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2008

Online at https://mpra.ub.uni-muenchen.de/25809/
MPRA Paper No. 25809, posted 12 Oct 2010 18:25 UTC

Volume 2, Chapter 5

Franchise relocations, expansions, and mergers in professional sports leagues

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I. Introduction

Important questions that are constantly faced by sports league executives include: how many teams should be in the league, where should expansion teams be located, what expansion fee should be charged, what are the economic effects if a particular team moves from its current city to another city, what is the competitive nature of rival leagues, and what is to be done about them? While there are many similar aspects of the economics of expansion and relocation, such as the financial return to a particular location, there are also many differences in practice. For instance, relocations are often very controversial and pit cities, teams, and leagues against each other. Expansions, on the other hand, while making the loser of the bid or beauty contest unhappy, do not create the same controversy because there is no incumbent city and its fans losing a team.

Rival leagues and their dissolution, often by partial absorption or merger with the dominant league or via financial failure, are a disruption to the equilibrium in North American professional sports. This equilibrium is characterized by one dominant league at the highest level. All league rivalries in major professional sports in North America have always reverted back to a single league. Whether or not this single league is a "monopoly" in the antitrust sense is left for discussion in other chapters.

This chapter discusses the economics of expansion, relocation, and mergers in professional sports by (1) examining the underlying economic forces, (2) surveying recent real-world expansions, relocations, and mergers in the National Football League (NFL), Major League Baseball (MLB), the National Basketball Association (NBA), and the National Hockey League (NHL), and (3) examining optimal locations for expansion or relocation using the NBA as an example.

II. Expansion

Unlike other businesses and industries, sports teams desire competition. Although sports franchises are often accounted for as separate entities, in many ways they are interrelated and interdependent because the league product (games) requires the inter-reliance of teams. Without access to a regular season format of structured competition via scheduled games, the team itself would not have a forum for its product. So while teams compete for inputs in the form of coaches and players, they are interdependent in terms of their output, which are games played within the league. While the very nature of the teams is to compete with one another in sport, in the context of a league, they have no interest in running one another out of business.

The sports franchises themselves are in fact governed by the leagues, which control such matters as player selection (through a draft), player compensation (through a salary cap, in some leagues), revenue sharing, and expansion. Leagues have had less success in controlling franchise relocation, although recent legal cases have given leagues a bit more power in this regard.

The competitive balance generated by league control allows it to operate effectively, and to produce a consistent output in the form of game attendance and television ratings. Unlike organizations with joint governance mechanisms in which an independent governing board attempts to align the interests of the executives and shareholders, in the NFL many of the board members and executives with controlling interest are majority owners, making it unlikely that decisions will not be self-motivated. However, individual self-motivation is not always in the interests of the league as a whole, as in when a team relocates to a market that serves it better, but serves the league worse (to be discussed in the next section).

A league restricts the number of franchises to maintain the overall playing quality of the league, by maintaining the competitive balance between teams, and also by keeping playing quality sufficiently high. However, Lee and Fort show that expansion actually did not harm competitive balance in MLB since at least as far back as 1954.[1] Moreover, leagues restrict the number of teams to markets the league feels can support a team and, importantly, provide enough excess income to the rest of the teams in the league to justify the expansion in the first place. Additionally, adding expansion teams may result in a reduction in the fan base for existing clubs, and the possibility that the expansion team will detract from, and not add to, the pool of revenues that are shared amongst teams. The expansion fee helps cover the gap, if there is one, but also adds income for the incumbent teams.

Kahn shows that, under many different conditions, too much expansion lowers overall quality of the product.[2] This has the effect of lowering welfare for fans of incumbent teams (as their teams' quality decreases because talent is spread across more teams), even though it raises welfare for fans in the new expansion markets that did not have a team at all.[3] The net effect is that overall fan welfare is higher when leagues do not have as many teams as would be the case under pure competition.

The economics of expansion are fairly straightforward, as described by Fort.[4] The league sets the expansion fee based on its expectations of the value potential bidders place on owning an expansion franchise and whether this fee will more than offset the future reduction in shared revenues. These revenues typically consist of media, sponsorship, and licensing. Also, the impact on gate receipts (whether shared, as with the NFL, or not, as with the NHL) for the existing teams by having the

expansion team come to town or by visiting the expansion team at its home is also an issue of consideration. Given the relative bargaining power of the league, it will try to extract as much of the expansion teams' future profit and value as possible via the expansion fee.[5]

On the other side of the market, the potential expansion team owners determine the value (based on future income flows, capital gain upon sale of the team, and consumption value) of buying an expansion franchise in a particular location. Consumption value is based on the notion that some owners are "sportsmen owners" who gain non-financial value from owning a team because they might enjoy the process of owning and running the team, and are therefore willing to pay more for a team, as compared to owning a coal-extraction company. For instance, the major reason the NHL did not accept the Game Plan/Bain offer to purchase the entire league was because a number of owners did not want to sell at any price. They liked owning a hockey franchise. Economist Rod Fort stated that "the portion of ownership value not associated with annual operations appears to be significant."[6] In other words, "sportsmen owners" are willing to pay for the privilege of owning a team above and beyond its cash flow potential.

If the total value to the potential owner is higher than the expansion fee set by the league, then the owner might place a bid for an expansion team. Often there is more than one bidder. The term "bidder" does not imply that each potential owner tries to financially outbid each other. It is interesting that an auction model has not been used by the leagues to determine expansion fees and locations.[7]

Similar to the discussion by Fort, the expansion fee chosen by the profit-maximizing league is equal to the discounted value of the revenue sources available to the expansion team owner (gate receipts,

television, concessions, merchandise, parking, licensing, sponsorship) *minus* the team owner's expected costs (player payroll, operations, capital costs for facility, and the owner's opportunity cost) *minus* the loss to the league if the expansion team generates lower than average revenues that are shared with the league, *plus* the consumption value (which is hard to measure).[8,9]

Bruggink and Eaton show that expansion teams in MLB that are lower quality in terms of wins have a negative impact on attendance while on the road, but their novelty effect has a positive impact on attendance while on the road.[10] The net effect is actually positive for the league overall because the substantial losses for the expansion team are wins for the rest of the teams in the league. This combined with the novelty effect causes a net positive effect on MLB in terms of attendance, and therefore revenue, from expansion teams. Whether the league will take this into account or the potential bidders for an expansion team is unknown. Similarly, expansion teams have higher attendance, all else equal, at home because of the novelty effect but this honeymoon lasts about four years in MLB, after which the team needs to play well like all teams' fans demand.[11]

In some instances, such as that of an NFL expansion team in Los Angeles, the expansion team may add revenues directly to the other league members via a larger national television contract. Interestingly, even though the NFL not having a team in Los Angeles is a disequilibrium outcome because it is the second largest market in the U.S., the league only gets one chance to expand into that market (unless it adds two teams). Securing an expansion team is so valuable that the league wants to optimize it perfectly, and perhaps, may be foregoing all of these years of being there and generating revenues. Looking back, though, it is hardly feasible that foregoing over a decade of net value by being in Los Angeles has been worth it to try to obtain the perfect expansion situation.

Without outside forces, a league does the calculations described above to determine whether to expand and at what price based on how much a bidder is willing to pay and if that amount exceeds any losses to the existing teams in the league. Historically, though, expansion was not motivated by financial gain, but undertaken in order to thwart a rival (see section on mergers below). However, recent expansions have appeared to be purely financial and not strategic. Strategic expansions may occur at prices and in locations that would be less than optimal, but for the start-up or rival league's threats. For instance, the NFL expanded into Cleveland in 1937 in the face of competition from the second incarnation of the American Football League (AFL II) by transferring the AFL II Cleveland franchise to the NFL (today's St. Louis Rams).

The exact opposite economic force also exists, namely that a city may be left unoccupied by a league in order to use as a bargaining chip with existing teams vis-à-vis their city and stadium leases and subsidies. The team can always threaten to relocate to this new city if it doesn't get the subsidies it is looking for in its current city. A more credible and instant threat is when a city without a team actually builds a stadium with the hopes of luring a team to town. Currently, Kansas City is building an arena and a number of NBA franchises have used this arena in bargaining with their incumbent locations. Moreover, if a team eventually moves into the arena, it often requires millions of dollars in upgrades and changes to the facility to fit with the owner's vision of the arena. An owner is able to negotiate these changes (often to be paid for by local government) because of its relative leverage compared with the facility owner.[12] For example, in 1990 the Suncoast Dome was opened in St. Petersburg at a cost of $138 million with the hopes of luring an MLB team. When the Tampa Bay Devil Rays finally began play in the facility in 1998, the team required upgrades of $70 million - 50% of the original construction cost.

A further complication is that expansion into markets with existing teams is complicated even though it may be preferred from the league's perspective. A third MLB team in New York City might possibly be more profitable for other MLB teams than expansion into Portland, for instance. However, expansion into Portland is easier because no one team is harmed (although the Seattle Mariners would protest) and all should benefit from the expansion fees. A team moving into New York City would harm the Yankees and Mets, so side payments from the league would need to be made to compensate those teams. These negotiations are complicated by determining the value of those side payments. For instance, the merger of the AAFC and NFL in 1950 (see below) required the Colts to pay $150,000 to the Redskins owner, George Marshall for invasion of his territory. Similarly, the AFL paid the NFL $20 million to merge with much of that money going to the owners of the Giants and 49ers who were going to share territories with the Jets and Raiders, respectively.

The opposite of expansion is contraction. Recently, however, there is not much to say on this issue in major professional sports. As Rodney Fort points out, the criteria used to decide whether to expand needs to exceed the threshold by a large margin because once a league expands, it is very hard to contract.[13] The players union and local, state, and national public officials will fight contraction because of the "public good" aspect of professional sports. Whether or not warranted, politicians can gain political capital by preventing a team from moving or contracting.

MLB mentioned contraction as a possibility prior to the 2002 season on the basis of financially struggling franchises in Oakland, Minnesota, Montreal, and Florida. MLB argued that contraction was not proposed for the purpose of bargaining with the players association, yet, since contraction would reduce the number of players in the league, it could still be used as leverage in negotiating other collective bargaining issues. It is unclear whether MLB would have contracted any teams or

that it was simply using the threat as leverage with players and with cities to get new stadia. In Minnesota, the contraction of the Twins was thwarted due to its lease with the Minneapolis Sports Facilities Commission, which required the team to play that season.

Staudohar states that MLB has not contracted since 1899, when the National League lost four teams.[14] The NFL lost thirty-eight franchises from 1920-1959, the NHL contracted six franchises from 1917 through 1979, and the NBA had fourteen franchises dissolved between 1946 and 1959. The last contraction in major professional league sports was in 1979 when the Cleveland Barons (formerly the California Seals) contracted or, depending on how it is viewed, merged with the Minnesota North Stars.

