenue above a guaranteed amount and 100 percent of hockey-related advertising but receives no concessions revenues. City is responsible for operations and maintenance expenses.

LOS ANGELES KINGS. The Great Western Forum, built in 1967. Capacity: 16,005. No suites. Club seats: 2,400 @ $9,200 per season. Lease expires 2018.

Rent: 12.5 percent of gross ticket receipts.

MONTREAL CANADIANS. Arena owned by team owner. Molson Centre, built in 1996. Capacity: 21,273. Luxury suites: 135 @ C$64,000–C$140,000. Club seats: 2,676 @ C$1,600 annual fee plus C$70 per game.

NEW JERSEY DEVILS. Continental Airlines Arena, built in 1981. Capacity: 19,040. Luxury suites: 29 @ $145,000–$200,000. Lease expires in 2007.

Rent: 10 percent of gross ticket sales up to $20 million, 9 percent from $20 million to $30 million, and 8 percent above $30 million. Team receives 40 percent of gross suite revenues and 88 percent of gross club seat revenues (club seats to be added). Team receives 34.2 percent of all concession revenue and 50 percent of gross revenue paid to the Authority from existing and new restaurants, 35 percent of parking for hockey games, and 30 percent of arena naming rights (twelve-year deal valued at $29 million). Team retains 100 percent from all on-ice advertising. Authority covers operations and maintenance.

NEW YORK ISLANDERS. Nassau Veterans Memorial Coliseum, built in 1972. Capacity: 16,297. Luxury suites: 33 @ $84,000–$260,000. Club seats: 292 @ $80–90 per game. Promenade seats: 139 @ $90 per game. Lease through 2015.

Rent: Islanders give a share of suite revenue to the Coliseum.

NEW YORK RANGERS. Arena owned by Madison Square Garden Ltd. Partnership.

Madison Square Garden, built in 1968. Capacity: 18,200. Luxury suites: 89 @ $250,000–$300,000, includes tickets to all Rangers and Knicks games. Club seats: 3,775 @ $95, $110, and $125 per game.

OTTAWA SENATORS. Corel Centre, built in 1996. Capacity: 18,500. Luxury suites: 148 @ C$39,000–C$150,000. Club seats: 2,500 @ C$3,177.72–C$3,769.75 per season. Lease year to year.

Rent: C$3.9 million. Ogden bought concessionaire rights for thirty years for an initial investment toward arena construction of C$50 million.

PHILADELPHIA FLYERS. CoreStates Center, built in 1996. Capacity: 17,380. Luxury suites: 126 @ $75,000–$155,000 for all 76ers and Flyers games. Club seats: 1,880 @ $6,000–$12,500 per season.

Rent: 25 percent of luxury suite revenues will go each to the Flyers and 76ers; the remaining 50 percent will go to Spectator (facility manager), which will use the funds to pay off the construction debt.

PHOENIX COYOTES. AmericaWest Arena, built 1992. Capacity: 16,210. Luxury suites: 88 @ $60,000–$70,000. Club seats: 2,270 @ $3,300 per season.

PITTSBURGH PENGUINS . Civic Arena, built in 1961. Capacity: 17,180. Luxury suites: 55 @ $67,500–$135,000; and 88 club seats @ $3,600 per season. Lease expires in 2011.

Rent: $325,000. Team sells arena advertising. Teams pays insurance and utilities; Authority covers other operations and all maintenance costs.

SAN JOSE SHARKS. San Jose Arena, built in 1993. Capacity: 17,190. Luxury suites: 68 @ $62,000–$125,000. Club seats: 3,000 @ $63–$73 per game. Lease expires in 2008 with three five-year renewal options.

Rent: $500,000 a year, and beginning in 1997 team will pay city 20 percent of net luxury suite revenue. City receives first $250,000 of naming rights revenues annually, plus 50 percent of excess above $500,000. Team receives 100 percent of concession revenue, 100 percent

of hockey-related advertising, and 50 percent of fixed signage. Team receives 100 percent of parking minus $100,000 payment to city.

ST. LOUIS BLUES. Kiel Center Arena, built in 1994. Capacity: 19,260. Luxury suites: 90 @ $37,500–$120,000. Club seats: 1,684 @ $3,990 per season.

Rent: team receives 50 percent of arena's cash flow. There is overlap of several individuals who are in the syndicate owning the team and in the syndicate owning the private arena.

TAMPA BAY LIGHTNING. Ice Palace, built in 1996. Capacity: 19,500. Luxury suites: 72 @ $55,000–$100,000. Club seats: 3,300 @ $2,100–$2,500 per season. Lease expires 2026. Team retains all arena revenues.

TORONTO MAPLE LEAFS. Arena owned by team owners. Maple Leaf Garden, built in 1931. Capacity: 15,847. Luxury suites: 85 @ $32,500–$185,000.

VANCOUVER CANUCKS. Arena owned by Orca Bay Sports and Entertainment. General Motors Place, built in 1995. Capacity: 18,422. Luxury suites: 74 @ C$65,000–C$130,000. Club seats: 2,195 @ C$3,915 per season.

WASHINGTON CAPITALS. Arena owned by team owners. MCI Center, opening 1997–98 season. Luxury suites: 110 @ $100,000–$175,000. Club seats: 3,000 @ $7,500 per season.

SOURCES. Alan Friedman (Team Marketing Report) and Paul J. Much (Houlihan Lokey Howard and Zukin), *1997 Inside the Ownership of Professional Sports Teams: The Complete Directory of the Ownership and Financial Structure of Pro Sports* (Chicago: Team Marketing Report, 1997). The publisher does not guarantee that this work is absolutely accurate or without errors in some cases. Readers should therefore not rely on any of the information presented in this appendix where such reliance might cause loss or damage. The publisher disclaims all warranties, including the implied warranties of merchantability and fitness for a specific purpose.

Notes

1. Edward Epstein, "Key Questions on Stadium Deal: Here Are Some Answers, but 49ers Scramble for Specifics," *San Francisco Chronicle,* April 10, 1997, p. A1.

2. *San Jose Mercury News,* June 5, 1997, p. 1A.

3. The Dons of the All-American Football Conference, the Rams of the National Football League, the Chargers of the American Football League, the Sun of the World Football League, the Express of the U.S. Football League, and the Raiders of the National Football League all played in the Coliseum. For an excellent compendium of the history of sports franchises, see James Quirk and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports,* 3d ed. (Princeton University Press, 1997).

4. Martin J. Greenberg, "Current Trends in Facility Leases," October 14, 1995, processed, p. 4.

5. Ibid., p. 3.

6. Kenneth Shropshire, *The Sports Franchise Game: Cities in Pursuit of Sports Franchises, Events, Stadiums, and Arenas* (University of Pennsylvania Press, 1995), p. 2.

7. *Inside the Ownership of Professional Team Sports* (Chicago: Team Marketing Report, 1997), p. 60; Epstein, "Key Questions on Stadium Deal," p. A1.

8. For data on the revenues of professional sports in the period 1950 to 1970, see Roger G. Noll, ed., *Government and the Sports Business* (Brookings, 1974), especially chap. 1. For data in more recent periods, see Quirk and Fort, *Pay Dirt*; the annual sports issue of the business magazine *Financial World*; and *Inside the Ownership*.

9. Dennis J. Opatrny and Eric Brazil, "49ers Kick Off Stadium Plans," *San Francisco Examiner,* February 2, 1997, p. A14.

10. Ibid.

11. Edward Epstein and John King, "Handshake in Ballpark Lease: Giants to Pay $1.2 Million Annual Rent," *San Francisco Chronicle,* December 17, 1996, p. A17; Renee Koury, "How Raiders Deal Went Sour," *San Jose Mercury News,* February 21, 1997, pp. 1A, 28A. The unsold Raiders PSLs are being reduced in duration by one year each year they are not sold, with a concomitant 10 percent price cut after the first year.

12. The following is taken from *Inside the Ownership,* pp. 29–36.

13. Ibid., p. 189.

14. The NFL system evolved from its internal revenue-sharing agreements and its collective bargaining agreement with the players. The former requires that all ticket revenues be shared (except the premium on luxury boxes), including PSL revenue, after an allowance for taxes and stadium costs. The latter places a cap on player salaries that is based on a concept called "defined gross revenues." Over the years, the types of revenues that are included in calculating the cap have been negotiated and have been subject to change; in the last collective bargaining agreement the revenues used to calculate the salary cap were linked to those shared among teams. The new agreement states that PSL revenues are included in defined gross revenues unless the PSL revenues are used to finance a stadium and the NFL exempts the PSL sales from its interteam revenue-sharing arrangements. Conflicting interpretations of these new arrangements have given rise to conflict and litigation within the NFL, including lawsuits over the relocation of the Rams and the Raiders.

15. The distortions and costs of federal tax treatments of sports facilities are discussed in greater detail in chapter 4.

16. The details about the Oakland Coliseum plan are taken from Renee Koury, "Raiders Seat Licenses Cut 10%," *San Jose Mercury News,* February 21, 1997, pp. 1B, 2B; and Koury, "How Raiders Deal Went Sour," pp. 1A, 28A.

2

THE ECONOMIC IMPACT OF SPORTS TEAMS AND FACILITIES

ROGER G. NOLL AND
ANDREW ZIMBALIST

A major league sports franchise places local government in an awkward position: the city must either provide subsidized playing facilities or lose its teams to other communities that are more willing to subsidize them. Proponents of such subsidies contend that a sports facility is a good investment, because it generates positive net economic benefits for the community. Opponents counter that publicly financed sports facilities absorb scarce government funds, which ought to be used for either tax reductions or programs having a higher social or economic payoff. To make an informed judgment about a stadium proposal, how can citizens and city officials determine the true economic impact of these facilities?

This chapter sets forth the conceptual foundation for a valid economic impact study of a new sports facility. In doing so it explains why independent economic analysis arrives at conclusions far different from those of studies sponsored by stadium proponents. A valid economic impact study also sheds light on how cities compete for teams; how this competition affects the magnitude of stadium subsidies; and how it distorts the location of teams, the design of stadiums, and the operation of sports leagues.

Public Investment Economics and Sports Facilities

All levels of government commonly undertake public investments. Ultimately, these investments are based on political considerations, for they are financed through budget allocations made by elected politicians, in response to electoral incentives created by constituents, contributors, and lobbyists. Nevertheless, policy debates about public investments typically focus on two issues: whether the project provides amenities and other direct consumption benefits that justify the expenditure, and whether the project will make a net positive contribution to economic development.

Stadiums as Public Consumption

A classic example of an investment that can provide valuable public consumption benefits is a park. According to federal officials, the primary benefits of the National Park System are recreation for visitors and conservation of places of outstanding historical importance or natural beauty. Likewise, local governments invest in parks primarily to provide amenities and recreational benefits for their constituents.

The parallel argument for sports facilities is that attracting and retaining a major league sports team is a valid end in itself because the team is valuable to local residents, above and beyond any contribution of the sports facility and the team to the local economy. Thus if a subsidy is needed to retain or to attract a team, the city should provide it. Although this is rarely the primary argument of stadium proponents, the notion that a sports team provides significant public consumption benefits is not frivolous.

The cultural importance of major league team sports in American society most assuredly exceeds its economic significance as a business. A sports team derives revenue from fans who attend games and who follow team broadcasts. These revenues are actually remarkably small. In 1996 a reasonable estimate of the average gross revenue from all sources for a major league sports team is about $75 million in football, $65 million in baseball, $55 million in basketball, and $30 million in hockey.[1] These revenues are trivial compared with the economic activity in even the smallest major league city, and substantially smaller than many businesses. In Jacksonville, Florida, for example, the gross revenues of its National Football League team account for about 0.4 percent of metropolitan area effective buying income (EBI), or total disposable income;

in St. Louis the figure is 0.2 percent of EBI; and in New York 0.02 percent.[2]

By measures such as revenue, a sports team is a considerably smaller business than many less visible enterprises. To take but one example, a major university is not only larger than any sports team, but many exceed the size of an entire league. Stanford University expects to generate revenues of approximately $1.5 billion in fiscal 1997.[3] In 1994 fifty universities each received more than $75 million in research grants from the federal government. The top ten universities together received approximately $2.8 billion in federal grants in 1994, which was more than the combined revenues of the NFL and the National Hockey League, or the combined revenues of Major League Baseball and the National Basketball Association.[4] Similarly, total undergraduate tuition payments at a good private university with six thousand or more undergraduates (including payments from funds that endow scholarship aid) exceeded the revenues of any professional sports team.[5]

The number of people who actually attend games is remarkably small. Over the course of an entire season, an average baseball team sells about two million tickets, and in other sports the total number of tickets sold is in the hundreds of thousands. In all cases, the majority of tickets are sold in blocks, for the season or for several games. Consequently, the number of individuals who attend at least one game per season is much smaller than the number of tickets sold and constitutes a small fraction of the total population of a metropolitan area. Far more people watch or listen to broadcasts of the games of local teams, although even the audience is only a small percentage of the households in a given metropolitan area.

Nevertheless, it would be inaccurate to conclude from these figures that major league team sports are unimportant. The reason is that one does not need to attend a game or tune in to a broadcast to derive consumer benefits from a local sports team. A major league game is a newsworthy event that is covered extensively by the press, and sports coverage takes up a large share of local newspapers and news broadcasts. The fact that local media devote so much attention to sports and place much greater emphasis on local teams than on teams from other areas implies that their customers are intensely interested in local teams. These sports fans consume coverage of local sports events, and the media report such events, without providing compensation to the team.

For these reasons, a major league sports event creates a classic "externality," a benefit accruing to people who are neither buyers nor sellers of the production of the game. The presence of this externality causes the direct demand for games that is experienced by sports teams to understate the total value of sports to local consumers. Hence some consumers who never attend a game or buy a product associated with the local team nevertheless may have a considerable willingness to pay to prevent the team from relocating to another community.

The practical significance of the preceding argument is, of course, extremely difficult to quantify. Whether the value of the external benefits of a major league team to consumers really does exceed stadium subsidies is uncertain, but by no means implausible. For example, for a stadium that receives a subsidy of $250 million in a metropolitan area with a population of five million, per capita capital costs are $50, and the per capita annualized cost of servicing the debt (interest plus amortization) to finance the stadium is about $5. It does not vastly stretch credulity to suppose that, say, a quarter of the population of a metropolitan area derives $20 per person in consumption benefits annually from following a local sports team. If so, the consumption benefits of acquiring and keeping a team exceed the costs, and one would expect a local government's decision to subsidize a stadium in order to achieve this objective to be politically popular.

Stadiums and Economic Growth

Despite the plausibility of the argument that subsidies for sports facilities generate more than compensating consumption benefits, proponents of subsidized stadiums are far more likely to emphasize the effect of a stadium on the local economy. All levels of government commonly make investments for the purpose of facilitating economic growth. Obvious examples are investments in streets and highways, airports, and public education. Indeed, in the mid–nineteenth century, the construction of the U.S. railroad system was facilitated by federal land grants and local subsidies of terminals.[6] Given that public investment can be economically beneficial, how should one evaluate the contribution of a public investment such as a stadium to economic growth?

The answer to that question comes from a well-developed subfield of economics, which is devoted to ascertaining whether public investments contribute enough to economic growth to offset their costs. The central objective of such analysis is to determine whether the stream of new economic activity that is created by an investment produces an adequate return. Thus the evaluation of a public investment is conceptually similar, although very different in detail, to the analysis that a private company undertakes to determine whether to build a new production facility.

The benefits and costs of a public investment fall into four general categories: direct benefits, indirect benefits, initial costs, and the costs of operation. Direct benefits can be described as the value consumers attach to the output from the public investment. In the case of a stadium, the net direct benefits include (a) any incremental consumer surplus from all of the consumption activities produced at the stadium for inhabitants of the city (games, broadcasts, and concession products such as food, beverages, parking, programs, clothing, and souvenirs) above the consumer surplus engendered by goods and services that were previously consumed (but substituted for by the stadium); (b) incremental consumer surplus from any additional expenditures on stadium-related activities over and above pre-stadium consumer expenditures (after netting out the welfare loss from the reduction in savings); and (c) any externalities accruing to residents because of the existence of the team. Indirect benefits include all of the additional consumption that takes place in response to the generation of any new income in the production of these consumer products. Indirect benefits arise only if the public investment and its use cause a net increase in income, rather than a reallocation of income among products and businesses.

If an investment does not generate a net increase in income, the public investment can be worthwhile only if the direct consumption benefits exceed the costs. Under normal circumstances, if all the benefits of an investment are direct consumption benefits, the private sector will have adequate incentives to make the investment because consumers will pay enough for the products of the investment to enable private investors to recover their costs.[7] Of course, for reasons given in the previous section, a local sports team is not "normal" if it produces significant externalities. Nevertheless, proponents of sports facilities contend that local teams generate economic growth as well as consumption benefits and so are like investments in infrastructure and education.[8] According to this argument, sports teams attract tourism and new business to a community. To evaluate this argument, it is necessary to ascertain the magnitude of the net increase in income that a stadium generates.

Costs, as already discussed, consist of the initial cost of the investment and the stream of costs associated with producing the stream of consumer benefits from the facility. Whereas the evaluation of consumer benefits comports conceptually with common sense, the proper evaluation of costs is much misunderstood and is a frequent source of error in evaluating public investments. The relevant cost concept in this case is not the actual financial costs to a local government, but what economists call the opportunity cost of the investment, which is defined as the sacrifice in other outputs that is necessary to undertake the investment. In other words, the economic cost of an investment is the sacrifice in other activities that was required to undertake the investment, which is not necessarily the amount spent on the project.

For two reasons, opportunity costs can depart substantially from financial costs. First, a public investment is costly to society only if the resources used to build and operate it are transferred from other valuable economic activities. If the relevant sectors of the economy are operating at full employment, the financial cost of acquiring these resources (the wages of labor, the prices paid for equipment, materials, and land) is usually a reasonably accurate indicator of the sacrifice in other products that is required for the public investment. But if the economy is not at full employment, or if some resources are devoted to activities in which these resources have low productivity, the opportunity cost of the public investment can be less than the amount actually paid for these resources. In times of recession, a government usually pays more for resources than their current earnings (which may be zero if they are unemployed), in which case the direct financial cost of the investment exceeds its opportunity cost.

Second, the financial costs of public investments ultimately are paid from taxation, either immediately or eventually to pay off public debt. In general, taxation imposes an additional opportunity cost because it reduces the consumption of taxed goods. The real economic cost to society of the tax system is not the taxes that are paid, for tax collections are simply transferred to those who build and operate the public investment. Whereas taxpayers naturally regard these taxes as a cost to themselves, from the perspective of society as a whole taxes are simply transferred from one pocket to another and so are not themselves a net social cost. Rather, the social cost of taxation is the reduction in net consumption benefits that is caused by imposing a tax. These costs consist of the costs of tax compliance (of collecting taxes and enforcing the tax code)

plus the "dead-weight loss" of driving a wedge between the cost of products, as measured by their market price, and the total amount paid by consumers, which includes the tax.

Economics research indicates that the opportunity cost of taxes is significant. Although different methods produce different estimates, a common conclusion is that the social cost of taxation exceeds tax collections by about 25 percent.[9] The implication is that if an economy is operating at full employment, the opportunity cost of a subsidy can be substantially greater than its financial cost. Suppose that the economic cost of the tax system is 25 percent of tax collections. Then, with full employment the true cost of a $200 million subsidy for a sports facility would be $250 million.

Another common misconception about public investments is that the income they generate ought to be counted as part of their benefits. By way of example, the wages to be paid to construction workers are frequently assumed to be a benefit of a publicly financed sports facility. This perception is incorrect on several counts.

If project workers would otherwise be employed at the same wage if the project were not undertaken, there is no net income arising from the public investment. Instead, the public investment is crowding out other activities of equal cost, and the workers are affected only insofar as the source of their income has changed. The key point is that under conditions of full employment, expenditures on the project, including the wages of construction workers, are a cost, not a benefit, because these expenditures approximately measure the sacrifice in the production and consumption of other goods that must be made in order to build the facility.

If the workers would otherwise be unemployed, the financial costs of hiring them to build the stadium are ignored in the economic impact analysis, so that nothing is subtracted from the consumption benefits of the stadium to cover the wages of the workers. Of course, citizens pay taxes, which are then paid to the workers, but it would constitute double-counting to ignore the tax payments as part of costs (because the opportunity cost of the workers is zero) and then to add in the wages of the workers as a benefit.

Moreover, the societal benefits of employing unemployed workers can be obtained without undertaking the public investment. The local government instead could simply give the money to the workers as unemployment insurance, or employ half the workers to dig a hole and the

other half to fill it up, thereby generating the same amount of income and number of jobs. Thus the benefits of a stadium investment compared with unemployment insurance or make-work public employment arise from its contribution to consumption, not the transfer of income to the construction workers.

Because of the significance of opportunity costs, a public investment should be evaluated in terms of the best alternative way to use the same resources. The presence of unemployment may be a legitimate rationale for a public investment program, but it is not a rationale for building a stadium, rather than making some other public investment. In order for the stadium to be the best choice, it must generate net benefits that exceed the alternative uses. That is, the stadium not only must be more attractive than unemployment insurance and digging and filling holes, but more attractive than an equal investment in schools, streets, parks, and subsidies for other private businesses. The opportunity forgone in building a stadium is not the cost of the stadium, but the benefits from the other ways this money could be spent (including tax reductions).

The preceding discussion leads to an extremely important general conclusion about the evaluation of public investments for society as a whole: a public investment can be worthwhile in only three circumstances. First, society may have unemployed resources that can be used most productively by subsidizing investment. Second, if society is fully employed, it may be spending too little on investment in relation to current consumption (that is, more investment, although sacrificing some current consumption, would cause a more than compensating increase in consumption in the future). Systematic underinvestment is likely only if an investment produces significant externalities (such as the externalities that arguably arise from the presence of a local sports team) or if capital markets do a poor job of financing some forms of viable private investments.[10] Third, the productivity of the subsidized investment, as measured by the value of the consumption that it creates, exceeds the productivity of all other feasible investments. In all cases, in order for a public investment to contribute to economic welfare, it must increase future consumption. And, in the first two cases, this objective is accomplished because the public investment causes a net increase in total investment.

If a public subsidy does cause a net increase in investment or investment productivity, its benefits are not limited to the direct consumption benefits of the investment. Additional benefits will be derived from increased consumption that arises from the additional income created by producing the net addition to direct consumption. In short, the public investment has a "multiplier effect" because producing the direct benefits causes an increase in real income, which in turn is spent on further consumption. Hence a proper evaluation of a public investment differs significantly from the purely profit-oriented evaluation of a normal private investment. The latter requires only that direct consumer benefits exceed costs so that the firm can charge prices in excess of average costs and thereby earn a profit. By contrast, in evaluating a public investment one must take into account the additional net benefits that accrue in other industries due to the multiplier effect.

Local versus Societal Effects

Thus far the main concern of this discussion has been the global effects of an investment: whether it causes a net increase in total economic activity. The underlying assumption here is that the political unit responsible for the investment will take into account all of its economic consequences. But public expenditures may have worldwide consequences, as illustrated by the decision of France, Germany, Spain, and the United Kingdom to subsidize investments in Airbus to facilitate its effective competition with U.S. aircraft manufacturers. These countries are unlikely to take into account either the benefits or the costs that arise from the Airbus program in other nations (and in particular, any loss in aircraft production efficiency that arises from transferring aircraft sales from Boeing to Airbus).

