THE "OFFICIAL PAPER" ON OFFICIAL SPONSORSHIPS: THE IMPACT OF MAJOR LEAGUE SPORTS OFFICIAL SPONSORSHIP ANNOUNCEMENTS ON THE STOCK PRICES OF SPONSORING FIRMS

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ABSTRACT

This study presents the first formal analysis of the impact of "official product" or "official service" sports sponsorships of the National Football League (NLF), Major League Baseball (MLB), the National Hockey League (NHL), the National Basketball Association (NBA), and the Professional Golfers' Association (PGA) on the stock prices of sponsoring firms. The primary finding of the study—that major league official sponsorship announcements were accompanied by economically and statistically significant increases in shareholder wealth—represents a striking and unambiguous stock market endorsement of the sponsorships. Indeed, the 53 sponsors analyzed in this study experienced mean increases in shareholder wealth of between $123 million and $558 million, *net* of all of the costs expected to be associated with the sponsorships. A multiple regression analysis of firm-specific stock price changes and select corporate and sponsorship attributes indicates that official product or service sponsorships with the NBA, NHL, and PGA and those with smaller product/service market shares were associated with the largest gains in share prices. While corporate cash flow (a proxy for agency conflicts within a firm) is statistically unrelated to shareholder approval, sponsorships by high technology companies were associated with stronger stock price reactions than otherwise (a variable shown in previous research to be consistent with corporate signaling). Finally, product or service "congruence" or "relatedness" with the overall sporting experience was positively related to changes in stock prices at the time of announcement of the official sponsorships.

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The area of marketing communications has experienced a quiet, yet significant transformation over the past two decades. Some scholars have gone so far as to foretell the death of "traditional" advertising techniques at the hands of recent (and yet to be envisioned) technological developments and widespread media fragmentation (Rust and Oliver 1994). While a casual glance at any mass market media publication or television program should convince anyone that advertising (as typically defined) remains alive and well, it is also clear that the role advertising plays vis-à-vis other forms of marketing communications has been radically transformed. Leading the way toward these changes have been the so-called "non-traditional" promotional techniques such as sponsorship-linked marketing.

While alternative definitions exist, Cornwell's (1995) discussion of sponsorship-linked marketing as ". . . the orchestration and implementation of marketing activities for the purpose of building and communicating an association to a sponsorship" surely encompasses the ultimate goal of most corporate sponsorship activities—particularly those involving major league sporting events. Thus, the transformation of marketing communications through the use of major sponsorship programs and related activities has mandated significant changes in many aspects of "advertising," including creative content, media choice and placement, and the overall pattern of spending at many firms. For example, many contemporary sponsorship contracts include guaranteed and (not infrequently) sizeable—expenditure commitments on the part of the sponsor. Needless to say, many of these specialized campaigns are also thematically tied to specific aspects of the sponsored events.

Although a considerable literature has developed in tandom with the growth of sponsorship-linked marketing in practice (see, e.g., Cornwell and Maignan 1998), the preponderance of this research has considered only the main or title sponsorship relationship, either implicitly (e.g., Johar and Pham 1999) or explicitly (e.g., Clark, Cornwell, and Pruitt 2002). Only recently has significant attention been paid to the influence of multiple sponsorships (Ruth and Simonin 2003), to sponsorship portfolios (Cliffe and Motion, in press), or to sponsorships at different levels on consumer cognition and purchase decisions. To date, no academic study has specifically investigated issues related to the long-standing and popular sponsorship-linked designation of "official product."

Official product or service sponsorships can be compared to main or title sponsorships in a number of ways. First, although specific sponsorship contract amounts are largely unavailable, official product sponsorships can be as expensive in absolute terms as are title sponsorships. For example, in 2003, Nextel secured the title sponsorship of the NASCAR Nextel Cup Series in return for an estimated $600-$750 million rights fee payment over ten years. As a point of comparison, Gatorade (now a PepsiCo brand) paid the NFL approximately $500 million for eight seasons to become "the official sports beverage of the NFL" (Markiewicz 2004). Second, like other forms of sponsorship, official product sponsorships must be leveraged or activated by collateral advertising and promotion in order for the value of the sponsorship to be fully realized. Typically, leveraging involves a suite of promotions. Take for example, the National Baskeball Association's relationship with PepsiCo's Gatorade as the "official sports drink of the NBA;" it includes player endorsements, team partnerships, expanded grassroots programs and media (Reuters News 2002). Lastly, official product sponsorships like large scale event sponsorships offer national

coverage which is important for marketers seeking to have media exposure that parallels their national product distribution.

On the other hand, official product and service sponsorships also clearly differ in important ways from other forms of sponsorship. First, official product and service sponsorships are, by definition, tied more closely to product and service usage than are title sponsorships. Indeed, such official sponsorships are likely to be much more closely tied to individual events, series, or tours than any other form of marketing communication. Second, while all sponsorships may be financed via the bartering of products or services in return for recognition and sponsorship rights, the fact that official product and service sponsorships are almost always financed in this way, at least in part, presents unique opportunities to demonstrate the potential benefits of the product or service both at the event itself and to broadcast audiences. Returning again to the Gatorade example, Gatorade's "official sports beverage of the NFL" sponsorship includes $45 million annually in rights fees, $16 million in guaranteed advertising, and $1.2 million in free products (including large Gatorade coolers and the ubiquitous Gatorade drinking cups seen on every sideline). Finally, and related to the above two points, official product sponsorships may offer a unique, commercial grassroots support image (Schlosser 1995) and hospitality opportunities that are strategically important with dealers, distributors, and the trade (Business Wire 1998). This would be especially likely to be true in the case of tangible consumer goods for which "free samples" constitute an important direct purveyor of individual product attributes.

The purpose of this study is to quantitatively analyze the net economic value of major league sports official product or service sponsorships via an examination of the stock prices of sponsoring companies around the time of initial announcement.

Given that official sponsorship rights fees represent sizeable investments averaging about one percent of total product sales for major sponsors (Pickett 2004) and are, as well, one of the most important non-television revenue sources for major league sports associations—representing $100 million for the National Football League alone (Murphy 2004)—it is difficult to overstate the significance of official sponsorships to the international marketing landscape. The basic question asked—and answered—in this study is simple, but important: Have stock market investors viewed major league sports official sponsorships as particularly good investment decisions? Or rather poor ones?

WHY STUDY STOCK PRICES?

Although virtually no one doubts the ability of official sponsorships to help communicate with broad segments of the consuming public, the question of the "bottom-line" value of these important marketing programs has yet to be addressed in the empirical literature. Not surprisingly, the key question in the case of *all* sponsorships is clearly one of accountability—that is, do the sponsorship benefits which accrue to corporate shareholders exceed their respective costs? Of the various measures of sponsorship accountability free from the biases inherent in surveys of corporate managers and marketing consultants, techniques employing changes in stock prices have proven particularly useful and—by virtue of the fact that stock returns are the *only* metric which directly reflect changes in the financial health of the corporation's owners—extraordinarily relevant. Through their buying and selling decisions, investors establish consensus estimates of the market values of firms based upon changes in business practices and the overall business environment—upward in the case of information thought likely to lead to increases in future cash flows (and/or reductions in expected risks), and downward in response to future reductions in

earnings (and/or increases in expected risks). For example, Mathur, Mathur, and Rangan (1997) and Clark, Cornwell, and Pruitt (2002) employ stock price changes to determine the impact of, respectively, celebrity endorsement and stadium sponsorships on signing firms.