To summarize, prospective owners calculate the overall value of owning a franchise, including revenues, expenses, opportunity costs, and consumption value. The league does the same calculation, but also accounts for impacts on the teams in the rest of the league due to the expansion team's operations and interdependency with the league. Based on this, the league chooses an expansion price and opens it up for potential owners to formally bid based on different locations. Additionally, a league may expand for strategic reasons such as thwarting the entry of a rival league, or may not expand, even when it profitably could, in order to keep viable relocation alternatives open for its existing members. What follows are examples of how expansion is handled in the four major leagues.

Expansion in the NFL

As the value of franchises have increased, so to have expansion fees. In the NFL, the steep increase in expansion fees served to limit the number of entrants initially (and to increase the quality of owners of those that can afford entry into the league). When the league was chartered in 1920,

entrance fees were set at $100, which many teams neglected to pay. When the league expanded in 1930, the expansion fee was $500, along with a $2,500 deposit with the league office. In 1932, when the Boston Braves (now the Washington Redskins) joined the league, the fee rose to $1,500 with an additional $1,500 deposit to guarantee that the team would finish the season. Over the next five years, fees more than doubled, growing to $10,000 when the Cleveland Rams (now the St. Louis Rams) joined the league in 1937. Expansion fees increased nearly six-fold from 1937 to the 1960s when the NFL added four teams to compete with the rival American Football League (AFL IV), awarding franchises to Dallas and Minnesota (1961), for $6 million a piece - much higher than the $25,000 the AFL required to join its league. See Table I for information related to NFL expansions after the 1950s.

-- insert Table I --

Fees increased another 42% to $8.5 million when the Atlanta and New Orleans franchises joined the league in 1965 and 1966, respectively. When the AFL merged with the NFL in 1970, AFL teams had to pay $7.5 million to become part of the league. When the league expanded to 28 teams in 1976, expansion fees had risen an additional 88% to $16 million for the entry of the Tampa Bay Buccaneers and the Seattle Seahawks.

The league did not expand again until the 1990s, when it added Carolina and Jacksonville for $140 million apiece in 1995.[15] Since then, expansion fees have risen dramatically over the previous four entrants, growing at an annual rate for the last 5 years of greater than 50%. The Cleveland Browns re-entered the NFL as the 31st franchise in 1998 for a $530 million expansion fee, fulfilling the

NFL's commitment to return the Browns to the field because of the relocation of the former Browns to Baltimore.

The NFL decided to further expand in an effort to have a symmetrical 32-team league with expanded playoffs, and tabbed Los Angeles as the next possible expansion location, with Houston as a fallback in the event Los Angeles could not get its stadium situation straightened out. The NFL gave potential owner Ed Roski and the LA Coliseum some five months between March and September of 1999 to put together a financial package that would bring the Coliseum up to NFL standards. Los Angeles stumbled, and Houston owner Robert McNair was awarded the NFL's 32nd franchise, which began play in 2002 as the Houston Texans. Comparing the Houston franchise with its Texas counterpart, the Dallas Cowboys, expansion fees have increased at a compounded annual growth rate of over 15% from the $6 million paid for the Cowboy's expansion fees in 1966, to the $700 million paid for the Houston franchise expansion in 1999.

Expansion in MLB

In response to pressure from the Continental League (see below), MLB expanded in 1961-62 for the first time in fifty years with four teams (Mets, Senators, Colt 45s, and Angels). The Senators moved to Texas to become the Rangers in 1971 and the Colt 45s changed their name to the Astros a few years after inception, as shown in Table II. In 1969, MLB expanded into San Diego, Montreal, Kansas City, and Seattle. The Pilots went bankrupt in 1970 and the American League turned down an offer by a local ownership group (reportedly due to financing concerns), so the team was sold to Bud Selig who moved it to Milwaukee as the Brewers. In 1977, MLB expanded again into Seattle, on the heels of lawsuits related to the original Pilots relocation, and Toronto. In 1993, MLB

expanded into Denver and Miami and a few years later into Phoenix and Tampa Bay. The League didn't expand at all for 50 years, and then added 14 teams in a little over 30 years.

-- insert Table II --

Expansion in the NBA

As was often the case in professional sports, there were many versions of professional basketball leagues, each with a constantly changing number of teams, team locations, and team names. The NBA was created from National Basketball League teams, which had been around for a decade (mostly in the Midwest), merging with the newly formed Basketball Association of America. The BAA was formed in 1946 by arena owners who wanted to fill nights alongside the major tenant, either NHL teams or minor league hockey teams. Most BAA teams were located in the East. During 1948, the Minneapolis Lakers, Fort Wayne Pistons, Indianapolis Olympics, and Rochester Royals left the NBL and joined the BAA.

The following year, the NBL dissolved and six more of its teams moved into the BAA. After the merger (of sorts), the league settled into eight teams, with the relatively smaller market Rochester Royals, Fort Wayne Pistons, Milwaukee Hawks, and Minneapolis Lakers moving to larger cities (Cincinnati, Detroit, St. Louis, and Los Angeles, respectively) over the next decade. There were five expansion teams added in 1966-68, bringing the total NBA franchises to thirteen, as shown in Table III. The second wave of expansion in the NBA, not related to mergers with or acquisitions of rival leagues, was in the late 1980s and early 1990s. The NBA added four teams in 1988-89 and two Canadian franchises in 1995.

-- insert Table III --

Finally, as we saw with the NFL replacing franchises that had left for other cities in Cleveland and Houston, the NBA replaced the Charlotte Hornets (moved to New Orleans) with the Charlotte Bobcats in 2004.

Expansion in the NHL

The NHL has financially struggled recently, mostly due to high player salaries in proportion to total revenues. In other words, relative to its professional brethren, the NHL overpaid its players. The recent collective bargaining process resulted in a salary cap (see Chapter Six) which appears to have allowed the league to remain stable. The prior financial struggles were exacerbated by the substantial expansion beginning in 1991, much of it into the southern United States region not known for its hockey fanaticism (however, with larger populations). As shown in Table IV, the addition of the Tampa Bay Lightning (1992), Florida Panthers (1993), Nashville Predators (1998), and Atlanta Thrashers (1999) through expansion and the relocation of the Quebec Nordiques to Denver (1995), the Winnipeg Jets to Phoenix (1996), and the Hartford Whalers to Raleigh (1997) cemented the NHL broadly across the United States. With relatively low television ratings (at least partially due to the difficulty of showing the sport on television because of the fast action and very small puck), it is unclear if the southern strategy will work.

-- insert Table IV --

In general, expansion from the "Original Six" has been successful despite often occurring in large waves.[16] From 1967 through 1974, the NHL added twelve expansion teams (with the

aforementioned California Seals contracting in 1979). Additionally, in 1979 four teams from the rival World Hockey Association were integrated into the NHL (see mergers below). This was followed by a dozen years of league stability (including two relocations) before the next wave of expansion with the 1991 San Jose Sharks took place.

III. Relocation

Mildner and Strathman analyze the causes of team relocation in MLB and the NBA.[17] The probability of a franchise moving is based on population growth, attendance growth, winning percentage, league-wide expansion, and stadium ownership. Their hypothesis is that a stadium owned by a team owner is likely to prevent a team from moving because the stadium itself would be devalued. The consequence is that publicly owned stadiums actually increase the likelihood that a team will move. The empirical results are consistent with this notion for MLB, but mixed for the NBA.

Another reason for relocation is to increase stadium-related revenues. Owners often posit that the increased revenues from a new sports facility will put a franchise in a better position to bid for quality players, resulting in a better team, drawing more fans, resulting in more revenues and so on. Not only are the market economics important, but the structure of the lease allows the owner to capitalize on those economics.

For instance, in the NFL, a few teams have relocated to smaller markets in order to play in new stadiums with "sweetheart" lease agreements. These leases allow the owner to keep a higher proportion of revenue, create more revenue from a newer stadium, host more events raising the revenue even more, and reduce expenses. The Rams moved from Los Angeles to St. Louis and the

Raiders moved from Los Angeles (the second largest market in the Country) back to Oakland in 1995. In 1996, the Browns moved to Baltimore to become the Ravens, while the Oilers moved to Tennessee from Houston (becoming the Titans) the following year. The new market was smaller (in terms of population) than the former market in each of these situations. Moreover, the NBA's Hornets move from Charlotte to New Orleans was primarily due to a more appealing facility agreement with New Orleans for a state-of-the-art facility; however, the relocation placed the team in a smaller media market and a less affluent city.[18] Market size is less important in football because the small number of games make sellouts much more likely than in baseball, basketball, or hockey, where market size is more important.

Team relocations, and the threat thereof, have commensurately increased the value of major league clubs. Franchises are constantly considering new locations (e.g., Oakland A's, Sacramento Kings, LA Clippers, San Diego Chargers, Minnesota Vikings). As discussed above, the leagues control the number of teams and the rate of expansion. In fact, since the NFL and AFL merged in 1966, the NFL has added only seven other teams, even though many other markets desire franchises.[19]

Which cities should teams choose when considering their ideal locale? The choice of a city depends on at least three major factors, as described by Daniel and Heather Rascher: the owner's personal preference, the political climate, and the economics of the location.[20] While many team owners are profit-maximizers and make decisions accordingly, some owners may be more personally motivated, perhaps choosing to move a team to a city because it is where they live or prefer to live. For instance, Georgia Frontiere, owner of the St. Louis Rams, moved the team from Los Angeles to her hometown of St. Louis, Missouri. Similarly, the Minnesota Vikings were considering a move to San

Antonio, Texas because owner Billy Joe "Red" McCombs is from there.[21] Personal preference, as in these cases, is idiosyncratic and will therefore not be investigated in this analysis.

Political support for a major league team within a city is very important because arenas and stadiums are often financed in part or in full by local and state governments.[22] The locational decision is usually the result of a bidding competition between the governments of various cities, each offering various amenities to the teams in order to attract the team to their locale.

Finally, the economics of the market matters. Regions with larger, richer populations containing a sufficient number of large businesses or numerous corporate headquarters are assumed to be more able and willing to support a team than a smaller city which lacks these desirable demographic features. However, the three overarching decision criteria can be interrelated. For instance, the degree of public funding is likely to correspond to the size and economic demographics of the market. In fact, there is a correlation of 0.33 (significant at the 1% level) between the percentage of public funding and the population for six cities with NBA teams that are in relatively smaller population centers. Also, an owner's preferences are likely to be in favor of locating in a large metropolitan area because of the potential favorable economics.

