CAMBRIDGE ASSOCIATES LLC

INTRODUCTION TO SHORT SELLING FOR U.S. INVESTORS

2010

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Report Contents

Introduction to Short Selling for U.S. Investors

Short selling is an investment activity that can provide important benefits to investors in the form of downside protection, volatility reduction, and differentiated sources of investment returns that are not correlated to the returns of most asset classes in a portfolio. Investors' experience in 2008, when asset class diversification failed to deliver as much downside protection as many had anticipated, enhanced interest in such portfolio benefits. Traditional long/short hedge funds also did not provide hoped-for levels of downside protection in 2008, prompting investors to take a closer look at the degree of hedging in their portfolios. Dedicated short selling proved to be the winning hedge fund strategy in 2008 (Exhibit 1) despite headwinds from regulatory interference and attacks by politicians and the press.

This primer revisits the widely misunderstood practice of short selling, considers the associated risks, and addresses the role of dedicated short sellers in a broad investment portfolio. The market rally of 2009 appears to have reduced investor interest in short selling in perfect negative correlation to the rise in equity prices.

While the mechanics of short selling operate the same way in most markets, this paper generally focuses on the U.S. market. Restrictions implemented in other countries on short selling are briefly covered in Appendix B. Exhibit 2 provides a diagram of a hypothetical short-selling transaction and Exhibit 3 provides a brief history of key events in short selling.

Who Sells Short?

Selling short is the practice of selling a security that the seller does not own but promises to deliver by borrowing it from someone else. A number of financial market participants engage in short selling, including specialists on the exchanges, market makers, hedge funds, and individual investors. Hedge funds and individual investors engage in short selling to either profit from a perceived drop in the security's price or hedge out exposure from an existing long portfolio.

Arbitrageurs will typically buy one security and sell another one short to realize profits on temporary price disparities in markets for the same type of security, as well as on similar securities whose prices imply different valuations for the same entity due to technical dislocations.

Specialists and market makers engage in short selling in order to create supply when temporary trading imbalances could result in highly volatile security prices.

Mechanics of Short Selling

The process of selling a stock short involves a lender of stock, a borrower, and a price (also known as the rebate rate).

Loans of stock typically come from institutional investors, which hold their stocks with custodian banks. With the beneficial owner's permission, the custodian bank acts as an agent for the beneficial owner and lends shares to borrowers.

Borrowers of stock are typically prime brokerage firms that accommodate short demand for the ultimate borrowers—customers such as hedge funds. Prime brokers can borrow from custodians that hold institutional portfolios, retail accounts, or their own firm's proprietary trading accounts. The stock loan transactions are maintained on the books of the prime broker.

The borrower enters into an agreement with the lender to secure the loan with collateral typically of greater value than the loaned securities and remits to the lender any dividends, coupon interest, or other distributions that occur during the time that the securities are on loan.

The borrower's prime risk, aside from an increase in the price of a stock sold short, is recall risk. The lender can recall a stock, disrupting the investment strategy of the borrower. Furthermore, if a beneficial owner recalls a stock, the custodial bank can decide which prime broker loans to recall. Prime brokers, in turn, typically have discretion in selecting the borrowers whose shares will be recalled.

Short sales are cleared through the National Securities Clearing Corporation, a subsidiary of the Depository Trust Clearing Corporation (DTCC), which conducts post-transaction clearance, settlement, and custody operations for securities trades. DTCC also has a stock borrow program, which may come into play after a trade is made as a backup method to supply shares that may have otherwise gone undelivered.

The rebate rate is the rate the ultimate borrower (the short seller) is paid on the collateral. The rate is determined by supply/demand conditions in the stock-borrowing market. Highly liquid stocks typically earn a rate a few basis points below the Federal Reserve's funds rate for each day. In cases in which the stock is in very high demand and the relative supply of the stock is limited, the rebate rate can be negative. A short seller might be willing to accept a negative rebate if he expects to be rewarded adequately by a high-conviction short.