While it is likely that few managers choose to enter into official product or service sponsorships hoping to *directly* increase their firms' stock prices, most senior-level managers today are well aware of investor skepticism involving corporate operations which generate significant non-pecuniary benefits to the managers at essentially no direct cost to themselves (e.g., VIP treatment at league games).[1] Hence, by examining changes in stock prices around the time of official product or service sponsorship announcements, it is possible to get a firm handle on the market's unbiased assessment of the value of the sponsorships, *net of the present value of all of the costs expected to be incurred.* Reasoned estimates of this value are sure to be of significant interest to many diverse constituencies, including academic researchers, corporate managers and their boards of directors, marketing professionals, sports league officials, and professional athletes.

A BRIEF HISTORY OF MODERN OFFICIAL SPONSORSHIPS

The tremendous expansion of corporate sponsorship of activities and events is frequently discussed as emanating from the successes of tobacco companies in the 1970s following the ban of tobacco advertising on broadcast television. Thus, it was not coincidental that the Winston Cup title sponsorship of NASCAR was born in 1969 (Borio 2004). While the exemplary successes of these companies in legally maintaining broadcast communications via the medium of sponsorship is now indisputable

[1] Clark, Cornwell, and Pruitt (2002) present a detailed discussion of the importance of these "agency conflicts" (as they are known in the literature) in the context of major corporate sponsorship decisions.

(Cornwell 1997), other factors have pushed marketers of non-tobacco products toward the increased use of sponsorships. Clearly, one of the most important of these factors was the exclusivity made possible through sponsoring. From the early 1970s to the mid-1980s, sponsorship was a much less cluttered and much less competitive advertising medium than was television. However, as the popularity of sponsorships grew, clutter quickly followed. But, by the time sponsorships really took off in the late 1980s, many marketers of high volume consumer goods had discovered an additional, and perhaps even more important advantage of sponsorships—particularly those involving major league sports: *Fan* loyalty to a team or sport could translate into *brand* loyalty for a sponsoring product or service.

Perhaps the most documented and visible instances of the translation of fan loyalty to brand loyalty have involved NASCAR sponsorships. According to one source, ". . . 72% of NASCAR fans almost always or frequently buy brands that sponsor over ones that don't" (Baldwin 2001). Unfortunately, empirical evidence to support the actual extent of the conversion of fan loyalty to brand loyalty is not available across different sports or product categories, but the underlying logic is clearly the same. In crowded consumer product or service categories where many competing brands exist in relative parity, it is not at all unreasonable to assume that avid sports fans might reach for "the official _____ (your product here) of the ____ (your sports league here)" in low-risk purchase decisions involving decidedly similar offerings. Not surprisingly, the ability of sponsorships to sway consumers in purchase decisions involving big-ticket consumer durables appears more speculative (Godwin 2004).

While it is difficult to pinpoint the first use of the term "official sponsor," the meaning and marketing importance we ascribe to the words today might be traced

back to the 1984 Olympic Games held in Los Angeles. The Los Angeles Olympic Games were the first to be privately financed. The resources to produce the games were raised almost exclusively through sponsorship arrangements, with corporations making greater financial commitments rewarded by being recognized as "official sponsors." Likewise, as the communications value of large events became clearer and the line was drawn (often enforced by lawsuits) between "official sponsors" and non-sponsors, the modern science—and art—of "ambushing" was born. Sandler and Shani (1989) describe ambushing as the efforts of an organization to associate itself *indirectly* with an event in the hope of reaping essentially the same benefits as an official sponsor. Thus, corporations employing ambush techniques to capitalize on the communications value of an event without the associated costs of sponsorship pushed the importance of the "official sponsor" designation for participating companies higher still.

WHY DO COMPANIES UNDERTAKE OFFICIAL SPONSORSHIPS?

The reasons for official sponsorships are not unlike the well documented reasons given for sponsoring in general, including improving goodwill, enhancing image, increasing brand and corporate awareness, improving sales or profitability, hospitality, and employee relations (Cornwell and Maignan 1998; Clark, Cornwell, and Pruitt 2002). However, official sports league sponsorships may offer a number of distinct advantages over more generalized types of sponsorship activities, including long-term connections with a loyal and attentive audience, access to league fans via databases and email links (Lefton 1999), and, as noted above, a more direct (and, thus, less ambiguous) linkage between the sponsoring product or service and the on-field successes of the sponsored sport.

In addition, it is possible that some managers may seek to employ official product or service sponsorships to *directly* influence individual expectations by conveying relevant new information ("signals") concerning the marketing activities of their firms. To the extent that consumer (and investor) perceptions of a brand may be enhanced via the signal of an official league sponsor designation (with all of the attendant information flows—including those from brand to consumer and from consumer to brand), their perceptions of a given sponsorship or brand may be swayed by the equity perceptions of the brand. This idea of brand equity's role in perceptions has already found empirical support in a study of consumers and their perceptions regarding sponsorship match (Roy and Cornwell 2003).

Finally, the value of a sponsorship to consumers (and/or investors) may also be subject to "Weber's Law" (Miller 1962), which states that a stimulus change (in this case, the value of the new sponsorship commitment to a brand) needed to produce a noticeable difference in marketing presence is a constant proportion of the starting level of the stimulus. Thus, the additional value a brand may achieve by virtue of its designation as an "official product sponsor" and the overall market share of that brand may be inversely proportional. Therefore, it is possible that brands with lower market shares or those with smaller communications budgets *prior* to the initiation of a official sponsor relationship may tend to generate the greatest returns from their sponsorship investments. In other words, official product sponsorships may help level the playing field between larger, nationally dominant brands and their smaller competitors.[2] Naturally, these perceptions are grounded in the reality of the firm

[2] The $300 million sponsorship fees paid by the Coors Brewing Company in return for becoming "the official beer of the NFL" is a high profile example of this very sort of corporate sponsorship decision. Molson's sponsorship agreement to become the "official beer of the NHL" is yet another. (See, e.g., Proctor 2004.)

making a sufficiently meaningful new promotional commitment to the sponsoring brand.

WHY DO SPORTS LEAGUES ENCOURAGE OFFICIAL SPONSORSHIPS?

The simple answer is money. How much money? For the NFL alone, approximately $100 million each year (Murphy 2004). The monies and bartered products and services brought in via sponsorship help finance league operations, winnings or purses, and, potentially, subsidize ticket prices for sporting consumers (Thorsberg 1999). Sponsorship also plays an important role in the communication of league events through consumer promotions and thematically-tied advertising. Moreover, and perhaps recently of overshadowing importance, sponsors support media spending during prime event broadcasts and so-called "shoulder" programming prior to major sporting events (i.e., the ubiquitous "pregame show"). For example, after National Car Rental became the "official car rental company" of the National Football League, the company committed to a threefold increase in its yearly NFL media buy (Lefton 1999).

In the final analysis, of course, the enormous impact of corporate sponsorship dollars on professional sports league viability and overall league success may be seen most clearly in the negative examples of the many sports leagues which subsequently failed as a direct result (some more, some less) of the failure to attract sufficient numbers of them. Indeed, the list of failed professional sports leagues is a veritable alphabet soup and includes (without spelling the formal league names out of respect for the departed) the WUSA, the XFL, the USFL, the USBL, the WHA, the WLAF and the NASL, among many others. There is no doubt about it: Sponsorship dollars can, quite literally, mean the difference between life and death to a professional sports

league, and the official league product or service sponsorship is today among the most important types of sponsorships to most professional sporting associations.[3]

PREVIOUS RESULTS

Although the literature on sponsorships is rather extensive, to date there have been no studies specifically addressing the impact of official product or service sponsorship agreements for the five most prominent sporting associations in the United States (the National Football League, Major League Baseball, the National Hockey League, the National Basketball Association, and the Professional Golfers Association). Interestingly, those studies of the impact of official sports sponsorships which have been conducted have generally focused upon various Olympic Games or automobile racing.