In practice, franchise relocation is rare in the modern era. In the 1950s, with the growth of airplane travel and disproportionate growth of population in the western U.S., many MLB teams moved. For instance, the Athletics, Browns, Braves, Giants, and Dodgers all relocated during that time. Mildner and Strathman show that in MLB, 3.1% of the number of franchises per year relocated in the 1950s.[23] This decreased to 1.5% in the 1960s, 0.8% in the 1970s to 0% in the 1980s and 1990s. Since then, the Montreal Expos relocated to Washington D.C. to become the Nationals. The NBA

saw a similar trend with 5.5% in 1960s, 2.6% in 1970s, 0.8% in 1980s, and 0% of teams relocating in 1990s. As with MLB, it has picked up slightly in the 2000s with the Grizzlies moving to Memphis from Vancouver in 2001 and the Hornets moving to New Orleans from Charlotte in 2002.

The early NBA relocations were part of the maturation of the league from a regional to national sport with its beginnings in smaller towns like Waterloo, Iowa or Fort Wayne, Indiana. Relocations in the early formative years of a league were rarely viewed negatively by leagues because they were attempts to stay in business and find sustainable markets. Many of the more recent moves have been at odds with league desires (e.g., Raiders, Rams) as franchises may be benefiting at the expense of the league, and not just trying to survive.

Carlton et al. show that relocated teams experience lower attendance, all else equal, when that team travels to other NHL cities during the following seasons to the tune of about 5% lower attendances.[24] In other words, the natural rivalries that had developed seem to disappear once the team relocates. This is an example of where the relocation positively affects the franchise, but has a negative externality on the rest of the league, a big part of the drama associated with franchise relocation.

Relocation restrictions by leagues have been tightened lately, but are still not under complete control of the leagues. However, MLB has complete control based on its antitrust exemption.[25] Prior to last year's move by the Montreal Expos to Washington D.C., no MLB team had moved since the Seattle Pilots became the Milwaukee Brewers in 1970. In MLB, the franchise has to negotiate with the league as well as the prospective cities in order to move. The league wants to ensure that the other members of the league are not harmed by the move, or if so, then appropriate compensation

is forthcoming. The other leagues do not have an antitrust exemption making it harder for them to control franchise movement.

Sometimes relocation is followed by expansion into the "lost" market. This is often the case because the league did not want the team to relocate, necessarily, but could not stop it. Or, the league understands that the city is a good location, but that there is an irreconcilable disconnect between the current owner and city, and the league cannot make the owner sell the franchise. The NBA's Hornets moved to New Orleans because Charlotte was not interested in working with the current owners (who had allegedly spoiled the relationship with the community) and the league followed up with an expansion into Charlotte almost immediately. In the NFL, Baltimore lost the Colts in the middle of the night to Indianapolis. Los Angeles, Cleveland, Houston, and St. Louis all lost teams to relocation to smaller markets. Cleveland and Houston have received expansion franchises and St. Louis got the Los Angeles Rams to come calling. Los Angeles is likely to receive an expansion team, although the stadium process has been a big problem.

Standard techniques to prevent relocation are lease provisions containing a long lease term or one that costs a lot to break. The application of eminent domain is also an option, but it has failed in the past. Some cities have considered purchasing a team, but most leagues prevent that type of ownership. Larger cities have more bargaining power because threats to move are idle. Would the Yankees leave New York City? The Cowboys, with everyone knowing that they wouldn't leave the Dallas area chose to cause competition among local cities and counties (specifically, Irving, Arlington, Dallas and Dallas County). The result is that they are getting a whopping $325 million in subsidies from Arlington, yet they are paying $325 million themselves. What follows are examples of how relocation is handled in each of the four major leagues.

Relocation in the NFL

Perhaps surprisingly, the NFL and NHL have much in common when it comes to relocation. Both leagues saw more franchises relocate, four, during the 1990s than in any previous decade since 1950. However, NFL teams were so valuable that they were able to shop themselves around to different cities, while NHL franchises needed to relocate in order to survive.

The Chicago Cardinals, the oldest professional football team in the U.S., was the lesser loved of the two Chicago football teams. That, combined with poor performances during the 1950s, caused the team to get the league's permission to move to St. Louis in 1960. It wasn't until twenty-two years later that another NFL team moved, this time without league permission. See Table V for a summary of NFL relocations since the 1950s.

-- Insert Table V --

In one of the most contentious moves in League history, Al Davis sought permission to move the Raiders from Oakland to Los Angeles in 1980 in an effort to obtain better revenue opportunities in a bigger market. Davis needed a three-quarters vote of the owners to be able to move, and was nearly unanimously blocked 22-0 (with 5 abstentions, and the Raiders not tendering a vote because Davis felt that he did not need League approval to relocate). Davis subsequently filed suit against the NFL claiming that the rules in the NFL Constitution dealing with relocation decisions violated the antitrust laws preventing him from operating his business where he so chose. In 1982, the court found for Davis, as did the subsequent Appeals court. The opinion against the NFL hinged on two factors: 1) that the league was not a single entity, and 2) preventing the Raiders from relocating did

in fact unreasonably restrain competition. Although the NFL was able to delay the move for two seasons, the Raiders eventually were awarded nearly $11.55 million in damages (trebled to nearly $36 million) for lost revenues due to the NFL having prevented and delayed the team relocation. On appeal, the Supreme Court refused to hear the case in 1984. The case opened the floodgates for teams to move without permission from the NFL.

The city of Oakland later filed an eminent domain suit claiming that the Raiders are a civic asset and that the city should be able to purchase the Raiders at a fair price in order to retain the team. The courts found for the Raiders, although it did find that the notion of a football team potentially being a civic asset was upheld.

The results of the Raiders litigation facilitated the move of the Colts, which was done without NFL consent, when Robert Irsay quickly abandoned Baltimore for Indianapolis in 1984. Irsay first considered relocating the Colts in the 1970s, considering the cities of Jacksonville, Memphis, Phoenix, and even Los Angeles, which was vacated after the Rams relocated to Anaheim after the 1979 season. Irsay's desire to relocate was due in part to the lack of support the city had for Irsay, which wanted the team, but not him. The team infamously cleared out of the facility in the middle of the night of March 29, 1984. As soon as the vans left Maryland, Indianapolis Mayor William Hudnut announced the move, and the Maryland Legislature quickly drafted a bill that would permit the Colts to be seized by eminent domain, which failed.

Following failed attempts at getting a stadium funded primarily by the public and given the results of the Raiders litigation, Bill Bidwill moved the St. Louis Cardinals to Phoenix in 1988. The City of St.

Louis was unable to stop the team based on other failed eminent domain cases. The Phoenix Cardinals changed its name to the Arizona Cardinals in 1994.

In the mid-nineties there was a lot of franchise relocation in the NFL. The Rams moved from Los Angeles into a new domed facility in St. Louis, owner Georgia Frontiere's hometown, in 1995. The St. Louis Convention and Visitors Commission (CVC) sued the NFL, who argued that the relocation of the Los Angeles Rams to St. Louis resulted in an adverse affect on league rivalries and television revenue. To offset these losses, the league imposed a $29 million relocation fee on the Rams (which used CVC money to pay for this, hence the lawsuit). Also, the Raiders moved back to Oakland in 1995. This was followed by lawsuits against the NFL, for interfering with the franchise's choice of location, and with the City of Oakland for allegedly failing to uphold its promise to sell out the stadium.

In another contentious relocation, the Cleveland Browns moved to Baltimore to become the Ravens in 1996 essentially because the stadium lease was much better, in a new facility, in Baltimore than local Cleveland officials could muster. In a rare move, the NFL retained the name "Cleveland Browns" and all of the team's history (including multiple NFL championships) and other intellectual property for an expansion team that began play in 1999 under the same name.

In 1997, the Houston Oilers moved to Memphis, Tennessee and kept the Oilers moniker, but the geographic name was Tennessee, not Memphis. Once its new stadium was completed in Nashville in 1999, the team relocated and once again changed its name to the Tennessee Titans. As with the Browns, the NFL expanded back into Houston in 1999, granting a franchise to what is now known as the Houston Texans.

Relocation in the NBA

The NBA has seen the most franchise relocations since 1960, fourteen, of the four major professional sports leagues. The dispersion of relocations was fairly consistent through 1985 (twelve relocations). It wasn't until sixteen years later with the Grizzlies move to Memphis that the two most recent relocations took place. See Table VI for a summary of NBA relocations since the 1950s.

-- Insert Table VI --

In 1960, after George Mikan retired, the Lakers attendance dropped dramatically and the team relocated to Los Angeles. New owner Bob Short (who would later purchase and move the Washington Senators baseball club) saw how successful the Dodgers had quickly become moving west so he continued in their footsteps. Amazingly, the season after Wilt Chamberlain set the NBA single-game scoring record at 100 points in a game versus the Knickerbockers, the team was sold to Franklin Mieuli, a California native who moved the team to San Francisco. The next year, 1963, saw the Chicago Zephyrs leave for Baltimore leaving Chicago without an NBA team for a few years. The Zephyrs were renamed the Bullets. And finally, the Syracuse Nationals moved to Philadelphia in 1963, filling the void left by the Warriors departure. This was the last of the NBA teams moving from mid-sized markets to large markets.

Five years later in 1968 another round of relocations took place beginning with the St. Louis Hawks moving to Atlanta. The team was purchased by an Atlanta-based ownership group who planned, and succeeded, in building a state-of-the-art facility, the Omni Coliseum. In 1971, the San Diego

Rockets moved to Houston under new ownership. The next year, the Cincinnati Royals moved to Kansas City and became the Kings (to avoid confusion with MLB's local Royals franchise). Finally, in 1973 the Baltimore Bullets moved to Washington D.C. and became the Capital Bullets, then the Washington Bullets the next year, and the Washington Wizards in 1997.

In 1978, a strange event took place allowing the Buffalo Braves to relocate to San Diego to become the Clippers. Boston Celtics owner Irv Levin wanted to own a team in his native California, so he switched franchises with Buffalo's owner knowing that the Braves' lease was breakable allowing the team to move. A similar transaction took place, although without the immediate relocation of the teams involved, when Carroll Rosenbloom swapped his Baltimore Colts in 1972 with Robert Irsay's Los Angeles Rams. The next year, the New Orleans Jazz left for Salt Lake City after only five unsuccessful years in New Orleans.

The San Diego Clippers moved to Los Angeles in 1984 after the aforementioned Irv Levin sold the team to Donald Sterling. The team drew poorly in San Diego. The Los Angeles Lakers sued for invading their territory and won $6 million. In the lawsuit *NBA v. San Diego Clippers Basketball Club*, the court reaffirmed the right for the NBA to require league approval before a team relocates. The following season, the Kings left Kansas City and relocated to Sacramento.