Short-Selling Opportunities

Stocks that are candidates for successful short selling can be categorized in a variety of ways. Short sellers typically refer to accounting irregularities, frauds, fads (companies with high sales growth that is unlikely to stay in line with expectations), and lottery tickets (unproven companies developing the "next big thing") when discussing their investment theses. Other characteristics that draw the attention of short sellers include companies with high leverage and/or excessive growth and companies within industries that are declining, facing competitive threats, and/or have low barriers to entry (often referred to as broken business models). In addition, short sellers often look for cases in which investors are overweighting recent positive data points such as extrapolating peak cycle earnings into the future in historically cyclical businesses. Appendix A provides examples of recent shorts and the company characteristics on which the short seller focused, and Exhibits 4 through 7 provide the current largest short interest ratios and short positions for the New York Stock Exchange and Nasdaq.

Risks

Short selling as a strategy has a number of inherent risks and also faces external risks from lawsuits and regulations. Investors must carefully consider all of these risks before implementing this strategy.

Unlimited Risk

Short selling is not the inverse of buying stocks. Success in shorting not only requires thorough and effective fundamental analysis, but also effective trading and risk management—even more so than when going long a stock. When the price of a shorted security appreciates and moves against the short seller, the exposure increases. Mistakes in fundamental analysis, timing, and sizing can be extremely costly, and the risks involved in short selling are unlimited.

For example, a short seller has a position in a stock trading at $10 for a company he is convinced will go bankrupt in the not-too-distant future. Assume a binary outcome in which either (1) the company goes bankrupt and the stock goes to $0, or (2) the capital markets open up, the company obtains much-needed financing and survives, and market participants pour money into the stock, aggressively pushing its price to $30. In the first scenario, the short seller makes 100%, which is the maximum he can make on the position. In the second scenario, the short seller suffers losses of 200% and could potentially lose more if the price keeps being pushed up and he does not cover the position.

Timing Risk

Company-specific positive news tends to arrive to market frequently and incorporate into stock prices gradually, while company-specific negative news tends to arrive sparsely and price in more rapidly.[1] This phenomenon may be partially explained by the incentives for company management to make "good" information public quickly and to suppress "bad" information for as long as possible.

Therefore, successful short selling requires the ability to determine a given stock's inflection point—the point at which the arrival of bad news is likely to cause significant price depreciation. This is a highly difficult proposition, requiring thorough due diligence, experienced market participants, diversification, and appropriate sizing in order to avoid catastrophic outcomes.

Short Squeezes

Short sellers may be forced to cover their short positions at an undesirable time and at high prices because shorted stocks can no longer be borrowed. This short squeeze situation can be precipitated by speculators purchasing shares and then refusing to lend them to short sellers, or by existing holders (often company management and shareholders sympathetic to management) either requesting physical delivery of their shares or holding them in cash accounts from which they cannot be borrowed.

A short squeeze results when a stock's price rises and hedge funds shorting that stock decide to cover their positions. In order to exit their investments and cut losses, firms need to purchase the stock to return it to the lender. When many investors try to buy the stock at the same time, the stock in turn rapidly rises in price.

The Volkswagen-Porsche Case. A short squeeze often occurs in small-cap stocks, which generally have fewer shares available for trading. However, in October 2008, a notable short squeeze occurred when Porsche unexpectedly announced that it had control of 74% of Volkswagen's (VW) voting shares. Since the State of Lower Saxony already owned 20% of VW's shares, this news implied a free float of 6%, while the short interest was 13%. As a result, hedge funds tried to cover their positions, and the rising demand for stock, along with the limited supply, sent the stock price skyrocketing. At the peak of the short squeeze, VW stock was purchased at €1,005 a share, bringing the company's value to €296 billion ($370 billion) and making VW momentarily the world's largest company by market capitalization.

Recently, a number of prominent hedge funds that suffered losses from the squeeze have sued Porsche, alleging it broke the law by cornering the freely traded voting shares of VW. The lawsuit

[1] See Steven Strongin, Aleksandar Timcenko, and Lewis Segal, "Why Shorts Aren't Longs," Goldman Sachs, April 17, 2009.

accuses Porsche of denying its intent to take over VW by making false statements and engaging in a series of manipulative derivatives trades to hide the extent to which it controlled VW shares.