In a study directed toward determining the effectiveness of official sponsorships and ambushing at the Adelaide Formula One Grand Prix race on consumer awareness, Quester (1997) documented that sponsor/sport "relatedness" or "congruence" plays a crucial role in consumer recall. Sponsors or products which were viewed as being closely related to automobile racing or the consumer automotive industry were recognized far more often than were the sponsors of unrelated products. This finding was later supported, in the context of the Indianapolis 500 Mile Race, by Cornwell, Pruitt, and Van Ness (2002). These authors showed that Indianapolis 500 race-winning sponsors with direct ties to the consumer automotive industry experienced increases in stock prices at the time of their victories almost 3 percent higher

[3] There is also a certain undeniable "success spiral" aspect of sporting sponsorships. Since sponsorship dollars pay for television programming time, and since official product sponsors are among the most prodigious of television advertisers, the more official product or service sponsorships a professional sporting league boasts, the greater the likelihood that that league will be able to support a program on television as each official sponsor attempts to exploit its position as an official league sponsor. But, as well, the more television coverage a league obtains, the more popular the league is likely to become, which raises rights fees paid by official product sponsors (and the desireability of obtaining official product or service rights) further still. Of course, the spiral can also work in reverse.

than the sponsors of unrelated products such as tobacco or pizza. Quester's findings on the effectiveness of ambushing were also intriguing, and suggested that, when asked which companies sponsored the Adelaide Formula One race, attendees appeared to "guess" as much as they retrieve stored information from memory of the event itself. Thus, according to this view, official product or service sponsors may lose a significant proportion of their "comparative advantage" as official sponsors to larger companies who chose not to become official sponsors. This idea was independently developed by Johar and Pham (1999) and termed the prominence bias.

Studies of the wealth effects of Olympic official sponsorship announcements have been conducted by Farrell and Frame (1997) and Miyazaki and Morgan (2001)—and with completely contradictory results. While Farrell and Frame identify negative and statistically significant share price reactions around the time of announcement of official Olympic sponsorships, Miyazaki and Morgan report statistically significant increases in stock prices.

Finally, one event study that may or may not have included major league official product or service sponsorships as a component of a larger and more generalized data set of sports sponsorship announcements has also been conducted. Kinney and Greg (2003) investigate the share price impacts of 61 "sports sponsorships" reported in the *Wall Street Journal.* The authors did not separately categorize announcements of official product or service agreements from other, more common types of sporting sponsorships (e.g., "event" sponsorships such as those involving the Olympics, the "Buick Open" golf tournament, the "Coca-Cola 600" NASCAR race, or the "Tostito's Fiesta Bowl"). Further, as their data set was "universal" (in the sense that it included *all* sports, including yachting, soccer, cycling, and equestrian events), only a small fraction of their sample included baseball, basketball, football, hockey, or golf spon-

sorships and, as noted, this fraction included an unknown number (possibly zero) of the official product or service sponsorships formally investigated here. Given the diversity of their data set, the authors' failure to document statistically significant changes in stock prices (either positive or negative) for their full sample of "sports sponsorship announcements" is not surprising.

Studies employing event study methodologies have enjoyed increasing acceptance in marketing and management over the past ten years. Loosely based upon the capital asset pricing model (CAPM) from the field of finance, the ordinary least squares market model (and its close variants) initially entered the marketing literature in scholarly efforts by Bobinski and Ramirez (1994), Agrawal and Kamakura (1995), and Mathur and Mathur (1996). As noted above, despite their importance to the financial health of top-tier sports leagues and the high dollar values involved, no previous studies of the shareholder wealth effects of official product or service sponsorships involving the most popular major league "ball and stick" sports have yet appeared in the literature. Fortunately, this study was designed specifically to fill this important informational dearth.

DATA

The initial official product and service sponsorship lists for Major League Baseball (MLB), the National Hockey League (NHL), the National Basketball Association (NBA), the PGA Tour (PGA), and the National Football League (NFL) analyzed in this study were drawn from the web pages of each sport during 2003 and 2004. Official sponsors are defined—both for the purposes of this study and by the five major league offices—as those companies, corporate brands which have compensated the league offices for the exclusive right to claim, for example, that they are "the official sports beverage of the NFL" or "official product sponsor of the PGA." As

such, no title or event sponsorships were included in the sample. These five leagues were selected for inclusion in the analysis since—with the exception of NASCAR automobile racing (a non-"ball and stick" sport)—they are, by far, the most popular professional spectator sports in the U.S.[4] Unfortunately, an inadequate number of event data points precluded the inclusion of sponsors of the two major professional women's sporting associations (the LPGA and theWNBA).

Since identification of the first date of announcement of any informational release is *the* paramount consideration in any stock price, event-based analysis (e.g. Brown and Warner, 1985), great care was taken to determine the first trading opportunity following each sponsorship announcement through searches of the Lexis-Nexis and Factiva databases. Nonetheless, although confidence may be placed in the underlying assumption of this study that each included sponsorship announcement represented new information not previously available to the market, event windows of varying length around the announcements are also analyzed to capture evidence of pre-announcement leakages prior to actual signing as well as to allow stock market participants sufficient time to digest the informational content of the announcements. To increase confidence in the empirical results, each announcement data was cross-checked for any contemporaneous confounding announcements by the sponsoring firms (e.g., mergers, stock splits or earnings announcements).

Following standard practice, the University of Chicago's computerized Center for Research in Security Prices (CRSP) database served as the data source for all analyzed stock market data. Thus, only those publicly-traded U.S. manufacturers and foreign-based companies with U.S.-traded ADR (American Depository Receipt)

[4] Mean Nielson television ratings for the five sports range from a high of 11.8 (NFL) to a low of 1.8 (NHL). Actual spectator attendance figures ranged from a high of about 67,000,000 (MLB) to a low of about 11,000,000 (PGA). Source for attendance figures was ESPN (www.sports.espn.go.com).

shares listed on the tape up through December 31, 2003 were included in the analysis. In order to enhance the relevance of the study with respect to current marketing practice, only those sponsorships which were initiated after January 1, 1990 are included in the study.

EMPIRICAL METHODOLOGY

The event-time methodology employed in this study to measure the economic value of the sponsorships has enjoyed wide acceptance in the fields of finance, accounting, marketing, and management. It is, in fact, *the* standard assessment metric for the measurement of the net economic value of any corporate event—marketing or otherwise—for which precise announcement dates may be obtained. Commonly referred to as the "market model," the methodology involves the estimation of a time-series of stock market returns to measure the effects of temporally distinct events (in this case, official product or service sponsorship announcements) upon the stock prices of the affected firms.[5]

The statistical procedure employed in the generation of the stock market results for this study is known as the Scholes-Williams standardized cross-sectional market model. With this state-of-the-art technique, three separate parameter estimating regressions between the stock market index (in this case the CRSP value-weighted index of all stocks in the database) and the stock prices of each company were performed over event days t = -26 to -275, relative to the day t = 0 first day-of-trading date following each sponsorship announcement. The combined results of these

[5] The relationship between stock market *prices* and the one-day holding period stock market *returns* listed on the CRSP tape is very simple and may be expressed formally as follows:

$$R_{i,t} = [P_{i,t} - P_{i,t-1} + D_{i,t}] / P_{i,t-1},$$

Where $R_{i,t}$ is the one-day holding period stock return for security i on day t, $P_{i,t}$ is the closing price of stock i on day t, $P_{i,t-1}$ is the closing price of stock i on the trading day before day t, and $D_{i,t}$ is any cash dividend or other distribution accruing to the holders of stock i at time t.

regressions—both a slope and an intercept—were then used in conjunction with actual changes in the CRSP market index to estimate expected stock changes for each sponsor over a 51-day event window beginning 25 trading days prior to and ending 25 trading days following the announcements. The Scholes-Williams approach was specifically developed to eliminate the problems associated with nonsynchronous trading which sometimes occurs in event-based studies with firms of widely varying market values.

