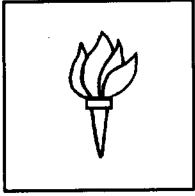

NEW YORK UNIVERSITY
STERN SCHOOL OF BUSINESS
FINANCE DEPARTMENT

Working Paper Series, 1995

Event Investing.

Nye, Richard B., and Roy C. Smith.

FIN-95-30

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For Inclusion in

"Perspectives on Hedge Funds"

Euromoney Publications

September 1995

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by Richard B. Nye and Roy C. Smith[1]

"Event investing" is an investment strategy that focuses on securities of companies undergoing major structural change, whether by merger, or acquisition or reorganization. It does not involve judgments about markets or the economy. In the past this strategy was more commonly known as "risk arbitrage."

Classic arbitrage typically refers to investments (historically in precious metals and currencies) that attempt to take advantage of disparate pricing between two similar but geographically different markets for the same commodity. In contrast, *risk* arbitrage is a bet on a specific event. In a typical situation, shares of a reorganizing company are bought with the intention of tendering them for cash or exchanging them for other securities at a later date at a higher price. When successful the operation will produce for the arbitrageur a return that is not only satisfactory but also uncorrelated to the performance of the broad equity or stock markets. Therefore, while the market risk per se may be of some concern, the key to surviving in the business over any length of time is understanding and managing the various aspects of "deal risk," or the risk that an announced deal will not be completed.

[1] Richard B. Nye is a founder and managing partner of Baker Nye, a New York event investing firm. Roy C. Smith, a former General Partner of Goldman, Sachs & Co., is currently Professor of Finance at The Stern School of Business, New York University.

Early Days of Risk Arbitrage

Risk arbitrage is about a hundred years old in America. The basic principles were laid down in the 1890s, when during a five-year depression, approximately 170 railroads, or 25% of the entire industry, went bankrupt and had to be reorganized. Usually this involved exchanging old debt for a combination of new debt, some preferred stock and a share or two of common. These new securities often represented more value than that accorded to them by the reorganizers. As a result, arbitrageurs (then as now) could buy the old debt, and sell the new securities after a time for a respectable profit.

After the railroad reorganizations, there was the conversion of the large processing industry "trusts" into corporations. Trusts were vehicles for interstate commercial activity established in the 1880s when holding companies were not permitted by state laws. Subsequently, the New Jersey Holding Company Act permitted the trusts to be reorganized at a time when their activities were being closely scrutinized by the federal government which had recently passed the Sherman Antitrust Act in 1890. In these reorganizations arbs could buy trust certificates in the market and exchange them for new preferred and common stock, which the market frequently bid to a premium. The markets for preferred and common stock were different, and trust certificates were neither fish nor fowl, so their replacements were more highly valued. For example, in the Sugar Trust conversion in the late 1890s, a $100 par value trust certificate could be exchanged for a share of preferred and of common, each with par values of $50. By the time the exchange took place, three months later, the preferred was trading at $86 and the common $57.[2] For Bernard Baruch and other players of the day, an unleveraged

[2] Thomas R. Navin and Marian V. Sears, "The Rise of a Market for Industrial Securities, 1887-1902," *Business History Review* (June 1953), pp. 105-138.

annualized return of 172%[3] was available for those who could acquire the trust certificates and hold them for three months. At the time, there were 350 trusts and they all reorganized between 1892-1899.

Investment opportunities continued over the turn of the century when America experienced its first merger boom. Mergers provided investors with opportunities to exchange a share of one company for that of another for the first time. There were plenty of deals, more than 2,600 aggregating more than $6.3 billion dollars. This first boom was the biggest ever in proportion to the size of the American GNP at the time.[4] Subsequent merger booms occurred in the 1920s, the 1960s and the 1980s. Reorganization booms, however, also regularly occurred in the off years—during the 1890s, the 1930s, the 1970s, and the early 1990s—as the mistakes of previous merger booms were corrected and markets reflected changing economic times. Both types of booms provided opportunities for event investors.