A fundamental tension exists between global economic analysis of the type described above and the principle of democratic responsiveness. An investment can have two kinds of global net benefits: internal net benefits (which accrue to people who live within the political jurisdiction undertaking the investment) and external net benefits (which accrue to people outside the same jurisdiction). If the primary concern of voters is the effects of an investment on their own welfare, and if external effects are significant, public officials will be unresponsive to the demands of their constituents should they base decisions on global effects, yet will pursue inefficient investment policies when they consider only internal net benefits. Put another way, to pass a global benefit-cost test (which includes both internal and external effects), an investment must generate a net increase in total worldwide wealth and consumer welfare, whereas to

pass a local (purely internal) benefit-cost test, an investment need only reallocate wealth and consumer benefits in favor of the political jurisdiction that is undertaking the investment.

Investments in sports facilities can have international implications and so create this dilemma, as they do when Canadian and American cities compete for the same sports franchise. From the perspective, say, of all signatories to the North American Free Trade Agreement (NAFTA), no aggregate economic welfare may be at stake in deciding whether a sports team locates in Canada or the United States; however, in neither nation is the decision to invest in a sports facility likely to incorporate the lost benefits to the other nation from losing (or not attracting) a team. Consequently, in each country the economic benefits of building a facility to attract a team are likely to include the gross consumer benefits, not the net benefits in comparison with other locations.

In practice, of course, the international implications of subsidies to sports facilities are not likely to be very important, so that a purely national analysis of stadium investments is not likely to misstate appreciably its global economic consequences. Nevertheless, the example is instructive, because subsidies for sports facilities usually are provided by state and local governments, in competition with other state and local governments within the same nation.

The major difference between international competition and competition among localities in the same country is that in the latter case productive resources are highly mobile, more so than in even reasonably fully integrated free-trade areas such as NAFTA and the European Union. More than is the case internationally, competition among localities within the same nation induces businesses and workers to relocate from other communities. By contrast, international competition primarily affects the market share that a domestic firm can capture from foreign competitors.

To be deemed worthwhile, a local public investment, such as a sports stadium, must create a net economic benefit to the locality that pays for the facility. To generate a net increase in local economic activity under conditions of full employment, the investment must attract sales from outside the local area. This net increase in local economic activity can be, but need not be, a global net increase. In particular, if a local public investment simply causes a reallocation of economic activity among localities, a city that gains from the reallocation can perceive its investment

to be worthwhile even if its gain is exactly offset by reduced economic activity elsewhere.

In the case of professional sports, luring an existing team from another locality usually is more attractive than participating in the net economic growth of major league sports by obtaining an expansion franchise. Established teams are usually better than expansion franchises and, in any case, have a history and traditions that add to their value in the eyes of sports fans. Moreover, the monopoly structure of all major league professional sports enables leagues to create scarcity in teams in order to maximize the value of established franchises. Scarcity in teams is achieved by pursuing a strategy of very slow expansion that leaves many viable franchise locations without a team. These cities then compete for established franchises by offering subsidized playing facilities.

The Dependence of Estimated Net Benefits on Arbitrary Line Drawing

An important consequence of the propensity of governments to consider only internal benefits and costs is that the magnitude of net benefits depends precisely on how the lines are drawn to differentiate internal and external effects. At one extreme, consider the effects of a sports facility on the neighborhood in which it is constructed. Most likely, residents of the neighborhood account for a very small fraction of the taxes used to pay for the facility; hence the loss of consumption benefits through taxation probably will be very small. Likewise, almost no event inside the stadium will matter economically to the neighborhood. Nearby residents are likely to account for a tiny fraction of attendance inside the stadium, so that the staging of contests will generate virtually no direct benefits to the neighborhood.

Indirect neighborhood benefits, arising from the additional consumption generated by employment within the stadium, are also likely to be unimportant. Nearly all of the income generated by a sports team goes to players, managers, executives, and owners. Only if they choose to move near the new stadium will the neighborhood experience an indirect benefit, arising from their neighborhood consumption expenditures. Because this circumstance is highly unlikely, nearly all of the income earned by the team is irrelevant as far as the neighborhood is concerned. A more plausible neighborhood benefit is that some local residents will find part-

time jobs at the stadium, such as taking tickets, parking cars, or selling concessions. Of course, these jobs would arise regardless of where the stadium is located, but the extent to which neighborhood residents hold these jobs plausibly depends on where the stadium is located. The neighborhood benefits to the extent that these jobs increase the income of neighborhood residents.

Some neighborhood businesses may receive indirect benefits in the form of an increase in sales during both the construction and operation of a sports facility. First construction workers, and then fans attending games, are likely to live outside the neighborhood and to increase their patronage of restaurants, bars, parking lots, and gas stations near the stadium. The neighborhood effect from fans, of course, is greatly diminished by the modern tendency to enclose all these commercial activities within the ballpark or arena. Whereas under conditions of full employment these effects are likely to be reallocations of business from other localities, the additional income of nearby businesses, net of their production costs, will cause an increase in wealth and consumption by neighborhood residents. Indeed, the increase in neighborhood net income is a rough approximation of the increased value of consumption.

To the extent that the stadium does cause some increase in neighborhood income and consumption, the additional indirect benefits that are generated by the multiplier effect are likely to be quite small. In general, as the size of the area that is regarded as internal grows smaller, so, too, does the proportion of a resident's income that is spent within the area. The area near the stadium is likely to have a less diverse array of retail stores than an entire city or metropolitan area, so that neighborhood residents are likely to spend a considerable fraction of their income outside the neighborhood. As a result, the multiplier that is appropriate for measuring the total amount of economic activity that the stadium creates in its neighborhood is likely to be small in comparison with the multiplier for a larger area, such as an entire city. Finally, the new facility might cause increased local congestion and pollution, and even a change in the local crime rate. In calculating the neighborhood's net benefits, these spillover effects must also be taken into account. In some cases, neighborhood residents believe that these undesirable spillover effects are so large that they vociferously oppose a stadium proposal. For example, residents of South Boston created "Sack the Stadium," an organization that intensely opposed a plan to build a stadium for the New England Patriots in their community.[11]

By contrast, consider the internal net benefits from the perspective of the entire metropolitan area. Now the direct consumption benefits from the major league sports team and the costs of constructing the stadium, including the cost of taxation, are far more important, for most of these benefits and costs will accrue to residents of the metropolitan area. At the same time, the choice of lunch spots, watering holes, and gas stations by construction workers and fans who live in the metropolitan area, and the identity of the employees who work in the stadium, are a substitution of economic activity in one neighborhood for business in another and so make no net contribution to metropolitan economic activity. Likewise, the negative spillovers in the neighborhood of the stadium will not affect most citizens in a metropolitan area.

Recall that under conditions of full employment, local economic growth and the multiplier effects are not achieved unless the public investment increases "exports" to other areas, which then generate additional income and consumption benefits locally. Likewise, as increases in local income are spent and generate more consumption, the subsequent rounds of the multiplier effect will be higher for the metropolitan area because more of the increased consumption will occur somewhere in the metropolitan area than in any given neighborhood.

These examples illustrate some general principles about the relationship between the size of the political unit that is contemplating a public investment and the investment's "internal" effects. Most obviously, the fraction of global benefits and costs that are regarded as internal increases as the size of the relevant political jurisdiction increases. Following from this observation, the global effects of a sports facility are likely to be almost completely internalized at the national level.

At the level of a metropolitan area, the primary distortion in an internal benefit-cost analysis will be that the transfer of direct consumption benefits and indirect economic growth effects from other metropolitan areas will be counted as a net benefit. From a national standpoint, this transfer is generally a matter of indifference. At the level of a political jurisdiction within a metropolitan area, a reallocation of entertainment expenditures by metropolitan area residents from other local jurisdictions will be counted as an internal effect, even though at the level of the metropolitan area this reallocation is generally a matter of indifference. Consequently, as one moves to ever smaller jurisdictions, defined in terms of the fraction of the metropolitan area that they include, the difference between a politically relevant and a comprehensive benefit-cost analysis

grows larger, and jurisdictions are increasingly likely to base their decisions on the effects of the investment on the allocation of activity in contrast to its global net benefits.

Identifying a Team's Net Exports

An important distinction between metropolitan and submetropolitan effects lies in the nature of the "exports" that generate local economic growth. The external sources of income are in-stadium revenues accounted for by fans who reside outside the relevant political jurisdiction, plus other team revenues, such as those connected with broadcasting or licensing, that are paid by businesses outside the jurisdiction. If a team locates within a metropolitan area, gross regional exports increase to the extent that the team attracts tourists and sells broadcasting and licensing rights to national firms.

From the team's gross exports must be subtracted the team's "imports." For example, if out-of-town fans buy concessions, but these goods are produced elsewhere, the external payments must be subtracted from concession sales to determine net concession exports. Likewise, to the extent that players, managers, executives, and owners live outside the metropolitan area, the net export value of the team consists only of the portion of income that is spent locally, and not the part that is transferred to the residence location of these personnel.

The details about the true net exports of a team are important because they determine the first-order amount of economic growth created by a team, which is then used in a multiplier formula to calculate the net benefits of a team to local residents. Typically, economic impact studies of stadiums are susceptible to two errors related to net exports that cause the benefits of the facility to be overestimated: the first is to overstate the extent to which a stadium attracts tourists; the second is to overstate the extent to which the income generated by the team is retained in the local community.

To estimate the exports attributable to a team, local economic impact studies frequently conduct surveys of those in attendance at games to ascertain where fans live and then count as tourists attracted by the team all fans who reside outside the area. Additional survey instruments are used to ascertain how much the average tourist spends on hotels, restaurants, shopping, and other consumer activities. The sports facility is then credited with creating new tourism expenditures equal to the number of

nonresident fans times average tourist spending. These expenditures are then multiplied by a number derived from studying the effects of new industrial facilities to ascertain the overall increase in local economic activity that is accounted for by the imports. Typical values of this multiplier range from 1.5 to 2.0. Thus the estimated net exports said to be caused by a sports team are the product of three numbers: the number of nonresidents attending the game, the average amount spent by tourists who visit the city, and the regional multiplier. Of course, the expenditures of a fan on tickets and concessions may be a tiny fraction of this total, if the total includes several days of expenditures on hotels, restaurants, other tourist attractions, and other consumer goods, all then multiplied by some number nearer 2 than 1.

Trouble with Tourism and Multipliers

The procedure just described overstates the net exports arising from a professional team in that it credits the sports facility with drawing to the community all nonresidents in attendance at a game. Obviously, if tourists who attend sporting events visited the city for another purpose, or have their visits paid by local residents, these calculations are in error. The following examples illustrate the point.

—Executives from a nonresident client corporation of a law firm visit the city to discuss pending litigation against their company. The law firm owns a luxury box at the local baseball stadium, and during the visit some of the firm's lawyers take the visiting executives to a baseball game.

—A professor of Japanese art at a local university receives a grant from the National Endowment for the Humanities to hold a conference about some recently discovered nineteenth-century wood prints and invites several colleagues from Japanese universities. While in town, the Dodgers are playing the local baseball team, and Hideo Nomo is scheduled to pitch, so the Japanese visitors attend the game.

—As a result of a divorce, one parent is separated geographically from two children but makes a point each weekend to visit the children, and occasionally takes them to the ball game.

—A family decides to spend a vacation at Disneyland. One evening during the visit, the family attends a baseball game at Anaheim Stadium, only a few blocks away.

In all of these cases, the standard practice for evaluating the economic effect of a sports team would attribute all the visitors' expenditures to the baseball team, not just the expenditures at the ball park. In other words, the baseball team would be given the credit for the law firm getting its nonresident client, for the professor getting a federal grant to pay for the Japanese visitors, for the parent deciding to exercise visitation rights for the children, and for all Disneyland visitors who also attend either a Dodgers or an Angels game.

How important are these errors? We do not know, but they are likely to be substantial. The survey instruments used in these calculations do not attempt to ascertain causality in any form, including who actually paid for the ticket or why the nonresident is visiting the city. Teams do sell tickets, even season tickets, to nonresidents, but rarely are data about ticket sales made public.

Despite the lack of systematic information with which to evaluate the magnitude of these errors, several observations can be made that shed some qualitative light on them. First, the importance of sports teams in attracting tourism is almost certainly declining as the number of teams grows. Until the 1950s, major league professional sports were confined almost entirely to a few cities in the northeast quadrant of the nation. The only exceptions were the NFL teams in California. Consequently, the vast majority of Americans could attend a game only by traveling a great distance to one of these cities. Subsequently, expansion and relocation brought multiple teams in each sport to every region of the country. The result is not only that a much higher fraction of the population now has a local team, but that tourists have less reason to plan vacation trips around the opportunity to attend a major league game. A visit to any large city brings a tourist to the home of a major league sports franchise.

In addition, with the growth in demand for sports, a much larger fraction of attendance is now accounted for by season ticket sales. Most teams in football and basketball, many teams in hockey, and even some teams in baseball sell all of their good seats on a season-ticket basis. Hence planning a vacation on the expectation of seeing a game at Fenway Park, Giants Stadium, Madison Square Garden, or even lesser-known venues such as the Duck Pond[12] and the Shark Tank[13] would be difficult at best because a family would have a strong chance of being unable either to buy good tickets or to purchase any tickets at all.

Most likely, these factors are increasing the proportion of inadvertent attendance by nonresidents that has nothing to do with their visit and is

actually arranged by local residents. Hence, as the number of teams grows and more teams sell all or most good seats as season tickets, the magnitude of the error in the traditional economic impact analysis of a sports facility will probably grow as well.

Just as gross exports are overstated, so, too, is there a tendency to overstate the extent to which the income generated by a team remains in the local economy. In reality, the main source of external revenue for a sports team is not attendance by nonresidents, but broadcasting and licensing income. National broadcast revenue is important in all sports, but in football it amounts to more than half of all revenue, and in baseball it is more than $10 million per team. Local broadcasting, which is significant in all sports other than football, is usually sponsored by national firms: breweries, oil companies, automobile manufacturers, manufacturers of shaving materials, and so on. Likewise, product licensing agreements, whether sold primarily by the league (as is the case in the NFL) or by individual teams (which is more common in other sports), are usually with national manufacturers of consumer products such as clothing, athletic equipment, soft drinks, and beer. Hence, with some exceptions, these revenues are gross exports for a local sports team. (Net exports would subtract the magnitude of licensing fees that are derived from local sales and the increase in non–locally produced goods as a result of national advertising.) If these revenues were retained in the local community, they would be a substantial source of new income to which the multiplier effect might apply. But to calculate net exports (and hence the net income subject to a multiplier effect), one must subtract from the gross income of the team all income that accrues outside the local community.

In all professional sports, more than half of the gross revenue of a team goes to athletes. A significant portion of the rest goes to owners, executives, on-field managers and coaches, and scouts. To the extent that these personnel do not reside locally, almost all of their income is immediately transferred out of the area in which it is earned. The amounts transferred make no contribution to local economic growth. In addition, teams spend additional funds outside the area: for equipment, travel, and minor league players, coaches, and managers, among other things.[14] In baseball, and to a lesser extent football, additional expenditures are incurred in pre-season training at facilities outside the local metropolitan area.

The magnitude of these external transfers and expenditures is substantial and varies enormously among sports and teams. The career of

an athlete, a manager, or a coach is short, and even those with long careers are likely to change teams several times during their tenure. Consequently, athletes and managers are notoriously unlikely to have much attachment to the cities in which they work; rather, they tend to select a permanent residence on the basis of the attractions of the city. In particular, many are drawn to locations where they were raised or where they attended college. In some cases, these considerations cause athletes and managers to reside in the area where they play, but in many cases they do not. In any event, to the extent that a team's roster includes players, coaches, and a manager who live elsewhere, their salaries should be excluded from calculating the local economic impact of their team. Likewise, the earnings of an absentee owner or executive also should be subtracted.

Yet another concern is whether standard multiplier analysis is a valid way of dealing with the local income of a sports team. The premise of multiplier analysis is that a certain portion of the income generated by an investment is spent on consumption, and that some significant fraction thereof is spent locally and itself is devoted primarily to consumption. The extent to which this income is spent on consumption depends, first, on how much is paid in taxes, and, second, on the decision by the income recipient in allocating disposable (after-tax) income between consumption and savings. In both cases, even after taking into account the income that is earned by nonresident employees of a team, standard regional multipliers are likely to overstate the extent to which the income of a sports team contributes to local economic growth through a multiplier effect.[15]

One source of this overestimate is the unusually high incomes of the people who earn almost all of the income generated by a sports team. Multiplier analysis is based on observing the consequences of investments that employ ordinary people earning ordinary incomes. Athletes, coaches, managers, executives, and owners account for nearly all of the income generated by a sports team, and the incomes they enjoy are far larger than the average wage. Team personnel therefore pay a higher share of their income in income-related taxes, and so have proportionately less disposable income. Also, whereas most Americans save a tiny fraction of disposable income, high-income individuals have higher savings rates. Moreover, because athletes have very short careers in comparison with other high-income occupations, they have an even stronger motive to save, in order to smooth annual consumption over their lives.

For these reasons, a lower proportion of the income of athletes and other high-salaried team employees is spent on consumption than would be the case for the income generated by other businesses. Consequently, the income generated by a sports team should have a much smaller multiplier effect than the income generated by other new businesses.

The magnitude of the overstatement of net exports and the regional multiplier effect is not known. To calculate these effects would require detailed expenditure studies of athletes and other employees of sports teams, and such studies have never been undertaken. Moreover, these studies would have to be done separately for each team, because teams differ in the residences and expenditure patterns of their athletes. What is known is that the typical economic impact study of a team and stadium does not assess the validity of the standard assumptions, in spite of the powerful reasons to believe that these standard assumptions introduce significant errors that systematically overstate the economic benefits of a sports facility.

Another economic benefit of sports teams, proponents claim, is that industry is more likely to locate in cities with major league sports franchises. This tendency is said to have been one reason that Jacksonville vigorously pursued an NFL expansion team. According to this argument, corporate executives prefer cities with major league sports teams, and so in a close decision about where to locate a new business facility they will favor these cities. In fact, several business leaders have openly stated that they consider the status of major league sports when making such decisions.

There is no systematic evidence that this assertion is true, and some even indicates otherwise. Chapter 14, for example, shows that sports teams have no long-run employment effect, and other research on corporate location decisions finds that, statistically, costs (including taxes net of subsidies), the quality of the local labor force, and city amenities (such as the quality of education and health care) are the factors that affect corporate location decisions. In any event, the relevant question is not whether a sports team makes a city more attractive for corporate executives, but whether the most effective way to spend $200 million to $300 million with a view to attracting new business is to build a stadium to attract a team. By contrast, the same amount could be spent on industrial parks, local tax exemptions for new business facilities, computers for local schools, or an endowment for a high-quality electrical engineering and computer science program at a local university. Further-

more, to the extent that the facility has a lease that is unfavorable to the city, the stadium may experience net operating losses, which would have an adverse effect on the city's fiscal situation. This, in turn, would put pressure on both services and taxes and tend to discourage corporate relocations.

Summary of Economic Impact Analysis

A valid economic impact analysis consists of a comprehensive statement of the net benefits to a relevant population arising from a public expenditure. Economic impact analysis constitutes a test of whether the benefits exceed the costs and can be summarized as a simple algebraic expression:

Net benefits = (consumption value of a team to fans)
− (annual cost of stadium + team operating cost)
− (environmental, congestion, and public safety costs)
+ (increase in local income x multiplier).[16]

The consumption value of a stadium has three components: attendance, broadcasting, and the externality value of simply having a local team. Stadium costs are net of rent, if any, and any increase in local tax revenues that is due to the stadium but they include local government costs of stadium operations, even public services such as police. The consumption benefits include the value of broadcasts of local teams (rather than distant ones) to consumers, and team operating cost includes all costs associated with broadcasting as well as playing games. And, just as the positive externality of having a team must be included in the equation, so, too, must the negative externalities associated with travel to games, such as additional air pollution, traffic congestion, and security problems.

Local income can increase in two ways: through increased sales to people outside the community (net exports), and through higher-productivity jobs for local residents. Both effects can arise from either the use to which the investment is put (the direct effects) or the spillover effect on other local businesses (the indirect effect). The indirect effect includes incidental expenditures by fans and nonresident team employees in the local community. The direct and indirect increases in local income

include only additional income earned by residents of the political unit that is paying the subsidy and so exclude any income retained by owners and employees who do not live in the community.

The multiplier, m, is calculated as:

$$m = 1/(1 - s),$$

where $s = c * f$; c = fraction of the increment to pre-tax income that is spent on consumption; and f = fraction of local consumption expenditures that generate an increase in local net income. Typically, taxes and savings account for more than 30 percent of income, and among the highly paid employees who earn most of the income that is generated by a sports team, this fraction is likely to be even higher. Even if consumption occurs locally, the businesses that experience added sales will also have additional costs of goods sold that are paid to residents outside the local community (such as the food sold at restaurants and grocery stores, the clothing sold at department stores, and the rights fees for the films shown at the local movie theater). For ordinary public investments in a relatively large metropolitan statistical area (MSA), a reasonable value for c is ⅔ and for f is ½, so s = ⅓ and m = 1.5. Most likely, for sports facilities, the multiplier is lower for several reasons. First, most of the income of sports teams goes to high-income individuals, who allocate more income to taxes and savings than the typical wage earner. Second, athletes are likely to live outside the city in which they play, and even those who live in the city are more likely, along with the team's executives, to spend larger shares of their income outside the area than is true for employees of typical businesses. Third, prices for food items at a ballpark or arena are considerably higher than at average retail establishments, and a large part of this price differential is siphoned off by the concessionaire, which more often than not is based in another city. Thus a sports multiplier might be conservatively estimated with the following parameter values: c is 0.5 (assuming state and federal taxes equal to one-third of income and savings equal to 25 percent of disposable income), f is 0.3 (assuming one-fourth of consumption expenditures are outside the area), so s = 0.15 and the multiplier for sports teams is 1.2. Finally, it is important to stress that the proper multiplier is applied not to gross spending, but to that portion of spending that constitutes a net increase in the income of local residents (or local value added).

The Economics of Competition for Teams

The next important question to consider is whether interjurisdictional competition for teams distorts decisions about subsidies, the design of stadiums, and the location and operation of teams. To address this question, we take as given two conditions that are discussed in chapter 1. First, as a political matter, local governments channel subsidies primarily through stadiums rather than direct cash payments. Second, the number of teams is smaller than the number of financially viable franchise locations, so that cities compete for either existing teams or a very limited number of expansion teams. The latter assumption enables us to simplify the analysis by contemplating the outcome of a process in which many cities compete for a single team. The outcome of this simplified process does not differ substantially from what happens when there are many cities bidding for a much smaller number of teams, as in the recent spectacles of ten or more cities bidding for two expansion franchises in each sport.

We also assume that teams seek to maximize long-run profits, including the resale value of the team. This assumption is compatible with the view that teams will evaluate competing bids by giving an advantage to their existing home, but it does assume that if a team is offered a substantially better deal to relocate, it will do so. Somewhat surprisingly, this assumption does not produce dramatically different results from the theory publicly espoused by some sports executives, namely, that owners seek to maximize the quality of their team, rather than profits.[17] These two views produce similar results because team quality is improved by increasing expenditures on players, training, and coaching, and a team with higher revenues is able to spend more on team quality. The results differ primarily in the way teams dispose of their profits.

The practical consequence of the assumption that teams maximize profits is that this assumption makes the bidding among cities consequential: these bids determine the distribution of teams among cities. Of course, frequent moves and threats to move by teams in all sports provide evidence that this assumption is not wildly incorrect. Thus in the following analysis teams are relatively passive players, calculating the long-run effect of location (including subsidies but also including all other sources of revenues) on the value of the team to the owner, and locating where this value is maximized.

An important point to bear in mind is that the issue at hand is the subsidy to the team, not the total amount spent by a city on a stadium. To the extent that the stadium generates additional tax revenues for the city, the stadium is not subsidized but is a form of business investment by the city. Typically, stadiums will have a direct effect on local tax revenues through sales taxes on tickets and concessions, and another effect through increases in indirect income and the multiplier process in increments to taxes on retail sales and perhaps property (if the stadium increases property values). Thus the analysis in this section refers to the excess of stadium expenditures over the amount that would be justified as an investment by its effects on future tax revenues.