Before the 2001-2002 season, the Vancouver Grizzlies decided to move out of Canada and created a short list of possible locations that they believed could successfully support the franchise. The list contained the cities of San Diego, Las Vegas, New Orleans, Memphis, and Louisville. The city of San Diego showed no interest in obtaining the Grizzlies because at the time the city was embroiled in a half-built publicly financed baseball stadium issue. The NBA ruled out the city of Las Vegas

because of its ties to gambling. St. Louis had been a contender the year prior to the sale, with the failed purchase of the team by St. Louis Blues (NHL) owner, Bill Laurie, who would not open the Savvis Center to a an NBA team unless he owned the team. The three final locations were quickly narrowed to two, as New Orleans was unable to generate an offer that was suitable to the Grizzlies. The decision between Memphis and Louisville was tipped in favor of Memphis when Federal Express (FedEx), whose headquarters are in Memphis, made a naming rights offer and equity purchase of the team.[26]

The most recent NBA relocation is the Hornets move from Charlotte to New Orleans. The Hornets considered Louisville, Norfolk, VA, and New Orleans for their relocation out of Charlotte before agreeing to terms with New Orleans. The move is from a relatively larger more affluent market into a smaller one. New Orleans' median household income is $38,800 a year, below the national average and below Charlotte's median income of $51,000. New Orleans' TV market, ranked 43rd nationally, is the smallest in the NBA; Charlotte's TV market ranks 27th. As discussed in the next section, it is not surprising that the franchise has struggled financially. There are objective criteria that can be used to help the decision process of where to relocate (or which city to expand into).

<u>A Model for Choosing a Franchise Location</u>

Once an expansion or relocation is approved, how do franchises determine the optimal market in which to operate? A recent study was undertaken to determine the economics of potential markets for NBA expansion or relocation.[27] Rather than using the current methodology which involves separate comparisons of cities by population and a few other measures, this analysis utilized an

integrated approach that captures the relationships between the factors and relative importance of each factor.

A hierarchical two-equation system is employed. In the first equation, the 25 U.S. markets that had NBA franchises (as of 1999) are examined to determine the relationship between the underlying factors which allow the city to support a franchise.[28] The model is then used to forecast the relative likelihood of other cities without an NBA franchise to be able to support a team (again based on economic factors, not personal preference or political factors). This model is similar to the analysis for baseball teams by Bruggink and Zamparelli, except that the NBA model has additional variables, two stages, and uses a substantially different econometric approach.[29] The second equation is a revenue equation, the forecasts from which are used as inputs into the first equation. The logic is that the potential revenues that each location could generate are certainly important factors in an owner's location decision.

One objective of the overall analysis is to be able to aid in the financial decision regarding league expansion or team relocation. A set of models such as described in this paper can be used to rank cities for further, more in-depth analysis, across many sports in many countries.

The cross-sectional data consist of 48 observations, with 25 being cities with NBA teams and 23 being cities without NBA teams in 1999 that potentially are the most eligible cities for league expansion or team relocation.[30] There are twelve potential explanatory variables, some of which are correlated (e.g., 1995 MSA population and 2000 MSA population).[31] Each observation represents information for the year 1999 (except where specified).

Utilizing a number of estimation techniques to test for sensitivity and robustness, the results provide a prediction of which cities would be likely to succeed in hosting an NBA franchise, as shown in Table VII. The results lend credence to the decision by the Grizzlies to include Memphis and Louisville in its final relocation list. Also, the model predicts that a New Orleans franchise would struggle. As shown, Charlotte is a much stronger market, as is Louisville, yet the owners chose New Orleans. It is not surprising that the team struggled financially from the beginning in New Orleans prior to the impact of Hurricane Katrina. After just one season into the honeymoon phase following relocation, the New Orleans Hornets attendance was 15% below the league average and overall ticket sales continued to struggle.

-- Insert Table VII --

MLB

Every few years from 1955 through 1972, an MLB team relocated, as shown in Table VIII. Most of the eight relocations were teams moving west as the population grew more quickly in the west. In 1955, the Philadelphia Athletics were purchased by Chicago businessman Arnold Johnson, who moved out of a two-team market into Kansas City. Perhaps the most famous and controversial relocation is that of the Brooklyn Dodgers in 1958 to Los Angeles. Despite tremendous success in Brooklyn, the owner could not get a satisfactory stadium deal. That coupled with the growth potential in the west caused the team to move. Similarly, the New York Giants moved to San Francisco providing visiting teams a two-team road trip in California.

-- Insert Table VIII --

In 1961 after nearly six decades in Washington D.C., the Washington Senators moved to Minneapolis and became the Minnesota Twins. The team had not fared well on the field, drew poorly, and played in an aging stadium. The team did not relocate until MLB promised an expansion franchise for the next season. In 1966, the Milwaukee Braves, under new ownership, moved the team to Atlanta to play in a new stadium and in front of a larger media market.

After barely more than a decade, the Athletics left Kansas City for the west coast and set up in Oakland. Charlie Finley, the team's owner, tried to move the team many times (to many different locations including Louisville and Dallas). After six years of trying, he was allowed to move the team in 1968. Missouri Senator Stuart Symington tried unsuccessfully to prevent the relocation, but was able to secure an expansion franchise to begin in 1969.

The Seattle Pilots played one season in the American League (1969) only to be purchased by Bud Selig and moved to Milwaukee the following season to play as the Brewers. The Pilots immediately struggled financially and Selig offered to bail them out of near-bankruptcy. The second incarnation of the Washington Senators was purchased by Bob Short in 1968. Less than a decade earlier, Short had moved the Lakers from Minneapolis to Los Angeles. This time, he moved the Senators, in 1972, to Dallas to become the Texas Rangers.

While many teams relocated in the other leagues, MLB witnessed a long period of locational stability. Over three decades passed before the Montreal Expos (who had been purchased by MLB itself) were moved to Washington D.C. in 2005 and eventually sold to Ted Lerner (who owns shares of the local NHL and NBA teams). This relocation is one of the few where a franchise in the same league allegedly moves into another team's territory. It has been debated whether the Baltimore

Orioles have territorial rights, or would be economically harmed, by the relocation of the Expos to Washington D.C. However, as compensation for the move, the Orioles have become the majority shareholder in a new television network that will broadcast Nationals and Orioles games. Additionally, MLB guarantees that the Orioles and thir share of the TV network will sell for at least $365 million whenever Angelos sells the team. Interestingly, Bruggink et al. show that Washington D.C. would be the best location for a new or relocated MLB team, based on their analysis of 1994 data.[32]

NHL

Recent relocation in the NHL coupled with recent expansions, have changed the league from a northern/Canadian-based league to a North American league. A number of studies, co-authored by J.C.H. Jones show that the Canadian/U.S. exchange rate and general differences in the economies can cause incentives to move the teams to U.S. markets that aren't necessarily hockey havens (e.g., player salaries are in U.S. dollars while most revenues for Canadian teams are in Canadian dollars).[33]

The California Golden Seals, after poor performances on the ice and at the gate and under new ownership, relocated. The franchise moved from Oakland to Cleveland (as the Barons) in 1976. The team was later absorbed into the Minnesota North Stars (1978), and then undone to create the San Jose Sharks in 1991. Along with the Golden Seals relocation, the Kansas City Scouts became the first NHL team to relocate since 1934. Poor attendance and financial performance caused the team to move to Denver to become the Colorado Rockies in 1976. This was followed by multiple ownership changes which resulted in a move, in 1982, to East Rutherford, NJ as the New Jersey Devils. See Table IX for more information on NHL franchise relocations.

-- Insert Table IX --

A few years earlier in 1980, the Atlanta Flames' ownership group could not succeed financially and sold the team for a then-record $16 million to a Canadian group who moved the team to Calgary. It wasn't until nearly two decades later that the Atlanta Thrashers expansion team, for $80 million in franchise fees, brought top-level hockey back to Atlanta. The mid-nineties saw four NHL franchises relocate to warmer climates with the expectation of tapping into larger population centers. As discussed earlier, the financial results have been mixed. The North Stars played well in the early 1990s, but new owners wanted a better stadium situation so the team moved, in 1993, to Dallas to eventually play in the new, highly regarded American Airlines Center.

The NHL lockout of 1994-95 caused existing financial troubles for the Quebec Nordiques to worsen. The local government bailout fell through and the team relocated to Denver and became the Colorado Avalanche, where it has seen much success. For similar reasons, the Winnipeg Jets moved to Phoenix to become the Phoenix Coyotes in 1996. The most recent relocation in the NHL was the Hartford Whalers move to Raleigh, North Carolina. The team has struggled financially, but did win the Stanley Cup in 2006.

IV. Rival Leagues and Mergers

An Ounce of Prevention

An ounce of prevention is worth a pound of cure, so the saying goes. This appears to be the case with respect to rival leagues. It is economically beneficial to reduce the incentives for rival leagues to form rather than to try to fight them once formed. When leagues expand they are able to collect an expansion fee that is commensurate with the value of the new franchise. If a rival league is formed

and causes some of its franchises to be picked up by the existing league as expansion franchises or as part of a merger, the fees paid by these expansion teams is often lower than what a regular expansion team would pay. This is because the rival league has some leverage in that it can threaten not to dissolve if entry into the incumbent league is not granted. This is also true because the harm caused by the rival, in terms of reduced profit, will end. Thus the expansion fee is really the cash fee plus the increase in profits associated with a rival disappearing, so the dominant league is often willing to accept the lower expansion fee.

In general, incumbent leagues try to create barriers to entry to prevent rival leagues from forming. In professional team sports, these barriers have included: long-term player contracts, boycotting players who switched to a rival league, long-term exclusive television and stadium contracts, an antitrust exemption for MLB, and high switching costs caused by a strong historical brand and positive consumption network externalities. As a result of the rivalry with the USFL, the NFL began signing players to multi-year contracts and staggered the last years of the contracts so there wouldn't be a sufficient number of players whose contracts were ending during the same year (enabling a rival to steal a big chunk of quality, well-known players). Similarly, MLB allegedly boycotted players who switched to the Mexican League during the 1940s.

When there were just three networks (ABC, CBS, and NBC), an incumbent sports league could contract with all three to show its games thereby preventing a rival league from getting into enough households. A sufficiently modern stadium is practically necessary to be able to host sporting events for a rival. If all or most of the suitable stadiums in the country have exclusive contracts with teams from the incumbent league, it is not feasible for a rival to be able to find satisfactory locations for playing its games. These last two barriers to entry have faded somewhat recently with the growth of

cable television and the many quality college stadiums that have become available (at least for basketball and football).