As a short squeeze illustrates, short selling is limited to securities that can be borrowed. It may not always be possible to borrow the shares an investor wishes to short, or to borrow them in amounts meaningful enough to affect investment results.

Upward Drift of Markets

Short selling is vulnerable to the upward drift of the stock market over extended periods of time. This is especially true for those that simply short sell overvalued stocks rather than *terminal* shorts (stocks of companies the short seller believes are headed toward bankruptcy). However, stocks can remain overvalued for significant periods of time.

Event Risk

Poorly managed companies with deteriorating fundamentals are often candidates for takeover. Short sellers therefore face the event risk of a takeover sharply boosting the price of a stock they have sold short.

Legal Risks

Investors sell short when they expect price deterioration in a company's shares in order to profit from it. In that sense, they are implicitly criticizing the business prospects of a particular company and, in effect, the company's management. When a short seller goes public with its criticism, this can lead to legal action against partnership assets by disgruntled management or shareholders for defamation or other torts.

Most company managers will not admit that the company is not doing well or that management is doing something wrong. In addition, management's incentive compensation is most often linked to the company stock price via direct stock holdings or call options. Therefore, management has a clear incentive to suppress critical views that might negatively affect the stock's price performance.

Clearly, there are fine lines in these cases. At one extreme lies the short seller that is spreading false rumors about a company on purpose in order to make a quick profit. At the other extreme lies a management team that is engaging in fraud.

Two recent cases—Copper River's shorting of shares of Overstock.com and Greenlight Capital's shorting of shares of Allied Capital—demonstrate how short sellers are exposed to litigation, especially when they are vocal critics of a particular company. In both instances, the funds were accused of conspiring to drive the stock prices down. Copper River settled out of court, while the Securities and Exchange Commission (SEC) investigated Greenlight.

Regulatory Risks

More recently, short sellers have faced important regulatory risks in the form of outright bans, disclosure requirements, and other limitations impairing the execution of their strategies.

In response to the market turmoil of 2008, and to prevent any further deterioration or instability in the financial system, the SEC bypassed its traditional "notice and comment" procedure for the institution of new rules, and issued an emergency order prohibiting any short sales of a list of 19 securities unless the security had already been borrowed or an arrangement to borrow the security had been established prior to the emergency order. The initial emergency order spanned a period of about a month and expired on August 13, 2008.

After the collapse of Lehman Brothers on September 15, 2008, the SEC once again took action by issuing another emergency order imposing a temporary ban on the short sales of 799 financial stocks until October 2, 2008. This list grew to nearly 1,000 companies and was extended until October 8, 2008, three days after the Emergency Economic Stabilization Act of 2008 was signed into law. On September 18, 2008, the SEC issued another temporary rule to accompany the short sale ban requiring all short positions to be reported to the commission. Eventually, this requirement was extended to expire in August 2009.

Numerous studies and analyses of the short-selling restraints imposed by the SEC in 2008 found that liquidity dried up, price discovery slowed, and stock prices continued to decline.[2]

Former SEC Chairman Christopher Cox conceded in a December 24, 2008, interview with *The Washington Post* that "the biggest mistake of his tenure was agreeing in September to an extraordinary three-week ban on short selling of financial company stocks."

Counterparty Risks

The collapse of Copper River, founded by David A. Rocker in 1985 and considered one of the most well-known and experienced short-selling firms until its liquidation in 2008, provides an illustrative example of the significant counterparty risks short sellers can face. Copper River had structured a series of derivative trades as put options with Lehman as its counterparty. When Lehman filed for bankruptcy, Copper River's collateral in these trades became tied up. Around the same time, the SEC ordered unprecedented restrictions in short sales, including banning all short sales of financial companies. As prices of those stocks shot upward, Copper River was forced to cover some of its positions at steep losses. The rising stock prices also led to a series of margin calls from Copper River's prime broker. This combination of short squeezes, counterparty failure, and margin calls led to a 55% loss for the fund in just two weeks in September 2008.