The daily stock price effects of each individual sponsorship announcement, or abnormal returns, are defined as the actual daily stock price changes less the expected returns generated by the model. By extension, the mean abnormal return for each event day t is merely the arithmetic average of the individual abnormal returns registered by the companies on each event day. Finally, the mean cumulative abnormal return (*MCAR*), is defined as the cumulative total of the individual daily mean abnormal returns registered between any two specified event dates of interest (e.g., t = -2 to +2).

All statistical calculations were performed using the EVENTUS program for personal computers developed by Cowan Research, L.L.C. This program, which is currently licensed to over 100 research universities worldwide, has become the defacto standard for state-of-the-art event-time stock price analyses in every field of academic research. Interested readers are encouraged to contact the authors for details regarding the actual mathematical procedures employed in the calculation of the abnormal returns and their associated test statistics (Z).

EMPIRICAL RESULTS

Event Analysis

Table 2 presents a summary of the mean abnormal returns (*MAR*) and their associated test statistics (*Z*) for select days over the interval from t = -25 to +25 for the overall sample of official sponsorship announcements. In addition, Table 2 also reports the number of events in the sample (*53*), the number of firms registering positive abnormal return changes (*N*+), and the associated test statistic (*Z*) for this fraction for each event day. Under the null hypothesis of no sponsorship announcement wealth effect, the mean abnormal returns for each event day should approximate zero, while the simple fraction of firms registering abnormal return increases should approximate the random chance probability of 0.5.

Clearly, with the exception of the *Z*-statistics for the simple fraction of firms registering positive abnormal returns over event days t = +4 and +5 (one quite negative and one quite positive), there would appear to be no evidence presented in Table 2 suggesting that official sponsorship announcements are either positive or negative events for sponsoring firms. However, this null result—which clearly differs from earlier research on stadium, NASCAR, and celebrity endorsement contracts (all of which report positive abnormal returns around event day t = 0)—is subject to an important caveat: Insignificant event returns over single days may not reflect the overall economic or statistical importance of the event when measured over longer, multiple-day windows.

Table 3 reports the results of tests of mean cumulative abnormal return (*MCAR*) levels over four different event windows surrounding the official sponsorship announcements. These windows are commonly employed in the empirical literature

and seek to capture evidence of longer-term revaluations in response to the aggregated sponsorship announcements.

The most striking result shown in Table 3 is the large (*MCAR* = 1.11 percent) and statistically significant (Z = 2.318) increase in stock prices registered by the sponsoring firms for the trading week surrounding the announcements (event days t = -2 to +2). This finding reflects considerable investor enthusiasm for the programs and provides strong support for Crimmins and Horn's (1996) position that sponsorships can do much more for a corporation than merely stroke managerial egos. Indeed, the results remain statistically significant (at at least the 10 percent level) as the event window is expanded to 21 event days (event days t = -10 to +10). The fact that just under two-thirds of the firms in the sample (Z = 2.356) experienced abnormal return increases over this interval indicates that the noted mean return effects were not driven by the presence of a few outlying observations.[6]

In order to put the noted increase in share prices into proper perspective, it is necessary to calculate the market's estimate of the total dollar net present value (NPV) of the sponsorship investments. This value may be calculated by multiplying the mean percentage abnormal return for the sponsorship sample over various event windows by the mean market value of the sponsoring firms on event day t = -26.[7] Looking only at the *MCAR* values over the three event windows which report statistical significance (t = -2 to +2, -5 to +5 and –10 to +10) results in mean sponsorship valuation increases of between $256.9 million, $122.6 million, and $557.7 million,

[6] Although analysis of the cumulative abnormal return (*MCAR*) levels over the event interval from t = -25 to –11 shows evidence of negative stock price movements (*MCAR* = -1.81 percent; t = -2.143), there would seem to be little reason to conclude that these abnormal returns were driven by information relating to the official sponsorship announcements. In addition, study of the event window from event days t = +11 to +25 show no evidence of any statistically significant changes in share prices (*MCAR* = -0.42 percent; t = 0.014).

[7] Event day t = -26 is chosen for the NPV calculations since it is the nearest day prior to the announcements yet still outside of the chosen event window. The mean market value of the 53 sponsoring firms on event day t = -26 was $23.141 billion.

respectively. These numbers compare very favorably with the $334 million increase reported by Pruitt, Cornwell, and Clark (2004) in a study of NASCAR sponsorships—a result which itself represented one of the largest increases in shareholder wealth recorded in the marketing literature. Indeed, regardless of which number one prefers to discuss, to say that results achieved constitute a stock market endorsement of the 53 studied major league official sponsorship announcements is a striking understatement. Further, it must be emphasized that these increases in shareholder value are *net of all expenses likely to be incurred in the development of the sponsorships.*

Panels A through E of Table 4 continue the analysis by providing the identical information presented in Table 3 for each of the five major league sports included in the study. While subject to some degree of qualification due to the small sample sizes involved (which range from 8 to 14 events), the results presented in Table 4 do suggest statistically and economically significant cross-sectional differences in the level of the mean cumulative abnormal return (*MCAR*) levels by sport. Although the results for the NFL are indistinguishable from zero in each of the five studied event windows, those of the NBA, the NHL, and the PGA are positive, while, in the case of the longest examined event window, at least, those for major league baseball (MLB) are quite negative.

Cross-sectional regressions

In an effort to further clarify several issues with respect to the studied official sponsorship announcements, a multiple regression analysis was performed. For this regression, the cumulative abnormal return level registered by each sponsor over event days t = -10 and +10 (in percent) served as the dependent variable, while specified sponsor and league attributes served as the independent variables. Each of the included independent variables is discussed in turn below. The interval from

event days t = -10 to +10 was selected for analysis because it is the longest event window to show evidence of abnormal return behavior for the aggregated sample of sponsoring companies (Table 3).[8] As such, this interval would be the most likely to fully reflect all available information regarding the sponsorships without unduly influencing the results via contamination from unrelated corporate events.

The independent variables selected for inclusion in the model include the market value of corporate equity, the level of corporate cash flow standardized by corporate market value, the estimated market share of the sponsoring product or service in its individual product or service category, and dummy variables reflecting if the sponsoring product or service was likely to be considered by the consuming public as reasonably related or "congruent" with the sponsored sport or sporting lifestyle, if the sponsoring company was in a high technology industry, and the sponsoring league was a member of the NBA, the NHL, the NFL, or the PGA.[9] The reasons for including each of these variables in the model are discussed below.

The market value of equity (MARKET VALUE) was included as a variable to assess the effects of differences in corporate scale on sponsorship returns. Generally, *ceteris paribus,* the sign of this variable would be expected to be negative, as for any given *fixed* level of sponsorship net present value (NPV), its *percentage value* (the value measured in our abnormal return calculations) must necessarily decline as corporate size increases. Accordingly, the direction of the correlation between the mean shareholder wealth effects and the variable MARKET VALUE is expected to be negative.

[8] Not surprisingly, the expansion of the interval from event days t = -25 to +25 failed to document any statistically significant changes in corporate share prices.