In the case of stadiums that cost a state or local government hundreds of millions of dollars, it is obvious that most of the cost of the facility is a subsidy. For twenty-five stadiums constructed between 1978 and 1992, the average subsidy was nearly $7 million a year.[18] Because stadiums have since become so much more expensive than the average during this period, the annualized subsidy of recent facilities is most likely even greater. Counting all forms of taxes to all levels of government, the direct gross tax revenues from a team are likely to be in the range of 10 to 15 percent of gross revenues, consisting of rent (if any), sales taxes on tickets, concessions, parking, and the increment to other retail sales through indirect effects and the multiplier, and perhaps income tax on the earnings of players and other employees.

For example, if a football team sells 600,000 tickets at a price of $35, collects another $20 in gross concession and amenities sales from each customer, and sells $4 million of signage, total stadium revenues are $37 million. (These assumptions are within the range experienced by existing teams.) Even a 10 percent sales tax would generate only $3.7 million in taxes. If the indirect effects create an equal amount of new spending outside the stadium, which is quite optimistic, gross sales tax revenues are, at most, double this amount. Of course, most of this revenue is a substitution for other taxes (because stadium revenues from residents are a substitute for other consumption). If the team's payroll is $50 million and state and local income and payroll taxes average 10 percent (a very high number), at most another $5 million is added to all government coffers; however, to the extent that this income is earned by residents of other states, tax collections by subsidizing governments will be less than this amount. Consequently, the increase in local and state tax revenues

from the stadium would be at most $12.4 million under favorable assumptions, and probably much less.

By contrast, the annualized cost of a $250 million stadium with a thirty-year life will be about $25 million in interest and depreciation, plus several million more in stadium maintenance and local public services. Moreover, to qualify for tax-exempt debt, the rents and taxes from the operation of the facility must not exceed 10 percent of the financing costs.[19] Hence, for both economic and legal reasons, it is reasonable to conclude that most of the cost of a stadium to a city is, in fact, a subsidy.

Under the assumption that the team locates where it is most valuable, competition among cities will proceed until the last bid prevents all other cities from matching the offer. Of course, this does not imply that the winning bid contains the highest subsidy, for the team will also take into account other sources of revenue. A metropolitan area with a large population, high per capita income, and a large surrounding broadcast region with no competition in the same sport will produce higher revenues from attendance and broadcasting, so a large area need not bid as much as a less attractive location to attract a team. On the other hand, to the extent that a sport engages in extensive revenue sharing, the attraction of a local market is relatively less important in differentiating among cities. For example, the NFL engages in far more revenue sharing than any other sport and so has the smallest variance among teams in total annual revenues. Hence NFL teams are likely to make location decisions primarily on the basis of competing bids for subsidies. The movement of the Los Angeles teams to Oakland and St. Louis, the Houston Oilers to Nashville, and Cleveland to Baltimore, would be far more difficult to understand in the other sports, where local market demand is far more important to the overall profitability of a team.

If the benefit to the team of the attributes of the local market are important, the best markets do not need to bid their maximum willingness to pay to obtain a team. If an average market makes a bid that equals the net economic benefit of a team (including consumption value plus the net gain in economic activity), a strong market can win the team by bidding the same amount, or even less. Hence better markets can succeed with lower subsidies, and to the extent that the strength of the local market to a team is correlated with the net economic benefits of the team to the community, better markets are more likely to derive a net economic benefit from a team. However, with extensive revenue sharing, as in the NFL, this effect is attenuated. Thus one consequence of more

equal revenue sharing is that better markets must bid more for teams, and a greater proportion of the total economic benefits of the sport is transferred to teams. In short, the NFL is able to extract larger subsidies from local governments than the other sports, relative to the value of its teams, because it engages in extensive revenue sharing.

The cornerstone of the economics of subsidy competition among cities is the calculation by a local government of the amount that it is willing to spend to attract or to retain a team beyond its tax benefits. Two factors affect the amount that a local government is willing to bid. The first is the estimated magnitude of the internal net benefits, and the second is the degree to which the local political process translates these expected net benefits into effective political representation and action.

The maximum amount that a local government can pay to subsidize a team without doing economic harm to its constituents is the internal net benefit of having a team that would arise if the team received no subsidy. This internal net benefit includes the consumption benefits to constituents, the net transfers of economic activity to the local jurisdiction if the team locates there, and the multiplier effects of these transfers. If many cities are bidding for a team, the city that, in principle, can bid the most is the one for which all of these internal net benefits are greatest.

From the preceding discussion, three factors appear to account for one city having an economic advantage over another in competing for a sports franchise. First, one city can derive a greater net consumption benefit from a team. All else equal, this puts larger cities at an advantage over smaller ones, because larger cities have more people who can derive a personal benefit from a local team. Of course, all else may not be equal. A smaller city may have a greater proportion of diehard sports fans, a higher per capita income (so the intensity of its interest in sports is backed up by greater purchasing power), or fewer cultural and entertainment attractions that deflect attention from a sports team. Likewise, a local government that includes a larger proportion of the sports fans in a metropolitan area is at an advantage. Because only residents "count" in internal benefit-cost analysis, a government containing a higher proportion of the intense sports fans will have a higher maximum bid. Finally, if a city has fewer teams, it is will also have an advantage in bidding, because the presence of some teams is likely to reduce the consumer benefits of attracting still another team. This effect is likely to be stronger if a city already has a team in the same sport.

Second, cities that expect to experience a larger reallocation of economic activity from other communities are at an advantage. In general, this effect works in the opposite way from the first. Within a metropolitan area, each locality will benefit from the relocation of a team from outside the metropolitan area to within its jurisdiction. But a smaller jurisdiction will derive a greater benefit because it has more to gain from reallocations within the metropolitan area. Most of the expenditures of fans attending a game are by residents of the metropolitan area who decide to spend discretionary dollars on professional sports, rather than on movies, restaurants, the theater, or other things. These expenditures amount to a substitution of sporting events for other local consumption activities. Notwithstanding differences in whether the income from these expenditures is retained inside the metropolitan area, the net effect of this reallocation of local consumption activity is zero and so is irrelevant from the standpoint of net economic activity within the metropolitan area. However, if a local government contains a small proportion of these other businesses and expects to retain a significant proportion of the expenditures associated with attendance at games, it will perceive a net internal benefit from the purely redistributive effects of the stadium. A metropolitan-wide government perceives no internal benefit from these reallocations of local expenditures.

Third, a city will experience a larger multiplier effect from the location of a team if the community captures a larger proportion of the consumption expenditures that are generated from the net local income (if any) that the team generates. This effect again works in favor of communities that are larger and more diverse, including communities that contain extensive retail sales outlets. Thus a wealthy bedroom suburb may attract the star athletes but experience a small multiplier effect because its residents spend all of their income elsewhere. A central city that contains extensive retail shopping may attract no star athletes, but if they spend money at its retail shops, the city may experience a significant multiplier effect.

Similarly, a metropolitan area is more likely to experience a net gain from a team if the surrounding hinterland is heavily populated and contains no other teams. For example, because Camden Yards is only forty-five minutes from downtown Washington, D.C. (and half that from some D.C. suburbs), the Baltimore Orioles attract a significant number of fans from outside the Baltimore metropolitan area and so generate unusually

large "net export" sales. Were a baseball team to locate in the District of Columbia, neither the Orioles nor the new team would be likely to generate much in the way of sales in the other community. Thus, if neither Baltimore nor Washington has a team in a sport, each city's willingness to bid will be enhanced by the possibility of generating revenue from residents of the other city. The maximum feasible bid for either city is lower if the other has a team.

Briefly, the advantage of a metropolitan government is that it incorporates all of the consumer benefits from attracting a sports team, plus all of the net export benefits a team creates. The advantage of a community that is smaller than a metropolitan area is that it takes into account transfers of consumption expenditures within the metropolitan area. Whether a metropolitan consortium of governments has the greater advantage depends on the relative importance of these effects. From the preceding arguments, one might expect metropolitan area governments to be more likely to have the advantage when an area has an especially intense unsatisfied demand for sports, as would be the case when it is acquiring its first team and when its surrounding region is populous and lacks competing teams. In larger metropolitan areas (both absolutely and relative to the surrounding regional population), a subgovernment is at an advantage because the transfer effects within the metropolitan area are likely to loom larger. Moreover, because a strong retail sales base is a necessary condition for capturing indirect benefits, the governments having the greatest advantage with respect to the redistributive effects of a stadium are likely to be either central cities or large suburbs with extensive retail shopping, as compared with small bedroom suburbs.

From the standpoint of economic efficiency, aggregate economic welfare is maximized if teams locate in areas where they generate the greatest global net economic benefit. Competition among metropolitan areas (or among states) is broadly consistent with this outcome. The primary factor entering into the maximum bid of metropolitan areas is the magnitude of net consumer benefits, that is, the intensity of fan demand for a sports team. A possibly important second factor is the extent to which employees of the team (primarily the players) relocate to the area in which the team plays. Cities that retain more players will retain more of the net income generated by a team and so enjoy greater net exports and a larger multiplier effect. These benefits are not economically valueless

from a global perspective, since presumably, all else equal, players would rather live where they play and so derive value if their team locates in a city that is a desirable place to live.

If bidding takes place among metropolitan areas, the ranking of the maximum amounts that competing areas can bid and still benefit from having the team is likely to be roughly the same as the actual global net benefits of the team. Thus, assuming an efficient political process (wherein the welfare of citizens is accurately represented by elected officials) or equal distortions in the political process across cities, competitive bidding would tend to cause teams to be located in areas where they contribute the most to economic welfare. The primary problem from this competition is that, holding aggregate economic benefits constant, a smaller metro area with a compensatingly larger nearby regional population center can have the advantage because it counts the transfer of economic activity from its hinterland as a net internal benefit.

If submetropolitan governments also bid for teams, the conclusion that the bidding process is reasonably efficient is no longer sustainable. Submetropolitan governments are primarily the result of historical accident and state rules about forming and merging local governments. Metropolitan areas vary enormously in the extent to which local government is fragmented, from areas in which one city accounts for a large proportion of the metropolitan area (examples are Houston and Jacksonville) to areas that contain many medium-size cities and no city that accounts for even as much as a fourth of the metropolitan area population (examples are Boston, San Francisco Bay, and Los Angeles). One would expect governments that cover nearly all of the metropolitan area to succeed in a bidding war only when they are very large or have an especially intense demand for professional sports, such as when they have no teams.

For these reasons, areas with more than one large population center, such as the Baltimore-Washington and San Francisco Bay areas, are likely to express a willingness to pay for teams (owing to the reallocation effect inside the metropolitan area) that is more than the global economic value of locating a team in the metro area. If so, bidding by medium-size submetropolitan governments (such as Oakland, San Jose, and the New Jersey suburbs of New York) may cause them to outbid areas in which the global economic value of the team is greater. If so, bidding among cities leads to a misallocation of teams. If the location that maximizes consumer welfare (that is, the location that fans would most prefer

for a team) is not in a jurisdiction that would benefit from the local reallocation of retail expenditures that follows the team, the team will not locate optimally. Consequently, the winner in a competition among metropolitan areas will not necessarily be the area in which the team generates the greatest amount of fan satisfaction.

Notwithstanding the efficiency of subsidy competition in allocating teams among cities, for most cities the bidding process strips most of the benefit of a team from the local government and its constituents. Except for a few very large, lucrative markets, competing cities are likely to be reasonably similar in their attractiveness as a sports market and the net economic benefit (including externalities) that the city would derive from a team. Because the winning bid must be high enough so that no other city would derive a net benefit from the team at that price, the city that acquires the team will derive little net benefit from winning.

The Effect of Monopoly Leagues

The magnitude of sports subsidies is certainly due primarily to the fact that leagues monopolize franchises, but not entirely so. Imagine that the number of professional teams in a sport is determined solely by competitive market conditions (as in other industries), rather than by a monopoly league. In this circumstance, if a city lost a team but was a financially viable location, another would quickly replace the departing team. And, when a city grew large enough to become a viable franchise site, a team would be created to serve the market. Hence no city that is a viable franchise location would have to pay anything in subsidies to acquire a team.

Nevertheless, a completely competitive market for teams would not put an end to subsidies. The externality value of a local team would still exist. Hence a city that has no team and is not quite large enough to make a team financially viable can derive a net benefit by providing a subsidized facility. Thus if leagues freely expand in response to the presence of sites where teams are financially viable, teams in better markets receive no subsidies, but additional, subsidized teams emerge in smaller markets.

The question arising from this argument is how many teams would there be, and how many of the existing teams would be subsidized, if leagues were not monopolies? Indeed, if monopoly sports leagues are altruistic, rather than profit maximizing, they would expand in precisely

the way described above. How do we know that the new expansion franchises, with their large stadium subsidies, are not the kinds of teams that need a subsidy to make them financially viable?

The simple answer to the preceding question is that recent expansion franchises have paid extremely high fees to join their league. For example, the price of the NFL expansion teams in Charlotte and Jacksonville, taking into account the fact that the teams did not receive equal shares of broadcasting revenue, was in the range of $175 million to $200 million.[20] Thus most of the subsidy received was not a benefit to the teams, but a payment to the monopoly league to create an expansion franchise. In a normal business, new firms do not need to pay established businesses for the right to enter an industry. The expansion fee was roughly the amount necessary to compensate the NFL for the fact that, eventually, the new team would receive a full share of national television and licensing revenues. The value of the NFL's national broadcasting and licensing rights increases after an expansion because audience ratings, hence advertising revenues, and licensing income rise in the area that obtains a team. However, because some residents of the expansion city watched NFL games and bought NFL products before the expansion, and because expansion cities are usually from areas with a below-average market, the increased revenues from these rights are likely to be substantially smaller than the share of rights income that is paid to the expansion team. Hence existing teams are likely to experience a decline in their revenues following expansion. Of course, an increase in the number of competitors is likely to have the same effect in any industry. Only because sports leagues are monopolies can they extract compensation from entrants. The expansion fee represents compensation to existing teams for more extensive sharing of the monopoly profits from broadcasting.

The Reason for Bogus Impact Analysis

The main thrust of the preceding analysis is that stadiums are subsidized because sports teams create local consumption value that owners can extract from state and local government because leagues are monopolies. An interesting puzzle in this story is why cities claim that stadiums are good investments and use bogus economic impact studies to buttress this pretense. The most plausible explanation for bogus studies is political. They create the illusion of a greater public benefit than, in fact, a team creates. We are skeptical of any explanation that rests on

permanent, massive mistakes on the part of citizens, but in this case such an explanation does not require a completely pessimistic view of voters. For instance, in a community in which 54 percent of the voters expect no personal consumer benefit from a team and so are inclined against a stadium subsidy and 46 percent are diehard sports fans who favor it, a bogus economic impact study that misleads only 5 percent of the voters can switch the outcome. Thus, if bogus studies can sway only a relatively few people, the interests that benefit from facility construction (the sports team, local contractors, construction unions, real estate operators, bankers) are motivated to produce them. Regardless of whether a new sports facility pays off as an economic investment for the city, an influential study, even if bogus, can cause political officials to be more responsive to this powerful coalition of local interest groups.

The effectiveness of bogus economic studies can only be enhanced by the one-sided political environment in which stadium proposals are debated. Local media, owing to their symbiotic relationship with sports, are likely to favor a stadium initiative. Moreover, the well-organized interests favoring the stadium are likely to outspend opponents by awesome amounts. For example, in June 1997 San Francisco and the state of Washington held referenda on whether to subsidize a new NFL football stadium. Both referenda won by tiny margins. In San Francisco, proponents outspent opponents by 25 to 1, while in Washington the spending ratio was an amazing 80 to 1![21] If as few as 2 percent of voters were misled by the incorrect claims about the economic effects of the stadium proposals in these campaigns, the bogus studies determined the outcome in these elections. With campaign spending so unequal, such an outcome surely is not implausible.

Conclusion

The system of bidding for teams by promising subsidized stadiums arises in part because Americans are intensely interested in sports. Subsidies also arise because localities that lure a sports team usually experience a modest increase in net economic activity. The amount of the increased activity depends, among other things, on the extent to which people from outside the city attend sporting events and spend money at the stadium and in the surrounding neighborhood, and the extent to

which high-salaried employees of the team choose to live in the same community.

Whether a team can increase global economic welfare by relocating depends completely on the consumption value of sports itself. Teams are likely to experience higher fan interest in some cities than in others. If relocation increases attendance, broadcast audiences, and overall fan interest, it improves economic welfare. Consequently, with a few important qualifications, teams should be free to relocate where demand is most intense once they have fulfilled their contractual obligations to their host city.

If stadium subsidies were motivated solely by consumer welfare and there were no distortions in the incentives facing cities, bidding among cities for teams would not cause a misallocation of teams among cities. The primary effect of these subsidies would be to transfer income from citizens in general to those who are engaged in sports, owners as well as players. Misallocation occurs because cities differ in the extent to which they perceive economic benefits from the transfer of business that accompanies a sports team. A city's willingness to bid depends on the perceived value of the team to consumers, the extent to which the political unit subsidizing the facility is the beneficiary of transfers of business from other jurisdictions, and the political influence of the private economic interests that benefit from a stadium project. In general, large cities that constitute a small fraction of the population of a market area are at an advantage in competing for teams. A large market area is beneficial because it enables the city to capture substantial consumption benefits from having a team and a larger share of the indirect effects of the team. Yet a subgovernment that does not contain the entire market area is at an advantage because it increases the fraction of the economic activity associated with a team that is transferred from nearby jurisdictions.

Economic impact studies of a sports facility raise many complex questions and are difficult to evaluate. One source of these difficulties is the uniqueness of the sports industry. A sports team is very different from most businesses that cities try to attract, such as shopping centers, corporate headquarters, or manufacturing facilities. These operations are more likely to attract sales from other communities—that is, to have high net exports—and so are likely to induce a net increase in local economic activity. In addition, standard formulas for calculating indirect and multiplier effects, because they are based on ordinary businesses paying ordinary wages, are less accurate when applied to a sports team in which

almost all of the income is earned by a relatively small number of people who are very highly paid.

Unfortunately, the standard method of assessing economic impact overstates the extent to which a team generates a net increase in business (its net exports) and then overstates again the multiplier effects arising from this business. However, it also ignores the consumer benefits of having a team. These benefits may be large enough to offset the subsidy, even if the team has no net effect on local economic activity, although quantifying them is extremely difficult. Most likely, these consumer benefits presumably are the real reason that cities are willing to spend so much on attracting and keeping a team.

If the real reason for extensive subsidization of major league team sports is public consumption, the validity of the economic impact studies is not very important. But if the purpose of sports subsidies is consumption, not economic development, the effect of luring a major league sports franchise to the local economy is to substitute sports events for other forms of discretionary spending, such as movies, restaurants, recreational activities, and media. One consequence of this substitution is a highly regressive redistribution of income. Far more than half of the gross revenue of sports teams is paid as salaries to players, managers, coaches, and executives. These salaries are substantially above median income. Moreover, if stadiums are financed by sales and property taxes or lottery revenues, the financing is also regressive. In other words, redirecting consumer expenditures from almost all other consumer goods to sports stadiums redistributes income from people with lower incomes to people who are very wealthy. The exceptions are when sports substitutes for some other forms of popular entertainment, such as rock concerts and movies, which also remunerate performers handsomely.

The magnitude of stadium subsidies is greatly increased by the monopoly structure and behavior of professional sports leagues. The scarcity of teams is caused by a very slow expansion process that leaves many viable franchise sites without a team. Then, league processes for governing relocation, which involve prior discussions with league officials and ultimately supermajority approval by other teams, have the effect of allowing a city to negotiate with only one team at a time. In 1991–92, Victor Kiam sought to move the New England Patriots out of the Boston area. He attempted to negotiate with representatives from several cities, including Baltimore and Jacksonville, but the NFL central office prohibited these discussions in order to preserve these cities as competitors for

the 1995 expansion.[22] As a result of those league policies, when a team becomes available, it can enjoy many potential suitors and no competition for their attention.[23]

An important part of the subsidy is simply the extraction of monopoly prices from cities; however, the profits to owners of sports teams are a relatively small part of the total amount of the subsidy. By far the biggest effect of subsidized stadiums is that perfectly good facilities are forced to retire prematurely and new facilities are far more elaborate and costly than is justified by the business that they generate. The next largest effect is that player salaries capture more than half of the value of the subsidy, as explained in chapter 1.

One way to reduce such subsidies would be simply to cap them. In the mid–nineteenth century, local governments frequently overextended themselves in offering subsidies to railroads so as to influence decisions about routes and terminals. States responded to these problems by regulating both railroads and local government subsidies. Of course, the problem with this approach is that sometimes a subsidy is a perfectly valid action for a community. If subsidies were banned, communities that cannot support a team from direct revenues but that are willing to pay a subsidy would not be able to have a team. If one sets an upper bound on subsidies and does nothing else, monopoly sports leagues will still expand too slowly, and all cities will have to pay the maximum amount, not just those in which the team needs the subsidy to be viable.

If the primary cause of massive stadium subsidies is monopoly sports leagues, the most effective policy is not to regulate stadiums and leagues, but to make leagues competitive. Monopoly sports leagues fail to expand into cities that are viable franchise sites, and fail to add extra teams in areas that could support them, because existing owners benefit from a scarcity of teams. This scarcity bids up both stadium subsidies and the franchise value of teams. But leagues can succeed in making franchises scarce only because the threat of competitive entry by another league is minimal. If there were multiple leagues, a league would derive no benefit and would suffer a cost from a failure to expand into an area that could support a team, or to add a team to an area that could support multiple teams.

For the most part, an industry as localized as a sports team is not likely to generate much local economic development, especially in an entire metropolitan area rather than a city within that area. Stadium subsidies facilitate building expensive monuments to sports that benefit

no one and transfer income from ordinary people to highly paid players, owners, and executives. Moreover, they arise because sports leagues are monopolies that by and large have been created and protected by public policy.

Notes

1. *Financial World,* June 17, 1997, pp. 47–49.

2. EBI data are from the *1996 Commercial Atlas and Marketing Guide* (New York: Rand McNally, 1996), pp. 40–43.

3. Stanford University, *Stanford University Budget Plan 1997/98,* 1997.

4. U.S. National Science Foundation, *Federal Support to Universities, Colleges and Nonprofit Institutions,* Document NSF 95-331 (Washington, D.C.: Government Printing Office), 1995.

5. If undergraduate tuition is $18,000, total payments from 6,000 undergraduates amount to $108 million. Including graduate students and undergraduates, Stanford collected $258 million in tuition in 1995–96.

6. Local government decisions in the nineteenth century to subsidize railroads have many parallels to contemporary decisions to subsidize stadiums. The former are examined in Mark T. Kanazawa and Roger G. Noll, "The Origins of State Railroad Regulation: The Illinois Constitution of 1870," in Claudia Goldin and Gary D. Libecap, eds., *The Regulated Economy: An Historical Approach to Political Economy* (University of Chicago Press, 1994), pp. 13–54.

7. A subsidy for an investment that produces only direct consumption benefits can enhance efficiency in two circumstances. First, if some direct benefits are externalities, private investors may underinvest in the activity. Second, if the activity that makes use of the investment exhibits economies of scale, output prices that fully recover investment costs exceed the incremental cost of production, and so exclude some consumers who value the product more highly than the incremental cost of providing it to them. Public subsidies can improve efficiency in this case if they permit lower output prices. In the case of sports facilities, however, teams charge profit-maximizing prices regardless of the source of funds for the stadium.

8. For example, one justification for public subsidies of education and student loans is that students who lack sufficient funds to pursue income-enhancing education have inadequate access to capital markets because they lack collateral for educational loans. An argument of this form is not likely to apply to sports stadiums because both stadiums and franchises are frequently used as collateral for loans by sports teams.