Government anti-trust actions also provided opportunities for arbitrageurs. In 1911 the U.S. Supreme Court held that the giant Standard Oil Company, once a trust, was in violation of antitrust laws and had to be broken up. This resulted in a massive distribution to shareholders of the shares in the thirty-three oil company subsidiaries of Standard Oil, a restructuring event of proportions not seen again until the breakup of AT&T in 1983, which was a veritable arbitrageur's picnic. The second reorganization of AT&T, announced in September 1995, in which the company is to be broken up into three new units, will no doubt result in a repeat performance.

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[3] (86+57/100)*(12/3 months).

[4] Ralph L. Nelson, Merger Movements in American History, 1895-1956, Princeton University Press, 1959. The 1898-1904 boom involved deals worth $6.3 billion, this figure divided by the 1900 GNP ($18.7 billion) is 33.7%. The comparable figure for the 1984-1988 boom and the 1986 GNP was 25.2%.

The risk arbitrage community has always been an opportunistic group, usually sticking to the fringes of corporate finance rather than being the deal doers of the times. J.P. Morgan, George F. Baker and other prominent financiers were the investment bankers of the turn of the century period. They organized the mergers and the reorganizations. Arbitrageurs waited for the opportunities to appear, and Morgan and Baker were glad to have them—their purchases actually moved securities from one set of hands to another, something that had to happen for the deals to be successful at a time when market liquidity was limited. Then and now, arbitrageurs act as market-makers for investors uncertain as to whether or not proposed transactions will be successfully completed. They buy shares from passive investors willing to sell out quickly, and become active investors seeking to influence the completion of the transaction. According to one academic study, substantial investment in deals by arbitrageurs has become a market predictor for successful takeovers.[5]

After World War Two, an exclusive club of stock traders took up risk arbitrage in its modern form. Key figures in the group included Gustave Levy, later senior partner of Goldman Sachs, Salim Lewis of Bear Stearns, Harry Cohn of L.F. Rothschild, Joseph Gruss of Gruss & Co., and Eugene Wyser-Pratt of Bache. All of these figures had their prominent proteges too, such as L. Jay Tenenbaum at Goldman, and Alan Greenberg at Bear Stearns. The group was very tight, secretive and hard to break into—they did not want everyone to know just how profitable the business could be. Mainly they managed modest amounts, their own money and some of their firms'. They exchanged information, reassured each other and celebrated together when things went well. Most of their information was

[5] Keith Brown and Michael Raymond, "Risk Arbitrage and the Prediction of Successful Corporate Takeovers," *Financial Management*, Autumn 1986.

gathered in the market from public sources, lawyers, consultants, and from a network of other traders and savvy investors. The gathering of information could also include a barrage of brassy telephone calls to corporate directors or regulators, who if they happened to answer their own phones, were met with a battery of innocent sounding questions that sometimes could reveal useful intelligence to a trained ear. In aggregate this assembled information was valuable and most of the arbs believed it gave them an edge. Perhaps it gave them courage to take riskier positions than otherwise when the market seemed to counsel against it.

The reputation of arbitrageurs and "event investing" was changed, perhaps inevitably, when Ivan Boesky in the mid 1980s to gain investors and personal prominence. He widely claimed that arbitrage was not a business, but an art that could produce exceptional returns only through unique talent and skills. Ultimately he could not meet his investors' inflated expectations without resorting to criminal activity, and we know what happened to him. Subsequently, the business rebounded and continues today taking the risks and legally performing the market functions it always has, while constantly adapting to the changing contours of the deal flow.

Legal and Regulatory Factors

Legal and regulatory factors help to make event investing profitable, but also impose requirements on investors that can be very dangerous if not strictly followed.

In the United States and most other countries, laws and regulations restrict transactions either because of antitrust rules, special industry regulation (e.g., broadcasting, transportation, banking), or by restrictions on the financial or other conditions of buyers. Whether or not any of these regulations

might apply to an announced deal can create uncertainty, and accordingly discounts on the prices of the securities involved. Out of such uncertainty can come opportunities.