Role of Short Selling in Financial Markets

"We need the shorts in the market for balance so we don't have bubbles."
—Christopher Cox, former SEC chairman

"Short sellers provide the kind of independent research that is the marketplace's best antidote to the myriad conflicts of interest so amply revealed in the global settlement with ten leading Wall Street investment banking firms."
—James Chanos, president of Kynikos Associates, during a May 13, 2003, SEC Commission Roundtable on Hedge Funds

Despite negative press coverage and attacks by politicians, sophisticated market participants and students of financial markets agree that short-selling activity plays an important role in making financial markets more efficient and liquid.

Short sellers have been accused of, among other things, causing unhealthy volatility in the markets, manipulating stocks prices through *bear raids* by spreading false rumors, and causing the collapse of companies.

Short sellers respond that:

- Compared to the total volume of securities transactions, short selling composes only

[2] See, for example, Abraham Lioui, "The Undesirable Effects of Banning Short Sales," EDHEC Risk and Asset Management Research Center, April 2009; Ekkehart Boehmer, Charles Jones, and Xiaoyan Zhang, "Shackling Short Sellers: The 2008 Shorting Ban," Johnson School Research Paper Series No. 34-09, September 25, 2009; Ian W. Marsh and Norman Niemer, "The Impact of Short Sales Restrictions," Cass Business School, November 30, 2008; and Arturo Bris, "Short Selling Activity in Financial Stocks and the SEC July 15th Emergency Order," Lausanne: International Institute for Management Development, 2008.

around 2% (Exhibit 8) of total shares outstanding on the New York Stock Exchange and could only have a minor effect on the volatility of financial markets. In addition, short selling creates liquidity by adding to the supply of available stock for trading and, in effect, generally reduces volatility in security prices.

- Short sellers demand accountability from corporate management; after all, it was short sellers that, driven by profit incentive, uncovered major frauds such as Enron.

- Short sellers cannot be blamed for the failures of corporate management—a company can only fail because it has been mismanaged.

- Short selling, like buying, is a legal and natural market activity; therefore, there is no moral argument against short selling inasmuch as there is no moral argument against buying activity.

- Short sellers promote economic efficiency. Given that capital is limited and scarce, capital allocation is a zero-sum game. A company with a stock price higher than warranted based on facts and fundamentals undeservedly attracts capital away from other companies with better prospects. This is unfair and results in the inefficient use of resources, hurting the economy as a whole.

Bear Raids and the Uptick Rule

Prior to the creation of institutions such as the SEC and the enforcement of laws regulating the exchanges, bear raids were a common phenomenon in securities trading. A bear raid is a direct and coordinated attempt by short sellers to cause the price of a security to fall (rather than anticipate the price decrease) in an attempt to profit. The process typically involves selling a security to depress the price and spreading false rumors to affect the perceptions of other market participants, who then sell the stock and create a downward spiral in its price. Once the downward spiral is set in motion, the bear raiders cease selling the stock, waiting for public sales to continue to force the price down. The bear raiders then cover their shorts, profiting by manipulation rather than any skill in fundamental analysis.

Today, bear raids do exist, but they are illegal and investigated by authorities. SEC Rules 10a-1 and 10a-2, enacted in 1938 and commonly known as the "uptick rule," limited short sales to situations in which the price of a security was rising. According to these rules, if an order on the exchange floor was clearly marked as a short sale, the broker on the floor could only execute the order if the last trade had resulted in a higher price for the security.

The SEC eliminated the uptick rule on July 6, 2007. The decision was backed by a pilot initiated in 2004 that eliminated the uptick rule for around one-third of the largest stocks.

