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Revenue and Wealth Maximization in the National Football League: The Impact of Stadia

Matthew Brown, Mark Nagel, Chad McEvoy, Daniel Rascher

Abstract

The opening of the Palace of Auburn Hills, the SkyDome, and Oriole Park at Camden Yards led to the beginning of a construction boom in professional sport. In the National Football League (NFL) alone, 26 stadiums have been built or renovated in the past 10 years. Due to the additional revenue generated by these facilities and the NFL's current revenue sharing system, professional football franchises are building new stadia for economic reasons rather than to replace unusable or unsafe facilities. The purpose of this study was to determine if a significant difference in net revenue change existed for NFL teams that moved into a new facility and to determine if there was a significant change in valuation for these franchises. The findings indicated that new stadia significantly increase revenue and franchise value in the NFL; therefore, the primary goal of every firm, wealth maximization, is met for teams after opening a new facility.

Introduction

Fans of American professional sports have recently seen dramatic changes in the facilities where teams play. The opening of the Palace of Auburn Hills in

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"The NFL's stadium construction and remodeling boom can be attributed to its current revenue sharing system, rather than immediate needs to replace unusable or unsafe facilities."

1988 for the Detroit Pistons, the SkyDome in 1989 for the Toronto Blue Jays, and Oriole Park at Camden Yards in 1992 for the Baltimore Orioles sparked the beginning of a construction boom in professional sport not seen since the late 1960s (Greenberg & Gray, 1996). In the 1990s, teams in the major American professional sport leagues began demanding new facilities or the remodeling of existing ones, despite the structural viability of their current homes. The Miami Heat of the National Basketball Association (NBA) typified this need for a new facility when they moved from an 11-year-old Miami Arena to the new American Airlines Arena in 1999.

In the National Football League (NFL), 26 stadiums have been built or renovated during the past 10 years. Nine NFL teams have plans to move into a new stadium or actively pursue a new facility within the next three years, including teams like the Indianapolis Colts, who recently renovated their current venue and are now pursuing a new venue (Duberstein, 2002). It is likely that within five years, few, if any, NFL facilities will exist that were built or significantly remodeled before 1992. This construction and remodeling trend is evident in continued discussions about expanding Texas Stadium or building a new facility for the Dallas Cowboys, despite their consistent rank in the top 15% of NFL team revenues and their multiple Super Bowl victories in the 1990s (Robinson, 1997).

NFL Financial Structure

The NFL's stadium construction and remodeling boom can be attributed to its current revenue sharing system rather than immediate needs to replace unusable or unsafe facilities. Although the NFL shares a greater percentage of its total revenue among its teams than the other major North American professional sports leagues (Badenhausen & Nikolov, 1997;

Gotthelf, 1998), the current financial structure of the league has encouraged teams to expand the revenues generated from their stadium since these income sources are not shared. The NFL equally distributes revenues from national broadcasting contracts (Greenberg & Gray, 1996; Robinson, 1997) and maintains a 60-40 split of home/visitor ticket revenue, which was recently altered to more fairly distribute income to all teams. The NFL recently allowed teams to become exclusive distributors of their licensed merchandise; however, only the Dallas Cowboys have assumed control of this unshared revenue source (Bernstein, 2001).

“CBA rules state that signing bonuses are allocated equally over the years (a maximum of seven) of the player’s contract. Therefore, teams without the increased revenues derived from a new facility may not have the cash necessary to attract or retain the league’s top performing players while using CBA rules to manipulate the salary cap to the team’s advantage.”

The NFL currently shares 70% of its total proceeds through its revenue sharing plan (Alesia, 2002). From this shared revenue pool, each franchise received approximately \$75 million during the 2002 season (Green Bay Packers, 2002). However, since the NFL is a multi-billion dollar entity, the remaining 30% of unshared revenues can result in team revenue discrepancies which, according to the NFL, exceed \$50 million (Kaplan, 2003a). The unshared 30% of league revenues are primarily generated from stadium operations (e.g., naming rights deals, parking, concessions, and luxury suites), hence the perceived need to build or remodel facilities to maximize these revenue sources.