[9] Major League Baseball, as the "national pastime" of the United States, was selected as the league baseline and, therefore, its influence is reflected in the intercept of the regression.

The variable CASH FLOW, calculated from data items included on the Standard and Poor's Research Insight data tape or company-specific sources such as corporate annual reports (and formally defined as total corporate cash flow divided by the market value of equity), was included in an effort to proxy the potential for agency expropriations by managers within the sponsoring firms. As noted by Jensen and Meckling (1976), and, in the case of the marketing literature by authors such as Crimmins and Horn (1996) and Clark, Cornwell, and Pruitt (2002), agency conflicts exist whenever non-owner managers place their own welfare and preferences above the desires of shareholders in any decisions involving investments of corporate assets. Since sporting sponsorships obviously carry significant potential for top-level managers to indulge their personal proclivities for the company of professional athletes and sporting events at virtually no cost to themselves, the possibility for an agency-related motive to drive at least some sponsorship decisions cannot be summarily dismissed. Further, to the extent that such possibilities do exist, they will, a priori, obviously be much more likely to occur in firms with higher levels of free corporate cash flows, since the effectiveness of shareholder monitoring of corporate expenses declines as cash flows rise (see, e.g., Weston, Siu, and Johnson, 2002). Thus, the correlation between sponsor abnormal returns and corporate free cash flows per share is hypothesized to be negative.

The continuous variable MARKET SHARE reflects the proportion of the market share of each product or service category held by the sponsoring product or service prior to the initiation of the official sponsorship. This data, which was obtained from various issues of the Market Share Reporter (Gale Research, Detroit, MI), was included to ascertain if companies with larger or smaller market shares benefit more from official sponsorships. As noted above, "Weber's Law" (Miller 1962)

implies that, for any given level of sponsorship resource commitment, firms with the lower initial market shares will tend to garner the largest benefits. Stated somewhat differently, products or services with very large market shares probably have already picked off most of the "low hanging fruit" and that sponsorships involving companies with truly dominant market positions may find sponsorships less effective in raising sales or market shares than firms starting from a much lower base. Accordingly, the correlation between the variable MARKET SHARE and firm-specific cumulative abnormal return levels is hypothesized to be negative.

The dummy variable LINKED (related company = 1; otherwise = 0) was included in deference to the results of Otker and Hayes (1987) and McDaniel (1999), and the writings of Crimmins and Horn (1996), who suggest that the strength of the linkage between sponsor and event is an important determinant of sponsorship success. For the purposes of this study, "linked" sponsorships are those in which the sponsoring product either has a direct relationship to the sponsored sport (Converse shoes for the NFL or John Deere tractors and the PGA) or is likely to be seen or used while attending or watching televised league events (Coors or Budweiser beers and Claritin allergy medicine) and/or is clearly consistent with an active sporting lifestyle (Bally's Total Fitness Centers). Sponsoring products or services such as medicines for erectile disfunction, banks, mattresses, motor oil, and other seemingly unrelated products are considered unrelated to the sponsored sporting leagues for the purposes of this study. Clearly, to the extent that a reasonable linkage between the sponsoring product or service and the sponsored league exists, the correlation between the variable LINKED and abnormal changes in stock prices around the time of official league sponsorship announcements is assumed to be positive.

The dummy variable HIGH TECH (high technology company = 1; otherwise = 0) was included in an attempt to ascertain whether high technology firms in the computer, internet and telecommunications industries experienced more or less positive market reactions following the announcements of their sponsorships than did older-line companies such as banks, airlines, utilities, and consumer products manufacturers. As noted by Clark, Cornwell, and Pruitt (2002), not only may sports sponsorships lead to significantly increased visibility for some smaller, high technology firms, but the relatively large, long-term, and fixed rights payments associated with the typical major league official sponsor agreement might be used by managers to attempt to unambiguously signal to investors strong beliefs with respect to expected future profitability. Accordingly, the direction of the correlation between the mean shareholder wealth effects associated with major league official sponsorship announcements and the variable HIGH TECH is assumed to be positive.

Finally, individual league dummy variables for the NBA, the NFL, the NHL, and the PGA are included to isolate the mean cross-sectional wealth effects by league originally noted in Panels A through E of Table 4. As would be suggested by the results presented in Table 4, all four dummy variables are expected to enter into the equation with a positive coefficient and seek to ascertain the additional value added by each of these sports leagues vis-à-vis the mean wealth effects associated with Major League Baseball (MLB) official sponsorships.

One independent variable conspicuously absent from the regression equation is the actual yearly (or total) cost of the sponsorships. Unfortunately, the amount of money paid by the vast majority of the sponsoring companies is never disclosed. This situation differs completely from the case of some sponsorships (e.g., corporate stadium sponsorships), but should not be surprising in light of the large amounts of

bartering involved in many official major league sponsor arrangements. Although unfortunate, the lack of yearly sponsorship cost data is unlikely to significantly alter the relationships between the remaining variables. Indeed, in a regression analysis of the factors affecting shareholder acceptance of corporate stadium sponsorship decisions, Clark, Cornwell, and Pruitt (2002) note that the variable capturing adjusted sponsorship costs per year did not approach statistical significance.

Table 5 presents summary statistics for the conducted regression. The high R^2 and adjusted R^2 of the model (0.381 and 0.251, respectively) are indicative of a well-specified model, and reflect the fact that six of the nine independent variables are significant at the ten percent level or less. Not surprisingly, the *F*-statistic for regression model as a whole is significant at the one percent level ($F = 2.939$; $p < 0.008$).

The negative and statistically significant coefficient for the variable MARKET SHARE is consistent with a priori expectations and clearly indicates empirical support for "Weber's Law" within the context of major league sports official sponsorships. The coefficient of the variable (-0.1799) suggests that, ceteris paribus, a product or service with a 10 percent share of the market in a given product or service category experienced about a seven percent larger cumulative abnormal return than did a company with a 50 percent market share. In plain English, this result suggests that investors appear to believe that companies with smaller market shares may have much more to gain from the initiation of an official sports than those holding more dominant (and, hence, visible) positions.

Consistent with prior empirical research, the coefficient for the dummy variable LINKED is both positive and statistically significant (in this case, at the one percent level). Thus, viewed across these three studies, stock market participants would seem to be suggesting that "linked" or "congruent" sponsorships with direct

ties to their sponsored sports (either as evidenced on the "field of battle" or within the context of its enjoyment) increase share prices much more than sponsorships undertaken by companies in largely unrelated industries. The coefficient of this variable (11.480) implies that "congruent" sponsorships were over eleven percent more valuable to sponsoring firms than sponsorships involving unrelated products. As such, this result represents important new evidence supportive of the predictions of Crimmins and Horn (1996) and Otker and Hayes (1987).

Supportive of the findings of earlier research (e.g., Clark, Cornwell, and Pruitt 2002), the coefficient for the variable HIGH TECH is both positive and statistically significant. This result suggests that, rather than being punished by the markets for making such sponsorship investments, the average high technology firm experienced a net increase in shareholder wealth from their official sponsorships—over and above the present value of the expected costs of the deals—about 11 percent greater than that observed by more traditional firms such as retailers, banks, airlines, and consumer products manufacturers. Unfortunately, whether the source of this extraordinary gain is rooted in signaling (as hypothesized by Clark, Cornwell, and Pruitt (2002), or much greater visibility for high technology products as a result of their official sponsorships, or both is impossible to determine from the data. What does seem to be clear, however, is that high technology firms need not unduly fear that their share prices will be punished by investors simply if they undertake well-considered major league official sports sponsorships.