The SEC concluded: "The general consensus from these analyses and the roundtable was that the Commission should remove price test restrictions because they modestly reduce liquidity and do not appear necessary to prevent manipulation. In addition, the empirical evidence did not provide strong support for extending a price test to either small or thinly-traded securities not currently subject to a price test."[3]

Following the 2008 credit crisis, the SEC has considered re-establishing the uptick rule in some form. On February 24, 2010, the SEC approved a new rule that permitted short selling only at a price above the national best bid for a stock declining

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[3] See U.S. Securities and Exchange Commission, "SEC Votes on Regulation SHO Amendments and Proposals; Also Votes to Eliminate 'Tick' Test," June 13, 2007 (www.sec.gov/news/press/2007/2007-114.htm).

more than 10% in value from the prior trading day close, with a price test in place through the end of the next trading day.

Role of Short Selling in a Portfolio

Long/short managers, as a group, tend to have a significant net long bias. In addition, long/short managers actively manage their exposure and often chase returns during periods of rising equity prices, abandoning the hedging component of their mandate precisely when it is most needed. Furthermore, long/short portfolio managers and analysts tend to focus more on their long ideas than their short ideas, given that longs typically make up the bulk of their balance sheet. As a result, many long/short managers lack differentiated fundamental research in short positions.

Dedicated short sellers come in a variety of forms. Some are information-intensive, fundamental analysts; others are more dependent on quantitative screening techniques. Some are bottom-up analysts, others are top-down in their orientation, focusing on industry themes rather than individual securities. Some focus primarily on stocks they perceive as relatively overvalued, others concentrate on terminal stocks they believe are headed for bankruptcy or close to it. Some are more diversified, others less so. In principle, and all other things being equal, a short seller focusing on terminal shorts with hard catalysts can be less diversified than a short seller focusing on valuations, earnings misses, and mean reversion.

Investors can benefit by introducing talented short sellers into their portfolios. Dedicated short sellers typically have a negative correlation to equity markets and other hedge fund strategies, delivering important diversification benefits to the portfolio as a whole.

Investors can approach an allocation to a dedicated short-selling strategy in one of two ways.

Tactical Approach

Investors can tactically introduce short sellers into their portfolio during periods of rising markets when valuations are exceedingly rich and long/short managers' gross and net exposures are excessively high. Clearly, the timing and sizing of the implementation of the tactical bet as well as the timing of the exit will determine the level of success or failure of this approach.

Strategic/Long-Term Approach

Investors can strategically introduce short sellers into their portfolio, maintaining the exposure over time through disciplined rebalancing. Such an approach is expected to reduce total portfolio volatility and provide downside protection. At the same time, it can add to overall returns over time (versus the alternative of not having the allocation and having greater long exposure) depending on the direction and magnitude of equity returns and the degree of alpha generation in the short-selling portfolio.

Exhibit 9 shows how adding short sellers to an equity portfolio can dampen volatility even in good markets relative to a long-only equity portfolio. However, during strong markets, the addition of short sellers should also be expected to dampen returns. For example, during the ten-year period ending June 30, 2000, an investor that had diversified an S&P 500 portfolio with a 10% allocation split evenly between two top short sellers would have decreased its portfolio standard deviation from 13.6 to 10.4, but would have also earned lower returns (15.5% compared to 17.8%). Still, on a risk-adjusted basis, net of fees, the diversified portfolio would have outperformed. Using the same managers, but increasing the allocation from 10% to 30%, would have resulted in a further reduction in risk, but a lower risk-adjusted return than earned on the S&P alone. The experience of the decade ending June 30, 2010, was quite different. A 10% or 30% allocation to the same two short sellers would have outperformed the S&P 500 on a total return and risk-adjusted return basis, net of fees.

It should be noted that an allocation to dedicated short sellers can create significant portfolio rebalancing issues for investors, and liquidity options should be examined carefully prior to committing capital. In addition, we recommend investors diversify dedicated short-selling exposure across several managers to mitigate strategy-specific risk. The recent example of Copper River illustrates the importance of a diversified approach. ■