The salary cap created through the NFL’s present Collective Bargaining Agreement (CBA) also encourages franchises to seek increased unshared revenues from their facilities. Retaining current players or signing free agents with up-front signing bonuses enables teams to circumvent (in the short term) the present year’s salary cap by allocating the bonus to future years. CBA rules governing signing bonuses state that the cap does not include all salary paid to players in a given season (National Football League, 1998). For example, in 2000, a player signed a three-year contract for \$2 million per year with a \$6 million signing bonus. Although the player received \$8 million in the first year of the new contract (the \$6 million signing bonus plus the \$2 million in salary), only \$4 million counted against the cap that year. CBA rules affirm that signing bonuses are allocated equally over the years (a maximum of seven) of the player’s contract.

Therefore, teams without the increased revenues derived from a new facility may not have the cash necessary to attract or retain the league’s top performing players while using CBA rules to apply the salary cap to the team’s advantage.

NFL Stadium Construction

One goal of every firm is long-term wealth maximization, which is reflected in a firm’s overall financial worth or its stock price (Groppelli & Nikbakht, 2000; Shim & Siegel, 2000). The primary determinants of a firm’s value are cash flow, growth rate of cash flow, and risk or uncertainty of cash flow. Although an increase in the amount of cash flow tends to improve the value of an asset, the value decreases if cash flow becomes uncertain. These relationships are essential to the valuation of any asset, and the responsibility of a financial manager is to increase cash flow while controlling for risk (Groppelli & Nikbakht, 2000). Accordingly, the primary concern of firms when maximizing value is to acquire secure revenue sources (Shim & Siegel, 2000). Owners of professional sport franchises have differing opinions regarding expenditure or retention of revenues and the method by which to maximize yearly or long-term profits, such as streamlining player and operational costs versus acquiring and marketing a better on-field product (DeSchriver & Jensen, 2002). Nevertheless, a new stadium, depending on ownership and lease agreements, provides additional sources of revenue and cash flow that can be employed in any fashion an owner chooses.

In an effort to maximize wealth through new or refurbished facilities, NFL owners have often sought public assistance through taxes, infrastructure improvements, land, or other political considerations (Badenhausen & Kump, 2001). NFL teams have argued that financial subsidies are repaid to the citizenry by the positive financial and psychic effects that the stadium and the team’s presence have upon the local community (Noll & Zimbalist, 1997; Rappaport & Wilkerson, 2001). Despite economic studies (Baade, 1994; Rosentraub, 1997; Badenhausen & Kump, 2001) disputing the benefits to the citizenry in comparison to the incredible investment requirements (often exceeding \$200 million) and growing public backlash to corporate welfare, numerous NFL teams have recently been successful in obtaining large public subsidies for new stadium construction; these teams include the Denver Broncos, Detroit Lions, Tampa Bay Buccaneers, Seattle Seahawks, and Pittsburgh Steelers.

Additionally, the NFL has created new sources of funding to augment financial shortfalls for teams wanting to construct a new facility. Franchises that are unable to individually finance construction or per-

suade the local citizens or government to provide funding may utilize low interest loans from the NFL G3 Fund ("It's All About," 2002). This fund became necessary as the cost of NFL stadia rose and as the proportion of construction costs paid by the team increased. According to Duberstein (2002), the average cost of an NFL stadium built in the 1990s was \$232 million; in the early 2000s, the cost rose to \$391 million. Further, teams have paid an average of 30% of the construction costs for a new facility since 1995 ("It's All About," 2002).

G3 Fund guidelines and league rules stipulate that a franchise may borrow up to \$150 million from the fund. This capital is then paid back over a 15-year period from the visitor's share of club-seat revenue (Kaplan, 2003b). The capital available from the G3 Fund signifies the importance the NFL has placed upon improving cash flow and acquiring new revenues from facilities. The importance the league places on new sources of cash flow was reinforced in 2002 when the NFL increased the size of the available fund by \$350 million, a 75% increase over the fund's initial amount ("It's All About," 2002).

"In an effort to maximize wealth through new or refurbished facilities, NFL owners have often sought public assistance through taxes, infrastructure improvements, land, or other political considerations ..."

Purpose

The purpose of this investigation was to determine if a significant difference in net revenue change existed for NFL teams that moved into a new facility from 1995-1999 and to determine if there was a significant change in valuation for these NFL franchises.