Interestingly, neither the variable MARKET VALUE nor the variable CASH FLOW enters into the regression equation even approaching statistical significance. Indeed, although, as noted, insignificant, the fact that the variable CASH FLOW enters with a positive sign is counter to a priori expectations and suggests no support

for the hypothesis that, overall, agency-related factors played an important role in these 53 sponsorship announcements. Although the variable MARKET VALUE enters with the expected sign (negative), its lack of significance indicates that firm size is neither a benefit nor an impediment to a successful major league official sponsorship, at least as perceived by investors at the time of the initiation of the deals.

Finally, as would be suggested by the individual sporting league results presented in Table 4, the dummy variables NBA, NFL, NHL, and PGA all enter with positive coefficients, three of which (NBA, NHL, and PGA) are significant at at least the 10 percent level. Since statistical orthogonality requires the use of one less dummy variable than the number of type categories, the four included dummy variables all register changes in shareholder prices relative to the average baseball sponsorship of otherwise identical variable parameters. Although Major League Baseball may be the U.S. national pastime, the results of this study are consistent with the hypothesis that baseball sponsorships may be less valuable (for whatever reason) than those involving their basketball, hockey, football, or golf.

Viewed as a whole, the regression results presented in Table 5 represent an important addendum to the overall share price results presented in Tables 2, 3, and 4. Whereas the basic event study results make clear that, on average, the 53 studied official sponsorships were wealth-enhancing investments, the results in Table 5 illuminate a number of important relationships responsible for the cross-sectional variation inherent within the sample as a whole. Perhaps the two most notable of these findings are the reiteration that a direct product or service linkage to the sponsored sport is an important facet of the stock market's acceptance of an official sponsorship and that products or services with smaller market shares appear to benefit the most from their official sponsorships.

CONCLUSIONS

This study has presented the first empirical tests of major league sports official product or service announcements on the stock prices sponsoring firms. Utilizing announcements from the five most popular professional "ball and stick" sports in the U.S. (baseball, basketball, football, hockey, and golf), the results of the study document that official sponsorships were perceived positively by stock market investors. Indeed, the increase in share values around the time of the sponsorship announcements ranged between $123 million and $558 million. Further, it must be emphasized that these increases were *net* of all of the costs expected to be incurred in the development of the sponsorships. Clearly, as Crimmins and Horn (1996) suggest, some sports sponsorships (including, as shown here, major league official sponsorships) are capable of doing a lot more than satiate swollen managerial egos. They can also pad the pocketbooks of the average stock market investor.

In addition to the examination of the overall mean wealth effects of the 53 official sponsorships, the conducted multiple regression analysis—employing event period abnormal stock returns as the dependent variable and select sponsorship attributes as independent variables—illuminates a number of factors which explain much of the cross-sectional variation in the sponsorship sample. Variables significant at least at the 10 percent level market share (negative), and dummy variables indicating high technology status, the relatedness of the sponsoring product or service to the sponsored sport or sporting lifestyle (positive), and NBA, NHL, and PGA indicators (all positive).

The positive and statistically significant coefficient for the variable market share suggests that sponsoring companies may receive the largest financial returns from sponsorships involving less visible brands. This finding, which represents

additional support for "Weber's Law," indicates that major league sports official sponsorships may be particularly valuable at increasing awareness of relatively "hidden" brands by consumers.

Perhaps even more interesting is the fact that the relatedness of the sponsoring product or service is a very positive indicator of perceived sponsorship success. Clearly, sponsorships which are reasonably linked to the sponsored event are substantially more effective than those which are unrelated except for financial fee considerations. The fact that the dummy variable indicating the high technology status of the sponsor is positive and statistically significant presents additional evidence that sports sponsorships may be particularly effective in increasing the awareness of the consuming public to high technology products, may serve as signals of impending (and positive) developments regarding future corporate cash flows, or both.

Interestingly, dummy variables indicating the sponsored sport suggest that sponsorships involving the NBA, the NHL, and the PGA were greeted more favorably by investors than those involving Major League Baseball. The dummy variable for the National Football League was not significant at conventional levels. While it might be tempting to interpret these findings as suggesting that NBA, NHL, and PGA sponsorships are inherently more "valuable" than those of MLB, this may not be correct. Rather, this may merely indicate that the baseball sponsorship market may be more efficient (in the economic sense). If so, it is possible that virtually all of the gains expected to accrue from the typical baseball (and, to a lesser extent, football) sponsorship are be captured by the MLB front office, with little left to compensate the corporatation for its efforts (and sponsorship money). Stated somewhat differently, it is possible that, controlling for all other factors (awareness, number of exposures, etc.), baseball sponsorships may just be more expensive than those involving basket-

ball, hockey, and golf. Finally, variables which attempted to capture evidence of negative scale effects or agency costs within the sponsoring firms did not approach statistical significance, indicating that neither these factors plays a significant role in the average official sponsorship agreement.

The results of the study should be of interest to many constituencies, including corporate executives and investors, marketing practitioners, major league sporting offices and team owners, and academic researchers. Turning first to corporate executives and investors, the wealth effects observed in response to the 53 studied official sponsorship signings represent a clear mandate of support. Simply stated, there is no evidence to suggest that the official sports sponsorships studied here were not economically justifiable expenditures.

Marketing practitioners should view the stock market's strong endorsement of major league sports sponsorships as additional justification of their efforts to seek novel ways to differentiate corporations and their offerings through large-scale sponsorship programs. In an era when consumer information overload is a serious concern among many in the profession, the results of this study suggest that price-setting investors believe official sports sponsorships are an economically advantageous method of cutting through the clutter to reach literally millions of demographically desirable consumers. In addition, the fact that companies with reasonable ties to the the sponsored sport experienced the most positive reactions to the official sponsorships should encourage marketing professionals to continue their quest for programs with inherently strong and intuitively obvious linkages between potential sponsors and the sponsored events.

Sporting officials, team owners, and players will understandably take considerable delight in both the direction and magnitude of the stock market's response to

the official sponsorship announcements. Indeed, by reducing the informational asymmetries which no doubt exist on each side of these complex partnerships prior to signing, potential sponsors and team owners may be able to strike agreements which more equitably allocate the enormous wealth gains generated by official sponsorships between the sport and sponsor.

Finally, the study should be of interest to marketing scholars by providing additional evidence of the importance of demonstrating an unambiguous linkage between the sponsor and the sponsored event. In addition, the study presents important additional evidence on the efficacy of employing stock price-based empirical methodologies to help answer key questions concerning the overall accountability of major marketing programs.