As described below, on its face it is amazing that the U.S. has had a single dominant league for each of its major sports for most of those leagues existence. Is it because the incumbent leagues have been better managed? Maybe, but likely an important factor is that history, tradition, and statistics are critical elements of the product that sports leagues sell. Each year the incumbent league adds to its history. The common experience that bonds fans of the same team may mean that, for another league to start up and be successful, it would have to compensate fans (presumably through higher enjoyment) for the "cost" of learning the new teams and players and tossing out the history of the existing league. This branding factor makes the "switching costs" for fans very high. A fan would have to learn all of the new teams, players, coaches, rules, and then not mind that there are no natural rivalries, etc. Therefore, incumbent leagues have a natural advantage over potential entrants that grows each year.

Similarly, part of what sports sells is the camaraderie with other fans of the sports league. The more fans there are of a particular sports league, the stronger is the camaraderie (e.g., imagine if Raider Nation had one member, how unsatisfying that would be for that member). If there aren't other fans to play Monday morning quarterback with, a rival will find it difficult to compete, so it needs a large fan base immediately (not typically the way any business is able to start off). Each additional person that becomes a fan of a particular sports league increases the value of being a fan of that league for all of the existing fans. Thus, it can be argued that leagues, such as the NFL, exhibit positive consumption network externalities.[34] As the size of the fan base increases, there are more opportunities for sports-based conversations, and increased attendance typically adds to the

excitement of a given game. For a rival to be successful, it may have to make an all-or-nothing move for primacy. Given that the major North American sports leagues have millions of fans, it will always be hard for any rival to break down this natural barrier to entry.

Structure of Rivalry

If a rival league is not prevented, it often forms what Quirk and Fort call a classic rival league where it places a few teams in large markets in direct competition with the incumbent league.[35] This is because the population of some large markets can support more than one team and in order to get a good media deal, a league needs to be in some of the large markets. Additionally, it puts the remaining teams in the comparable cities left open by the incumbent (typically measured in terms of population).

When a rival enters, the market goes from a single provider of the sport to two providers, i.e., the market goes from monopoly to duopoly that may manifest itself in more competition. This is not necessarily true in the antitrust sense. For instance, the NFL can be viewed as a single provider of top level professional football or as one of many sports entertainment offerings, depending on how one attempts to define the relevant market. From an antitrust perspective, these definitions are continuously debated. However, history has shown that when a rival league enters, the incumbent league sees increased player salaries (costs) due to higher labor demand, and often lower attendances. The incumbent may respond to decreased demand by lowering ticket prices (or not raising them as much).

Some rival leagues are not necessarily rivals in terms of the quality of product. The Pacific Coast League (PCL) began evolving into a rival league so MLB went to the west coast to thwart the rivalry

(see below for more details). Many of the minor hockey leagues in the U.S. and Canada have been successful precisely because they are not trying to be rivals to the NHL. If a rival begins to raid the existing top league for players, then it is claiming to be a rival league and history has shown that it will likely fail or perhaps send a few of its teams into the existing league, while the remaining teams will have lost substantial money in the process of competing.

A current rivalry exists between the Indy Racing League (or IndyCar Series) and Champ Car. These racing leagues were once a single league, but Indy Racing League formed in 1994. Each league suffers from the rivalry and Champ Car had recently filed bankruptcy. If the future is anything like the past, these leagues will merge or one of them will die off. The long-run equilibrium is a single dominant major league for each sport.

This begs the question, are sports leagues natural monopolies? [36] Sports fans may prefer to have the very best athletes concentrated in a single league rather than spread across numerous competing leagues. If this is true, then sufficient support may not exist for multiple top-level leagues. Additionally, high "switching costs" and the impact of the positive consumption network externality (both described above) further move sports leagues toward natural monopoly.

Sports leagues also produce a very high fixed cost, low marginal cost product, similar to actors, singers, and software creators. This may enhance the tendency toward natural monopoly. Once a league is created and a season of competitive play is in progress, the cost of selling an extra seat or of having one more fan tune in is quite inexpensive. Moreover, consumption by one television-viewing fan does not inhibit another fan from consuming the product on TV, which when combined with low marginal costs, enables a sports league to sell its product simultaneously to millions of fans

around the world.[37] Unlike a carpenter who can only sell his/her services to one construction project at a time, a sports league can remain the only firm in an industry and still satisfy 100% of the market. Additionally, the low marginal cost allows an incumbent league to engage in limit pricing to prevent the entry of a competitor leading to a version of a winner-take-all market. In short, if fans only want to see the best, and the best can be purchased for about the same price as the second best, the market may not support the second best at all.[38]

The extent to which the NFL and other sports leagues are natural monopolies is extremely important for policy decisions. It may be that consumers demand only one league, so efforts by the Courts to encourage competition will be in vain or contrary to consumers' interests.

The two previous sections on expansion and relocation show two measures for preventing a rival league from springing up. Either expand into open territories or relocate teams into important territories for rivals (e.g., PCL). However, relocation is not always under the control of the league, but instead a team owner may move on its own to a less strategic city. This can have the opposite effect by opening up a valuable market for a rival league to fill, as Quirk and Fort point out.[39] It is for these reasons that many rival leagues that have managed not to fold are eventually consolidated in whole or in part into the incumbent league.

Consolidation in Baseball

Prior to 1900, the American Association (AA) competed with the National League (NL). In 1882, both leagues competed directly with each other for talent, but played in different cities. Within a few years the AA had moved into a couple of larger NL cities, but the leagues had signed an agreement not to compete with each other for players[40] The AA disbanded in 1891 when renewed

competition for players resulted in the NL acquired the four strongest AA teams. Additionally, four AA teams had moved over into the NL over the previous decade. Thus, the twelve-team NL consisted of eight former AA teams.

In 1903, after a few years of direct competition for players and fans, the National League (NL) and American League (AL) reached an agreement not to compete (effectively merging). Prior to this, in 1900, the AL wanted access to players alongside the NL, so it ignored the reserve clause and competition for players ensued. Also, the AL moved some teams in NL markets. Attendance for the leagues were similar in 1901 and 1902 and in competing markets the AL outdrew the NL. As Quirk and Fort state, "The AL rates as the most successful rival league in the history of team sports in the United States."[41]

For different reasons, an equally important rival league was the Federal League (FL) because of the ensuing antitrust lawsuit that resulted in professional baseball's antitrust exemption. The League began as a minor league in 1913, but started courting MLB players and signing them to long-term contracts. Perhaps as many as 221 MLB players made the switch increasing their salaries greatly. MLB fought back by blacklisting MLB players and trying to prevent them from making the switch. The Federal League sued and did get a settlement from MLB, but the FL's Baltimore Terrapins filed its own suit leading to the famous decision that baseball is not interstate commerce, but purely state affairs.

MLB has not been severely challenged by a rival league since 1914-15. However, the Pacific Coast League (PCL) was in the process of gaining major league status in the 1950s. Then, as described above, the Giants and Dodgers moved west displacing a number of PCL teams and moving

attention of PCL fans to the National League. Some of the remaining PCL teams were purchased by MLB teams as minor league teams firmly cementing the differences in the majors and minors.

Additionally, in 1959-60, the Continental League (CL) was able to get four of its owners to receive MLB expansion franchises, without ever playing a single game, because Senator Kefauver held hearings to limit MLB's ability to keep its players (and its minor leaguers) out of the CL.[42] MLB pledged to cooperate with the fledgling league in exchange for Kefauver's bill not being passed (but sitting in committee). The cooperation led to the expansion of the Twins, Angels, Astros and Mets. Twelve of the thirty teams that constitute Major League Baseball today are from rival leagues.

Consolidation in Basketball

The American Basketball League (ABL) lasted for seven years during the Roaring '20s, but were beset with competitive imbalance problems that may have been cured, but for the Depression limiting the league's growth. The ABL reformed in 1934 in NY and Philly and despite a large number of teams folding and new ones entering lasted through WWII until 1947 (when it reverted to a minor league). At about the same time (1937), in the Midwest, the National Basketball League formed with some teams owned by Firestone, Goodyear, and GE. In 1946 the Basketball Association of America was formed by arena owners who needed to fill nights not being used by the NHL or minor league hockey teams. They saw the success of college basketball and wanted to capture some of that. The BAA was located in 7 of the top 10 markets while the NBL was only in 2 of them, and the BAA controlled the big arenas in those markets. In 1948, the Minneapolis Lakers, Rochester Royals, Fort Wayne Pistons, and Indianapolis Olympics moved to the BAA. The next season six more teams switched from the NBL to the BAA, breaking the NBL. The 1949-50 season consisted of 17 BAA teams, but by 1954 had shrunk to 8 stable teams. In 1961 another ABL

formed with George Steinbrenner and Abe Saperstein (Harlem Globe Trotters) as owners. The league lost money and folded two years later.

In 1967, the ABA was formed by Gary Davidson (who would later form the WFL and WHA). The league played nine seasons before merging with the NBA in 1976. According to Quirk and Fort, the ABA followed the prescription for a classic rival league to succeed by setting up in the major markets of NY and LA (because of the relative lack of basketball teams there) and filling in the mid-sized cities that the NBA neglected.[43] The merger took only New York, Indiana, Denver and San Antonio into the NBA. Each team paid an expansion fee of $3.2 million with the Nets paying the Knicks $4 million for invading its territory (New York). The four teams also paid the Utah and Kentucky franchises to close down. Overall, it is estimated that the ABA teams lost about $40 million in its 9-year history and the original owners were gone by the time it merged with the NBA, so the league, according to Quirk and Fort, was not a successful rival even though it moved four teams into the NBA.[44] Today, the thirty teams in the NBA consist of nine from rival leagues.

Consolidation in Hockey

The NHL began as a four-team league in 1917. The Pacific Coast Hockey League (Calgary, Edmonton, Saskatoon, and Regina) played the NHL for the Stanley Cup beginning in the 1917-18 season. Another league, the Western Canada Hockey League began play in 1921 and all three leagues played for the Stanley Cup until 1924 when the PCHL folded. The NHL bought the league for $258,000 distributing the player contracts across the newly expanded NHL (expanding into the U.S.). The Depression hit the NHL hard and knocked it down to six teams (the "Original Six") that constituted the league for 26 years. In 1967 the league added 6 expansion teams for a $2 million expansion fee and in 1970 it added two more (at $6 million per expansion franchise) and in 1972

another team at $6 million. At the same time, in 1972, the WHA began its run of seven years ending in 1979 with four teams (Hartford Whalers, Quebec Nordiques, Edmonton Oilers, and Winnipeg Jets) joining the NHL and two (Birmingham and Cincinnati) compensated for not joining the NHL, but being forced to disband. The four teams had to pay $6 million in "expansion" fees to join the NHL and also pay Birmingham and Cincinnati $6 million each.