Methodology

Sources of Data

Until recently, the ability to analyze the impact of a new stadium on NFL revenues and expenses was educated guesswork (Badenhausen & Nikolov, 1997; Leonard, 1998). Teams were unwilling to release confidential financial records, even after claiming a significant operating loss during labor negotiations. Fans, members of the media, and even NFL team officials have speculated and discussed the financial adjustments that will result when teams occupy a new facility. However, the ability to accurately assess these changes was not possible until recent litigation involving the Oakland Raiders led to the release of the 1995-1999 financial information for each NFL franchise

(King, 2001). Although NFL owners and other consultants disputed the accuracy of the expense and profit portions of the report, the accuracy of revenues for each team has not been challenged (Zimbalist, 2001).

Since the early 1990s, *Financial World* and *Forbes* have calculated and reported the value of franchises in the four major North American sport leagues. These reports have often led to complaints from team officials contending that the value computed for a franchise is not accurate ("Forbes: Red Wings," 2002; "Redskins Score Touchdown," 2002). However, it has been suggested that franchise executives might purposefully dispute the numbers as being an overstatement of a team's financial position and value in order to keep fans from demanding that a team spend more on players ("Forbes: Red Wings," 2002). In addition, maintaining financial secrecy helps prevent teams from legitimately justifying increased ticket prices, limits on salaries and benefits to players in collective bargaining, and the need for public financing of new facilities. In fact, Zimbalist has implied that the *Forbes* estimates might be conservative since *Forbes* bases value on current sources of revenue and does not consider future sources such as additional revenue from new luxury suites (Alesia, 2002).

Sample

Seven NFL franchises opened new stadia during the 1995-1999 timeframe: Washington Redskins, Carolina Panthers, Tampa Bay Buccaneers, Baltimore Ravens, St. Louis Rams, Tennessee Titans, and Cleveland Browns. The financial information released during the Oakland Raiders lawsuit (King, 2001) was examined to assess the changes in local team revenue after moving into a new facility. Valuation information for each franchise was gathered from *Financial World* and *Forbes* magazines¹.

Procedures

To control for inflation, the financial data for the seven teams and the valuation of the teams were first converted to 2001 dollars using the Consumer Price Index.

The financial statements released during the Oakland Raiders' lawsuit included local and shared revenue and expense statements for each NFL team ("NFL Team Financial," 2001); see Figure 1 for an example. In the court documents, local team revenue was divided into ticket sales, local television and radio, loge boxes, concessions, advertising/parking/other, and miscellaneous. Information on franchise values was gathered from *Financial World* (1995-1997) and *Forbes* (1998-1999).

Data Analysis and Results

The Wilcoxon Matched-Pairs Signed-Ranks Test is a nonparametric test used to measure the effect of a treatment on pre- and post-treatment observations, where the same subjects are measured twice (Zikmund, 2000). Using the Wilcoxon Matched-Pairs Signed-Ranks Test, a pretest-posttest design was utilized to measure the effect of stadium opening on local revenue and franchise value.

The results indicated that there was a significant difference between pre-stadium opening revenue and post-stadium opening revenue at the .05 level in the areas of ticket sales, loge box revenue, advertising/parking/other, and total local revenue. The average increase in total local revenue was 85%, with a 54% increase in ticket sales, a 623% increase in loge box revenue, and a 202% increase in advertising/parking/other (see Table 1). Significant differences at the .05 level were not found in the areas of local television and radio revenue, concessions, and miscellaneous revenue.

Figure 1
Washington Redskins Team Financial Performance, 1999

<i>Revenues (in \$1,000s)</i>	
Ticket Sales	44,463
Local TV and Radio	8,549
Loge Boxes	14,642
Concessions	3,547
Advertising/Parking/Other	9,914
Miscellaneous	<u>2,812</u>
Total Local Revenue	83,927
Common Revenues ^a	<u>64,784</u>
Total Revenues	148,711
<i>Expenses (in \$1,000s)</i>	
Player Costs	73,207
Team Expenses	10,068
Stadium Rental	-
Stadium Operations	20,367
G&A	7,553
PR	1,518
Total Operating Expenses	112,713
Common Expenses ^b	<u>3,640</u>
<i>Operating Profit (in \$1,000s)</i>	<u>32,358</u>
^a Includes National Television and Radio, International Television, NFL Properties, Enterprises, and Films.	
^b Includes League Office and Management Council expenses.	