Table 1
OFFICIAL SPONSORSHIP SAMPLE

Date	Company	Sponsoring Product	Official Product or Service	League
1/20/99	Anheuser-Busch	Budweiser	Official Beer Sponsor	NBA
8/9/94	Anheuser-Busch	Ice Draft	Official Beer Sponsor	NHL
11/4/92	AT&T	All telecom products	Official Telecommunications Sponsor	NBA
4/7/97	AT&T	Phone Card	Official Pre-paid Card	NBA
7/14/99	AutoNation	Automotive Retailer	Official Sponsor of NFL	NFL
8/12/99	Bally's Total Fitness	Fitness Center	Official Training Center	NFL
10/23/92	Bausch & Lomb	Contact Lenses	Official Contact Lenses	NBA
7/16/03	Bayer	Levitra	Official Sponsor of NFL (Men's Health)	NFL
9/8/98	Canon	Camera and Binocular	Official Camera/Binocular Supplier	NFL
2/9/99	Cendant	Century 21 Real Estate	Official Real Estate Organization	MLB
10/26/03	Charles Schwab	Brokerage	Official Investment Firm	PGA
1/23/02	Colgate-Palmolive	Speed Stick Deodorant	Official Deodorant	NHL
6/6/95	Converse	Shoes	Official Footwear	NFL
3/27/02	Coors Brewing	Beer	Official Beer Sponsor	NFL
2/10/03	Deere & Co.	Landscaping Equipment	Official Golf Course Equipment Company	PGA
10/29/02	Dell	Computer Equipment	Official Desktop, Notebook and Server	NBA
4/2/92	Delta Airlines	Airline	Official Airline	NFL
8/23/00	FedEx	Delivery Services	Official Worldwide Delivery Service	NFL
1/22/99	FedEx	Delivery Services	Official Express Delivery Service	NHL
4/12/99	Fleet Financial	Financial Services	Official Sponsor of MLB	MLB
10/7/01	General Motors	Buick	Official Car	PGA
6/22/99	Getty Images	Photography	Official Photographic Partner	MLB
11/7/01	Getty Images	Photography	Official Photo Source	NBA
2/20/02	Getty Images	Photography	Official Photographer, Photographic Partner	NHL
7/16/03	GlaxoSmithKline	Levitra	Official Sponsor of NFL (Men's Health)	NFL
1/25/99	HealthSouth	Healthcare	Official Healthcare Provider	PGA
1/9/92	IBM	Computer	Official Computer	NBA
11/6/03	ICOS	Cialis	Official Partner of the PGA Tour	PGA
1/13/03	Kellogg's	Frosted Flakes	Official Breakfast Cereal	NHL
11/6/03	Lilly	Cialis	Official Partner of the PGA Tour	PGA
3/27/97	MBNA	Credit Card	Official Credit Card Issuer	MLB
4/10/95	MBNA	Credit Card	Official Visa Credit Card Issuer	NFL
1/5/96	MBNA	Credit Card	Official MasterCard Issuer	NHL
4/12/99	Motorola	Wireless Comm. Devices	Official Wireless Communications Sponsor	NFL
4/03/00	Pepsi	Lipton Iced Tea	Official Iced Tea	PGA
12/11/00	Quaker	Gatorade Energy Bar	Official Energy Bar	NBA
9/12/96	Quaker State	Automotive products	Official Car Care Sponsor	NHL
4/1/02	Schering-Plough	Clarinex	Official Prescription Allergy Medication	MLB
8/24/99	Schering-Plough	Claritin	Official Prescription Allergy Medication	MLB
7/13/93	Scotts Lawn Care	Lawn Care	Official Lawn Care Consultant	MLB
8/28/00	Select Comfort	Mattresses	Official Mattress	NFL
12/16/03	Sirius Satellite Radio	Radio	Official Satellite Radio	NFL
10/2/03	Sirius Satellite Radio	Radio	Official Satellite Radio	NHL
3/19/99	Southern Company	Electric Utility	Official Energy Company	PGA
3/5/03	Southwest Airlines	Airline	Official Airline	NBA
12/9/98	Sprint	Telecomm Services	Official Telecommunications Provider	PGA
1/30/03	Starwood Hotels	Hotel	Official Hotels and Resorts	NHL
2/12/01	Starwood Hotels	Hotel	Official Hotels and Resorts	PGA
7/31/01	Sun Microsystems	E-Commerce	Official Technology Provider	MLB
1/22/02	Time Warner	AOL	Official Internet Services Provider	NBA
6/24/97	Wendy's	Restaurant	Official Hamburger	NHL
11/10/98	Yahoo	Internet Services	Official Internet Navigation Guide	NHL
2/11/99	Venator Group	Marketing Services	Official Catalog and E-commerce Marketer	NFL

TABLE 2

MEAN SHAREHOLDER WEALTH EFFECTS FOR THE FULL SAMPLE OF 53 OFFICIAL PRODUCT OR SERVICE SPONSORSHIP ANNOUNCEMENTS

Event Day	Mean Abnormal Return	Sample t-Statistic	Size (N)	N+	Z-Statistic
-25	0.0072	1.68	53	30	1.26
-10	-0.0013	0.34	53	22	-0.94
-5	0.0031	0.78	53	27	0.43
-4	-0.0012	-0.20	53	26	0.16
-3	-0.0019	-0.02	53	25	-0.12
-2	0.0009	1.03	53	29	0.98
-1	0.0036	-0.05	53	31	1.53
0	*0.0028*	*1.11*	*53*	*27*	*0.43*
1	-0.0007	0.91	53	28	0.71
2	0.0044	1.03	53	32	1.81
3	-0.0087	-1.16	53	20	-1.49
4	-0.0021	-1.33	53	14	-3.14*
5	0.0051	1.89	53	33	2.08*
10	0.0011	-0.09	53	25	-0.12
25	0.0046	0.94	53	28	0.85

** Significant at the 5 percent level, two-tailed test.*

TABLE 3

MEAN CUMULATIVE ABNORMAL RETURNS (MCAR) AROUND OFFICIAL PRODUCT OR SERVICE SPONSORSHIP ANNOUNCEMENTS

Event interval	N	MCAR	*Z*-statistic	N+	*Z*-statistic
-1 to +1	53	0.0058	1.264	29	0.981
-2 to +2	53	0.0111	2.318**	27	0.431
-5 to +5	53	0.0053	1.732*	34	1.531
-10 to +10	53	0.0241	1.714*	34	2.356**

* Significant at the ten percent level or less.
**Significant at the five percent level or less.

TABLE 4

MEAN CUMULATIVE ABNORMAL RETURNS (MCAR) AROUND OFFICIAL PRODUCT OR SERVICE SPONSORSHIP ANNOUNCEMENTS BY SPORT

Event interval	N	MCAR	*Z*-statistic	N+	*Z*-statistic
Panel A: Major League Baseball (MLB)					
-1 to +1	8	-0.0007	0.041	3	-0.633
-2 to +2	8	0.0017	0.597	3	-0.633
-5 to +5	8	0.0086	0.468	3	-0.633
-10 to +10	8	-0.0521	-1.089	3	-0.633
Panel B: National Basketball Association (NBA)					
-1 to +1	10	-0.0035	-0.653	6	0.814
-2 to +2	10	0.0149	0.957	5	0.000
-5 to +5	10	0.0300	1.923*	7	1.448
-10 to +10	10	0.0464	1.694*	8	2.081**
Panel C: National Football League (NFL)					
-1 to +1	14	0.0002	0.285	6	-0.352
-2 to +2	14	0.0030	1.007	7	0.000
-5 to +5	14	-0.0041	0.634	6	-0.352
-10 to +10	14	0.0221	0.429	8	0.718
Panel D: National Hockey League (NHL)					
-1 to +1	11	0.0179	1.357	6	0.441
-2 to +2	11	0.0241	1.805*	7	1.044
-5 to +5	11	0.0003	0.642	9	2.251**
-10 to +10	11	0.0524	2.339**	9	2.251**
Panel E: Professional Golfers' Association (PGA)					
-1 to +1	10	0.0146	3.120**	8	1.964**
-2 to +2	10	0.0118	0.937	5	0.000
-5 to +5	10	-0.0032	0.598	6	0.699
-10 to +10	10	0.0346	1.042	6	0.699

* Significant at the ten percent level or less.
** Significant at the five percent level or less.