Exhibit 1

Hedge Fund Performance by Strategy

2001 – Second Quarter 2010

2001	2002	2003	2004	2005	2006	2007	2008	2009	2Q10
11.1%	28.1%	25.9%	13.6%	12.6%	14.5%	23.9%	33.8%	32.8%	10.0%
10.2%	18.3%	22.3%	13.3%	11.4%	14.1%	16.2%	18.3%	25.6%	1.3%
10.1%	8.6%	16.1%	11.2%	8.9%	13.5%	12.0%	6.0%	22.4%	0.2%
9.1%	5.1%	14.1%	9.2%	7.9%	11.3%	10.4%	-0.1%	21.2%	-0.3%
8.1%	4.1%	14.1%	7.7%	7.7%	11.1%	10.0%	-3.3%	17.1%	-0.7%
6.2%	3.6%	13.9%	6.0%	7.3%	9.2%	9.2%	-4.1%	15.4%	-0.7%
5.2%	2.5%	8.2%	5.4%	5.7%	8.4%	7.3%	-16.1%	12.7%	-1.0%
5.0%	0.6%	4.5%	4.9%	5.1%	8.1%	6.0%	-16.7%	-4.5%	-1.8%
4.1%	-0.8%	2.3%	2.7%	5.2%	7.2%	5.7%	-19.6%	-6.6%	-4.0%
1.9%	-7.7%	-28.2%	-14.4%	-0.1%	-9.1%	4.7%	-24.5%	-22.7%	-4.7%

STRATEGY	10-Year AACR	10-Year St Dev	5-Year AACR	5-Year St Dev
Dedicated Short [1,2,3]	6.3%	23.1%	8.9%	13.6%
Fixed Income Arbitrage [1,2]	11.0%	14.9%	7.8%	13.5%
Credit Opportunities [1]	10.3%	11.6%	7.5%	12.8%
Global Macro [1]	12.9%	15.6%	7.8%	14.8%
Risk Arbitrage [1,2,3]	6.0%	4.8%	5.6%	5.0%
Market Neutral Equity [1]	4.7%	6.0%	3.2%	6.3%
Multi-Strategy	8.7%	9.1%	7.4%	11.8%
Managed Futures [4]	7.5%	13.0%	5.1%	11.4%
Global Long/Short	9.6%	14.2%	7.9%	13.4%
U.S. Long/Short	6.5%	12.1%	5.1%	12.4%

Margin Between Best- and Worst-Performing Strategies in a Given Year

2001	2002	2003	2004	2005	2006	2007	2008	2009	2Q10
9.2	35.8	54.1	27.9	12.7	23.6	19.2	58.3	55.5	14.7

2001	2002	2003	2004	2005	2006	2007	2008	2009	2Q10		10-Year AACR	10-Year St Dev	5-Year AACR	5-Year St Dev
-11.9%	-22.1%	28.7%	10.9%	4.9%	15.8%	5.5%	-37.0%	26.5%	-11.4%	S&P 500	-1.6%	18.3%	-0.8%	18.5%
2.5%	-20.5%	47.3%	18.3%	4.6%	18.4%	-1.6%	-33.8%	27.2%	-9.9%	Russell 2000®	3.0%	23.1%	0.4%	22.3%
-15.9%	-19.0%	34.6%	15.8%	11.4%	21.5%	12.2%	-41.8%	35.4%	-12.0%	MSCI ACWI	0.2%	20.3%	1.7%	21.8%
-21.4%	-15.9%	38.6%	20.2%	13.5%	26.3%	11.2%	-43.4%	31.8%	-14.0%	MSCI EAFE	0.2%	22.0%	0.9%	23.9%
-2.4%	-6.0%	56.3%	26.0%	34.5%	32.6%	39.8%	-53.2%	79.0%	-8.3%	MSCI Emerging Markets	10.3%	28.8%	13.1%	30.4%
2.8%	1.1%	11.4%	7.2%	7.5%	10.2%	9.7%	-20.9%	11.5%	-2.6%	HFR FoF Diversified	3.3%	6.7%	2.4%	8.8%
8.4%	10.3%	4.1%	4.3%	2.4%	4.3%	7.0%	5.2%	5.9%	3.5%	BC Aggregate	6.5%	3.7%	5.5%	3.5%
5.1%	9.6%	5.3%	4.5%	3.5%	4.9%	3.4%	-2.5%	12.9%	2.0%	BC Muni	5.6%	4.0%	4.4%	4.3%