From the passage of the Clayton Act in 1914 to the adoption of the government's Revised Merger Guidelines in 1992, the basic framework for analysis of possible antitrust violations has been largely unchanged. But in reality the dynamics of antitrust law and policy are based more on whether the government at the time believes a statutory violation will occur and its resulting exercise of enforcement discretion than any new legal statute or guidelines. The factors examined to determine a transaction's effect on industry competition are market share and geographic concentration. These have not changed much over the years. What has changed is the government's viewpoint as to what is a violation, and what is not. During the last fifteen years, this viewpoint has shifted considerably—or perhaps it has evolved with the times. Under President Reagan, a loose hand was applied. Under President Bush, the general reliance on the free market to enforce competition was left intact, but enforcement was tightened. Under the Clinton administration the policy has become less clear, in part because there is competition between the Department of Justice and the Federal Trade Commission, the two antitrust enforcement agencies. The *laissez faire* attitude of the earlier days is no longer in effect and, for the first time in over a decade, the vertical effects of a transaction are being challenged. Despite these changes, however, antitrust reviews are still fairly rare. When they do occur, as in the recent cases of AT&T-McCaw Cellular, and Lockheed-Martin Marietta, they are not necessarily terminal for the deal; the parties can negotiate appropriate divestitures or make other compromises. Price movements under such circumstances can, of course, create interesting opportunity for event

investors. The process, however, can radically change the expected time to completion of a transaction by adding to it anywhere from one to nine months.

The actions of investors are strictly regulated by the SEC and other financial regulators. Prompt reporting of investment positions of 5% or more in a company must be made by a filing with the SEC. Acting in concert with others must also be reported if the combined ownership equals or exceeds this amount. Failing to report accurately to the government is itself a crime. Insider trading, in all its complex, post-1980s life-forms must be avoided. Stock parking and repurchase agreements to avoid these rules are not permitted. As we saw after the frenetic 1980s, violation of these rules can involve severe penalties, including jail time, and very substantial fines and exposure to civil judgments for damages. The business is risky enough without having to add the possibility of being destroyed by the misbehavior of a partner or employee.

Economics of Event Investing

The basics of event investing are simple to understand, but not necessarily simple to implement. To carry out such a program of investments requires a group of talented associates who have developed the ability to study virtually all acquisitions and reorganizations, and to analyze quickly the profit potential and the hazards of each. At Baker Nye this approach is called a "research-driven financial and legal analysis of anticipated events." In conducting such an analysis the firm takes a series of steps, in which it (1) looks at the market prices and the theoretical spread available on the deal, (2) estimates the time to completion and calculates an annualized return on investment (ROI) with whatever appropriate amount of financial leverage is to be used, and (3) chooses which ones to invest in, when and how much.

The team must also analyze the risks of particular deals as closely as possible, especially focusing on the chances of a cancellation or delay because of antitrust action by the government (as in Microsoft-Intuit), or because of adverse market reaction to the proposal (CoreStates-Bank of Boston), or lack of financing (Kerkorian-Chrysler). Mostly the process of risk assessment is one of gathering all the facts and then applying good judgment in evaluating them. The team assesses a variety of deals with different levels of risk. In general, high risk deals trade at a high ROI, lower risk deals trade at lower ROIs.

Immediately after a deal is announced, the stock price of the target company reacts, rising a substantial part of the way to the announced price. The discount reflects the uncertainly and the cost of waiting for the deal to close. Sometimes, if the market believes there is another bidder likely to come forward, the market price rises above the initial offer. Much can happen to a deal once the initial announcement is made. Part of the process in investing in such deals is in thinking through these possibilities, understanding offensive and defensive merger tactics, and knowing who other potential players are and what they might do.

Some deals attract too much market enthusiasm, and prices rise to inappropriate levels, at least for a while. The August 1995 Disney (DIS)-Capital Cities\ABC (CCB) merger may have been one of these. This was a large, highly liquid, friendly deal blessed not only by the companies' highly regarded CEOs, but also by investor Warren Buffett and just about all of the analysts in Wall Street. It had strategic and technological appeal; it had everything the somewhat wacky entertainment market wanted. It also had possible antitrust problems (very large, vertical integration), the need for regulatory approval at the FCC, contained a very complicated pro-ration choice of cash versus stock, and was

launched just while a major, controversial telecommunications industry bill was being debated in Congress. Despite these concerns, the market seemed to love the deal: CCB stock was trading a day after the announcement at a ROI to risk arbitrageurs of only 14.7%, not much different from the ROI of the all-cash, much smaller Westinghouse-CBS deal announced a few days earlier to which J.P. Morgan and Chemical Bank had committed funds and were in the processes of syndicating the rest of the financing needed.