A significant difference at the .05 level was found in firm value. The average increase in firm value was 35% (see Table 2).

Discussion

These data indicate that new stadia significantly increase gross operating revenues in the NFL, with the largest percentage increase in loge box revenue (623%). The importance of loge boxes as a revenue source for NFL team owners can be seen through an examination of luxury suites in stadia/arenas based upon professional sport league. In 2000, there were 3,379 luxury suites in the NFL. This total was 1,406 more than the National Hockey League, the league with the second greatest number of suites (Miller, 2001). At the team level, FedEx Field, home of the Washington Redskins, has 280 luxury suites. Prior to moving to FedEx Field in 1997, the Redskins played at RFK Memorial Stadium, a facility with no luxury suites (Duberstein, 2002).

Table 1
Increase in Total Local Revenue of Teams Moving Into New Stadia (1995 - 1999)

Team	% increase
Baltimore Ravens	62
Carolina Panthers	77
Tampa Bay Buccaneers	83
Tennessee Titans	134
Washington Redskins	109
Cleveland Browns ^a	NA
St. Louis Rams ^b	NA
^a Began play in new Cleveland Stadium in 1999	
^b Moved into new stadium in middle of season	

Table 2
Increase in Value for Teams Moving Into New Stadia (1995 - 1999)

Team	% Increase
Baltimore Ravens	38
Carolina Panthers	22
Tampa Bay Buccaneers	83
Tennessee Titans	12
Washington Redskins	6
Cleveland Browns ^a	NA
St. Louis Rams ^b	NA
^a Expansion franchise not ranked by <i>Financial World</i> or <i>Forbes</i> during first year of existence	
^b Moved into new stadium in middle of season	

Club seating is a source of revenue that is not completely shared among NFL team owners. Again, stadia in the NFL have a far greater number of club seats than the remaining three major North American professional sport leagues. According to Miller (2001), NFL stadia held 47% of all club seats for the four major professional sport leagues (228,408 club seats). Furthermore, if one examines NFL stadia by decade built, the importance of this form of revenue to team owners is evident. For the 16 stadia built prior to 1990, the average number of club seats per stadium is 3,961. The average is 8,740 for those 16 stadia built in the 1990s and 2000s (Duberstein, 2002).

This study confirms the theory that the revenue-generating power of an NFL franchise is primarily predicated upon stadium economics rather than factors traditionally associated with market size (population, media outlets, etc.). Prior to moving into the new stadia, the range of local revenue for the seven teams was \$27.2 million to \$38.1 million. After the move to the new stadia, the range was \$42.3 million to \$72.0 million (Table 3). Each of these teams generated more local revenue than the New York Jets (\$40.4 million), a franchise located in the largest market in the United States. It is also noteworthy that of the seven teams opening new stadia during the timeframe of this analysis, three teams, St. Louis, Baltimore, and Tennessee, relocated to new, smaller (by population) cities because of the municipalities' willingness to build new facilities for the franchises.

Further, the data indicate that new stadia significantly increased franchise value. As Table 4 depicts, the value of each franchise increased by an average of 35%. The 2001 value of each of these franchises was greater than the value of the New York Jets and New York

Giants, the two teams in the largest media market in the US (Badenhausen & Kump, 2001).

Table 4
Team Value^a Pre and Post Move to New Stadium (In Millions)

Team	Pre Move	Post Move
Baltimore Ravens	\$259	\$357
Carolina Panthers	NR	\$150
Tampa Bay Buccaneers	\$206	\$376
Tennessee Titans	\$349	\$392
Washington Redskins	\$208	\$221
Cleveland Browns ^b	NR	\$563
St. Louis Rams ^c	\$178	\$218

^aAdjusted to 2001 dollars
^bExpansion franchise
^cMoved into new stadium in middle of season

Conclusions

As Groppelli and Nikbakht (2000) and Shim and Siegel (2000) noted, the primary goal of a firm is long-term wealth maximization, which is reflected in a firm's overall financial worth. NFL owners moving their teams into new stadia will achieve long-term wealth maximization.