TABLE 5

CROSS-SECTIONAL REGRESSION ANALYSIS OF THE SPONSORSHIP ANNOUNCEMENT DATE CUMULATIVE ABNORMAL RETURNS

Variable	Coefficient	Coefficient *t*-statistics	Significance
CONSTANT	-7.90637	-1.86580	0.06890
MARKET SHARE	-0.17990	-2.03100	0.04847
MARKET VALUE	-6.3E-05	-1.18638	0.24199
CASH FLOW	1.95013	0.14924	0.88206
HIGH TECH	11.07638	3.11667	0.00325
CONGRUENCE	11.47960	3.51370	0.00105
NBA	9.34893	1.97071	0.05522
NFL	7.07351	1.60827	0.11509
NHL	12.76241	2.71955	0.00939
PGA	9.58459	2.03208	0.04835
		F-statistic:	2.93922
		Significance:	0.00828
		R^2:	0.38088
		Adjusted R^2:	0.25129

** Significant at the 5 percent level or less, two-tailed test.*

REFERENCES

Agrawal, Jagdish and Wagner A. Kamakura. 1995. "The Economic Worth of Celebrity Endorsers: An Event Study Analysis." *Journal of Marketing.* 56(3): 56-62.

Baldwin, Amy. "Corporations Zoom to Sponsor NASCAR." *Dayton Daily News,* February 17, 2001.

Brown, Stephen J. and Jerold B. Warner. 1985. "Using Daily Stock Returns: The Case of Event Studies." *Journal of Financial Economics*. 14: 3-31.

Bobinski, George S. Jr. and Gabriel G. Ramirez. 1994. "Advertising to Investors: The Effect of Financial-Relations Advertising on Stock Volume and Price." *Journal of Advertising.* 23 (4): 13-28.

Borio, Gene 2004. "The History of Tobacco Part III." (http://www.historian.org/bysubject/tobacco3.htm).

Business Wire. 1998. "Ricoh Named Official Fax of the PGA of America." 6 January.

Clark, John M., T. Bettina Cornwell and Stephen W. Pruitt. 2002. "Corporate Stadium Sponsorship, Signaling Theory, Agency Conflicts and Shareholder Wealth." *Journal of Advertising Research*. 42 (6): 16-32.

Cliffe, Simon J. and Judy Motion. 2004. "Building Contemporary Brands: A Sponsorship-based Strategy." *Journal of Business Research*. In press.

Cornwell, T. Bettina. 1995. "Sponsorship-linked Marketing Development." *Sport Marketing Quarterly* 4 (4): 13-24.

------ ,1997. "The Use of Sponsorship-Linked Marketing by Tobacco Firms: International Public Policy Issues." *Journal of Consumer Affairs*. 31 (2): 238-254.

------ and Isabelle Maignan. 1998. "An International Review of Sponsorship Research." *Journal of Advertising.* 27 (1): 1-21.

------, Stephen W. Pruitt, and Robert Van Ness. 2001. "An Exploratory Analysis of the Value of Winning in Motorsports: Sponsorship-linked Marketing and Shareholder Wealth." *Journal of Advertising Research.* 41(1): 17-31.

Crimmins, James and Martin Horn (1996), "Sponsorship: From Management Ego Trip to Marketing Success," *Journal of Advertising Research.* 36 (4), 11-20.

Farrell, Kathleen A. and W. Scott Frame (1997), "The Value of Olympic Sponsorships: Who is Capturing the Gold?" *Journal of Market-Focused Management.* 2 (2): 171-182.

Godwin, Kelly. "Brand Loyalty: Sponsor, Sport Go Hand in Hand." *Daytona Beach*

News Journal, July 1, 2004, G17.

Jensen, Michael C. and William H. Meckling. 1976. "Theory of the Firm: Managerial behavior, agency costs and ownership structure." *Journal of Financial Economics*. 3: 305-360.

Johar, Gita Venkataramani and Michel Tuan Pham. 1999. "Relatedness, Prominence and Constructive Sponsor Identification." *Journal of Marketing Research.* 36 (3): 299-312.

Kinney, Lance and Greg Bell. 2003. "Do Sport Sponsorship Announcements Influence Firm Stock Prices? The Wall Street Journal Effect." *AEJMC Conference Paper*.

Lefton, Terry. 1999. "National ends NFL Drought in Renal Cars." *Brandweek*. 26 July: 4.

Markiewicz, David A. 2004. "Pro Football: Gatorade pours $500M into NFL." *The Atlanta Journal-Constitution*. C2.

Mathur, Lynette Knowles and Ike Mathur. 1996. "Is Value Associated with Initiating New Advertising Agency-Client Relations?" *Journal of Advertising.* 25 (3): 1-12.

Mathur, Lynette Knowles, Ike Mathur, and Nanda Rangan. 1997. "The Wealth Effects Associated with a Celebrity Endorser: The Michael Jordan Phenomenon." Journal of Advertising Research. 37(3): 67-72.

McDaniel, Stephen R. 1999. "An Investigation of Match-up Effects in Sport Sponsor ship Advertising: The Implications of Consumer Advertising Schemas." *Psychology and Marketing.* 16 (2): 163-184.

Miller, Richard Lee. 1962. "Dr. Weber and the Consumer." *Journal of Marketing*. 26 (1): 57-61.

Miyazaki, Antohny D. and Angela G. Morgan. 2001. "Assessing Market Value of Event Sponsoring: Corporate Olympic Sponsorships." Journal of Advertising Research. 41(1): 9-15.

Murphy, Bill. 2004. "Ambushing the Super Bowl (or at least trying to)." Sports Business News. September 20.

Otker, Ton and Peter Hayes. 1987. "Judging the Efficiency of Sponsorship: Experience from the 1986 Soccer World Cup. *European Research*. 15(4): 3-9.

Pickett, Brent. 2004. "As Cingular Ads Parody, Not All Sponsorships Fit the Brand-Building Bill." www.marketingprofs.com. September 18.

Proctor, Darrell. 2004. "A Marriage of Sports, Suds: Team Partnerships Likely to

Expand with Beer Merger." *Rocky Mountain News*. July 24.

Pruitt, Stephen W., T. Bettina Cornwell, and John M. Clark. 2004. "The NASCAR Phenomenon: Auto Racing Sponsorships and Shareholder Wealth ." *Journal of Advertising Research*. In Press.

Quester, Pascale G. 1997. "Awareness as a Measure of Sponsorship Effectiveness: The Adelaide Formula One Grand Prix and Evidence of Incidental Ambush Effects" *Journal of Marketing Communications.* 3: 1-20.

Reuters News. 2002. "PepsiCo's Gatorade, NBA in marketing pact." 1 August

Sandler, Dennis M. and David Shani. 1989. "Olympic Sponsorship vs. 'Ambush' Marketing: Who Gets the Gold?" *Journal of Advertising Research.* 29: 9-14.

Roy, Donald P. and T. Bettina Cornwell. 2003. "Brand Equity's Influence on Responses to Event Sponsorships." *Journal of Product and Brand Management*. 12 (6): 377-393.

Rust, Roland T. and Richard W. Oliver. 1994. "The Death of Advertising." *Journal of Advertising.* 23(4): 71-77.

Ruth, Julie A. and Bernard L. Simonin. 2003. "Brought to You by Brand A and Brand B": Investigating Multiple Sponsors' Influence on Consumers' Attitudes Toward Sponsored Events." *Journal of Advertising*. 32 (3): 19-30.

Schlosser, Jim. 1995. "It's Official: Logos all over GGO." 23 April: A1.

Thorsberg, John F. 1999. "Baseball Considers Corporate Patches." *MarketWatch*. April 3.

Weston, J. Fred, Brian A. Johnson, and Juan A. Siu. 1999. "Mergers and Acquisitions in the Global Chemical Industry." *Business Economics.* 34(4): 23-32.