The WHA was able to sign many NHL players, and players from the NHL minor league system, causing NHL salaries to rise in response to the competition. Attempted mergers by the WHA into the NHL were voted down by the NHL until boycotts of Molson beer (owner of the NHL's Toronto Maple Leafs) reportedly caused enough votes to shift to allow the four-team merger. Most owners in the WHA lost money, except those who were able to merge with the NHL. Additionally, the NY Islanders were formed by the NHL in 1972 to prevent the WHA expansion into Long Island, so five of the current thirty NHL teams were a result of the WHA.

Consolidation in Football

In June 1922, the American Professional Football Association changed its name to the National Football League, and began restructuring to provide for territorial rights. The early NFL was simply a loose confederation of local club teams, who typically played many non-league teams along with their NFL schedule. The league membership fee increased to $1,000, but most teams did not pay the fee. Any team that had 11 players to field was likely to be granted an expansion team. It was later required that expansion teams not be located in small towns, and all small-town teams were eliminated after the 1926 season, with the exception of Green Bay. As the league found its footing, there was much instability. In the 1920s, there were ten franchise sales, twenty-seven expansion teams, four franchise relocations, and twenty-nine abandoned franchises.

The American Football League (AFL I) was formed in response to a rejection for a franchise in New York to capitalize upon the drawing power of the Galloping Ghost, Red Grange. Red Grange, a sensation at the box office in his collegiate and professional career, was signed by George Halas' Chicago Bears the day after Grange's collegiate eligibility at the University of Illinois ended in 1925. At a time when the typical NFL game drew around 5,000 fans, one of the Bears games, against the New York Giants at the Polo Grounds in New York, drew over 64,000 fans, a record that held for two decades.

Red Grange and his manager, C.C. "Cash and Carry" Pyle continued leading the Bears around the country playing exhibition games and earning over $250,000 for the pair during and after the 1925 season. When a bid by Grange and Pyle to buy a piece of the Bears was rejected by Halas, the two petitioned for an NFL franchise, to play in New York's Yankee stadium. Every NFL owner was in favor of bringing Grange's drawing power into the NFL, with the exception of Tim Mara, owner of the New York Giants and would-be local competitor to Grange's team. At the time, expansion decisions needed 100% approval from the owners and Mara voted against Grange's entry into the league. Grange and Pyle responded by forming the first rival professional football league, the original American Football League, in 1926.

After one season of turmoil, the AFL disbanded, but the NFL made a side payment to Tim Mara and the Giants in order to entice his vote to allow Grange's Yankees to enter the NFL for the 1927 season. Part of the agreement was that the Yankees had to play 13 of their 16 games on the road. Grange was injured during that campaign, and the Yankees went 7-8-1, and folded at the end of the

season. Grange returned to the Chicago Bears to play out his career, which ended with his retirement in 1934.

Ten years after the formation of the first American Football League, the second incarnation of the AFL (AFL II) was formed in 1936. At that point, the NFL had contracted to nine franchises, all located in large population centers. This time, AFL II directly competed with the NFL in many of these same cities, rather than staking out other locales. However, rather than raiding NFL teams for talent, the AFL primarily filled its rosters with recent college graduates, which kept salary costs down for both leagues. AFL II success at the gate was limited, with the exception of the NY Yankees and the Boston Shamrocks, which faired well in comparison to their NFL counterparts. Average per-game attendance in AFL II for the 1936 season was 8,384, dropping to 8,075 in its second and last season. The limited financial information available for the AFL showed that each franchise lost money.[45]

The AFL II Boston Shamrocks drew crowds rivaling that of the NFL's Boston Redskins. The Redskins' owner, George Marshall, was so disappointed by the lack of fan support for his team that he relocated the Redskins to Washington D.C. for the 1937 season and beyond. In the face of competition, the NFL granted an expansion franchise to the AFL's Cleveland Rams for a franchise fee of $10,000. To replace the Cleveland team, AFL II added the Los Angeles Bulldogs, who proceeded to finish the 1937 season with a 9-0 record, becoming the only AFL team to have a winning record that year. In fact, the lack of competitive balance within the league was likely one of the causes for its failure following that season.

The next rival league to the NFL, initiated by Arch Ward (sports editor of the Chicago Tribune), opted for a different name other than AFL, the All American Football Conference (AAFC), and actually posed a credible threat to the NFL. The league was formed in 1944, but opted to wait until the end of WWII before beginning operations. It offered higher salaries than the NFL and located in both big cities with NFL competition and in smaller cities (e.g., San Francisco, Cleveland, and Miami). It competed effectively with the NFL drawing higher crowds in its second season (approximately 32,800 compared with 30,600 for the NFL).

Reportedly, the AAFC and NFL lost $5 million and $3 million, respectively, during the 1946-1949 seasons, with only the Cleveland Browns (AAFC's dominant team), Chicago Bears, and Washington Redskins turning a profit. Despite setting a team attendance record in 1949, the Los Angeles Rams (NFL) were unprofitable from 1946-1949. The on-field domination of the Browns hurt attendances for other AAFC franchises. The fierce rivalry ended after four years in 1949 with a partial merger of the AAFC and NFL. Under the agreement, the San Francisco, Cleveland, and Baltimore teams moved from the AAFC into the NFL. The NFL's New York Bulldogs closed down, with owner Ted Collins purchasing the New York Yankees of the AAFC and moving them into the NFL. As reciprocation for having their territory invaded, the NFL's New York Giants were allowed to choose six players from the New York Yankees line-up (the Yankees folded in 1952 and their assets were transferred to the Dallas franchise). Similarly, Redskins owner George Marshall received $150,000 for the invasion of his team's local territory by the Baltimore Colts. The Colts franchise went under a year after the merger, and, after reforming in 1951, the team became financially successful in the NFL.

In the aftermath of the merger, the NFL was relatively stable, with no rival leagues being introduced from 1952 – 1960, when the fifth and most successful rival league, American Football League (AFL IV), was introduced. The AFL played until 1966 when the NFL voted to merge the leagues. However, congressional approval was needed because the merger would possibly have violated antitrust laws by creating an alleged monopoly from a duopoly. Commissioner Pete Rozelle convinced Louisiana Representative Hale Boggs and Senator Russell Long to pass the merger bill in exchange for the NFL expanding into New Orleans. The Browns, Colts, and Steelers were each paid $3 million to switch to the AFC in order to create two balanced conferences (NFC and AFC).

In August 1973, Gary Davidson, the founder of the American Basketball Association and the World Hockey Association, started talks with investors about potentially starting a world-wide football league. By January 1974 the first meeting of what would become the World Football League was held, with representatives from Anaheim, Birmingham, Boston, Chicago, Detroit, Honolulu, Memphis, New York, Orlando, Philadelphia, Toronto and Washington attending. Soon after, the 12-team World Football League (WFL) commenced, beginning its 20-game season in July 1974 in order to get a head start on the NFL. The season would conclude in November, ending in a "World Bowl" championship, which also occurred before the NFL championship game.

The league was divided into six large market teams competing directly with NFL franchises and six smaller market teams (with populations less than 1 million). The investors in the league were under-financed from the beginning. Each of the initial 12 franchises cost $100,000, with subsequent franchises fees ranging from $250,000 to $1.6 million. Although the league did not get a major network contract, the WFL did get a television contract with Eddie Einhorn's TVS network.[46] The

large market teams helped to secure a national television contract that paid each team $130,000 per year, compared with $2.2 million per team for the NFL television contracts that year.

Another rivalry was resolved in July 1986, when, following an 11-week trial and just five days of deliberation, a jury in U.S. District Court in New York awarded the United States Football League (USFL) one dollar in its $1.7 billion antitrust suit against the NFL, trebled to $3 in damages. The jury rejected all of the USFL's television-related claims, which were the lifeblood of the USFL's case. In 1988, in a unanimous 3-0 decision, the 2nd Circuit Court of Appeals in New York upheld the verdict of the jury. The USFL needed the large damage award to survive, and subsequently folded in 1986 after effectively losing the case. Overall, thirteen of the thirty-two teams that exist in the NFL today come from rival leagues.

V. Conclusion

All three sections in this chapter are interrelated. Expansions and relocations, especially in the early years of a league, are often the response to upstart rival leagues. More recently, relocations have occurred because another city offers a better facility lease regardless of whether the league as a whole is better off or not. Relocations, more so than expansions, often end up in court whether as an antitrust case accusing the league of monopolistically restricting business or as an eminent domain suit attempting to prevent a team from relocating. Recent rulings have allowed a league to enforce a relocation fee that is commensurate with the harm caused to the rest of the league because of the move.

Rivalries often begin with a few teams in major cities competing head-to-head with the existing dominant league. Inevitably, the sport ends up with one major league providing top level play,

begging the question of whether sports leagues are natural monopolies. This occurs either with a merger, a partial merger, an acquisition or, most commonly, a failed rival league. Often the incumbent league emerges from the rivalry a stronger, more stable business, having been forced to address a weakness exploited by the rival (e.g., MLB failing to recognize the western markets). Additionally, the new locations of franchises have often been vetted by the upstart rival to determine which few are most profitable and sustainable.

Table I. NFL Franchise Expansions Since 1960

Franchise	Year	Expansion Fee (millions of $)	Location and Notes
Cowboys	1960	0.60	Irving, TX (awaiting new facility in Arlington, TX)
Vikings	1961	0.60	Minneapolis
Falcons	1965	8.50	Atlanta
Dolphins (AFL)	1965	7.50	In 1970, team joins NFL in merger
Saints	1966	8.00	New Orleans
Bengals (AFL)	1967	7.50	In 1970, teams joins NFL in merger
Seahawks	1976	16.00	Seattle
Buccaneers	1976	16.00	Tampa Bay
Panthers	1995	140.00	Charlotte
Jaguars	1995	140.00	Jacksonville
Browns	1998	530.00	Cleveland; original Cleveland Browns moved to Baltimore as the Ravens
Texans	1999	700.00	Houston

Table II. MLB Franchise Expansions Since 1960

Franchise	Year	Expansion Fee (millions of $)	Location and Notes
Senators/Rangers	1961	2.10	In 1971, moved from Washington D.C. to Texas and became the Texas Rangers
Angels	1961	2.10	In 1965, team moved to Anaheim from Los Angeles
Mets	1962	1.80	New York City
Colt 45s/Astros	1962	1.80	In 1964, team renamed Houston Astros
Padres	1969	12.50	San Diego
Expos/Nationals	1969	12.50	In 2005, team moved from Montreal to Washington D.C. to become the Nationals
Royals	1969	5.55	Kansas City
Pilots/Brewers	1969	5.30	In 1970, team moved from Seattle to Milwaukee to become the Brewers
Mariners	1977	6.25	Seattle
Blue Jays	1977	7.00	Toronto
Rockies	1993	95.00	Denver
Marlins	1993	95.00	Miami
Diamondbacks	1998	130.00	Phoenix
Devil Rays	1998	130.00	Tampa Bay area

Table III. NBA Franchise Expansions Since 1960

Franchise	Year	Expansion Fee (millions of $)	Location and Notes
Wizards	1961	unknown	Began as Chicago Packers (see Table VI for details)
Bulls	1966	1.25	Chicago
Rockets	1967	1.75	Began in San Diego and moved to Houston in 1971
Supersonics	1967	1.75	Seattle
Bucks	1968	2.00	Milwaukee
Suns	1968	2.00	Phoenix
Clippers	1970	3.70	Began as Buffalo Braves, moved to San Diego in 1978 and Los Angeles in 1984
Cavaliers	1970	3.70	Cleveland
Trailblazers	1970	3.70	Portland
Jazz	1974	6.15	Began as New Orleans Jazz and moved to Salt Lake City in 1979
Mavericks	1980	12.00	Dallas
Hornets	1988	32.50	Began as Charlotte Hornets and moved to New Orleans in 2002
Heat	1988	32.50	Miami
Timberwolves	1989	32.50	Minneapolis
Magic	1989	32.50	Orlando
Raptors	1995	125.00	Toronto
Grizzlies	1995	125.00	Began as the Vancouver Grizzlies and moved to Memphis in 2001
Bobcats	2004	300.00	Charlotte

Note: Does not include the four teams acquired from the ABA in 1976 (Nets, Nuggets, Pacers, Spurs).