Value for an NFL franchise in a new facility is increased as cash flow improves and the risk and uncertainty of future cash flow diminish. Importantly, for the teams examined in this study, unshared local revenue increased an average of 85%. This increase in franchise revenue coincided with an average increase in franchise value of 35%. As a new stadium significantly improves a franchise's revenue and value, the supposition of Shim and Siegel (2000) is upheld. The primary concern of firms, which in this study were NFL franchises, when maximizing value is to acquire secure revenue sources or develop additional sources of unshared revenue through a new stadium.

As the results of this study indicated, the primary goal of the firm is met for NFL franchises when they move into a new stadium; therefore, a team owner's desire for a new venue is justified. In order to keep meeting the goal of the firm, the financial managers of NFL franchises will have to continue looking for ways to increase cash flow while controlling for risk. Mahony and Howard (2001) specifically addressed problems financial managers will face in regard to risk, and their main concern was whether the debt will be repaid prior to the end of the useful life of the facility.

A new stadium will significantly increase the unshared revenue of a NFL franchise; however, a finan-

Table 3
Local Revenue^a Pre and Post Move to New Stadium (In Millions)

Team	Pre Move	Post Move
Baltimore Ravens	\$34.9	\$56.5
Carolina Panthers	\$38.1	\$67.2
Tampa Bay Buccaneers	\$35.6	\$65.3
Tennessee Titans	\$27.2	\$63.6
Washington Redskins	\$32.7	\$68.4
Cleveland Browns ^b		\$72.0
St. Louis Rams ^c		\$42.3

^aAdjusted to 2001 dollars
^bBegan play in new Cleveland Stadium in 1999
^cMoved into new stadium in middle of season

cial manager must be aware of the costs of building the new stadium and the risk associated with potential revenue streams. With teams presently paying a greater percentage of stadium costs and the overall costs of building new stadia increasing at a rate greater than inflation, debt load could become problematic for franchises, especially if the payment period is extended beyond the financial life of the facility. As Mahony and Howard (2001) noted, since the 1990s, major league teams have spent \$120 million, on average, on new facility construction. For many of these franchises, this has meant an annual debt obligation ranging from \$15 million to \$30 million per year. As a result, some or all of the added revenue generated by a new facility may be tied to the team's debt service.

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The NFL tried to address this issue when it created the G3 Fund. Instead of each team attempting to secure a loan based upon its own revenue streams, the league borrowed money using its \$18.3 billion television contract as collateral; therefore, the league can lend teams money from the fund at a lower rate than the teams can acquire individually ("It's All About," 2002), resulting in smaller debt service for NFL franchises when compared to franchises in other professional sport leagues.

Despite the creation of the G3 Fund, teams in the NFL are still increasing their financial dependence on the corporate community (Mahony & Howard, 2001). For example, the New England Patriots opened Gillette Stadium, a \$397 million privately financed² facility in 2002 (Duberstein, 2002). Assuming that the Patriots borrowed \$125 million from the G3 Fund, an additional \$272 million was needed to construct the stadium. The Patriots plan to use luxury suite rentals, club seating, and stadium naming rights to secure the remaining portion of stadium debt (Munsey & Suppes, n.d.). As Mahony and Howard (2001) indicated, this can become challenging when revenue from luxury seating is the primary source of income for a team's debt obligation. The Patriots plan to generate \$80 million over the first 10 years of the stadium's use from luxury seating (Munsey & Suppes, n.d.). However, once the 10-year leases expire on the luxury suites at Gillette Stadium, the Patriots must renew current suite holders

or find new corporations to replace those choosing not to renew in order to meet long-term debt service obligations, and renewal or sales to new corporations could be difficult in times of economic uncertainty or duress.