9. John B. Shoven and John Whalley, "Applied General-Equilibrium Models of Taxation and International Trade: An Introduction and Survey," *Journal of Economic Literature,* vol. 22 (September 1984), p. 1032; and A. Lans Bovenberg and Lawrence H. Goulder, "Optimal Environmental Taxation in the Presence of Other Taxes: General Equilibrium Analysis," *American Economic Review,* vol. 86 (September 1996), pp. 994.

10. The literature on firm locations emphasizes the importance of linkages with suppliers and customers; taxation and regulation are generally important, but less so than the structure of the local or regional economy. The classic paper on firm location decisions is Dennis W. Carlton, "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables," *Review*

of Economics and Statistics, vol. 65 (August 1983), pp. 440–49. See also James E. Rauch, "Does History Matter Only When It Matters Little? The Case of City-Industry Location," *Quarterly Journal of Economics*, vol. 58 (August 1993), pp. 843–67.

11. Tina Cassady, "South Boston Stadium Foes to Hold Fundraisers," *Boston Globe*, February 21, 1997.

12. The home of Disney's Anaheim Mighty Ducks of the National Hockey League.

13. The unofficial name of the San Jose Arena, home of the Sharks of the NHL.

14. Travel expenses refer to transportation of team personnel and equipment. Because each team plays half of its games on the road, hotel and food expenditures out of town by the local team and media are roughly equal to local spending by visiting teams and media.

15. In addition to the problems associated with the application of multiplier analysis to sports projects, more general questions apply to all attempts to calculate a multiplier effect for any small, specialized activity. Multiplier analysis is based on broad assumptions about average conditions, including constant returns to scale in production and constant income elasticities of demand across all consumer goods. Tiny projects with initial income effects on an atypical segment of the population are not likely to satisfy these conditions.

16. The formula can be expressed as either the annual net economic benefit from the facility, in which case capital expenditures are converted to annual interest plus amortization for a loan to finance the cost of the facility, or as the total increase in wealth that is created by the facility, in which case the benefits and costs that appear as annual streams are expressed as their discounted present value.

17. An owner who seeks to maximize team quality is not necessarily performing an altruistic public service for the community. Some owners may be motivated by the personal satisfaction of fielding a winning team, in which case team quality is personal consumption, rather like a hobby. Or, owners may own a team as part of a larger business enterprise for which total profits are maximized if the team is of a higher quality than would maximize profits just from the team. For example, the ownership connection between the Atlanta Braves and the Turner Broadcasting System probably raises the optimal team quality of the Braves.

18. James P. Quirk and Rodney Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton University Press, 1992), pp. 170–71.

19. Dennis Zimmerman, *Tax Exempt Bonds and the Economics of Professional Sports Stadiums*, CRS Report 96-460E (Washington, D.C.: Congressional Research Service, 1996), pp. 5–6. See also chapter 4.

20. The expansion fee for these teams was $140 million. Allan Friedman and Paul J. Much, *Inside the Ownership of Professional Sports Teams: The Complete Directory of the Ownership and Financial Structure of Pro Sports* (Chicago: Team Marketing Report, Inc., 1996). In addition, they must have experienced some start-up costs. Public estimates of broadcasting revenues in 1996 show a gap of more than $20 million between established NFL teams and the expansion clubs in Charlotte and Jacksonville. *Financial World*, June 17, 1997, p. 49. The discounted present value of $20 million for three years, using a 10 percent discount rate, is $54 million.

21. San Francisco data are from Philip J. Trounstine and Brandon Bailey, "Strategy: Funds, Fees, Foot Soldiers Combined to Give 49ers Win in Overtime," *San Jose Mercury News*, June 5, 1997, p. 20A.

22. Jon Morgan, *Glory for Sale: Fans, Dollars and the New NFL* (Baltimore: Bancroft Press, 1997), p. 162; and Frank Cooney, "NFL Could Find Itself in Court Again If It Snubs Jacksonville," *San Francisco Examiner*, November 7, 1993, p. L8.

23. Bud Adams, the owner of the Houston Oilers, in commenting about the Rams deal in St. Louis, remarked: "If you had asked NFL teams if they would be interested in the same deal in St. Louis, seven or eight would have raised their hands and there would be a stampede . . . like the running of the bulls at Pamplona," *Sporting News*, March 27, 1997.

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Municipal Bonds

Batter Up: Public Sector Support for Professional Sports Facilities

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- As a new major league baseball season commences, we turn our attention to an often-overlooked part of the municipal bond market – the use of municipal bonds to build and renovate professional sports venues.
- Proponents of tax-exempt financing for new venues often cite the economic development potential of a new arena or stadium. Opponents argue that tax-exempt financing for sports facilities represents a misallocation of scarce capital. We explore the arguments from both sides and provide an abbreviated summary of an array of municipal bonds associated with these transactions.

If people don't want to come out to the ball park, nobody's gonna stop 'em.

Yogi Berra

Introduction

Professional sports have experienced dynamic growth over the past two decades. States and local governments have responded by competing vigorously for the bragging rights associated with the location of a professional sports franchise in their jurisdiction. Franchises often leverage their privileged position as a source of civic pride by extracting concessions from states and local governments reluctant to risk their departure for greener pastures.

In an effort to convince professional sports franchises to remain in a particular city - or to encourage their relocation - states and local governments often have relied on the sale of tax-exempt bonds to finance the construction of new arenas and stadiums. The Internal Revenue Code permits public agencies to issue the bonds on a tax-exempt basis under certain conditions. Not surprisingly, tax-exempt municipal bonds represent the least expensive source of capital available to most team owners and are the preferred method of financing stadium construction.

Sixty years ago, most of the professional sports facilities in the United States were privately owned. Patrons would queue up for admission to an arena or stadium and their entrance fees constituted a significant part of the revenue generated by the team owner. For example, every team in the National Hockey League (NHL) and in Major League Baseball's (MLB) National League occupied a facility that was still privately owned and operated in 1950.[1] MLB's American League had just 12% of its stadiums in public ownership at that time. However, the National Football League (NFL) was something of an outlier with 46% of the teams already renting their stadiums from public authorities.

The introduction of televised broadcasts, complemented by advertising and licensing fees, diversified the income statements of sports franchises and allowed them to generate a national following. Meanwhile, broader demographic shifts were underway. America's suburban migration and population shift to the south and west created a competitive challenge for older cities in the Northeast and Midwest. Competition among cities to attract or to retain a professional team provided the franchise owners with the leverage necessary to transfer ownership of the facility (and the associated property tax liability) to the public sector. Franchise owners who understood the changing dynamics of their business encouraged the transition from private ownership of spectator facilities to the public treasury in subsequent decades. The resulting flurry of new stadium construction dramatically increased the revenue available to team owners by allowing them to lease luxury suites and offer more seating options.

"If we began to subsidize baseball teams, all sorts of business enterprises would demand the same things. Our feeling is that professional ball clubs class as private enterprise. They have to carry their own weight. We will not be blackjacked."

NYC Mayor Robert Wagner in 1957
Recounted in "Stickball in San Francisco"
by Agostini, Quigley, and Smolensky.
The Dodgers and Giants departed to California.

By 1991, according to researchers at the University of Maryland, three-quarters of the arenas and stadiums were owned by the cities and counties in which they were located. The trend accelerated in the last 20 years. Many of the stadiums built after the Second World War were abandoned in favor of more modern facilities. By the end of 2012, 125 of the 140 teams in the five largest professional leagues (NFL, MLB, NBA, NHL, and MLS) will play in stadiums constructed or significantly refurbished since 1990.[2] The net effect is a cycle of construction and abandonment in which the life cycle of a major sports facility is roughly 30 years.

Economic impact

The economic impact of professional sports on local economies has been debated for years. Proponents of public

subsidies have argued that a new stadium or arena offers tangible benefits by creating employment opportunities for construction workers and permanent jobs upon completion of the new facility. In their view, new stadiums promote civic pride, raise property values, and stimulate the creation of new retail establishments to accommodate an increase in tourism. Urban redevelopment projects adjacent to Oriole Park at Camden Yard (Baltimore) and Jacobs Field (Cleveland) are cited frequently as evidence of the ancillary benefits generated by the construction of new sports venues near central business districts.

Of the 30 arenas that host NHL teams, only three older facilities – Joe Louis Arena in Detroit, Madison Square Garden in Manhattan, and Nassau Veterans Coliseum on Long Island – have not sold naming rights to businesses.

- Glen Hodgson and Mario Lefebvre
Conference Board of Canada
August 2011

Unfortunately, independent academic research studies consistently conclude that new stadiums and arenas have no measurable effect on the level of real income or employment in the metropolitan areas in which they are located.[3] Feasibility studies for professional sports facilities often fail to account for the *substitution effect*. Individuals generally maintain a consistent level of entertainment spending so money spent on sporting events typically comes at the expense of cash spent in restaurants, on travel, and at movie theaters.

These same studies also fail to accurately assess the degree to which sports *crowd out* other types of economic activity. The physical infrastructure of a city, whether it's a private hotel or a public airport, cannot abruptly increase capacity. As a consequence, sports fans tend to displace other visitors. As a case in point, Robert Baade and Victor Matheson at the College of the Holy Cross have examined the number of visitors to Beijing during the Summer Olympics of 2008. Tourist arrivals for the month of August did not fluctuate year-over-year and the number of visitors to Beijing actually declined on an annual basis. Similar results can be found for Olympic Games held in the US and for such sporting events as the Super Bowl.[4] There appears to be no increase in retail sales, hotel occupancy rates, or passenger enplanements in cities that hosted Super Bowls and Olympic Games, at least in the decade prior to 2003.[5]

Construction costs alone for major league professional sports facilities have totalled in excess of USD30 bn in nominal terms over the past two decades with over half the cost being paid by the public.

- Robert Baade and Victor Matheson
College of the Holy Cross
January 2011

Critics also highlight the *misallocation of scarce public resources* as a fatal flaw in the arguments supporting public subsidies. Capital expenditures associated with a new arena and sports stadium are directed towards a relatively narrow group of individuals (the franchise ownership and the sport's spectators). Moreover, the resulting infrastructure is not easily convertible for other uses and plainly does not provide the

same broad societal benefits associated with an airport, highway, or public utility improvement.

The use of public subsidies to underwrite the cost of construction for a new stadium or arena was a contributing factor in the rapid increase in the valuation of sports franchises. The fees paid by ownership groups to obtain a new franchise when Major League Baseball expanded in 1997 was 37% higher than the fees paid by new owners five years earlier. The increased valuations of National Basketball Association (NBA) franchises were even more dramatic. Based upon fees paid by the owners of new expansion teams in 1989 and again in 1995, NBA franchise values increased by roughly 47% every year.[6]

This type of growth is difficult to sustain without greater leverage (see sidebar at right). An uncertain economy, labor strife, and volatility in the financial markets all have taken a toll on some ownership groups in each of the major sports. The leverage employed to meet the asking price for a new sports franchise has undermined the financial stability of some ownership groups. Major League Baseball, the National Basketball Association, and the National Hockey League currently operate franchises directly in place of ownership groups that are facing insolvency.[7] Ironically, these situations may prompt another round of team relocations and another cycle of public sector bidding for professional sports.

Investor perspective

We expect the debate regarding the use of sports facilities as an economic development tool to continue. Despite consistent evidence that subsidies are counterproductive in the long run, the public sector remains intent on directing expenditures for this purpose. Rather than dwell any further on whether such a policy is prudent, we must examine the type of subsidies offered and whether the resulting bond issues represent a good investment.

Public sector participation in new stadium and arena construction projects takes many forms and runs the gamut from the donation of publicly owned real estate to general taxation. In at least one instance, public opposition has dictated a private sector solution. After San Francisco voters repeatedly rejected public subsidies for a new stadium for the Giants baseball club, the ownership group decided to commence construction without financial aid. The construction of PacBell Park (subsequently renamed AT&T

Bid for the Dodgers Shatters Record

In a pre-emptive move to acquire the Los Angeles Dodgers baseball club, a group of investors have offered to purchase the franchise for USD2.15 billion. The bid was submitted on 27 March before an auction scheduled for the following day in which two other bidding groups were expected to participate. The offer shattered the previous record for an American professional sports franchise. Major League Baseball (MLB), which assumed control of the club in April 2011 after expressing "deep concerns regarding the (club's) finances and operations", appeared more than satisfied with the result.

The Dodgers, which were purchased in 2004 by Frank McCourt for USD430 million, subsequently encountered financial difficulties due to excessive financial leverage. McCourt sought bankruptcy protection for the team after encountering difficulties making payroll. Last week's bid represents a stunning financial turnaround for the team owner.

The purchase price also provides an illustration of the degree to which interested parties will pay extraordinary prices for trophy properties – despite evidence that financial margins are not wide enough to allow for any mismanagement. We expect the new ownership group, to seek additional sources of revenue to justify the price tag. The naming rights for a new or renovated Dodgers Stadium, among the few left in baseball without a corporate moniker, will be up for grabs. Concession fees and ticket prices are headed higher but the real battle will occur when the rights to broadcast Dodger games will be renegotiated. In all events, the new benchmark price for a nationally-recognized sport franchise will drive more current and prospective team owners to seek public sector subsidies to defray the cost of new venues.

Park) did involve tax abatements, zoning variances, and targeted public infrastructure investment but otherwise was a privately funded venture.

Elected officials often seek voter approval for the levy of broad-based sales taxes to support the construction of a new arena or stadium but the results of these referenda have been inconsistent. In 1991, 65% of voters in Arlington, Texas voted in favor of a 0.5% sales tax increase needed to support the financing of a new stadium for the Rangers. The Arlington Sports Facilities Development Authority subsequently sold bonds secured by a general sales tax in 1993. The bonds featured a super-sinking maturity structure that allowed the Authority to retire the bonds 10 years earlier than expected.

The electorate in King County, Washington was less supportive of the direct public subsidy in September 1995. Voters in and around Seattle narrowly rejected a proposition to levy a special sales tax to finance the construction of a new stadium for the Seattle Mariners baseball club. Within weeks of the popular vote, the Mariners defeated the New York Yankees in the American League Division Series and Governor Mike Lowry promptly convened a special session of the state legislature to seek new financing alternatives. The result was the creation of a public facilities district to build, own and operate a new stadium in Seattle. The county subsequently assessed special taxes on restaurant meals and car rentals to support debt service on the bonds.

Resistance to public financing often finds an outlet in the courts. Disgruntled voters in Washington sued to prevent the implementation of the restaurant tax but were unsuccessful. The State's Supreme Court concluded that the "public development of a major league baseball stadium serves a public purpose even though the Seattle Mariners baseball club also would benefit from the expenditure of public funds."[8] While conceding that the degree to which the baseball stadium improved the economy and quality of life was "debatable," the court left the decision up to the state legislature.

Cities and public authorities increasingly have opted for special taxes in the hope of taxing business visitors and tourists at a disproportionate rate. The Harris County Houston Sports Authority elected to levy automobile rental surcharges and hotel taxes to help finance the construction

of three separate venues for the City of Houston's MLB, NFL, and NBA franchises. The pledged revenue thus far has proven to be particularly volatile and the debt service reserve accounts have been tapped periodically. The distinction between general sales taxes and more limited special taxes is an important credit consideration for investors. The former tends to perform better, by and large. Special taxes, by contrast, expose the investor to more idiosyncratic risks such as hotel occupancy trends.

The Internal Revenue Code restricts the use of tax exempt bonds for private sector purposes. According to the Municipal Securities Rulemaking Board, a municipal bond is classified as a private activity bond (and therefore ineligible for tax-exemption) if it meets two separate tests (with some exceptions). First, more than 10% of the proceeds of the issue are used for a private business use (the "private business use test"). Second, the payment of debt service on more than 10% of the proceeds is secured by or payable from property used for a private business use (the "private security or payment test").

The net result is a reasonably complex text that permits tax-exempt bonds to be used for stadium construction only if the public bears a disproportionate burden of the responsibility for debt repayment. Professional sports franchises usually provide an up-front payment while structuring their leases to minimize their annual rental payments and thereby avoid running afoul of the private security test. The construction of Miller Park for the Milwaukee Brewers baseball team provides a useful example. The tax-exempt bonds are secured by a general sales tax. The team occupies the facility for a nominal fee.

The search for value: selecting credits from among a crowded field

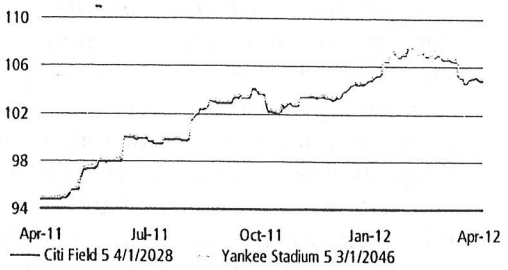
Fenway Park in Boston will celebrate its 100th birthday on 12 April 2012 with a game between the Red Sox and their perennial rival, the New York Yankees. Wrigley Field in Chicago will do the same in 2014. These ballparks – we hesitate to use the term stadiums – are among the last of their breed. Celebrated by baseball's most passionate fans, they evoke memories of a day when the action on the field was sufficient to encourage capacity crowds. Over the last 25 years, the atmosphere has changed markedly. As ownership groups seek new sources of revenue to satisfy the debt incurred to purchase the franchise, spectator facilities have

become more elaborate. Personal seat licenses are sold to fans interested in securing season ticket privileges (and, in the case of the NFL, allowing the home team to shelter income from their revenue sharing obligation). Luxury suites cater to corporations eager to entertain clients in comfortable surroundings. Bars and restaurants have gone upscale and now compete with the action on the field for the attention of stadium and arena patrons.

We expect the pace of change to continue. The competition among sports franchises to offer the most innovative entertainment experience will drive ownership groups to threaten relocation to ensure the construction of modern facilities, often at the expense of the general public. For investors, we urge a degree of discipline. Rooting for one's home team is all well and good but the credit quality of the municipal bonds in this sector varies considerably. New York Mets fans may prefer the comfort and relative intimacy of Citifield over Yankee Stadium but the bonds used to finance the latter stadium represents the better credit.

Citi Field versus Yankee Stadium bond prices

In bid price



Source: Bloomberg, UBS WMR as of 3 April 2012

State and local governments have used a wide variety of bond structures to finance sports stadia. Each bond transaction has unique characteristics due to divergent state statutes and the degree of financial flexibility enjoyed by the sponsoring unit of government. While generalizations are always difficult, we have divided the myriad deals into four broad categories.

1. For sports facilities that have relied upon the use of municipal bonds to finance part of the construction bill, we prefer transactions where a *general sales tax* is levied to pay for debt service. These bonds have performed relatively well through the recent recession. Abrupt declines in sales tax collections were registered but collections rebounded as the country emerged from recession. The tax bases include essential as well as discretionary spending, thereby reducing their vulnerability to economic cycles.

2. *More narrow tax pledges*, such as those which rely on hotel occupancy taxes and auto rental surcharges, tend to exhibit more volatility and respond more slowly to economic recovery. They should be structured with higher pro forma debt service coverage to accommodate the additional credit risk.

All too often, however, they have been marketed with ascending debt service schedules. The result is a bond issue which relies upon consistent growth in pledged revenues to cover debt service. Economic recessions undermine the credit quality of bonds with narrow tax pledges such as those associated with hotel and rental car taxes. The Harris County-Houston Sports Authority, TX and the City of Orlando, FL Sixth Cent Tourist Development Tax issues are two examples of transactions reliant on such taxes that have been impaired recently.

3. Bond issues that are ultimately backed by the *general credit of municipal governments* offer reasonably strong security but also pose more ratings volatility than bonds backed by a general sales tax. As municipal governments are squeezed by higher pension payments and reductions in state aid, their ratings are more susceptible to revision. This does not necessarily mean that the related stadium bonds are performing poorly but rather that the ratings are more closely tied to – and exposed to – the general credit of the sponsoring government. The facilities in Atlanta, Memphis and Glendale (AZ) are good examples.

4. Bonds secured primarily by *ballpark revenues* represent the fourth and final category. From a credit perspective, they are among the most volatile instruments because they depend in no small part on the competitive performance of the home team. The attractiveness of a new stadium to the casual fan tends to dissipate as the novelty of the venue wears off. From that point forward, the revenue generated by parking, concessions, and season ticket sales is more closely correlated with the team's playoff potential. The Citi Field issue is a good example.

It's always been our first preference -- particularly when government agencies or states are helpful -- to keep a team where a team is if they're playing in a good facility.

- David Stern
NBA Commissioner
April 2012

Looking downfield: the next wave

Serious proposals have been advanced for a new basketball arena for the Sacramento Kings of the NBA and a new arena in Seattle for possible NBA and NHL franchises. New stadia for the Minnesota Vikings and San Francisco 49ers of the NFL also are on the drawing board.

In Minnesota, the Vikings would pay about USD 754.1mn for its share of construction and operations at a publicly owned

USD 975mn stadium for the National Football League team. The state would pay USD 398mn for construction costs using gaming revenue. The City Council of Minneapolis has endorsed a plan that would extend hospitality taxes imposed in Minneapolis by the state through 2045 to finance the local share of costs.

In Sacramento, the city and the owners of the Kings basketball franchise have engaged in contentious negotiations over the construction of a new arena. Both parties agreed in principle to a term sheet before renewed disagreements over responsibility for site preparation threatened to scuttle a deal earlier this week. Based on preliminary reports, the city of Sacramento would own the arena; the Kings would serve as the principal tenant. The risk of cost overruns over and above those accommodated by the construction contract is borne by the city.

Allocation of costs for new Kings arena

	Cost in USD millions
City of Sacramento	255.53
Sacramento Kings	73.25
Anschutz Entertainment	58.25
Public Capital Campaign	30.00
Total	417.03

Anschutz Entertainment Group (AEG) shall pay USD 58.750 mn towards development and construction of the Entertainment and Sports Complex (ESC). The Kings shall pay USD 73.25 mn towards development and construction of the ESC. The City shall identify, provide, or cause other public and/or private entities to provide a total of USD 255.525 mn and an estimated USD 3 mn from a capital campaign toward the planning, design, development and construction of the ESC.[9] Sacramento will attempt to fund its 65% share of arena construction costs through the sale of its parking system or debt issued through and secured by the parking system.[10]

In Seattle, a private effort is underway to finance an arena for NBA and NHL franchises. Investor Chris Hanson plans to raise USD500 mn for the purchase and relocation of an NBA franchise to Seattle. Under the proposal, the city of Seattle and King County would be obliged to pay no more than USD200 mn from taxes generated directly from the arena. The NBA team (and any NHL team that subsequently relocates) would execute a 30-year non-relocation agreement. The fate of Seattle's existing Key Arena has not been determined but presumably any new NBA franchise would be obliged to play at the existing arena until the new facility is completed.

On 8 June 2010, voters in Santa Clara adopted Measure J, which allows the City of Santa Clara to lease land, currently occupied by Great America theme park's overflow parking lot, to the 49ers Stadium Authority in order to construct a

new 68,500-seat football stadium. The San Francisco 49ers will be the primary tenant. The necessary funds were secured on 13 December 2011 via a direct loan from three commercial banks. A special hotel tax district near the site of the new stadium is contemplated. Groundbreaking is scheduled for 19 April with a projected opening in 2015.

As we go to press, the outcomes of these proposals remain unclear. In Sacramento, the goal to retain the existing NBA franchise appears likely despite disagreements over responsibility for site preparation. In Minnesota, the outcome is less certain. The investor's goal in Seattle is to obtain both an NBA and NHL franchise. In the case of an NHL franchise, the most likely candidate is the Phoenix Coyotes franchise. Any such relocation would be to the detriment of the existing Glendale, AZ arena and its credit - a prime example of the complexity and risk inherent in the stadium finance sector.