Sources: Barclays Capital, Cambridge Associates LLC Investment Manager Database, Dow Jones & Company, Inc., Frank Russell Company, Hedge Fund Research, Inc., MSCI Inc., Standard & Poor's, and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Cambridge Associates LLC's (CA) manager universe statistics are derived from CA's proprietary database covering investment managers. Performance results are generally reported net of investment management fees and performance fees. Performance results do not include returns for managers that exclude reserves (cash) from reported total return and managers with less than $50 million in product assets (unless otherwise noted). Returns for inactive (discontinued) managers are included if performance is available for the entire period measured. Returns and standard deviations are based on quarterly data. Data for 2010 are as of June 30.

[1] The CA manager median AACRs include managers that have dropped below the $50 million asset level because all managers in the universe have dropped below that mark at some point over the last ten years.

[2] Manager universe contains fewer than ten managers for the ten-year AACR calculation.

[3] Manager universe contains fewer than ten managers for the five-year AACR calculation.

[4] Managed futures data are compiled from the Dow Jones Credit Suisse Managed Futures Hedge Fund Index. All other strategy data are derived from CA medians.

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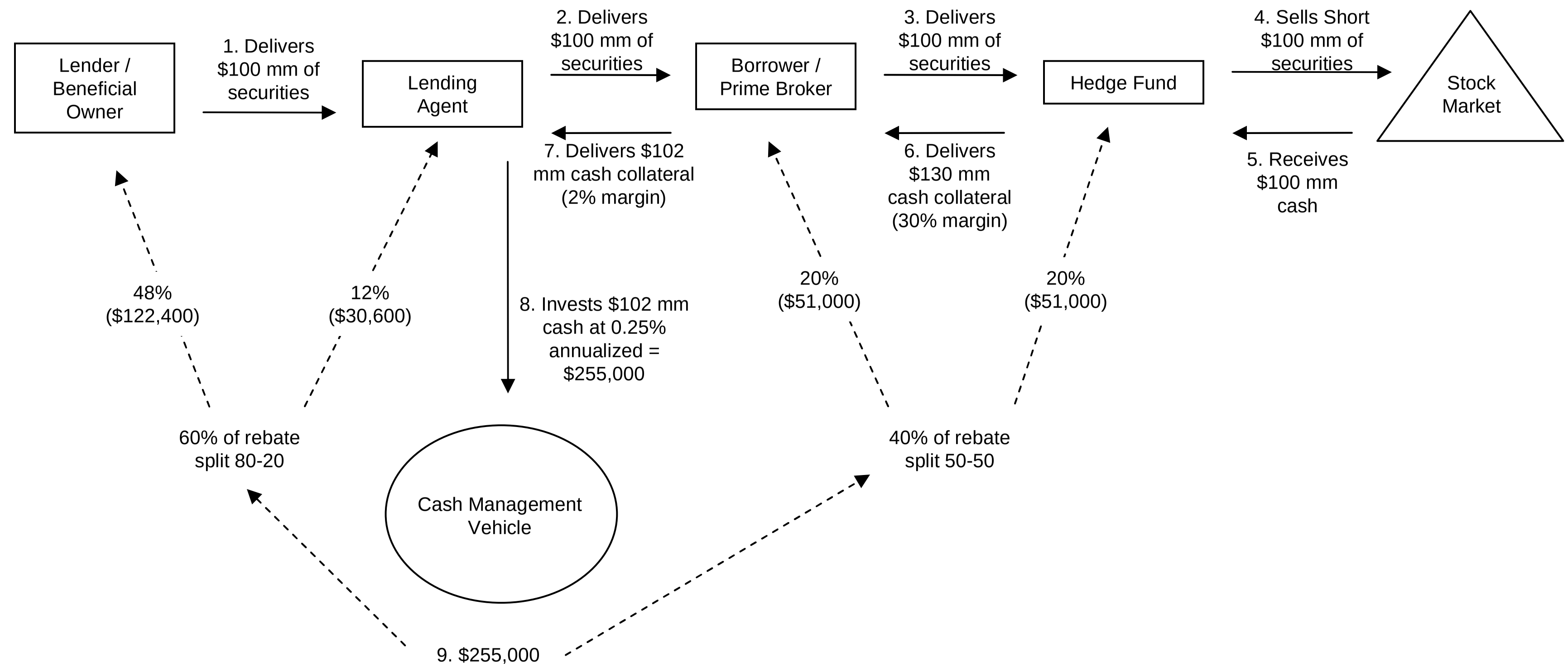
Exhibit 2