Reliance on naming rights to secure stadium funding can also be problematic. Again, the New England Patriots provide an example of the risk associated with naming rights revenue. CMGI purchased the naming rights for the Patriots' new stadium from 2000-2020 for \$120 million; however, CMGI filed for bankruptcy in February 2002 (Duberstein, 2002). Subsequently, Gillette purchased the naming rights from 2002-2016 for \$90 million; when annualized, the total averages to \$6 million per year, the same amount as the CMGI rights deal ("Naming-rights Deals," 2002). The Patriots will have to resell the stadium name again in 2016 to completely recover the amount they were to receive from CMGI. The Patriots are not unique when it comes to bankruptcy and naming rights deals. Baltimore, St. Louis, and Tennessee have just renamed their NFL stadia after original naming rights holders filed for bankruptcy. Additionally, financially troubled 3Com recently let their naming rights contract expire with San Francisco.

"This study confirms the theory that the revenue-generating power of an NFL franchise is primarily predicated upon stadium economics rather than factors traditionally associated with market size (population, media outlets, etc.)."

Mahony and Howard (2001) also reasoned that the increase in debt load will result in an increase in cost to fans, and the results of this study support this assertion. For the seven NFL franchises opening new stadia during the timeframe of this study, the average inflation adjusted increase in ticket revenue was 54% while the average increase in seating capacity was 14%.

Recommendations

The importance of new stadia for increasing local, unshared revenue and firm value is evident. However, there is a need for continued examination of the available NFL financial data. It is unknown if the increase in local revenue and franchise value will be maintained over time. Once initial interest in a new facility wanes (Howard & Crompton, 2003), fans may require other qualities from their entertainment experience to continue to attend games in person (a winning team, promotions, etc.). It is important to note that the NFL has a capacity constraint problem, with over 95% of tickets being sold across the league. Combined with the fact

that the NFL regular season schedule consists of only eight home games, the novelty effect may last longer in the NFL than in other leagues.

In addition, despite their comprehensive revenue sharing system currently in place, the NFL may again need to revisit their revenue sharing plan after every (or nearly every) team builds a new facility. Once all teams are in a new facility, large market teams will, more than likely, be able to maintain football income superiority to those in small markets because market size rather than venue amenities will begin to dictate the amount of unshared revenues generated. Of course, the willingness of municipalities to fund new facilities may wane now that financial data exists indicating that a new facility dramatically changes an individual NFL owner's football income.

"A new stadium, as previously indicated, will greatly increase the unshared revenue of a NFL franchise; however, a financial manager must be aware of the costs of building the new stadium and the risk associated with potential revenue streams."

A need also exists to examine the stadium effect in other professional and collegiate sport settings. As Greenberg and Gray (1996) stated, a facility boom has been occurring in Major League Baseball, the National Basketball Association, and the National Hockey League. As each league has a different economic system dictating the financial structure of the league and its teams, issues related to the financing of stadia and arenas in these leagues must be examined along with the effect of new stadia and arenas on wealth maximization and franchise value within the leagues.

The model used by professional sport franchises to fund facilities is now being incorporated by colleges and universities as well. Although priority seating has been used in collegiate sport for decades and facilities have been named for prominent alumni who have donated to the university, the use of corporate naming rights, club seating, and luxury seating is increasing. The Ohio State University athletic department recently completed a \$200 million renovation of Ohio Stadium and built a \$120 million basketball and hockey arena. Debt service, paid by the athletic department, on these two facilities and other smaller projects was \$20 million in 2002 (the average NCAA Division I-A budget was \$23.3 million in 2001). The money to pay off the debt is generated from luxury suite rentals, surcharges on tickets, seat license fees, and club seats in both facilities (Suggs, 2002). An example of financing a portion of these facilities can be seen through an examination

of Ohio State's Value City Arena. For the arena, naming rights were purchased for \$12.5 million and \$26.9 million was raised through the sale of seat licenses (Wolf, 2002).

Finally, sport organizations must seriously compare the benefits of a new stadium or arena to its costs prior to entering into an agreement to build a new venue, especially if the sport organization has to leverage its future revenue to acquire the capital to build. Today, few organizations (e.g., Cincinnati Bengals) have obtained governmental support for the entire cost of constructing a new facility. As previously noted, a team or its owner has had to contribute on average \$120 million when constructing a NFL facility. Often, the team includes naming rights as part of its financing portion, even though at the time it may be unclear if the team or the municipality controls this revenue source.