In terms of other projects involving existing franchises, the Oakland A's of MLB are hopeful of developing a new stadium in San Jose. At least two proposals have been floated for a new stadium in Los Angeles to accommodate an NFL expansion franchise. Based upon the recent bid for the Dodgers, an NFL franchise in Los Angeles would be an expensive proposition indeed.

Look, we play the Star Spangled Banner before every game. You want us to pay income taxes, too?

Bill Veeck

Endnotes

[1] Dennis Coates and Brad Humphreys in "The Stadium Gambit and Local Economic Development" (*Economic Development Policy*). According to Coates and Humphreys, the National Basketball Association has 36% of the arenas in public ownership in 1950.
[2] Robert A. Baade and Victor A. Matheson, "Financing Professional Sports Facilities", College of the Holy Cross, January 2011. The data set includes venues in both the United States and Canada.
[3] See Coates and Humphreys, "The Stadium Gambit and Local Economic Development" and also "Professional Sports Facilities, Franchises, and Urban Economic Development."
[4] See Coates and Humphreys. The authors also cite data generated by Phillip Porter in "Megasports Events as Municipal Investments: A Critique of Sports Analysis" (1999) and by Porter and Deborah Fletcher in "Capacity Constraints Limit the Economic Impact of Sporting Events: Lessons from the Olympic Games" (2002).
[5] Ibid
[6] Ibid
[7] The New Orleans Hornets (NBA). The Los Angeles Dodgers (MLB). The Phoenix Coyotes (NHL).
[8] CLEAN, 130 Wash.2d at 792-97, 928 P.2d
[9] Sacramento Entertainment and Sports Complex Term Sheet, March 1, 2012
[10] Los Angeles Times, 27 February 2012

Individual credit summaries

The following is a compendium of summaries of the wide varieties of financing structures and security structures that support stadium and arena developments across the country.

Arlington, TX

City of Arlington
Admission Tax Revenue

Cowboys Stadium
(Dallas Cowboys – NFL)

Issue Date: 7/19/06

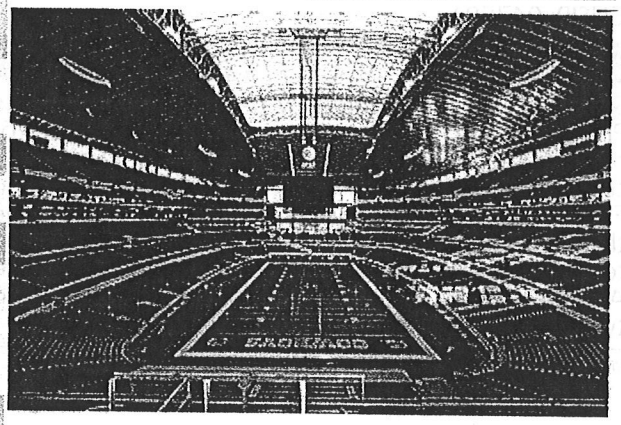
CUSIP: 041800

Series 2006 Not rated

Security: Limited obligations of the City payable from a 10% tax on tickets sold for all events at the Stadium; USD3 per vehicle tax on parking at Cowboys Stadium.

Issue Date: 8/1/05

Series 2005 Special Tax Bonds: A1 / A+



Team contribution: Project costs above the City contribution.

Security: A 0.5% citywide sales tax, a 2% citywide hotel occupancy tax, and a 5% citywide short-term motor vehicle rental tax secure the bonds.

Comment: Revenues received from the collection of a 0.5% sales tax comprise more than 90% of pledged revenues for the Special Tax Bonds. The city's sales tax rate stands at 8%. Since the first collection of revenues midway through FY2005, pledged revenues have totalled more than USD 168mn. Pledged revenues in FY2011 totalled USD 29.2mn to cover annual debt service of USD21.7 million. The debt service schedule shows an increase in the annual requirement to slightly more than USD 26mn by 2018. With no growth in revenues and no early debt redemption, coverage would be very thin at about 1.12x.

In addition to pledged revenues, officials also planned to receive USD 2mn in rental payments annually from the tenant, the Dallas Cowboys, and up to USD 15mn over the life of the lease in naming rights revenues. These revenues are also available for bond repayment and would improve coverage ratios. The stadium is owned by the City and leased to the Dallas Cowboys.

Photo: Nicole Cordiero

Atlanta, GA

Issuer: Atlanta and Fulton County Recreation Authority
Downtown Arena Private Improvement Project

Atlanta Hawks - NBA

Issue date: 11/9/2010

CUSIP: 047681

Aa2 / A

Security: Primarily secured by payments made by the Phillips Arena operator pursuant to an operator revenue security agreement. The bonds are ultimately secured by payments made by the City of Atlanta and Fulton County. The city and the county each pledge their full faith and credit. Fulton County's obligation to pay is limited to one-third of debt service, with Atlanta's obligation being equal to the remaining two-thirds annually.

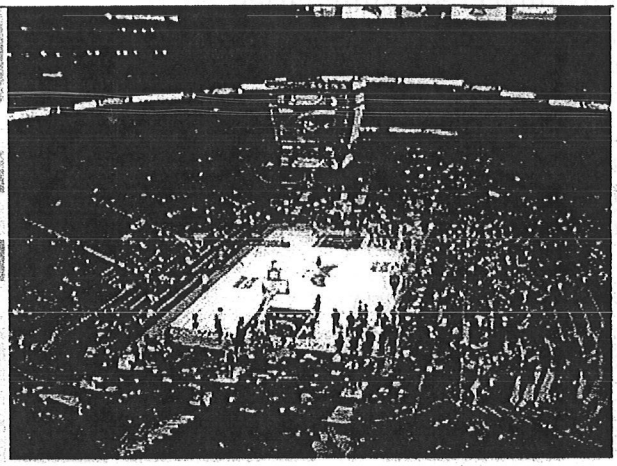


Photo: Mike Gonzales

Baltimore, MA

Issuer: Maryland Sports Authority

Oriole Park at Camden Yards
(Baltimore Orioles – MLB)

M&T Bank Stadium
(Baltimore Ravens – NFL)

Issue date: 5/1/1989

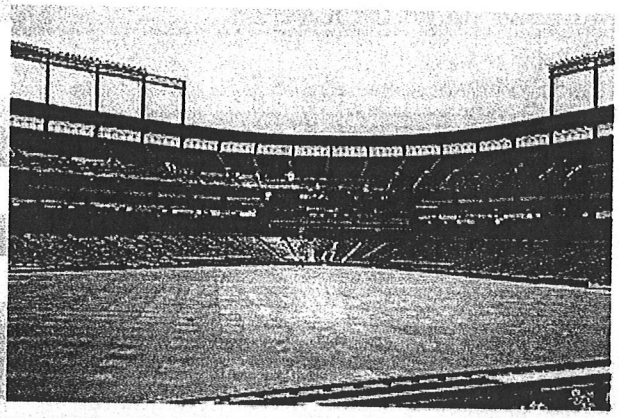
CUSIP: 574297

Aa2 / AA+

State contribution: Annual rent payments to the Trustee for the bonds – USD 16 to 13.8mn per year through 2019.

Team contributions: Orioles – USD 4.5mn
Ravens – USD 20.0mn

Security: The state's master lease rental payments include basic rent in amounts sufficient to pay debt service as it comes due on the outstanding bonds. The governor covenants to include an appropriation for amounts due under the master lease each year in the budget. The state's lease rental payments are absolute and unconditional once appropriated and are not subject to any abatement or offsets for any reason, including the availability and use of the facility.



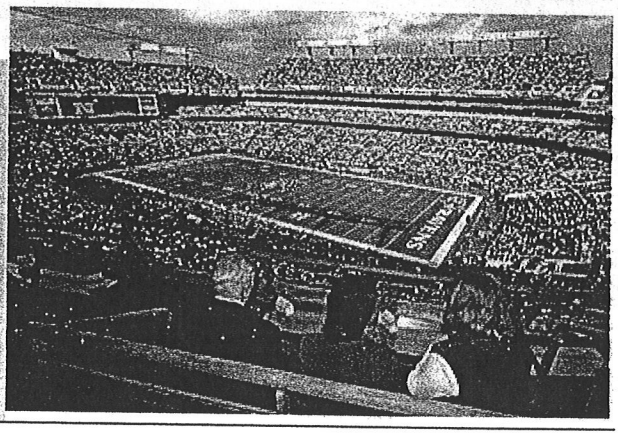


Photo: Oriole Park – © by James G. Howes, 2008.

Chicago

Issuer: Illinois Sports Authority
State Tax Supported Revenue

US Cellular Field
(Chicago White Sox – MLB)

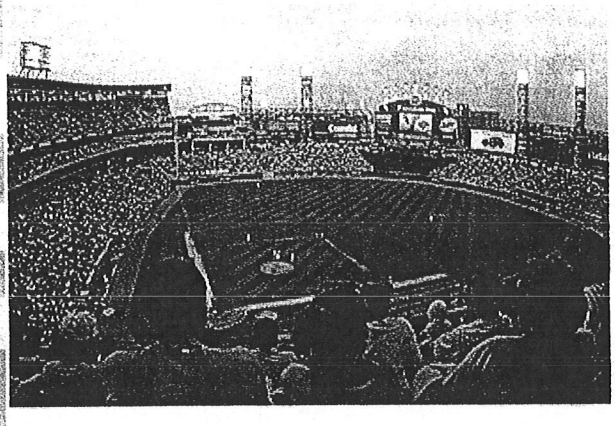
Soldier Field
(Chicago Bears – NFL)

Issue date: 1989

CUSIP: 452143

A

Security: The state tax payments are drawn from the first dollars collected from a 60% share of a 5% tax levied on hotel rooms statewide. The legislature may choose to appropriate some, all, or none of the deposits to the fund in any given year. The state tax payments are required by law to be deposited in the Illinois Sports Facilities Fund and can only be used, subject to annual appropriation by the Illinois General Assembly, by the authority.



Comment: Monies from the state hotel tax in excess of the state tax payments are released for other state uses only after the state tax payments have been made. The Illinois State Comptroller's website reports that hotel occupancy taxes dropped 23% in 2010 from 2009, to USD 109.7mn. The authority's share of this was roughly USD 54.9mn, providing 1.92x coverage of total parity debt service.

Photo: Enoch Lai at en.wikipedia

Cincinnati

Issuer: Hamilton County, OH
Sales Tax Revenue

Great American Ball Park
(Cincinnati Reds – MLB)

Paul Brown Stadium
(Cincinnati Bengals – NFL)

Issue date: 11/1/2000

CUSIP: 407287

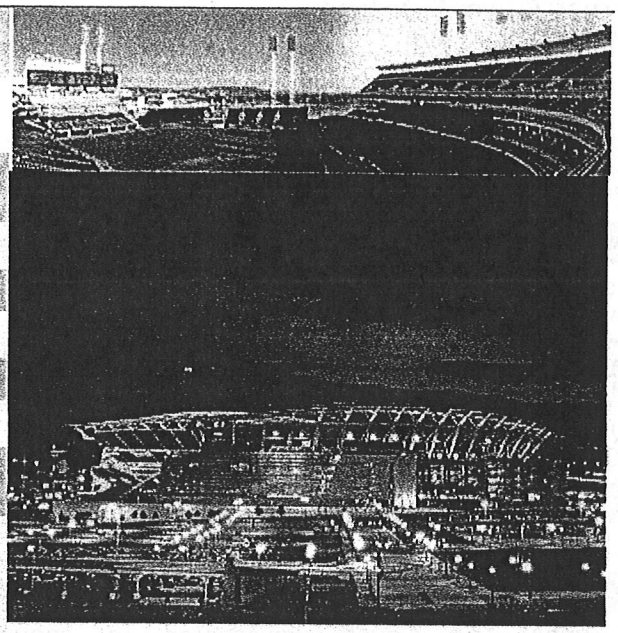
A1

State contribution: USD 81mn

County contribution: USD 700mn

Cincinnati Reds contribution: USD 30mn plus nine lease payments of USD 2.5mn each.

Security: Limited obligations of the County payable from a one half of one percent tax on retail sales within the County.



Comment: On 19 March 1996, 61% of Hamilton County voters approved an increase to 1% from 0.5% in the county permissive sales tax to provide funding for the construction of two new stadiums for the area's two professional sports franchises. Sales tax growth had historically been strong, averaging 7.4% annually in the three decades prior to 2000. Since then, growth has been anemic - a 0.2% average annual growth rate between 2000 and 2010. FY2008 collections declined by 1.3%, followed by a 7.4% decline in FY2009. The county revised its projections accordingly and assumed a 3.4% additional decline for FY2010, and no growth thereafter. Sales tax revenues have stabilized somewhat, achieving 2.5% growth in FY2010 and were on track to at least meet FY2010 collections in FY2011. Notwithstanding stagnant revenue growth, debt service coverage has been at nearly 2 times in recent years, and at 2.25 times in FY2010. Based on FY2010 collections, coverage would drop to a narrow 1.12 times when maximum annual debt service (MADS) is reached in 2027.

Photo: Great American Ballpark – Eric Kilby

Cleveland

Issuer: City of Cleveland
Non Tax Revenue

Cleveland Browns Stadium
Cleveland Browns – NFL

Issue date: 1999

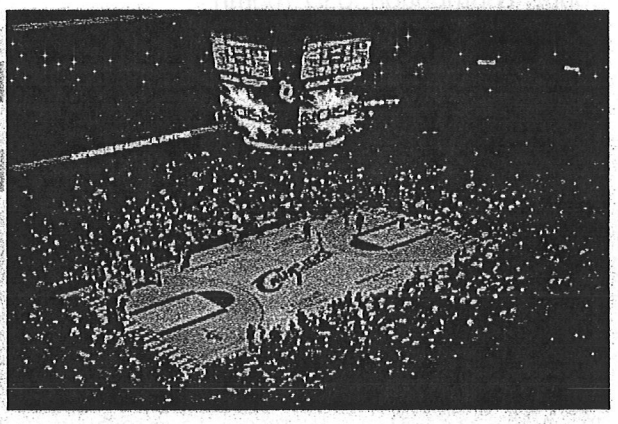
CUSIP: 18639NB

A2/A

Security: The City pledges to appropriate annually from available non-tax revenues.

Issuer: Cuyahoga County
Non Tax Revenue

Quicken Loans Arena
(Cleveland Cavaliers – NBA)



Issue date: 2/16/1994

CUSIP: 232263

Aa2

Security: The County covenanted to annually appropriate sufficient nontax revenues to pay debt service which include charges for services, payments in lieu of taxes, fines and forfeitures, license and fee permits, investment earnings, proceeds from the sale of assets, rental income, state and federal grants, gifts and donations, as well as certain project revenues that are also available for payment of debt service.

Comment: The county typically covers a portion of debt service on these bonds from admissions tax revenues. County officials report that, due to the 2011 NBA lockout, as well as the lack of play-off games this season, admissions taxes are lower than expected. The county will contribute USD 5mn toward debt service on these bonds in 2012, rather than the usual USD 3mn, to make up for the lost revenues.

Detroit

Issuer: Detroit/Wayne County Stadium Authority Building Authority Bonds

Comerica Stadium
(Detroit Tigers – MLB)

Issue date: 3/1/1997

CUSIP: 251440

Not Rated

Tigers Construction Contribution: USD 145mn

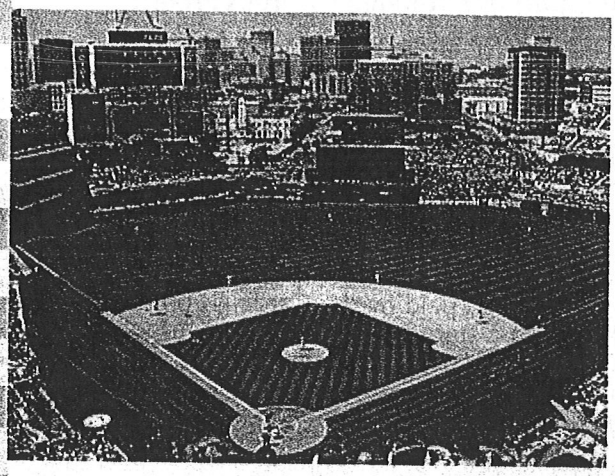
DDA contribution: USD 40mn

MI Strategic Fund contribution: USD 55mn

Stadium Authority contribution: USD 80mn

Public Share: USD 175mn

Total: USD 302mn



Security: The bonds are a limited tax obligation of the County secured by the county's tourist tax, which is made up of a 1% tax on gross receipts of hotel rooms and 2% on gross receipts of motor vehicle rentals.

Comment: Collections during the fiscal years ended 30 September 2005 through 30 September 2009 ranged from USD 6.5mn to USD 8.4mn, with annual debt service ranging from USD 5.1mn to USD 6.0mn. Collections in 2010 were USD 6.4mn and the debt and interest obligation was USD 6.1mn.

The facility is owned by the Authority, leased to the County, which leases it to the Downtown Detroit Development Authority to be operated by the Detroit Tigers.

Photo: MJCdetroit at the English language Wikipedia

Glendale, AZ

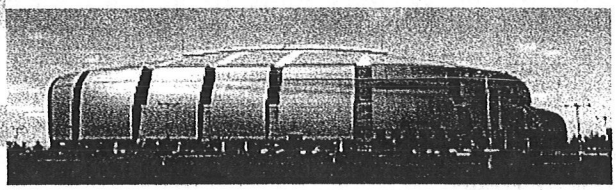
Issuer: AZ Sports and Tourism Authority Multipurpose Stadium Facilities Project

University of Phoenix Stadium
(Phoenix Cardinals – NFL)

Issue date: 2003

CUSIP: 040583

A1



Security: A 1% hotel occupancy tax and a 3.25% car rental tax. Other pledged revenues include State income taxes paid by the Cardinals organization and its employees that are directly related to Cardinals' activities, a state and city sales tax recapture from stadium receipts, a Cardinals rental payment of USD 250,000 (escalated annually at 2% per year), Fiesta Bowl ticket surcharges, net revenues from other facility events, and interest earnings on Authority general fund balances.

Comment: Pledged revenues consist of automobile rental surcharges (3.25%), hotel lodging excise taxes (1.00%). The first USD 2.50 of each receipt from the car rental surcharge is paid to the Maricopa County Stadium District for bonds related to Cactus League stadiums. The remaining pledged revenues include a state income tax on franchise operations and players, a sales tax on retail sales, admissions and concessions and certain facility-related income tax revenues.

Receipts from the hotel tax and auto rental surcharge levy declined substantially in fiscal year 2009. Fitch Investors Service estimates that the combined revenue from these two sources dropped by 1% during the economic recession. Performance has since improved and senior lien bond debt service coverage for FY2011 exceeded 2.3x; junior lien coverage exceeded 1.4x.

The two principal sources of revenue (auto rental surcharge and hotel tax) constitute roughly 60% of aggregate revenue pledged to the bonds repayment. The legal authority to levy these two taxes expires in 2031. While aggregate debt service requirements drop in that year to reflect the expectation of reduced revenue, the remaining pledged revenue is on an even narrower base than the earlier bonds.

Photo: en:Flickr user MCSixth

Glendale, AZ

Issuer: City of Glendale
General Obligation bonds
Issuer: Glendale Municipal Property Corporation
Excise Tax Bonds

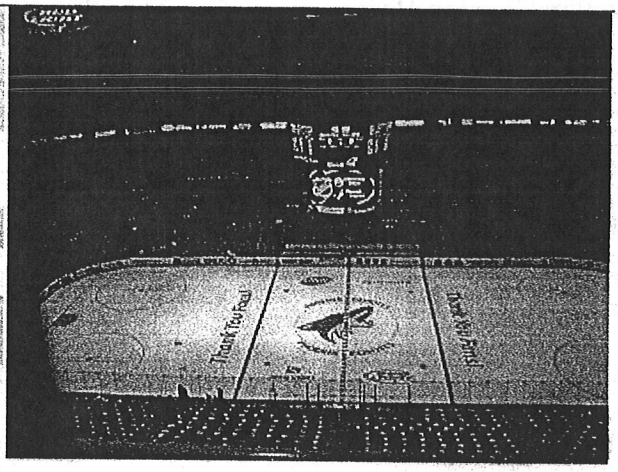
Jobing.com Arena
(Phoenix Coyotes – NHL)

Issue date: 2003

CUSIP: 378294

General Obligation: Aa3 / A+
Excise Tax Bonds: A1 / AA+

Security: Sales taxes from concessions, a revenue-sharing agreement, parking and ticket fee surcharges, and arena rental charges. The city expected additional excise tax revenues generated from the mixed-use portion of the project to eventually cover debt service on the bonds.



Comment: The rating on each of these bonds was downgraded in January 2012 as the result of the city's strained financial position following a significant payment to the National Hockey League (NHL) for operating losses of the Phoenix Coyotes that led to a significant decline in general fund reserves in FY2011. The team is currently being operated directly by the NHL. The downgrade also reflects the negative effects of the broad downturn in the region's economy, which has driven declines in the city's economically-sensitive revenue streams and tax base. The city may be obligated to make additional payments to the NHL in FY2012 and beyond if the team does not secure a new owner in the coming months. Such payments would further stress the city's already narrowed financial position. Excise revenues declined between 8.7% and 5.4% annually in the last three consecutive years from a peak (USD 127.5mn) realized in FY2008. The portion attributed to the city's 1.2% general sales tax is the single largest component of unrestricted excise taxes and declined in recent years as the city's unemployment rate has remained elevated since 2008 and commercial vacancies rose.

In May 2009, the former owner of the Coyotes declared bankruptcy, and the NHL acquired the team's assets and is responsible for the team's operations and management of the arena. In return, the city agreed to reimburse the NHL for the Coyotes' operating losses by up to USD 25.0mn in FY2011 and again in fiscal 2012, unless the team was sold. In 2011, the team was nearly sold, but the sale did not close and the city paid USD 25.0mn to the NHL toward the team's operating losses. There is a real possibility that the Coyotes will relocate to another city soon.

Photo: Betp at fr.wikipedia

Houston

Issuer: Houston-Harris County Sports Authority

Reliant Stadium
(Houston Texans – NFL)

Minute Maid Park
(Houston Astros – MLB)

Toyota Center
(Houston Rockets – NBA)

CUSIPS: 413890, 413893

Ba3 senior lien

Senior Bonds – USD 310.6mn

CUSIP: 413893

B2 second lien

Junior Fixed USD 317.4mn
Junior VRDO – USD 80.3mn

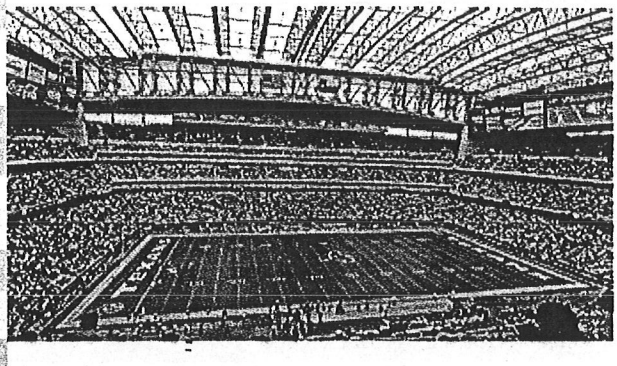
CUSIP: 413893

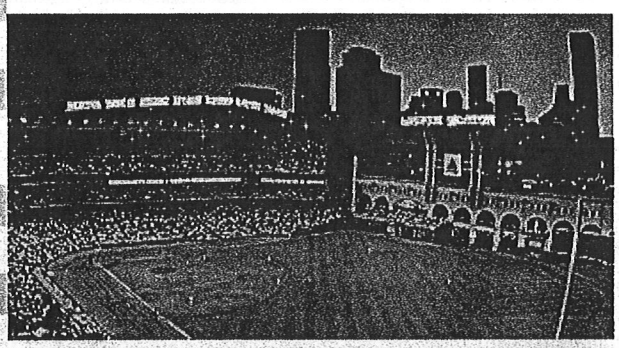
B3 third lien

Third lien – USD 46.1mn

Security: Debt is secured primarily by a pledge of hotel tax revenues collected on lodgings throughout the County (HOT) and by a motor vehicle rental tax (MVRT).