[Insert Exhibit 1 here]

While these deals were showing low returns, the arbs might have been able to improve the ROIs somewhat by leveraging their positions, using options to establish positions and by hedging, but still the expected returns were only barely greater than the target return that many arbitrageurs set for themselves: two times 90-day Treasury bills, the risk-free rate for the approximately three months that their money is committed to such deals. Periodically a return of two-times treasuries has outperformed the S&P 500 index. In August 1995, twice T-bills was a return of 11.2% so neither deal beat it by much, but they did beat it.

Of the two deals, DIS-CCB had greater completion risk. Also the $19 billion deal had very little chance of being topped by another bidder. In early August 1995, however, it seemed that the CBS offer might very well be topped, and Larry Tisch was thought most unlikely to turn down a higher cash offer. A sensible arbitrage strategy, then, might have been to take a position in the lower risk CBS, and pass on CCB, waiting to see what happened on the antitrust and other fronts, and for a weakening in

the enthusiasm for the deal that might improve the ROI. In fact, the DIS-CCB deal could have been bought two weeks later on August 14 at an ROI of approximately 17%.

Some arbitrageurs use decision theory to guide them in their considerations. This involves assessing independently the probability that a deal will be completed, and then applying the probability to both the upside returns (gross profits on deal completion) and the downside (losses on deal cancellation) to generate a "risk-adjusted expected value" of the position. This is the probability of the upside times the upside result minus the probability of the downside times its result. In a perfect market, this calculation would yield zero (or perhaps a small risk-free return for the use of the capital) when the correct percentage was inserted into the equation. If the calculation yields a significant net positive result, then a buying opportunity may exist because the market has the probability wrong (or else it knows something the arbitrageur doesn't know!). The frequent appearance of net positive returns has led some academics to believe that the ability of arbitrageurs to assess probabilities better than the general market explains the high returns earned by the profession over the years. This comparative advantage is attributed to the arbs' superior ability to gather and evaluate information.[6]

The analytical process is substantially the same in the case of investing in reorganizations. Some deal variables are different, of course, such as having a much longer time to completion, risks of litigation by different securities holders, and the possibility of unusual rulings by bankruptcy judges. Investors have the choice of purchasing various issues of senior or subordinated debt of different maturities. In the Federated Department Stores case, there were nine different issues of senior Federated debt securities, senior bank debt, and two issues of subordinated debt, plus three issues of Allied Stores debt to choose from. Most reorganizations take two or three years to complete, so there

[6] David Larcker and Thomas Lys, "An Empirical Analysis of the Incentives to Engage in Costly Information Acquisition," *Journal of Financial Economics* 18 (1987).

is also the choice of when to get involved. The risks, and the returns, are greater for those who take their positions early. As in merger arbitrage, the key is in understanding what can go wrong.

Hazards of the Course

Arbitrageurs have had their bad days when individual deals representing large positions suddenly collapsed. Some of the more noteworthy of these include ITT-ABC, and ITT-Hartford Life (later restructured and saved) in the 1960s, Gulf Oil-Cities Service and the first of the proposed employee buyouts of United Airlines in the 1980s, and Microsoft-Intuit more recently. These deals, and many others like them, collapsed as a result of second thoughts on the part of the principals, financing problems or because of antitrust intervention. According to Securities Data Corp., during the period 1985-1989 about 7% of announced deals were cancelled; in the 1990-1994 period this fell to about 4%. Other deals have been altered or delayed, but not terminated by government antitrust intervention. Because it is likely that there will be more government intervention in the future, we expect a higher percentage of cancelled deals.