Table IV. NHL Franchise Expansions Since 1960

Franchise	Year	Expansion Fee (millions of $)	Location and Notes
Stars	1967	2.00	Began as Minnesota North Stars and moved to Dallas (as Stars) in 1993
Kings	1967	2.00	Los Angeles
Flyers	1967	2.00	Philadelphia
Penguins	1967	2.00	Pittsburgh
Blues	1967	2.00	St. Louis
Sabres	1970	6.00	Buffalo
Canucks	1970	6.00	Vancouver
Flames	1972	6.00	Began as Atlanta Flames and moved to Calgary in 1980
Islanders	1972	6.00	New York City
Devils	1974	6.00	Began as Kansas City Scouts and moved to Denver in 1976 and to New Jersey in 1982
Washington Capitals	1974	6.00	Washington D.C.
Sharks	1991	45.00	San Jose
Senators	1992	45.00	Ottawa
Lightning	1992	45.00	Tampa Bay
Ducks	1993	50.00	Anaheim; changed name from Mighty Ducks of Anaheim to Anaheim Ducks in 2006
Panthers	1993	50.00	Miami
Predators	1998	80.00	Nashville
Thrashers	1999	80.00	Atlanta
Blue Jackets	2000	80.00	Columbus
Wild	2000	80.00	St. Paul, MN

Table V. NFL Franchise Relocations Since 1960

Franchise	Year	From	To	Location and Notes
Cardinals	1960	Chicago	St. Louis	After a poor-performing 1950s on the field and at the gate, the team moved to St. Louis
Raiders	1983	Oakland	Los Angeles	A fierce legal battle won by the Raiders allowing it to stay in LA, despite the NFL's resistance.
Colts	1984	Baltimore	Indianapolis	The team infamously cleared out of the facility in the middle of the night to avoid eminent domain attempts by the State.
Cardinals	1988	St. Louis	Phoenix	Moved to Phoenix as Phoenix Cardinals and was renamed the Arizona Cardinals in 1994.
Raiders	1995	Los Angeles	Oakland	Against the backdrop of a number of lawsuits, team relocates back to Oakland
Rams	1995	Los Angeles	St. Louis	The Rams moved into an already existing domed stadium with a very good lease.
Ravens	1996	Cleveland	Baltimore	Moved from Cleveland to Baltimore to become the Ravens. NFL retained team histories, etc., for use by the new Cleveland Browns.
Oilers	1997	Houston	Nashville	The team, renamed the Tennessee Titans, moved to Memphis until its stadium was ready in Nashville.

Table VI. NBA Franchise Relocations Since 1960

Franchise	Year	From	To	Location and Notes
Lakers	1960	Minneapolis	Los Angeles	After Mikan retired, attendance dropped dramatically and new owner Bob Short followed the successful Dodgers to Los Angeles.
Warriors	1962	Philadelphia	San Francisco	After Chamberlain's record-setting game and season, the team was sold and packed up and left
Wizards	1963	Chicago	Baltimore	The Zephyrs became the Bullets.
76ers	1963	Syracuse	Philadelphia	The Nationals became the 76ers, after the franchise moved from a mid-sized market under new owner Irv Kosloff.
Hawks	1968	St. Louis	Atlanta	Under new ownership, the team moved to Atlanta and in a few years received a new arena to play in.
Rockets	1971	San Diego	Houston	Under new ownership, the team moved to Houston.
Kings	1972	Cincinnati	Kansas City	The Royals became the Kings.
Wizards	1973	Baltimore	Washington D.C.	Became the Capital Bullets, then Washington Bullets (1974), and Washington Wizards in 1997.
Clippers	1978	Buffalo	San Diego	Celtics owner Irv Levin wanted to own a team in California, so he switched franchises with Buffalo's owner, knowing that the Braves were allowed to break their lease and move.
Jazz	1979	New Orleans	Salt Lake City	Why did this franchise not change its name?
Clippers	1984	San Diego	Los Angeles	Under new ownership and poor play and attendance, the team moved to Los Angeles.
Kings	1985	Kansas City	Sacramento	Kansas City continues to be a temporary stopping point for teams moving west.
Grizzlies	2001	Vancouver	Memphis	Under new ownership, the team shopped around and settled in Memphis.
Hornets	2002	Charlotte	New Orleans	After discussions with the city failed to produce a new arena, the team moved.

Table VII. Cities Likely to Succeed in Hosting an NBA Franchise

City/Team (Sorted by Attendance)	Forecasted Probability (Attendance)	Forecasted Probability (Gate Receipts)	Forecasted Probability (Total Revenue)
Boston Celtics	1.000	1.000	1.000
Chicago Bulls	1.000	1.000	1.000
Dallas Mavericks	1.000	1.000	1.000
Houston Rockets	1.000	1.000	1.000
Los Angeles Lakers	1.000	1.000	1.000
Los Angeles Clippers	1.000	1.000	1.000
Minnesota Timberwolves	1.000	1.000	1.000
New York Knicks	1.000	1.000	1.000
New Jersey Nets	1.000	1.000	1.000
Golden State Warriors	1.000	1.000	1.000
Philadelphia 76ers	1.000	1.000	1.000
Washington Wizards	1.000	1.000	1.000
Atlanta Hawks	1.000	1.000	1.000
Detroit Pistons	1.000	1.000	1.000
Portland Trail Blazers	1.000	1.000	1.000
Seattle SuperSonics	0.997	0.998	0.990
Utah Jazz	0.963	0.962	0.912
Phoenix Suns	0.937	0.989	0.947
Charlotte Hornets	0.919	0.954	0.896
Indiana Pacers	0.873	0.953	0.901
Orlando Magic	0.816	0.862	0.817
Louisville	0.740	0.743	0.751
San Diego	0.696	0.677	0.658
Denver Nuggets	0.675	0.707	0.715
Miami Heat	0.675	0.585	0.615
Milwaukee Bucks	0.501	0.709	0.520
Memphis	0.486	0.241	0.331
Las Vegas	0.416	0.345	0.442
San Antonio Spurs	0.404	0.703	0.549
Cleveland Cavaliers	0.351	0.262	0.323
Pittsburgh	0.333	0.163	0.328
St Louis	0.271	0.279	0.299
Baltimore	0.252	0.288	0.256
Norfolk, Virginia Beach, Newport News	0.220	0.255	0.352
Hartford	0.209	0.155	0.164
Sacramento Kings	0.130	0.107	0.087
Nashville	0.125	0.115	0.152
Austin - San Marcos	0.073	0.055	0.118
Kansas City	0.017	0.015	0.036
Cincinnati	0.003	0.001	0.004
New Orleans	0.002	0.000	0.004
Columbus	0.002	0.000	0.004
Jacksonville	0.000	0.000	0.000
Albuquerque	0.000	0.000	0.000
Buffalo - N.Falls	0.000	0.000	0.000

Note: Bolded cities are those without an NBA team in 1999.

Table VIII. MLB Franchise Relocations Since 1955

Franchise	Year	From	To	Location and Notes
Athletics	1955	Philadelphia	Kansas City	Chicago businessman Arnold Johnson purchased the team and moved it out of a two-team market.
Dodgers	1958	Brooklyn	Los Angeles	One of the most storied franchises couldn't secure a favorable stadium situation so moved out west.
Giants	1958	New York	San Francisco	Suffering from similar stadium-building issues, the team relocated with the Dodgers to the west coast.
Twins	1961	Washington D.C.	Minneapolis	The Senators became the Minnesota Twins. MLB then granted an expansion franchise to the nation's capital, also called the Senators.
Braves	1966	Milwaukee	Atlanta	Under a new ownership group, the team moved to a brand new stadium in a larger media market.
Athletics	1968	Kansas City	Oakland	The franchise's final step towards moving to the west coast.
Brewers	1970	Seattle	Milwaukee	The Seattle Pilots were purchased by Bud Selig and moved to Milwaukee and became the Brewers
Rangers	1972	Washington D.C.	Dallas	Under new ownership, the Senators was approved to relocate to Dallas and become the Texas Rangers.
Nationals	2005	Montreal	Washington D.C.	The nation's capital gets another chance at hosting MLB.

Table IX. NHL Franchise Relocations Since 1976

Franchise	Year	From	To	Location and Notes
Sharks	1976	Oakland	Cleveland	The Seals became the Cleveland Barons, which was later absorbed into the North Stars (1978). That merger was undone in 1991 to create the Sharks.
Devils	1976	Kansas City	Denver	The Scouts, after weak attendance, became the Colorado Rockies in the first NHL relocation since 1934.
Flames	1980	Atlanta	Calgary	Local ownership group could not make it work financially and sold the team for a then-record $16 million to a Canadian group who moved it to Calgary.
Devils	1982	Denver	East Rutherford, NJ	With multiple ownership changes during the short history in Denver, the Rockies were sold and relocated to New Jersey as the Devils.
Stars	1993	Minneapolis	Dallas	Despite the North Stars playing well in the early nineties, the community and new owner could not settle stadium issues, so the team moved to Dallas as the Stars.
Avalanche	1995	Quebec City	Denver	Financial troubles were exacerbated by the NHL lockout and local government's bailout fell through, causing a sale and relocation of the Nordiques to Denver.
Coyotes	1996	Winnipeg	Phoenix	Financial troubles caused the Jets to move to Phoenix as the Coyotes.
Hurricanes	1997	Hartford	Raleigh	Amid financial difficulties and a failed agreement on a publicly funded arena, the Whalers moved to Raleigh and became the Hurricanes.