Comment: While primary pledged revenues (the hotel tax and auto rental surcharges) are exhibiting positive trends and now are projected to increase by 7% year over year (on a combined basis), they were inadequate to cover accelerate debt payments in 2011. The Authority accessed the Additional Required Reserve (ARR) in November 2011. After funding swap terminations, the ARR balance is estimated at USD26.5 mn.





Photos: Reliant Stadium – eschupil on Flickr; Minute Maid Park – Flickr

Indianapolis

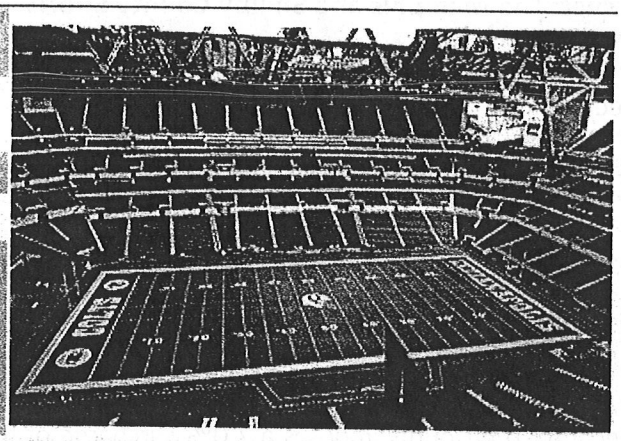
Indiana Finance Authority
Lease Revenue Bonds

Lucas Oil Stadium
(Indianapolis Colts – NFL)

Issue date: 5/1/2007

CUSIP: 455057

Aa2 / AA+



Security: Monies appropriated by the Indiana general Assembly for the payment of rentals to the Marion County Improvement Board (CIB). CIB Payments to the IFA are payable from the 2005 New Excise Tax Revenues, the 2005 PSDA Revenues and certain fees. These include the Marion County 4% Innkeepers Tax, 2% Food and Beverage Tax, 6% Admissions Tax, and 4% Auto rental Tax. 2010 was the first full year for the new 2009 Marion County Innkeeper's Tax.

The stadium is owned by the State and leased to the Indianapolis Marion County Capital Improvement Board (CIB) through December 31, 2040 under separate Lease Agreements.

Photo: Josh Hallett

Indianapolis

Issuer: Marion County Convention & Recreation Facilities Authority

Bankers Life Field House
(Indianapolis Pacers – NBA)

CUSIP: 569027

A+

Team Contribution: USD 57mn

Security: The Authority presently leases the Bankers Life Fieldhouse located in downtown Indianapolis to the Capital Improvement Board of Managers of Marion County. Lease payments securing the Bonds are payable from a 5% admissions tax on tickets and a 6% hotel tax levied county-wide.

Memphis

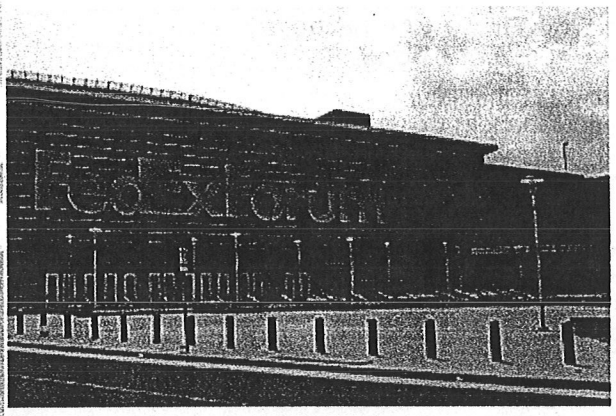
Issuer: The Memphis and Shelby County Sports Authority, Inc.
Memphis Arena Project

FedEx Forum
(Memphis Grizzlies – NBA)

Issue date: 2007

CUSIP: 586123

Aa3/ AA-



Security: The County imposes a 2.0% surcharge of the gross proceeds on all rentals of passenger motor vehicles in the County for periods of 31 days or less. The County has pledged the Car Rental Taxes on a subordinate basis to the repayment of the Bonds until the Bonds are fully paid. The County and City have pledged all Seat Rental Fees to the payment of the Bonds until the Bonds are fully paid. Hoops (the team owner) is obligated to pay to the County and City, a Seat Rental Fee in the amount of USD 1.15 per seat sold to be collected by Hoops on all sporting, entertainment, exhibition, performance and other events at the Arena.

The city also levies a 1.75% hotel occupancy tax. The tax has been dedicated until 30 June 2016 to the payment of debt service for the expansion to the Cook Convention Center. Thereafter, the City has dedicated all City Hotel/Motel Tax Revenues to pay debt service on the Bonds.

Comment: The relatively high rating is driven by the additional security provided by the back-up pledge to appropriate funds necessary for debt service. In the event the Revenues pledged to the support of the Bonds shall prove to be insufficient to pay debt service in any bond year (ending on 31 October), the County and the City have covenanted to timely appropriate from legally available non-ad valorem revenues.

Miami

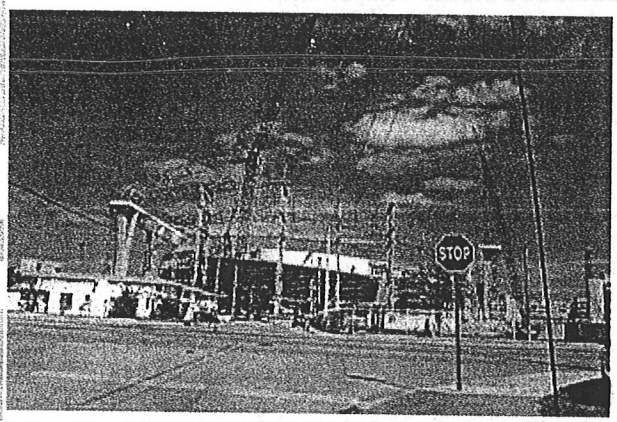
Issuer: Miami Dade County
Professional Sports Franchise Revenue
Convention Development Tax Revenue
General Obligations
Non Ad valorem Tax Revenue

Marlins Park
(Miami Marlins – MLB)

CUSIP: 59333H

A2

Team commitment: USD 155mn



Security: Professional sports facilities franchise tax revenue bonds are payable from a 1% tax on hotel rooms, a subordinate pledge of the 2% County tourist development tax; a pledge of non ad valorem revenues to meet any shortfalls in revenues for debt service.

Comment: Convention Development Tax Revenue Bonds are payable from a 3% convention development tax on hotel rooms and a subordinate lien on County sales taxes. The taxes are levied countywide, with the exception of the City of Miami Beach, Bal Harbour and Surfside. PST tax revenues will be fully-applied first, prior to the use of TDT revenues, whose excess goes to subsidize the Cultural Affairs and Greater Miami Convention Visitors Bureau.

Photo: shockblaster, March 13, 2011

Milwaukee

Issuer: Southeast Wisconsin Professional Baseball Park District Sales Tax Revenue

Miller Park
(Milwaukee Brewers – MLB)

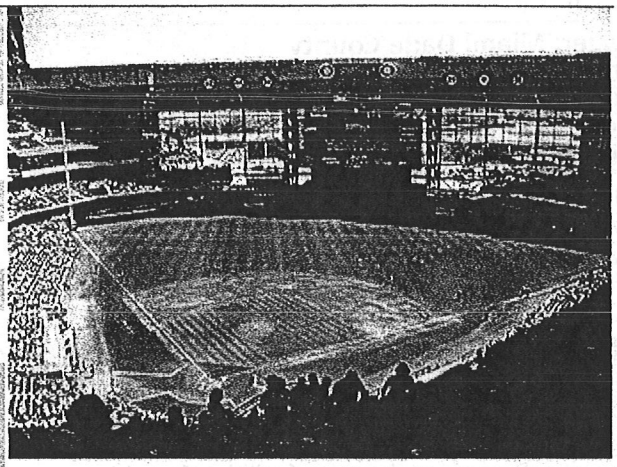
Issue date: 7/12/2001

CUSIP: 841531

AA-

City contribution: USD 310mn

Team Contribution: USD 90mn



Security: The bonds are secured by revenues generated from a 1-cent district-wide sales and use tax that shares the same base as the state's sales tax. The district collects sales tax in the counties of Milwaukee, Ozaukee, Racine, Washington, and Waukesha in southeastern Wisconsin.

Comment: With a population of 1.6 million, the district includes about one-third of the state's total. Collection of the pledged sales tax began 1 January 1996. Sales tax revenue growth has been strong, with a compound annual growth rate of 3% from 1997-2009. Total collections in 2009 totalled USD 24.2mn, which represents a 9.4% decline from 2008. For 2010, the district collected USD 24.2mn. Coverage of maximum annual debt service (MADS) of USD 16.2mn was strong at 1.5x in 2010.

Photo: Royalbroil on en.wikipedia

Minneapolis

Issuer: Hennepin County Target Field

Target Field
(Minnesota Twins – MLB)

Issue date: 5/30/2007

CUSIP: 425538

Aa3

Security: The 2007 bonds are secured by a first lien and the 2008 bonds are secured by a second lien on the 0.15% sales tax that is levied in Hennepin County.

Twins Contribution: USD 167.4mn

Comment: The Minnesota State Legislature authorized the sales tax for this project in 2006. The sales tax will remain in place until the bonds are retired, or until accumulated reserves are sufficient to retire the current bonds. The final maturity on the sales tax revenue bonds secured by the county's 0.15% sales tax is December 2037. Collections of the 0.15% countywide sales tax began in March 2007, and they have remained relatively stable.

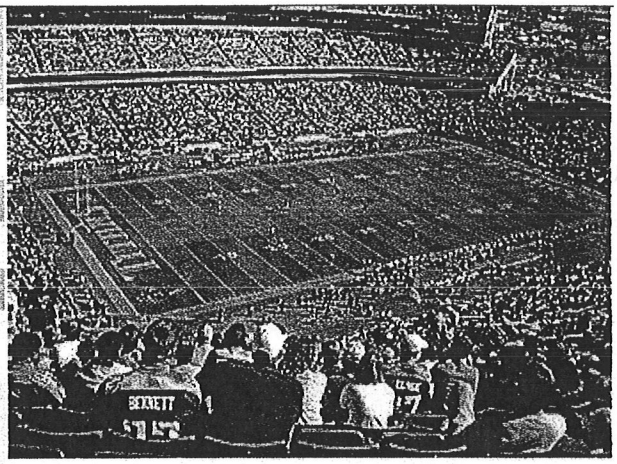
Annual debt service coverage (DSC) in FY2010 equalled 3.47x on the first-lien bonds, 1.77x on the second-lien bonds, and 1.64x on the third-lien bonds. Combined annual debt service payments for the series 2007A, 2008B, and 2008C bonds started to escalate in FY2011, maturing in December 2037. County management projects sales tax revenue for 2011 will be flat compared with FY2010.

The stadium is owned by the Minnesota Ballpark Authority and leased to and utilized by the Twins pursuant to a 30-year lease agreement that was signed in October 2007.

Photo: Randy Stern

Nashville

Issuer: The Sports Authority of the Metropolitan Government of Nashville and Davidson County, TN Public Improvement Bonds



LP Field
(Tennessee Titans – NFL)

Issue date: 1998

CUSIP: 592090

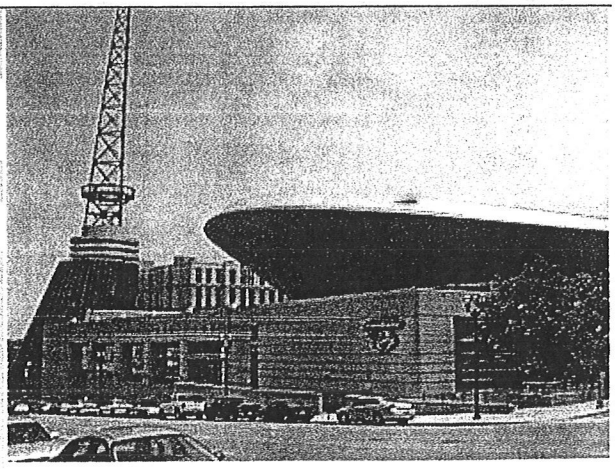
Aa2 / AA-

Security: The bonds are be payable solely out of the revenues and receipts derived from the following sources: (i) all PILOT Payments, (ii) Project Parking Revenues, (iii) Basic Rent, and (iv) to the extent the foregoing revenues are not sufficient, from Non-Tax Revenues of the Metropolitan Government.

Comment: A resolution requires the Department of Water and Sewerage Services to make an annual payment to the Metropolitan Government of USD 4mn, representing payments in-lieu-of ad valorem taxes. The Metropolitan Government has pledged all such in-lieu-of ad valorem tax payments (the "PILOT Payments") for the payment of principal of and interest on the Bonds. The Authority and the Metropolitan Government have pledged all their parking revenues for the payment of debt service on the Bonds. The stadium is leased to the Board of Regents of the State University and Community College System of the State of Tennessee (the "Board of Regents") which permits Tennessee State University ("TSU") to play its home football games in the stadium in exchange for annual rental payments to the Authority in the amount of USD 131,522.

Nashville

Issuer: Metropolitan Government of Nashville and Davidson County, TN



Bridgestone Arena
(Nashville Predators – NHL)

Issue date: 1996

CUSIP: 592090

Aa2 / AA-

Security: Bonds are payable primarily from ticket surcharge revenues collected with respect to the Arena. In the event of a deficiency, the series 1998 bonds are payable from nontax revenues on parity with the series 1996 bonds. Nontax revenues available for debt service payments include: charges for services; franchise fees; additional payments-in-lieu-of-taxes; and license fees.

Photo: EVula, Wikipedia Takes Nashville

New York

Issuer: NYC Industrial Development Authority
Payments-in-lieu-of-taxes (PILOT) bonds

Yankee Stadium
(New York Yankees – MLB)

Issue date: 8/22/2006

CUSIP: 69471P

Baa3 / BBB-

Security: All ticket and suite license revenues generated at the new stadium support the team's PILOT and rental revenue payments. A failure to pay the PILOT payments triggers a property lien in the stadium.

Comment: The transaction has a high pro forma debt service coverage ratio and assumes low break-even annual ticket sales of 2.7 million (assuming the average ticket price remains at 2008 levels). Actual attendance is not required to generate the pledged revenues as is the case in the Mets transaction. The break-even figure is below the franchise's 30-year annual average attendance of 2.8 million. Pro forma debt service coverage exceeds 3.5x. Security for bondholders includes a non-relocation agreement in which the Yankees agree to play all of their home games at the ballpark. The non-relocation agreement provides that the team pay liquidated damages if it attempts to relocate during the 43-year term of the debt.

In addition, the obligation to make annual PILOT payments is secured by a series of PILOT mortgages, which are similar in character to real estate tax liens. The PILOT, installment purchase, and lease rental payments are all treated as Yankee Stadium expenses and deducted from ballpark revenue when calculating revenue-sharing requirements. Failure to make the PILOT payments triggers stadium foreclosure.

Photo: Matt Boulton

New York

Issuer: NYC Industrial Development Authority
Payments-in-lieu-of-taxes (PILOT) bonds

Citi Field
(New York Mets – MLB)

Issue date: 8/21/2006

CUSIP: 64971P

Ba1 / BB+

Security: PILOT payments derived from stadium revenues including luxury suite premiums, party suites, club seats, concessions, merchandise, and advertising revenue.

Comment: The revenues supporting PILOT payments are generated by the premium portion of standard luxury suite revenue (i.e. excluding the portion attributable to actual ticket sales), suites available for game day rental, ticket sales attributable to approximately 10,635 club (premium) seats, concessions and merchandise revenue, parking, and advertising rights at the new ballpark.

The pledged revenues are closely linked to the attendance on game day. This reflects the dependence on concession, parking, and advertising revenues that reflect actual game attendance versus ticket sales. Pro forma coverage still exceeds 1.80x but the team must renew leases for luxury suites and there have been concerns regarding the ability of the club to field a competitive team in light of its financial constraints. This has raised concerns that the Queens Ballpark LLC may be unable to generate sufficient revenues to pay the bonds from stadium operations.

Bondholders benefit from a non-relocation agreement in which the Mets agree to play substantially all of their home games at the new ballpark. The agreement provides for liquidated damages to be paid by Sterling Mets if the team attempts to relocate during the 37-year bond term.

Photo: Delaywaves

Orlando

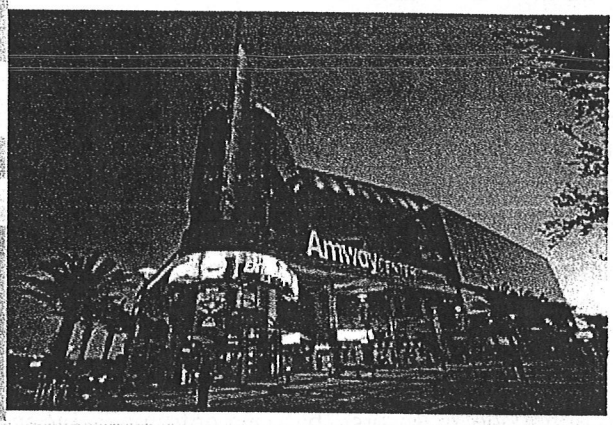
City of Orlando
Sixth Cent Tourist Development Tax Revenue

Amway Center
(Orlando Magic – NBA)

Issue date: 3/2008

CUSIP: 686499

Baa2 / BB+ senior lien
Ba1 / BB second lien
Not rated third lien



Security: The TDT revenue bonds are limited obligations of the city secured by the TDT revenues provided from 50% of a one cent (the sixth cent tax) collected countywide and remitted to the city according to an interlocal agreement, levied county-wide on hotel stays, plus a fixed annual installment payment equal to USD 2.8mn available through FY2018.

Coverage for the November 2011 payment was 1.0 times (x) from TDT revenues alone, an improvement over the prior year when use of a small amount of the liquidity reserve was necessary to pay debt service. Debt service coverage for the senior lien series 2008A bonds is expected to remain very slim. TDT revenues provided 1.1x coverage for the November 2010 payment, though the uptick in TDT collections resulted in 1.2x coverage for the November 2011 payment. Coverage for the May payments was higher at 1.5x in 2010 and 1.7x in 2011. Modest TDT growth coupled with the installment payment when applicable is necessary to cover debt service without use of the liquidity reserve through at least November 2020.

Photo: Ray Villalobos

Phoenix

Issuer: Phoenix AZ IDA

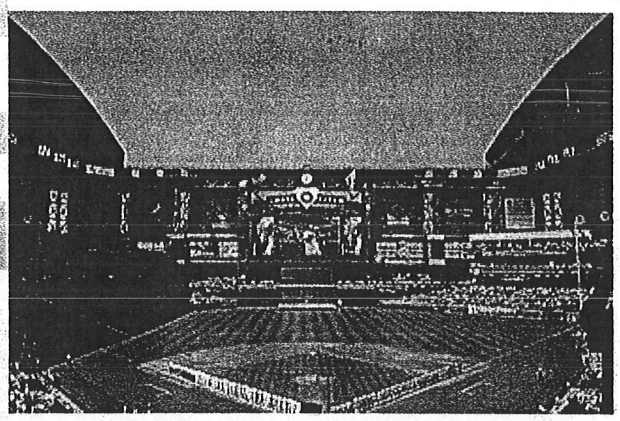
Chase Field
(Arizona Diamondbacks – MLB)

Issue date: 7/1/1998

CUSIP: 718937

The bonds were sold with insurance without an underlying rating

Authority contribution: USD 126.9mn



Security: Debt is secured by payments made by an obligated group operating through the team. The obligation is secured by a pledge of revenues from tickets, parking, concessions, merchandise, advertising, and other team revenues. No taxes are pledged.

Facility is owned by the Maricopa County Stadium District and leased to the Arizona Diamondbacks and operated by a private management company.

Pittsburgh

Issuer: Sports & Exhibition Authority of Pittsburgh and Allegheny County
Sales Tax Revenue

Heinz Field
(Pittsburgh Steelers – NFL)

Issue date: 1999

CUSIP: 724799

Aa2 / A+

Team contribution: USD 85mn from the Pirates and Steelers tax contributes

Security: The bonds are secured by minimum annual funding commitments from the Allegheny Regional Asset District (RAD) under a Cooperation and Support Agreement, as amended, between the Authority, the District, the City of Pittsburgh, and Allegheny County. Funding is derived from a portion of a sales, use and hotel occupancy tax of 1% within Allegheny County, which is in addition to a 6% County sales and use tax, thereby making the total County sales tax at 7%.

Issuer: Sports & Exhibition Authority of Pittsburgh and Allegheny County
Commonwealth Lease Revenue

Consol Energy Center
(Pittsburgh Penguins – NHL)

Issue date: 10/2007

CUSIP: 724790

Aa3

Security: Lease payments from the Commonwealth of Pennsylvania.

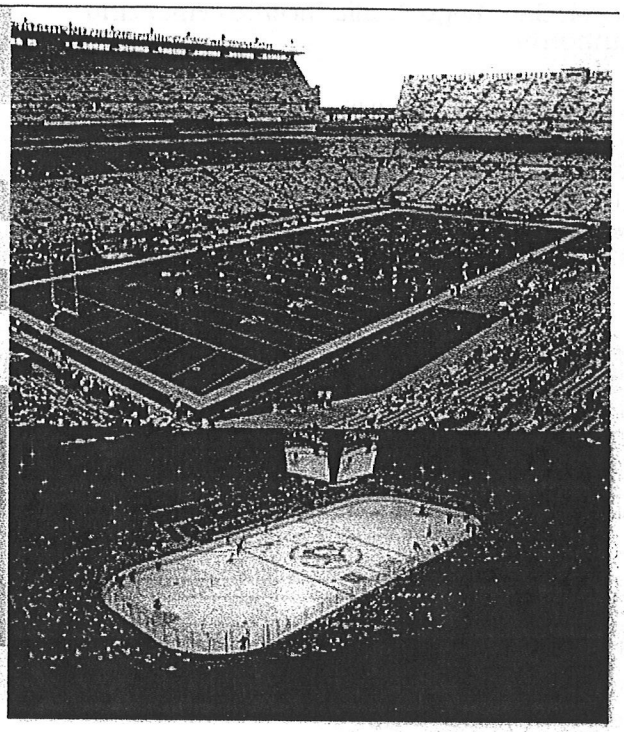


Photo: Heinz Field Gilliganfanatic

San Diego

Issuer: San Diego Public Facilities Financing Authority

Petco Park
(San Diego Padres – MLB)

Issue date: 2002

CUSIP: 797299

A2 / A-

Private contribution: The Padres were responsible for a USD 153mn private sector contribution

Security: The city's covenant to budget and appropriate annual lease payments for the baseball stadium secures the bonds. On a practical basis, the city uses transient occupancy taxes to support its annual debt service payment obligation.