Three major factors need to be considered prior to entering a commitment to build. First, the organization must assess the level of financial support the community is willing to provide. It is always in the interest of a franchise to secure as much public financing as possible, even if economic factors indicate a team could successfully finance the project privately (e.g., the San Francisco Giants and PacBell Park). An owner considering alternatives to increase revenue can invest \$30 million on player payroll or he/she can invest \$120 million into a \$400 million facility, from which the organization will receive nearly 100% of revenues. The owner must realize that \$30 million in payroll gets \$30 million in payroll investment, whereas a \$120 million facility investment gets \$400 million in overall facility investment. Investment in payroll does not guarantee a greater return on investment; however, data show that a substantial capital investment in new venue construction produces a substantial return on investment in both the short term (incremental revenue) and, more importantly, in franchise value appreciation over time.

Second, the organization must estimate the increase in cash flow that will occur once the facility is built. Can enough revenue be generated by the facility in its current market to make an organizational investment in a new facility worthwhile? After covering debt service obligations, is there enough money left to effectively attract quality players? If not, is the municipality/region willing to build a new facility for the organization so that it can remain competitive when attempting to retain current players or attract free agents?

Third, the organization must determine the risk associated with the capital project. The organization must look at long-term economic forecasts for the market, the market's ability to support a franchise, and

the degree to which they are leveraging their franchise to build the venue. For example, in the National Hockey League, the Ottawa Senators filed for bankruptcy in 2003 because debt totaling over \$240 million

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depleted the resources needed to issue paychecks (Beaudan, 2003). Included in the debt was \$140 million outstanding on the team's facility, the Corel Centre (Dupont, 2003). The Senators were also hurt financially because they play in a market of just over one million people and they pay players in U.S. dollars (as all other Canadian teams do), while generating revenue in Canadian dollars. With the Canadian dollar at a record low in comparison with the U.S. dollar, Canadian franchises struggle to keep and pay top players (Beaudan, 2003; Dupont, 2003).

If the risk of building a new stadium or arena is determined to be too great and little local, public support is available for either entirely funding the venue or increasing the public's share of venue costs, the organization should avoid mortgaging its future. A new market could then be sought; as an alternative, the organization could examine a less costly solution to increasing venue revenue, renovation.