Action by principals, being set deeply in the mysteries and vicissitudes of human behavior can always result in a cancellation. Some companies and CEOs have reputations for getting deals done, others have the opposite reputations. Some deals have a lot of economic logic, others don't. Some deals are supported by market analysts and by market prices, others are not. In the recent short-lived CoreStates-Bank of Boston proposed combination, one analyst, Nancy Bush of Brown Brothers Harriman, said

> "of all the deals I have ever encountered, [this deal] would be by far the worst. The only thing these two banks have in common is the lack of credibility of their managements."[7]

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[7] Saul Hansell, "Corestates Drops Proposed Merger with Bank of Boston," *The New York Times*, July 24, 1995.

The deal was subsequently cancelled, the third time a potential merger had fallen through for Bank of Boston. Understanding how a particular deal sits in the market, and with its managers and directors, is essential to predicting its future.

No risk that arbitrageurs have experienced, however, equals that of the market break of October 19, 1987 in which the Dow Jones fell 508 points, after sharp declines during the preceding trading days. The crash was so severe that almost all of the positions held by arbs were wiped out, at least temporarily. The spreads on deals widened to extraordinary levels creating billions of dollars of mark-to-market losses, which forced highly leveraged arbitrageurs to sell, creating a cascading effect. In fact, after the market recovery a few days later, conditions settled down and indeed many of the deals closed during the first quarter of 1988, a time of record profits for those who were able to survive the impact in October. However, the market became more wary of risk arbitrage—some sources of finance were cut back, investors in arbitrage funds fled, and several investment banks with arbitrage departments cut them back substantially or eliminated them altogether.

Other risks include depreciation in the value of the securities to be received in an exchange offer or merger during the waiting period. For example, by the time Viacom B shares were received in exchange for Paramount shares in early 1994, most of the profit on the deal had been lost due to the decline in the Viacom share price.

The Portfolio Approach

Ultimately, the event investor must be a portfolio manager, bound by the many disciplines of modern portfolio theory. Success depends on the performance of the whole portfolio, not just one or

two deals. Diversification is achieved by spreading deal exposures and limiting the size of investments in individual deals, and by investing across a spectrum of transactions involving a variety of risks.

In order to maximize returns for a fixed amount of portfolio risk, it is important to have significant exposure to high risk deals, but these must be deals with relatively low correlation with each other. Normally correlation for a deal investor is not such a large issue because deals are all very different, but exposure to too many deals in, say, the banking or oil industries could be fatal if industry conditions changed suddenly making the deals impossible to do.

At Baker Nye, the portfolio is run conservatively. The risk is concentrated in the deals -- not in the way the portfolio is managed -- since little leverage is employed and the average investment holding period is currently only three months. Options are used extensively to acquire positions, and securities to be received in mergers or reorganization are hedged against market movements. In mid 1995 about 80% of the portfolio was invested in merger arbitrage positions, and 20% in reorganizations. In other years the percentage of investments in reorganizations has been as high as 40%.

Overall, if the event investor is to survive for a long time, he must achieve superior results as compared to standard benchmarks. Many arbitrageurs like to be compared to two-times 90 day Treasury bills. Other are compared to the standard equity investment benchmark, the S&P 500.

Though some may disagree, the business does not depend on clairvoyance, artistic talents or shrewd below-market buying, the exchange of tips and rumors (or inside information) with other dealers, or in actively trading the portfolio once it is established. Indeed, a recent study of risk arbitrage in tender offers between 1971 and 1985 demonstrated that substantially higher than market returns

could be earned based only on public information.[8] A computer ran this portfolio based on after-the-fact information. However, as in most things looked at before-the-fact, there are many uncertainties to be faced in actually making the investments. In event investing, there is no substitute for good and thorough analysis, taking bold steps when they are called for, and maintaining rigorously all the necessary disciplines of modern portfolio management and regulatory compliance.

Where the Business is Going Next

Event investing depends mainly on a continuing flow of corporate reorganizational events. In the past we have seen a kind of cyclical alternation over roughly the last century between big merger years and big restructuring years. This cycle seems to be continuing. After a huge boom in the 1980s, the merger business fell off substantially in the 1990-1993 period, when the average annual value of completed domestic deals was about a third of what it had been in 1988. During this period, however, restructurings were more than abundant.