Notes

[1] Young Hoon Lee and Rodney Fort, "Structural Change in Baseball's Competitive Balance: The Great Depression, Team Location, and Racial Integration," *Economic Inquiry* 43, no.1 (2005): 168.
[2] Lawrence M. Kahn, "Sports League Expansion and Economic Efficiency: Monopoly Can Enhance Consumer Welfare," CESifo Working Paper No. 1101: 22.
[3] In economic parlance, "welfare" can be thought of as a measure of the well-being of a group of people. Fans in new markets are happier with a new team, but fans in existing markets are less happy than before expansion because their teams are of lower quality.
[4] Rodney Fort, *Sports Economics* (Upper Saddle River, NJ: Prentice Hall, 2003), 135-45.
[5] Occasionally, the expansion fee may be a combination of actual payments to the league and foregone future shared revenues from the league. For instance, the Carolina Panthers did not receive annual shares of the national television revenues from the NFL for a number of years.
[6] Rodney Fort, "The Value of Major League Baseball Ownership," *International Journal of Sport Finance* 1, no.1 (2006): 9.
[7] Some reasons for this are that a league wants to have control over who becomes an owner (because factors beyond price matter), and it may be able to determine the approximate auction price based on recent transactions of existing franchises. However, the free agent market for athletes in most sports leagues is similar to an auction in that multiple franchises often bid for a players services. At times the resulting "price" is higher than most pundits thought would be the case (see Alex Rodriguez' contract in MLB). Additionally, the Federal Communications Commission has auctioned off wireless spectrum to bidders at prices that have gone for much more than when sold at pre-determined prices.
[8] Rodney Fort, *Sports Economics* (Upper Saddle River, NJ: Prentice Hall, 2003), 135-45.
[9] Opportunity cost is the value of the next best alternative. For instance, if a franchise owner broke even in terms of revenues and expenses, one might think that the owner did not lose anything. However, if the owner could have used the money invested in the franchise to invest in something else that would have made money, then, in this sense, the owner did lose money. The lost money compared with the opportunity foregone. Additionally, the owner's time has value and if the owner did not pay himself or herself a salary (as part of this example), then they forewent the opportunity to earn a salary elsewhere. Thus, opportunity cost should be included in the overall calculation.
[10] Thomas H. Bruggink and James W. Eaton, "Rebuilding Attendance in Major League Baseball: The Demand for Individual Games," in *Baseball Economics: Current Research*, ed. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1996), 26-28.
[11] Donald A. Coffin, "If You Build It Will They Come? Attendance and New Stadium Construction," in *Baseball Economics: Current Research*, ed. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1996), 42-46.
[12] Coates and Humphreys analyze the ability for franchise owners to pay for the bulk of stadium upgrades and new construction from the incremental gain in revenues that the owner will receive in the new stadium. The extent to which public financing is needed is different than the amount that a franchise owner can get via his or her leverage. See Dennis Coates and Brad R. Humphreys, "Novelty Effects of New Facilities on Attendance at Professional Sporting Events." *Contemporary Economic Policy*, 23, no.3 (2005): 436-55.
[13] Rodney Fort, *Sports Economics* (Upper Saddle River, NJ: Prentice Hall, 2003), 135-45.
[14] Paul D. Staudohar, "Baseball's Contraction Pains," *NINE: A Journal of Baseball History and Culture* 11, no.2 (2003): 73-84.
[15] The NFL's twenty-ninth franchise was unanimously awarded to the Carolina Panthers on October 26, 1993. The thirtieth franchise was awarded to the Jacksonville Jaguars on November 30, 1993. However, the expansion teams did not being playing until after their stadiums were constructed in 1995. Of this additional $280 million in new revenue for the NFL, each team within the league received approximately $9.9 million annually through 1998.
[16] The "Original Six" consist of the Boston Bruins, Chicago Blackhawks, Detroit Red Wings, Montreal Canadiens, New York Rangers and Toronto Maple Leafs who were the only NHL teams from 1942-1967.
[17] Gerard S. Mildner and James.G. Strathman, "Baseball and Basketball Stadium Ownership and Franchise Incentives to Relocate," in *Sports Economics: Current Research*, ed. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1999): 75-94.
[18] The agreement is for a 10-year lease. The team will pay $2 million annually in rent and receive all of the revenue from premium seating, advertising, naming rights, concessions, novelty and parking - a guarantee of at least $18 million in annual arena revenue. If attendance falls below 11,000 per game, the rent can be adjusted, but will be at least $1 million.

The City of New Orleans covered all relocation expenses too. The team moved into New Orleans Arena, which the city spent $15 million to upgrade to NBA-quality.
New Orleans' median household income is $38,800 a year, below the national average and below Charlotte's median income of $51,000. New Orleans' TV market, ranked 43rd nationally, is the smallest in the NBA; Charlotte's TV market ranks 27th.

[19] Those teams are the New Orleans Saints (1966), Seattle Seahawks (1974), Tampa Bay Buccaneers (1974), Carolina Panthers (1994), Jacksonville Jaguars (1994), Cleveland Browns (1999), and Houston Texans (2002).

[20] Daniel A. Rascher, and Heather Rascher, "NBA Expansion and Relocation: A Viability Study of Various Cities." *Journal of Sport Management* 18, no.3 (2004): 274-95.

[21] Minnesota Viking owner Red McCombs said the Vikings cannot remain competitive unless they get a new stadium to replace the Metrodome. Getting a new stadium built for the Vikings was Red McCombs' top priority, but measures to finance a stadium in Minnesota have twice failed. McCombs suggestion that the team relocate to San Antonio is unlikely due to the fact that San Antonio is another small market in a state with two teams, the Dallas Cowboys and the Houston Texans.

[22] See Baim and Sitsky and Rich for an in-depth discussion of the politics of stadium financing. Dean V. Baim,. and Larry Sitsky, *The Sports Stadium as a Municipal Investment* (Westport, CT: Greenwood Publishing Group, 1994). Wilbur C. Rich, *The Economics and Politics of Sports Facilities* (Westport, CT: Quorum Books, 2000).

[23] Gerard S. Mildner and James.G. Strathman, "Baseball and Basketball Stadium Ownership and Franchise Incentives to Relocate," in *Sports Economics: Current Research*, ed. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1999): 79.

[24] Dennis W. Carlton, Alan S. Frankel, and Elizabeth M. Landes, "The Control of Externalities in Sports Leagues: An Analysis of Restrictions in the National Hockey League," *Journal of Political Economy* 112, no.1 (2004): 268-88.

[25] The Curt Flood Act of 1998 only changed the exemption with regards to labor relations. Although *Brown v. Pro Football*, as Zimbalist (2003) notes, prevents the players from receiving protection under both labor law and antitrust law.

[26] Memphis had attracted enough investors to buy a 49 percent interest in the team, while Louisville investors were only able to offer a 20 percent stake in the team. FedEx helped to seal the deal for Memphis by agreeing to pay $100 million for naming rights for a new stadium in Memphis, matching the offer of Tricon Global Restaurants (parent company of Kentucky Fried Chicken, Pizza Hut and Taco Bell) that reportedly offered $100 million for the naming rights of the new arena.

[27] Daniel A. Rascher, and Heather Rascher, "NBA Expansion and Relocation: A Viability Study of Various Cities." *Journal of Sport Management* 18, no.3 (2004): 274-95.

[28] In 1999 there were 29 teams in the NBA, with two located in Canada (the Vancouver team has recently moved to Memphis, Tennessee), and two each in the Los Angeles and New York areas.

[29] Bruggink, T.H., and J.M. Zamparelli. 1999. "Emerging Markets in Baseball: An Econometric Model for Predicting the Expansion Teams' New Cities". In Sports Economics: Current Research, eds. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1999): 49-60.

[30] The choice of the 23 non-NBA cities is simply based on MSA population.

[31] These variables were chosen based on a review of the literature, on the availability of data, and on knowledge regarding the theory of demand. Ultimately, the data will determine their applicability.

[32] Bruggink, T.H., and J.M. Zamparelli. 1999. "Emerging Markets in Baseball: An Econometric Model for Predicting the Expansion Teams' New Cities". In Sports Economics: Current Research, eds. J. Fizel, E. Gustafson, and L. Hadley (Westport, CT: Praeger, 1999): 49-60.

[33] J.C.H. Jones, and D.G. Ferguson, "Location and Survival in the National Hockey League" *Journal of Industrial Economics* 36 (1988): 443-57. Glen Seredynski, J.C.H. Jones, and D.G. Gerguson, "On Team, Relocation, League Expansion, and Public Policy: Or, Where Do We Put This Hockey Franchise and Why Would You Care?," *Seton Hall Journal of Sport Law* 4 (1994): 663-700. Angelo Cocco, and J.C.H. Jones, "On Going South: The Economics of Survival and Relocation of Small Market NHL Franchises in Canada," *Applied Economics* 29 (1997): 1537-52.

[34] A positive consumption network externality is often associated with network technology products, such as an operating system where each addition to the installed base of users of the incumbent product adds value for each of the existing and potential users. Another classic example is the telephone – it is valueless to a user if he/she is the only one with a phone, but as more users purchase telephones, the value of a phone to each user increases.

[35] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992).

[36] A natural monopoly is an industry whose profitability is positive only if one firm is in the industry, whereas if two or more firms were present, each firm's profits would be negative. Similarly, an industry is a natural monopoly if the cost of producing a particular good is minimized if only one firm produces it. The policy issue balances how society can benefit from low-cost production by one producer, but not be subject to the potential abuse of a monopolist.
[37] This is an example of what economists call non-rival production, where consumption by one does not reduce the amount available to others.
[38] Limit pricing is when an incumbent sets the price just below the minimum long-run average cost of the most formidable potential entrant, thus dissuading the entrant from entering at all.
[39] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992).
[40] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992), 304.
[41] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992), 312.
[42] Andrew Zimbalist, *May the Best Team Win: Baseball Economics and Public Policy* (Washington, D.C.: Brookings Institution, 2003).
[43] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992), 325-27.
[44] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992), 325-27.
[45] Quirk and Fort offer concise economic histories of rival leagues. Some of the information in the remainder of this chapter draws on their descriptions. James Quirk, and Rodney D. Fort, *Pay Dirt: The Business of Professional Team Sports* (Princeton, NJ: Princeton University Press, 1992), 340-41.
[46] Evan Weiner, and Heather Rascher, *A Business History of Professional Football*, Unpublished manuscript (2005).