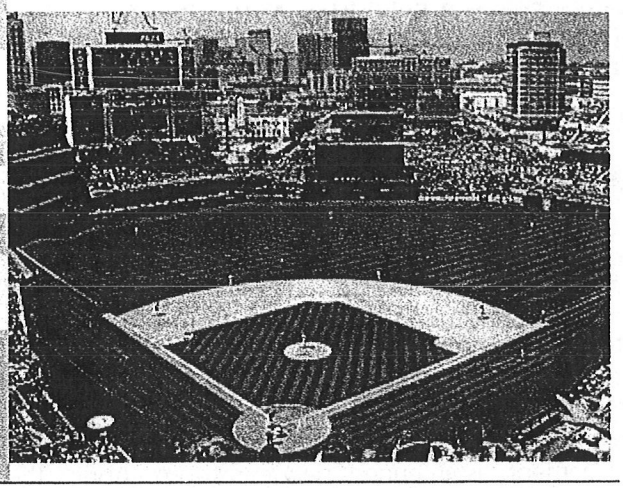


Photo: Nehrams2020 on en.wikipedia

Seattle

Issuer: King County Limited Tax General Obligations

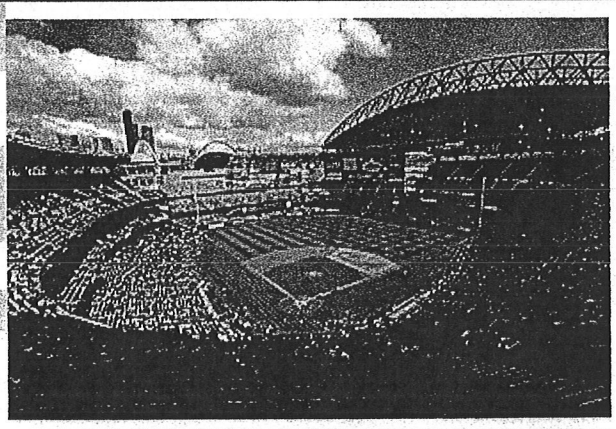
Seattle Mariners – MLB
Safeco Field

Century Link Field
(Seattle Seahawks – NFL)
(Seattle Sounders – MLS)

CUSIP: 569027

Aa1

Security: general obligation of King County secured by a one-half-cent prepared food tax in King County and 2% rental-car tax.



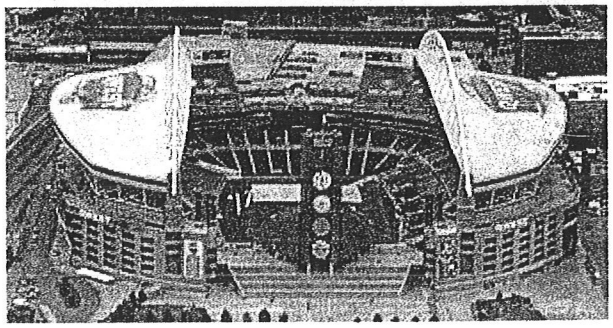


Photo: Safeco Field – Cacophony on en.wikipedia; Century Link Field – Seattle Municipal Archives

Washington, DC

District of Columbia Ballpark Revenue

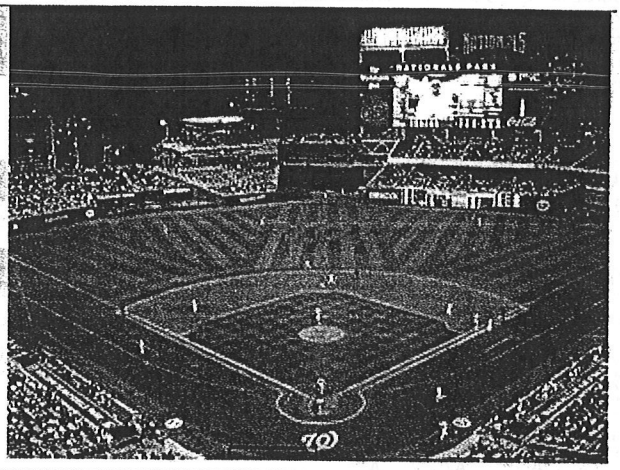
Nationals Park
(Washington Nationals – MLB)

Issue date: 2006

CUSIP: 25476W

A3 / BBB

Team contribution: project costs in excess of USD 475.184218mn plus USD 20mn.



Security: Limited Obligations of the District. Pledged revenues: gross receipts tax levied on businesses with USD 5mn or more in annual District gross receipts; utility taxes levied at one eleventh of 11% of the gross receipts from sales in the District to non-residential customers of landline telephone service, toll telecommunications services, mobile telecommunication services, heating oil, and natural gas; a tax of USD0.0007/kwh of electricity and USD0.00983/BTU of natural gas delivered to non-residential users in the District.

Comment: Total revenues are performing slightly better than forecasted despite some declines in utility tax revenues and taxable stadium tax revenues. Total pledged revenues were USD 44.8mn and provided 1.6x coverage of debt outstanding in 2010. When excluding the taxable and tax-exempt stadium revenues and MLB rents, revenues for FY2010 were USD 35.08mn and provided 1.14x debt service coverage.

Each year, the CFO must determine the ball park fee. If there is a deficiency in the preceding months of collections, the CFO is expected to have enough information with which to determine a rate increase sufficient to cover debt service. Cash in the stabilization fund would be tapped to make up any current year shortfalls; if the CFO determines that the shortfall is reoccurring, a rate increase would be implemented to cover the shortfall and to replenish required reserves. Excess revenues from the ballpark fee and utility tax are pooled in a subaccount and maintained in the stabilization fund until the balances meet the stabilization fund requirement.

The stadium is owned by the District and leased to the Washington Nationals.

Photo: Nymfan9 at the English language Wikipedia

Appendix

Statement of Risk

Municipal bonds: Although historical default rates are very low, all municipal bonds carry credit risk, with the degree of risk largely following the particular bond's sector. Additionally, all municipal bonds feature valuation, return, and liquidity risk. Valuation tends to follow internal and external factors, including the level of interest rates, bond ratings, supply factors, and media reporting. These can be difficult or impossible to project accurately. Also, most municipal bonds are callable and/or subject to earlier than expected redemption, which can reduce an investor's total return. Because of the large number of municipal issuers and credit structures, not all bonds can be easily or quickly sold on the open market.

Terms and Abbreviations

Term / Abbreviation	Description / Definition	Term / Abbreviation	Description / Definition
GO	General Obligation Bond	TEY	Taxable Equivalent Yield (tax free yield divided by 100 minus the marginal tax rate)
MMD	Municipal Market Data		

	Rating Agencies			Credit Ratings
	S&P	Moody's	Fitch/IBCA	Definition
Investment Grade	AAA	Aaa	AAA	Issuers have exceptionally strong credit quality. AAA is the best credit quality.
	AA+	Aa1	AA+	Issuers have very strong credit quality.
	AA	Aa2	AA	
	AA-	Aa3	AA-	
	A+	A1	A+	Issuers have high credit quality.
	A	A2	A	
	A-	A3	A-	
	BBB+	Baa1	BBB+	Issuers have adequate credit quality. This is the lowest Investment Grade category.
	BBB	Baa2	BBB	
	BBB-	Baa3	BBB-	
Non-Investment Grade	BB+	Ba1	BB+	Issuers have weak credit quality. This is the highest Speculative Grade category.
	BB	Ba2	BB	
	BB-	Ba3	BB-	
	B+	B1	B+	Issuers have very weak credit quality.
	B	B2	B	
	B-	B3	B-	
	CCC+	Caa1	CCC+	Issuers have extremely weak credit quality.
	CCC	Caa2	CCC	
	CCC-	Caa3	CCC-	
	CC	Ca	CC+	Issuers have very high risk of default.
	C		CC	
			CC-	
	D	C	DDD	Obligor failed to make payment on one or more of its financial commitments. this is the lowest quality of the Speculative Grade category.

UBS FS and/or its affiliates trade as principal in the fixed income securities discussed in this report.

Appendix

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Version as per January 2012.

Municipal League Foundation
Report on Issues Concerning the Seattle-King County Arena Proposal
June 6, 2012

This report is intended to advance the public discussion about the proposed new SODO stadium. However, this report does not present the final or official position of the Foundation on any issue presented. The Foundation does not make any recommendation about the proposal at this time. We invite your questions and comments, with a view to sparking additional study and discussion about the proposal.

Summary

The Municipal League review of the proposal for a new sports arena proposed in the South Downtown (SODO) neighborhood reveals the need for additional study to ensure the arena does not result in unanticipated costs to taxpayers. The City of Seattle and King County have developed a Memorandum of Understanding (MOU) with private investor Chris Hansen. The MOU is currently before the City and County Councils and must be adopted by these bodies.

The Municipal League has a 100+-year tradition of examining public proposals like the proposed sports arena. The Municipal League of King County's mission is to promote government that is open, effective and accountable, and to improve the caliber of public officials and the quality of public decisions.

The League believes the proposal has great potential to benefit the economy of our region and delights those of us who still mourn the loss of the Seattle Sonics. However, at the League, we also believe that the proposal is not risk-free and may not be self-financing as claimed by proponents.

Our review identifies questions we believe should be studied further before the MOU is adopted. How likely are sports and events fans to shift their dollars from other purchases to spending at the new arena? How much will traffic generated by the new arena affect the SODO district and, especially, the significant maritime and trade industries already located there? Can Seattle support two more first tier pro teams? Is enough being set aside to keep the new arena "first class" through 30 years of ever changing standards for sports facilities? We are not the first or the only group to ask these questions, but we hope this analysis will focus the attention of elected officials on further research that may be needed.

The Arena Proposal

Investor Chris Hansen has presented the City of Seattle and King County with a unique proposal to build a new major sports venue ("arena") in SODO, return a National Basketball Association ("NBA") team to Seattle, and perhaps acquire for the first time a National Hockey League ("NHL") team. This proposal includes several explicit mechanisms to limit financial risk to the public and places the major cost burden of land assembly, arena construction and facility

operations on the private investor group(s). Hansen has also made a commitment to constructively participating in the sometimes lengthy process that precedes most major public sector decisions in Seattle.

This may well be the best deal the City and County are offered for bringing professional basketball back to Seattle. The question is, is it good enough? To help frame that question, the City and County have set forth three criteria that a proposal must satisfy:

- Existing and general fund resources are protected;
- The City and County should be significantly protected from any financial risks; and
- The partnership should result in an investment into the community and region.

This is a complicated proposal with many moving parts. Making it work well will require careful consideration of many choices and details. Conversely, there are many ways the deal could go wrong. Compounding the difficulties is the fact that this is a 30-year pact, which includes some relatively new and untested mechanisms such as a team non-relocation agreement. It is difficult to anticipate all the challenges the governments, investor group(s), and sports associations/leagues may face that far into the future and far more so to identify ways to hedge those risks.

The proposal has been characterized by elected officials and proponents as "risk free" and "self-financing," which is to say that the public portion of the costs would be paid from revenues that wouldn't exist were the new arena not built. As impressive as the proposal is, the proposal is not risk free and it is questionable (and has certainly not yet been demonstrated) that the public share of costs is really self-financing.

The Municipal League's Approach to This Review

There has already been considerable discussion and analysis of the proposal in the media, by various stakeholders and most importantly and ably by the City/County-appointed Arena Review Panel, which released its final report on April 4, 2012. In preparing this report we watched the video of the Panel's four meetings, reviewed the materials posted on their website, studied their final report, reviewed the letters from Chris Hansen to Mayor McGinn and County Executive Constantine, watched news conferences and searched the web. The Municipal League's goal is to build on the foundation of what's already been done by 1) raising new questions or drawing attention to under-appreciated questions regarding the proposal; 2) more clearly framing key questions are already on the table; and 3) broadly suggesting approaches to answering these questions at a level sufficient to decide whether this proposal merits advancing to the next stage – an MOU between Hansen and the governments.

Analysis

We've organized the issues into three categories based on their relationship to the three City/County criteria. The categories and the issues are:

1) Issues related to whether "existing general fund resources are protected"
   - Substitution
   - Externalities
   - Future general fund resources

2) Issues related to whether the City and County are "significantly protected from any financial risks"
   - Demand – whether Seattle can support two more top tier professional sports teams
   - Risk during the 30-year tenure of the partnership of arena economic obsolescence and provisions for paying for major remodels, and

3) Issues related to the extent to which the partnership "results in an investment into the community and the region"
   - How to incorporate broad City/County social justice and environmental values and how we will know that benefits outweigh potential costs of the proposal.

1) Does the proposal protect existing general fund resources?

A key and perhaps the most important issue bearing on this is **substitution.** Substitution is an economic term that refers to decisions by consumers to spend money on different goods and services based on cost, availability, and preference. The Arena Panel acknowledges the need for further study on the substitution effect (Arena Panel Review, 4/4/12, Section 4).

When the Sonics left Seattle, those who had been going to the games, buying meals and drinks near the Key, and buying team paraphernalia faced a decision. They could substitute the purchase of other goods and services for those Sonics-related ones that were no longer available or they could save that money for the future return of the Sonics. Perhaps they went out to dinner more often, remodeled their kitchen, bought a special sports cable package, or went to more Storm games. The point is that unless they simply saved the money, they bought the same dollar amount of other goods or services, probably near where they live. And the City and County realized some general fund revenues in the form of sales tax, B&O tax, fees and other regulatory charges from those expenditures.

Now imagine this process in reverse after a new NBA team comes to Seattle. Fans may reduce their savings rate to go to games, or they will forego some other expenditures (substitute) to make funds available for Sonics tickets. If they reduce savings, the general funds will realize new revenues from taxes on arena-related expenditures. However, if people forego other King County expenditures to attend games, the tax revenue isn't actually "new". Even if the extent of substitution is minor, the general funds will be affected because all the arena-related revenues are to be committed to arena expense and non-arena revenues will be diminished.

To what extent? At one of the Panel meetings, the Arena Review Panel staff stated that they assumed no substitution as a base case and 15% as a pessimistic scenario. These numbers seem improbably low and without support in economic studies of spending by sports fans. We believe the City and County should provide a more specific basis for these assumptions so citizens can decide for themselves whether they are credible. (This might be possible if there is data on the residences of Sonics game attendees. Dwight Dively stated that there was such data.) No substitution is plausible only if Sonics fans have been burying the money they previously spent on Sonics games and related entertainment. Moving sales tax receipts from elsewhere in Seattle and King County to SODO does not meet the Review Panel's goal to ensure the arena results in an investment in the City and region.

Another form of substitution concerns the Key Arena. In the past year the Key Arena has managed to break even by attracting more large concerts, despite its acknowledged limitations as a concert venue. Seating at the Key is substandard and it is a very inefficient venue for promoters to stage large shows because of the difficulty of getting sets and sound equipment into and out of the Key Arena by its single loading dock. If a new state -of-the-art arena opens in SODO then many of the shows that are using the Key Arena now will choose the new arena instead. And the City will get a smaller fraction of concert goers' expenditures at the new arena than it does at the Key Arena. The City as owner-operator at the Key gets the full profit on concerts there but will only get tax revenues under the proposal at the new arena. The profit would go to the investor group(s).

(Despite the severity of the Key Arena problem, we believe an argument can be made that the current proposal offers a favorable opportunity to address it. If this arena in SODO doesn't happen, it is possible that a state-of-the-art major venue will be built elsewhere in the region in the next decade or so. When it is built, the Key will lose business and if the new venue is in Bellevue or Renton, then the City of Seattle will have much less leverage to work with the investor-developers to mitigate damage at the Key Arena.)

The second "protecting general funds" issue is that of **externalities.** Externalities, like substitution, is another economic term. It refers to a negative cost or consequence not borne by the parties who create the cost. In this case the most frequently mentioned negative consequence is additional traffic congestion, which threatens to make the Port of Seattle operations less efficient by impeding freight movements from the docks to the rail yards and harm businesses in the area. The Panel avoided this issue and reasoned that the EIS and MUP processes would shed light on the extent of congestion and possible remedies.

The City and County should do more detailed study and should require traffic improvements from the arena sponsor to maintain mobility and access in the area. The City, County, and investors should include the costs to maintain mobility and access in the package, and ensure that revenues will exceed these costs. Costs of congestion are possibly of a scale that makes the entire arena project infeasible; the impact analysis needs to occur early enough in the process to bear on the go/no go decision of whether to enter into the MOU. Some have dismissed this problem by noting that the arena capacity is much smaller than that of the two stadiums in SODO now. But when traffic is already congested, the response of the system to additional stresses can mean a small change in the traffic can result in a big change in congestion.

A recently released transportation and parking study by Parametrix (funded by Chris Hansen) determined that the existing and planned transportation and parking infrastructure would accommodate the new sports arena. In the coming weeks it will be important to carefully analyze this study and its assumptions. For example, the study states that planned improvements will help accommodate the additional traffic and parking requirements. But SODO is already waiting for several planned improvements. What if some of these improvements don't happen or happen on a delayed schedule? What are the consequences?

Decision makers need to understand the potential impacts early in the process since the general funds would bear the cost of building infrastructure to address increasing demands placed on the system by the new arena and ancillary development. Additionally, the City and County need to fully consider the trade-offs if port-related and industrial businesses relocate because freight movement is further impeded.

2) Does the proposal "significantly protect the City and County from financial risks?"

The Arena Review Panel carefully considered what remedies the governments would have should the investor group(s) default or go bankrupt at some future date. Questions included what collateral the governments might have in such a situation. These are important questions but the emphasis here is somewhat different. The question we focus on is what due diligence steps can the governments take now to minimize the probability of bankruptcy or default by their private sector partners? Once a default or bankruptcy has occurred, the City and County options narrow. The best defense is to make sure this doesn't happen.

Can Seattle support two more first tier pro teams? This question was posed to Panel members and some of them offered unsatisfactory opinions that Seattle could. Hansen suggested that the governments need not worry about this question because the investor-owners weren't about to make a losing investment by bringing a $250 to $500 million franchise to an area that couldn't support it. Furthermore the leagues which must approve ownership changes and moves have an incentive to make sure a franchise will remain viable over the tenure of an agreement. But there is no shortage of league-approved ownership changes and relocations where a franchise failed to flourish because of lack of demand or local resistance to paying for expensive venue upgrades.

We believe the data show that were an NBA and an NHL franchise to move here we would be among the smaller metro areas having so many top tier teams. But a far more detailed analysis is needed to answer this question. With the growing emphasis on suites and luxury seating to make professional sport team ends meet, the question of viability includes many dimensions in addition to population. To the extent that customers are major corporations, one needs to look at corporate headquarters in the region. One would also have to consider competition from major collegiate teams.

Is enough being set aside to keep the new arena "first class" through 30 years of ever changing and seemingly increasing scale of improvements? The Key Arena went from "first class" to "we can't play there" in only 13 years -- precipitating the Sonics' departure. This

wasn't because of physical obsolescence but rather, economic obsolescence. Over that time the square footage per participant in a first class NBA arena approximately doubled – in line with the necessary increase in revenue per spectator. Seattle Center simply didn't have enough room to easily accommodate the new "first class" nor the City enough money to fund it. Only 13 years after a successful $95 million remodel, estimates to bring the Key Arena up to the new first class ranged from $200 million to more than $300 million. If a region has to replace its arena every 10 to 15 years (and the replacement time has been decreasing for decades), it would suggest that the new arena's capital improvement fund would require annual deposits of $20 to $30 million in today's dollars. Are the investor group(s) prepared to provide capital improvement funding at that level? We have seen no indication of what funding level is considered necessary. If the investors are not and the local governments are not forthcoming, the usual fix is to move the franchise to a more cooperative locale. But the non-relocation agreement that is part of this proposal would prohibit this and the investors could find themselves in financial trouble, which trouble could eventually redound to the governments who would be the arena owners and financiers of last resort.

Note that as initially conceived there would be two investor groups sharing the cost of building the arena and subsequent upgrades. One group would own the NBA team and the other, the NHL team. And the arena would not be built until both team franchises had been acquired. Now in the draft MOU it appears that an NHL franchise is no longer an integral part of the deal. If this is so, the question of whether the region can support two new teams is less urgent but the question of the ability of the private investors to meet their share of the expenses much more so. With only one investor group and no local NHL team, the cost of building the arena and subsequently upgrading it will fall on a smaller group of investors who must recover these costs over a much smaller number of events in the new arena. This, of course, increases the financial risk for the investors but ultimately for their City and County partners as well.

3) Will the partnership result in an investment in the community and the region?

We conclude the answer to this is clearly yes. The new arena and one or two new franchises alone constitute a tremendous investment of resources and will create jobs during construction and subsequently in operating the facility. But is this enough? Will the City and County standards for minority hiring, apprenticeships and job training opportunities, and social justice and equity be met? Will the community's sensitivities for environmental sustainability be met? Is it fair to impose these standards on the private investors? Will the overall benefits be offset by the loss of other foregone public investments or other high-value industries and jobs? The particular difficulty here is the arena is to be designed and operated for 30 years by the investor group(s) but owned by the City and County. The City and County will have to carefully consider how to structure the design process and specify the operating standards if their larger goals and values are to be reflected in the partnership.

This analysis was prepared for the Municipal League by Bill Alves with research assistance from Jane Hadley. Bill Alves is a retired Seattle City Council central staff policy analyst whose last big assignment for the Council was the Sonics/Key Arena proposal of 2006. He previously worked in Finance at Seattle City Light and Seattle Public Utilities and was an Assistant Professor of Regional Economics and Land Use at the University of Alaska. Jane Hadley is a retired reporter with the Seattle Post-Intelligencer.

OPEN LETTER FROM CHRIS HANSEN TO THE COMMUNITY

I am writing this letter to address certain concerns and correct several misconceptions and inaccuracies about my proposal to build a state-of-the-art, multi-purpose Arena in Seattle's Stadium District and bring NBA basketball and professional hockey back to the Pacific Northwest.

While this is no doubt a highly complex transaction that requires careful and thoughtful analysis, I remain convinced that if people take the time to evaluate its merits they will see that it is, as a local newspaper columnist recently claimed, "the best deal for the public of any sports stadium built around here in nearly 75 years."

I think a good place to start is with the recent report published by the King County Municipal League. In their analysis the League said the following:

"This may well be the best deal the City and County are offered for bringing professional basketball back to Seattle. The question is, is it good enough? To help frame that question, the City and County have set forth three criteria that a proposal must satisfy:

- Existing and General Fund resources are protected;
- The City and County should be significantly protected from any financial risks; and
- The partnership should result in an investment into the community and region.

1) **Issues related to whether 'existing General Fund resources are protected'**

   - Substitution
   - Externalities
   - Future General Fund resources

2) **Issues related to whether the City and County are 'significantly protected from any financial risks'**

   - Demand – whether Seattle can support two more top tier professional sports teams
   - Risk during the 30-year tenure of the partnership of Arena economic obsolescence and provisions for paying for major remodels, and

3) **Issues related to the extent to which the partnership 'results in an investment into the community and the region'**

   - How to incorporate broad City/County social justice and environmental values and how we will know that benefits outweigh potential costs of the proposal."

The MOU currently under consideration by the City and County Councils was negotiated over several months between experts specializing in municipal and stadium finance representing both my investor group and the City and County. With this in mind, I will, on behalf of our investor group, do my best to respond to the questions/concerns raised, as well as attempt to correct some of the factual errors which have been published about the MOU terms.

DOES THE PROPOSAL PROTECT EXISTING GENERAL FUND RESOURCES?

In regard to the first issue, "whether existing General Fund resources are protected," I would make a couple of points. The first is that the Municipal League's opinion that the substitution effect was too low was based upon a slight but critical oversight. Their conclusion was based on the substitution of entertainment dollars, rather than the TAXES on those entertainment dollars — which is what matters in the context of this transaction. The second, and equally important point, is that in order to properly factor in the substitution effect, you must do so from each of the tax jurisdictions in question here (Seattle, King County, Washington State), as the impact on each is going to be different.

While I will leave the specifics of the substitution analysis to the City staff, as outlined below, the substitution effect on the City of Seattle's incremental taxes attributable to our agreement should be minimal (less than 15%) and the City will generate incremental new taxes that are not a part of our deal. The main reasons for this are as follows:

1. **There is minimal substitution for admissions taxes:** The City does not collect admissions taxes for events at Safeco or CenturyLink, and the vast majority of competing entertainment options (restaurants, bars, etc.) do not charge admissions tax. The only direct substitution from an admissions tax standpoint is from other events that charge admissions tax, like concerts at other venues within the region — and that is minimal. While other forms of entertainment would be subject to sales tax, the City's General Fund's portion of sales is just 0.85%, or one-sixth the admissions tax rate.