In 1994 the value of completed domestic mergers bounced back to $200 billion, and in the first half of 1995, it rose again by 60% as compared to the prior year. All indications were that the volume of completed deals would exceed the previous record.[9] And this time most large deals were by well-financed major corporations or for stock. Junk bond financing was rare. The deals reflected a high degree of industry, rather than financial, focus. There were major consolidations in the telecommunications, entertainment, banking, health care, defense and other industries undergoing

[8] William Dukes, Cheryl Frohlich and Christopher Ma, "Risk Arbitrage in Tender Offers," *The Journal of Portfolio Management*, Summer 1992.

strategic changes. Appropriate concerns about globalization, improved market positioning and increasing competitiveness were additional motivations for enhanced merger activity, not only in the United States, but also in Canada, the United Kingdom and several other countries where American arbs had occasionally ventured. Restructuring corporations through mergers and acquisitions had suddenly become both very doable and popular in Europe, where in 1994 M&A activity represented 35% of the world's total, as compared to only 8.7% in 1985. Indeed, in every year since 1989, U.S. domestic mergers have represented less than 50% of the total global merger volume, indicating that much of the future activity is likely to be overseas.[10]

Successful event investing, however, also entails meeting minimal ROI goals, which can be more difficult to do in times of low premium stock-for-stock deals, fewer cash tender offers, and more threat of antitrust intervention from the Justice Department. Also, in active times when anybody with some capital to invest can decide to become an arbitrageur, prices get pushed up and ROIs down. However, among such opportunistic arbitrageurs, the large investment banks may be less numerous. Conflict of interest issues and tighter internal controls to prevent insider trading and the spread of privileged information has reduced the previously very prominent role of these firms in the arbitrage market.

Notwithstanding the pressure on returns, large deal flows create the opportunity to improve portfolio management, i.e., to choose deals well from the point of view of their return, holding period, riskiness and low correlation with the risks of other holdings. Also, when large deal flows are common,

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[9] Data: Securities Data Corporation.

[10] Gayle De Long, Roy C. Smith and Ingo Walter, "Global Merger and Acquisition Tables, 1994," Stern School of Business working paper, based on data from Securities Data Corporation, April 1995.

it is normal for interest rates to be relatively low, and therefore realizing a return of twice T-bills is not quite so difficult to achieve.

But most important is the notion of continuing change. The markets change all the time, and event investors change with them and make their opportunities as they do.

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Baker Nye, L.P. and its affiliates specialize in event investing on both a leveraged and unleveraged basis. The firm, formed in 1976, currently consists of 5 principals, 5 investment professionals, and 15 additional full time staff. Funds under management totaled approximately $650 million at June 30, 1995. Since 1975, the firm's event investing portfolios have experienced an unleveraged compound growth rate of 18.9% vs. 15.2% for two-times 90 U.S. Treasuries and 13.8% for the Standard & Poors 500 Index.

Exhibit 1

Walt Disney-Capital Cities\ABC

Announcement Date:	August 1 1995
Announced Terms:	1 share CCB to be exchanged for $65 in cash and 1 share of DIS
Value of Deal at Announcement:	$65 + $57.25 = $122.25 (a 29% premium over CCB stock at 96.125, its closing price on 7/30)

Stock Prices:

DIS	Pre-deal	$57.25
	Next day	$58.875 (+1.625)
	Following day	$59.50 (+.625)
CCB	Pre-deal	$96.125
	Next day	$116.75 (+20.625)
	Following day	$117.625 (+.875

Estimated time to Close:	5-6 months (165 days)
Other Factors:	Players very sophisticated Deal will be looked at by various regulators Unlikely to attract competitors

Arbitrage strategy: on Aug 3

(all share prices after commissions)

(1)	Purchase sh CCB	($117.63)
	received cash	65.00
	sell short DIS	59.45
	Lose DIS dividend, Receive CCB dividend, net	(0.08)
	Rebate on short position	1.24
(2)	Net proceeds	$125.61
(3)	Gross profit (2)-(1)	$ 7.98
(4)	ROI = 7.93/117.63 * 360/165	14.7%
	[90 day Treasury Bills x 2	11.2%]