References

- Alesia, M. (2002, October 20). Expert: Colts' claim is suspect. *The Indianapolis Star*. Retrieved October 21, 2002, from www.indystar.com
- Baade, R. A. (1994). *Stadiums, professional sports, and economic development: Assessing the reality* (Policy Study No. 62). Washington, DC: Heartland Institute.
- Badenhausen, K., & Kump, L. (2001, September 17). Cashing in. *Forbes*, 7. Retrieved December 11, 2002, from <http://www.forbes.com/forbes/2001/0917/082.html>
- Badenhausen, K., & Nikolov, C. (1997). More than a game: An in-depth look at the raging bull market in sports franchises. *Financial World*, 166(6), 40-50.
- Beaudan, E. (2003, January 13). Canadian hockey up against the financial boards. *Christian Science Monitor*, p. 5.
- Bernstein, A. (2001, September 3-9). Cowboys inch toward distribution. *Sports Business Journal*, 4(20), 50.
- DeSchraver, T., & Jensen, P.E. (2002, May) *Wins v. profit: Ownership incentives in Major League Baseball*. Paper presented at the 17th Annual North American Society for Sport Management NASSM Conference, Canmore, Alberta, Canada.
- Duberstein, M. J. (2002, September). *NFL 2002: Franchise history and stadium values*. Retrieved September 2, 2002, from <http://www.nflpa.org/media/main.asp?subPage=Research+Documents>
- Dupont, K.P. (2003, January 14). For sports franchises, the loss column grows. *Boston Globe*, p. A1.
- Forbes: Red Wings are the highest-valued NHL franchise. (2002, December 10). *Sports Business Daily*, 9(61). Retrieved July 13, 2003, from <http://sportsbusinessdaily.com/index.cfm?fuseaction=article.main&articleId=71673&keyword=>
- Gotthelf, J. (1998, August 10-16). NFL to share more revenue. *Sports Business Journal*, 1(16), pp. 1, 47.
- Green Bay Packers. (2002). *President's annual report 2001 - 2002*. Green Bay, WI: Author.
- Greenberg, M. J., & Gray, J. T. (1996). *The stadium game*. Milwaukee, WI: National Sports Law Institute of Marquette Law School.
- Groppelli, A. A., & Nikbakht, E. (2000). *Finance* (4th ed.). Hauppauge, New York: Barron's.
- Howard, D.R., & Crompton, J.L. (2003). An empirical review of the stadium novelty effect. *Sport Marketing Quarterly*, 12(2), 111-116.
- It's all about good credit: NFL's rating nets \$350m in bonds. (2002, May 24). *Sports Business Daily*, 8(172). Retrieved July 10, 2003, from <http://sportsbusinessdaily.com/index.cfm?fuseaction=article.main&articleId=66290&keyword=>
- Kaplan, D. (2003a, September 1). Stadium revenue disparity puts teams at odds. *Sports Business Journal*. Retrieved October 4, 2003, from http://www.sportsbusinessjournal.com/index.cfm?fuseaction=search.show_article&articleid=32911&keyword=stadium,%20revenue,%20disparity
- Kaplan, D. (2003b, December 8). Pats get extra 10 years to repay G-3 grant. *Sports Business Journal*. Retrieved February 2, 2004, from http://www.sportsbusinessjournal.com/index.cfm?fuseaction=search.show_article&articleid=35606&keyword=pats,%20extra,%2010,%20years
- King, B. (2001, September 3-9). Paying the bills with customer service. *Sports Business Journal*, 4(20), pp. 27, 34.
- Leonard, W. M. (1998). A comparative study of expenditure, revenue, and franchise value functions in professional sports. *Journal of Sport Behavior*, 21(3), 265-285.
- Mahony, D. F., & Howard, D. R. (2001, October). Sport business in the next decade: A general overview of expected trends. *Journal of Sport Management*, 15(4), 275-296.
- Miller, W. S. (2001). *Inside the ownership of professional sports teams*. Chicago, IL: Team Marketing Report, Inc.
- Munsey, & Suppes. (n.d.). *Gillette Stadium*. Retrieved December 20, 2002, from <http://www.sfo.com/~csuppes/NFL/misc/index.htm>
- Naming-rights deals at big league facilities. (2002, December 30). *Sports Business Journal*, 5(36), 10.
- National Football League. (1998, February 25). *Collective bargaining agreement between the NFL management council and the NFL players association*. Retrieved September 2, 2002, from <http://www.nflpa.org/media/main.asp?subPage=CBA+Complete>
- NFL team financial performance. (2001, September 3-9). *Sports Business Journal*, 4(20), 36-43.
- Noll, R. G., & Zimbalist, A. (1997). *Sports, jobs and taxes: The economic impact of sports teams and stadiums*. Washington: Brookings Institute.
- Rappaport, J., & Wilkerson, C. (2001, First Quarter). What are the benefits of hosting a major league sports franchise? *Economic Review*, 55-86.
- Redskins score touchdown with latest Forbes valuation. (2002, August 20). *Sports Business Daily*. Retrieved July 12, 2003, from <http://www.sportsbusinessdaily.com/article.cms?articleID=68707>
- Robinson, E. (1997, July 21). It's where you play that counts. *Fortune*, 136, 54-57.
- Rosentraub, M. (1997). *Major league losers: The real costs of sports and who's paying for it*. New York: Basic Books.
- Shim, J. K., & Siegel, J. G. (2000). *Financial management* (4th ed.). Hauppauge, New York: Barron's.

- Suggs, W. (2002, November 29). How gears turn a sports factory. *The Chronicle of Higher Education*, XLIX(14), A32-A37.
- Wolf, B. D. (2002, March 6). Crew to find out what's in a name. *The Columbus Dispatch*, p. 1B.
- Zikmund, W. G. (2000). *Business Research Methods* (6th ed.). New York: The Dryden Press.
- Zimbalist, A. (2001, August 20-26). Teams riding high, despite NFL's protest. *Sports Business Journal*, 4(18), 46.

¹ Financial World provided estimates until its demise in 1998. Forbes continued the analysis in 1999.

² The Patriots did receive between \$75 and \$100 million from the State of Massachusetts for infrastructure improvements around the stadium.

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