   We then need to consider that a large portion of Arena patrons will be coming from outside of the City of Seattle. While it is impossible to come up with a precise percentage without hard data from the former ownership group. Considering the City's tight boundaries and the fact that many of the former season ticket holders reside outside of the City limits, we believe a conservative assumption would be that 50-60% of the attendance from all events will come from communities outside of the City's tax base. By way of example, the Mariners have publicly stated that over 60% of their fans come from not only outside of the City, but outside of KING COUNTY. Obviously from the perspective of the City's General Fund, **there is virtually no substitution for tax dollars brought to it from neighboring communities.**

   When these two factors are combined, it is clear the vast majority of Arena admissions taxes collected by the City of Seattle will be truly new to the City and thus should not be "marked down" due to substitution effects.

2. **Sales of merchandise and concessions generate significant incremental tax revenue:** While there will be a substitution effect on the sales taxes of merchandise and concessions sales in the Arena from "Seattleites," as described above such substitution does not apply to the patrons that come from outside of the City's limits – and again, we think out-of-city attendees of the Arena will likely be greater than 50%.

Furthermore, the City of Seattle will keep 100% of the incremental sales tax that out of town guests spend on ancillary goods and services outside of the Arena (in particular bars, restaurants, hotels and rental cars), as such taxes will not be reinvested in the Arena. This is in stark contrast to the financing methods for the other sports facilities in SoDo, which relied heavily on hotel and rental car taxes which taxed all visitors to the Puget Sound region, not just those visiting for the sole purpose of using those facilities.

3. **Sales tax on construction is all incremental:** There is no substitution of sales tax on the construction of the Arena.

4. **B&O taxes are all incremental:** There is no substitution of "business and occupation" taxes that would not exist without this project.

5. **Increased property taxes:** While the Arena will not pay taxes once it is owned by the City/County, as is the case with other public venues (Benaroya Hall, McCaw Hall), there will be no substitution effect on the incremental property taxes collected by the City.

6. **The City will receive incremental tax streams that are not a part of the MOU:** In addition to the incremental sales tax on spending outside the Arena by out-of-town guests, the City of Seattle will also receive taxes from:

   a. **Hotel taxes:** The City of Seattle receives 0.85% of the sales tax, although that amount is currently deferred until the PFD bonds are paid off on Safeco and CenturyLink.

   b. **Increased property values:** The City will see a further increase in its property tax revenue resulting from increased property values of land surrounding the new Arena. Our group alone has already purchased ancillary real estate surrounding the Arena at a significant premium to its appraised value.

   c. **Parking taxes on street parking and non-affiliated lots:** The City will receive parking tax revenues from Arena patrons for lots not covered under the MOU.

   d. **Multiplier effect:** In total, the salaries from the direct jobs created by the construction and operations of the Arena and incremental spending brought to the City from out-of-town Arena guests will recycle through the local community and create further incremental revenues (as when Arena employees and construction workers spend their income), and thus new taxes for the City of Seattle. While opinions as to the correct multiplier to use vary, the typical range assumed by most economists is 1.5-2.0x.

When one factors in all of the incremental tax benefits that the City of Seattle will be receiving and combine it with the security provisions that we are providing to insure that the debt service is covered through direct Arena tax revenues, it is abundantly clear that not only are the City of Seattle General Funds protected, but our proposal is actually likely to result in a net-positive contribution to the General Fund.

FINANCIAL IMPACT ON COUNTY AND STATE

As discussed above, the MOU transaction virtually guarantees the SoDo Arena will have a positive net impact on the General Fund of Seattle. It is also demonstrably clear that it will be a net-positive to both the County and the State.

The County, in the same manner as the City, is reinvesting certain tax streams to finance its ownership of the Arena, and will be repaid by a priority share of certain Arena revenues. Apart from this, the County will benefit from its portion of incremental sales tax generated that Arena patrons spend on "out-of-arena" dining, entertainment, and retail sales. While we are hesitant to put an estimate to the percentage of "out-of-county" Arena patrons, the Mariners have publicly stated that over 60% of their fan base comes from outside of King County. Additionally, like the City, the County will also benefit from its portion of the increased property tax valuations in the broader stadium zone that are likely to occur as a result of the Arena's operations.

From the State's perspective, the Arena clearly represents a windfall. The State will directly benefit from the sales tax on the construction and the rise in property valuations of both the Arena and the ancillary real estate. Additionally, like the City and the County, the State will benefit from any guests that come to Arena events from outside of Washington. While again tough to quantify, it is inevitable that some out-of-state tourists will come to NBA and NHL games, as well as the concert and family events the new Arena will host.

FUTURE OF KEYARENA AND ECONOMIC IMPACT

With respect to the impact of the proposed SoDo Arena on KeyArena, and thus the City's General Fund, the aspect many have failed to account for is the gain in efficiency from operating two Arenas and the reduction in operating expenses we would thus be able to offer the City. While it is true that KeyArena operated at breakeven the last couple of years, this success was achieved in the absence of adequate investment in the Arena to keep it functioning at anything approaching modern Arena standards. The business plan of KeyArena readily acknowledges this fact, and forecasts a need for $20 million to be invested over the next 5 years for "basic asset preservation" and another $56 million for even the most basic modernization.

By bringing the NBA back to KeyArena for the 2-3 year new Arena construction period, our team's games would generate enough incremental tax revenue to at least partially address the capital improvement requirements and, at a minimum, leave KeyArena in better status than it is currently.

However, the key point that was not raised in the Municipal League report is that after the new Arena is operational, we would have a second booking, promotional, ticketing and operations staff dedicated to a publicly owned Arena in Seattle. With our operation up and running, we would be able to effectively operate KeyArena at minimal incremental cost. As such, while KeyArena may lose some of its "major concert" business to the new Arena, we would likely be able to lower the operating costs of KeyArena to a point that the City would be in an improved financial position compared to today.

Additionally, as the Municipal League correctly points out, KeyArena is considered by most concert promoters to be sub-par due to its configuration, poor "load-in, load-out" capabilities, and antiquated data and A/V infrastructure. If KeyArena can be successfully re-purposed to a smaller venue, we believe there is a good chance that, in addition to being a better asset for the City, it will be more economically viable as the operating cost reductions and incremental dates from smaller events would outweigh the loss of the select few large concert dates the KeyArena is currently able to attract.

But most important to the City should be the fact that a new Arena will undoubtedly be built in this region at some point, and if it is built outside of Seattle's tax base the negative consequences to Seattle's General Fund will clearly be much higher.

EXTERNALITIES (TRAFFIC)

Our investor group recently funded a detailed independent analysis of the traffic and parking situation in the SoDo area, which concluded that the impact on traffic and parking in the area would be manageable. The major facts supporting this conclusion are (1) the adequate parking in the area as a result of the inventory built to accommodate the larger Mariners and Seahawks/Sounders crowds, (2) the minimal date overlap with Safeco and CenturyLink events, and (3) most importantly, that Arena patrons would tend to arrive well after Terminal 46 and 30's scheduled 4:30 pm closing time, minimizing the impact on Port and industrial traffic.

Despite the findings, several constituencies have derided the results as inaccurate, and claimed that as with Mariners games, Arena traffic will begin arriving as early as 3:00 pm, thus stifling SoDo traffic from 3-5 pm while the Port is still open.

While such critics have yet to provide any substantive, independent analysis of their own to support such a point of view, common sense would tell us that people are simply not going to arrive at 3:00-4:00 pm for an Arena event that starts after 7:00 pm. On the contrary, we believe most of our attendees will be at work until at least 5:00 pm. But equally important is the fact that the Arena will not even open its doors to the public earlier than 5:30 pm for weekday NBA and NHL games and most concerts. While some may choose to come to the SoDo area early for a drink or a bite to eat, many Arena patrons are in a rush to make tip-off/face-off and arrive just prior to game time —— a fact that is clearly evidenced by a simple glance at the stands of an NBA or NHL game for the first half of the first period. Thus, the assumption that all of our patrons and their 5,000-6,000 vehicles will descend on the Arena site between 3-5 pm is grossly inaccurate.

And while we are confident in our argument outlined above, we are all the more comfortable letting reality speak for itself. SDOT has recently begun broadcasting live traffic cameras in the Seattle area that are updated in real time. A link can be found here, which provides numerous camera angles of the Arena site. I would encourage the Municipal League, the Seattle Times Editorial Board, City and County officials, and everyone in the City to have a look at these cameras and judge the traffic conditions for themselves.

After monitoring these cameras for a few weeks, our experts have drawn several conclusions. The first is that there are certainly traffic issues in the area in the late afternoon, though the traffic tends to diminish soon after the port closes at 4:30 pm. The traffic also seems to exist in a similar pattern whether or not the Mariners are playing — a fact that can be verified by looking at the traffic cams during the time when the Mariners are on the road. The second is that there is LITTLE CONGESTION during the 6:00-7:15 pm range when most of our fans would be arriving and after 9:00 pm, when our events would be concluding. And once again, we would prefer that residents do not take our word for it and instead keep an eye on the traffic cameras and draw their own conclusions.

While we are confident that the facts speak for themselves and that there has been no credible research provided to conclude that the Arena will cause freight mobility problems for Port businesses, we would also remind our detractors that an extensive traffic study and traffic management plan will be part of the required SEPA process.

DOES THE PROPOSAL "SIGNIFICANTLY PROTECT THE CITY FROM FINANCIAL RISKS?"

As a reminder, the basis for our transaction is that the City and County have agreed to reinvest certain tax streams generated by the Arena to fund its construction. As such, we would like to remind the citizens of Seattle and King County of the myriad levels of protection that have been afforded to them in the Arena MOU.

There are three clearly defined sources of revenue that guarantee the debt service on the City and County bonds:

1. Guaranteed minimum rent paid to the City and the County by the investor group.
2. The incremental tax revenue generated by the Arena and teams that would not be available to either the City or the County were it not for the Arena being built.
3. If the revenues from the two previous sources are not enough to cover the cost of repaying the bonds, the investor group has agreed to pay additional rent to make up the difference.

In addition, we have built into the Memorandum of Understanding further guarantees which include:

1. Agreeing to a 30 year specific performance lease with the City, insuring the team will stay for the entire life of the lease.
2. Agreeing to cover any cost overruns of the Arena construction.
3. Agreeing to fund a major maintenance and capital investment fund to insure that the facility's long-term capital maintenance needs are met.
4. Agreeing to apply any excess tax streams to a separate reserve fund which can be used only to fund Arena repairs and improvements (which will be owned by the City and County) or to retire the public debt early.

5. Agreeing to pay Arena base rent and additional rent ahead of other Arena lenders and investors.
6. Agreeing to maintain a reserve fund of one year's debt service for the City and County's protection in the event we fail to pay base rent or additional rent.
7. Agreeing to maintain a level of Arena profitability (EBITDA) that would provide 2x debt service coverage (two times the total public debt service payments, not simply the base rent or additional rent, and thus a MUCH higher multiple of actual debt service).
8. Agreeing to increase the reserve fund by a proportional amount if the Arena profitability (EBITDA) totals less than 2x debt service.
9. In the extremely unlikely case of a default that requires the ownership group to sell the team, the City and County also have first right to the proceeds of the sale after obligations to the NBA are satisfied (capped at 40% of the franchise's present value).
10. Agreeing to sell the City/County the land and shell (the most valuable and enduring assets), which they will hold directly as security in the unlikely event of a default by investors.

In a final appeal to reason, I would just like to remind the public that the investor group will be putting up well in excess of $300 million in equity into the project and it is just unrealistic to assume that in any scenario the group would jeopardize a $300 million equity position in an attempt to avoid a payment that is under any realistic scenario going to be less than $8 million.

CAN SEATTLE SUPPORT TWO MORE FIRST TIER SPORTS TEAMS?

Again, I would prefer to let the facts speak for themselves here. As shown in the table below, Seattle is clearly the top market in the US in which to put a new major sports franchise. It is the 13th largest TV market, one of the fastest growing, one of the most affluent, and one of the economically strongest. In terms of numbers, Seattle would rank 4th in the US in terms of TV users per the top four major sports leagues, and 6th if you include MLS.

Seattle vs. Other Professional Sports Media Markets

Nielson Ranking [1]	Nielsen DMA[1]	Nielsen 2011 TV Homes[1]	TV Homes Y-o-Y Change	Rank	2011 Median Household Income[2]	Rank	Businesses with 1,000+ Employees[2]	Rank	2011 Policom Economic Strength Ranking[3]	Rank	NFL, MLB, NBA, NHL Teams	TV Homes / Team	Rank	NFL, MLB, NBA, NHL, MLS Teams	TV Homes / Team (incl. MLS)	Rank
1	New York	7,515,330	0.3%	15	65,762	7	616	1	64	15	9	835,037	5	10	751,533	4
2	Los Angeles	5,666,900	0.1%	16	61,346	12	269	3	78	18	6	944,483	3	8	708,363	5
3	Chicago	3,502,610	0.0%	17	62,510	9	284	2	48	12	5	700,522	9	6	583,768	9
4	Philadelphia	3,015,820	2.1%	7	62,344	10	163	7	39	11	4	753,955	7	5	603,164	7
5	Dallas / Ft. Worth	2,594,630	2.0%	8	57,871	14	150	8	11	5	4	648,658	10	5	518,926	11
6	San Francisco / San Jose	2,523,520	0.8%	11	77,398	2	132	10	67	16	6	420,587	18	7	360,503	19
7	Boston	2,460,290	2.1%	6	72,965	3	180	5	55	13	4	615,073	11	5	492,058	13
8	Atlanta	2,407,080	0.8%	10	60,110	13	138	9	18	6	3	802,360	6	3	802,360	3
9	Washington DC	2,389,710	2.3%	3	87,149	1	182	4	1	1	4	597,428	13	5	477,942	14
10	Houston	2,177,220	2.5%	2	56,986	16	166	6	5	3	3	725,740	8	4	544,305	10
11	Detroit	1,883,840	(0.3%)	19	54,576	17	117	12	181	19	4	470,960	15	4	470,960	15
12	Phoenix	1,881,310	0.4%	12	57,782	15	79	15	20	8	4	470,328	16	4	470,328	16
13	Seattle	1,874,790	2.2%	4	66,548	6	84	14	3	2	2	937,375	4	3	624,917	6
14	Tampa	1,795,200	(0.6%)	20	48,618	20	46	20	57	14	3	598,400	12	3	598,400	8
15	Minneapolis / St. Paul	1,753,780	1.3%	9	66,862	4	107	13	38	10	4	438,445	17	4	438,445	17
16	Miami / Ft. Lauderdale	1,580,580	2.8%	1	66,862	4	130	11	77	17	4	395,145	19	4	395,145	18
17	Denver	1,572,740	2.2%	5	61,891	11	67	16	9	4	4	393,185	20	5	314,548	20
18	Cleveland	1,526,200	0.4%	13	50,336	19	64	18	314	20	3	508,733	14	3	508,733	12
19	Orlando	1,453,120	(0.2%)	18	52,693	18	67	16	31	9	1	1,453,120	1	1	1,453,120	1
20	Sacramento	1,409,400	0.3%	14	63,618	8	54	19	19	7	1	1,409,400	2	1	1,409,400	2

(1) Designated Market Area as per Nielson Local Television Market Universe Estimates
(2) Corresponding 2011 metro Core Based Statistical Area as per DemographicsNow; metro CBSA boundries do not necessarily match Nielson DMA coverage area (for example San Jose and San Francisco are separate CBSAs and have not been aggregated) and are used only for illustrative purposes
(3) As per Policom Corporation data

However, equally important to consider is the fundamental change in the professional sports business. Due to the escalation in media rights fees (both nationally and locally), professional sports franchises in major markets are much less reliant on attendance revenues than they were in the past. In fact, we would predict that well over half of team/Arena revenue streams will be contracted on a multi-year basis. This obviously helps to significantly reduce the "cyclicality" of the business, driving to near-zero the likelihood of a team insolvency in such a strong media market.

IS ENOUGH BEING SET ASIDE TO KEEP THE ARENA FIRST CLASS FOR 30 YEARS?

Before delving into this question, it's first worth noting the debt outstanding will be declining over the 30 year period, just as a homeowner's mortgage does. At the same time, the value of the land, which the City holds DIRECTLY, will under even the most draconian of assumptions be worth more than $100 million, giving it great protection in the event that the Arena is struggling.

However, even if this reality is completely ignored, our investor group has agreed to privately fund all capital repairs and improvements. In addition to setting aside $2 million per year for such expenses, we have agreed to quarantine all future tax surpluses toward those costs or toward paying down the public sector debt on the project.

We also vehemently disagree with the inferences that the Muni-League and Arena critics have attempted to draw from the history of KeyArena. Far from being an indicator of the short life of sports Arenas, KeyArena was built in 1962 and was home to the NBA for over 40 years.

While KeyArena was remodeled in 1994 at a cost of $95 million, it is now common knowledge that that remodel was poorly conceived and did not result in the building being "First Class," as has been asserted. The remodel left KeyArena without proper loading, premium parking, adequate suites, and other modern amenities. Additionally, KeyArena has an offset ice rink, which makes it incompatible for the NHL due to the limited seating capacity for hockey (just 10,000-11,000 unobstructed view seats). **But either way, KeyArena had a 50 year life with one major remodel. This is far from an Arena needing to be replaced every 13 years.**

To further this point, we would also just highlight that virtually all of NBA Arenas built in the last 20 years are operating just fine. The Arenas in the table **below have been in operation for more than 10 years, and in none of these markets are the teams lobbying for a new Arena. There is absolutely no factual analysis to support the claim that the average life of an NBA/NHL Arena is just 10-15 years.**

City/NBA Team	Arena	Capacity	Year Built	Years in Service
Boston/Celtics	TD Garden	18,624	1995	18
Philadelphia/Sixers	Wells Fargo Center	20,328	1996	17
Toronto/Raptors	Air Canada Centre	19,800	1999	14
Atlanta/Hawks	Phillips Arena	18,729	1999	14
Miami/Heat	American Airlines Arena	19,600	1999	14
Washington DC/Wizards	Verizon Center	20,282	1997	16
Chicago/Bulls	United Center	20,917	1994	19
Cleveland/Cavaliers	Quicken Loans Arena	20,562	1994	19
Indianapolis/Pacers	Bankers Life Fieldhouse	18,165	1999	14
Dallas/Mavericks	American Airlines Center	19,200	2001	12
Houston/Rockets	Toyota Center	18,043	2003	10
San Antonio/Spurs	AT&T Center	18,581	2002	13
Denver/Nuggets	Pepsi Center	19,155	1999	14
Utah/Jazz	Energy Solutions Arena	19,911	1991	22
Los Angeles/Lakers, Clippers	Staples Center	19,060	1999	14

IS THERE INCREASED RISK FROM HAVING JUST THE NBA?

The first thing to note is that the MOU mandates that the Arena be capable of hosting an NHL team. This means my investment group — as we are responsible for all costs in excess of the fixed public investment — will be funding several million dollars in improvements which will only benefit an NHL tenant, giving us **huge financial incentive to attract an NHL team.** But in the unlikely event that we are unable to bring an NHL team, **the risks to the City and County would go DOWN, not up.** The amount of public sector funding would decline to $125 million, with the $75 million difference becoming the sole responsibility of the investor group until the NHL team is located and brought to Seattle.

If the new Arena should open prior to bringing an NHL tenant, the NHL regular season dates would indeed be lost, but many of those dates would be replaced with concerts and other events, and the sole Arena operators would keep 100% of all revenue streams (naming rights, suite sales, sponsorship, concerts, etc.) instead of splitting them with a second tenant.

WHAT IS THE IMPACT ON SEATTLE PROPERTY TAXES?

Because of the method used by the State of Washington for levying property taxes, and because the City and County (two non-taxpaying entities) will ultimately own the Arena, other King County landowners will absorb the taxes associated with the increased valuation. These property tax payments flow directly to the City and County, and total approximately one million dollars per year. That amount is spread among the owners of the other $300 billion in real property in King County.

This means the property tax increase due to the public ownership of the Arena is approximately 33 cents per $100,000 of assessed value. Thus a family living in a $300,000 home would pay roughly one dollar per year extra, so that the City and County can retain ownership of the Arena. The one dollar amount is the worst case scenario, and assumes that land in SoDo and Pioneer Square does not increase in value whatsoever due to the development of the Arena. In reality, land prices in the vicinity have already risen due to the possibility of an Arena and would likely increase much more if the Arena and surrounding development are completed. If land within a 10-minute walk of the Arena increases in value by even 10%, then the property tax impact to other King County residents will be more like 10 or 20 cents per $100,000 of value.

WHY NOT REBUILD KEYARENA?

There are three key reasons we do not believe a rebuild/remodel of KeyArena is a viable solution:

1. **The cost would be two high:** Given the limitations of the current structure, the lack of parking in the area, the excavation that would be required to solve these issues, and the incremental time and cost that would be required to attempt a construction project of this magnitude at this publicly owned location, we believe the cost to rebuild KeyArena at the existing site would be prohibitively expensive.
2. **The traffic and load-in problems would be too severe:** Given the limited ingress and egress and the lack of parking stock, we believe the site would be permanently challenged from a traffic/logistics standpoint. Even if a significant amount of excavation was done to create improved load-in and load-out for concerts and underground parking, patrons would still be faced with the challenge of trying to exit onto 1st Ave or Mercer, which could result in delays of as long as an hour to get out of a new, large underground garage.
3. **We need KeyArena as an interim solution:** Even if the above two challenges could be solved, it would not change the fact that we need KeyArena as an interim solution to play in while the new Arena is constructed. Our current transaction is structured so that the City is not required to put up any funds until we have secured an NBA team (and the team has signed a binding non-relocation agreement). However, the NBA team would obviously need a place to play and if we tear down KeyArena, there would not be an acceptable alternative for the NBA team to play in until the KeyArena rebuild is complete. The only way around this "chicken and egg" scenario is thus to play in KeyArena while we build a new Arena in another location.

   While some have proposed Hec Ed Pavilion could serve as a similar "interim solution," given the limited seating capacity (10,000) and possible scheduling conflicts between the UW and NBA teams, I can assure you that this is not a solution that would be acceptable to the NBA.

WHY IS THE CITY BUYING LAND FOR $100 MILLION THAT WE PAID $40 MILLION FOR?

First, it is important to understand that my investors and I are paying in excess of $50 million for the property and will be spending an additional $15 million in soft costs in the entitlement process prior to selling the property to the City – which will likely push our total cost well in excess of $70 million. Second, we have agreed to sell the property to the City at appraised value, not any contractually fixed amount. Additionally, the $100 million valuation is the MAXIMUM possible amount – not the agreed upon price as some have speculated.

But most critical to understand is that the stipulated land price has no bearing on the underlying economics of the City/County's investment. The City and County's total investment into the project is contractually capped at $200 million. For this price we are selling the City/County the land and the building. If the land is appraised at $100 million, we will sell the building (when it is completed) for $100 million. If the land appraises at $40 million, the City's price for the building is fixed at $160 million. If the land appraises at $90 million, we will sell the building for $110 million and so on. Thus the only thing the land appraisal impacts is the timing of the City's contribution, as the land is being purchased up front, and the balance of funding occurs only upon satisfactory completion of the project.

In fact, from a pure cost point of view, we will be selling the City assets that cost us much more than $200 million. **As such, we are not profiting in any way from the land sale.** The funds received from the City in exchange for the assembled land may only be used to fund construction of the Arena and count dollar-for-dollar against the City and County's maximum contribution of $200 million toward its construction.

– Chris Hansen