Hypothetical Transaction Diagram



Lender / Beneficial Owner

1. Delivers $100 mm of securities
2. Receives 48% of rebate value ($122,400)

Lending Agent

1. Delivers $100 mm of securities
2. Receives $102 mm cash collateral from prime broker
3. Deposits collateral in cash management vehicle
4. Receives 12% of rebate value ($30,600)

Borrower / Prime Broker

1. Delivers $100 mm of securities
2. Receives $130 mm cash collateral from hedge fund
3. Delivers $102 mm cash collateral to lending agent
4. Receives 20% of rebate value ($51,000)

Hedge Fund

1. Sells short $100 mm of securities for cash
2. Delivers $130 mm cash collateral to prime broker
3. Receives 20% of rebate value ($51,000)

Notes: Hedge fund and prime broker do not have direct exposure to the cash management vehicle of the lending agent. Exposures and negotiations are bilateral.

Exhibit 3
Milestones in the History of Short Selling

1609 The Dutch East India Company protests to the Amsterdam Exchange after short sellers mark enormous profits on its stock. That leads to the first ever regulations on shorting in the following year.

1733 Britain bans naked short selling.

1917 The New York Stock Exchange implements restrictions on shorting and requires a list by noon every day of speculators.

1929 Short sellers are among those blamed for Wall Street crash.

1932 President Herbert Hoover condemns short selling for speculative profit on the New York Stock Exchange.

1938 The U.S. Securities Exchange Commission (SEC) seeks to restrict short selling by only allowing it when a stock's price is rising (the "uptick rule"), which is repealed in 2007.

1940 The Investment Company Act is passed and restricts mutual funds from short selling.

1949 Alfred Winslow Jones, a financial journalist, creates the first modern hedge fund by forming an unregulated fund that buys stocks while shorting others to hedge some of the market risk.

1987 Congress investigates short selling following market crash.

1997 Malaysia charges Credit Lyonnais with short selling following the collapse of the country's currency and stock market.

2001 Wall Street firms ask short sellers not to try to profit from falling shares following the September 11 attacks.

2001 Within two weeks of the September 11 attacks, financial regulators investigate whether groups linked to Osama bin Laden tried to profit by shorting the shares of an insurance company exposed to claims from the destruction.

2004 The SEC approves a new rule called Regulation SHO, which seeks to reduce naked shorting by requiring the publication every day of a list of the securities with significant delivery failures. In a naked sale, the seller does not borrow the stock in time to deliver the stock to the buyer within the required three-day settlement period. Regulation SHO comes into effect in January 2005.

2007 The SEC unanimously repeals the uptick rule in July.

2008 The SEC implements several new rules in March making it fraudulent for short sellers to deceive broker-dealers about their intention or ability to deliver securities in time for settlement, and requiring the temporary disclosure of short positions to SEC staff. The SEC also imposes a series of emergency orders between July and October restricting short selling.

2009 Several academic studies find that the SEC's 2008 actions to restrain short selling worsened market quality to the disadvantage of investors.

2010 The SEC approves an alternative uptick rule in February, imposing restrictions on short selling when a stock has triggered a circuit breaker by experiencing a price decline of at least 10% in one day. In May, Germany imposes a temporary ban on naked short sales of a number of European financial stocks as a reaction to financial turmoil in the Eurozone. The ban is expected to remain in effect until March 31, 2011.

Sources: Cambridge Associates LLC and Reuters, "FACTBOX: Milestones in Short-Selling History," July 16, 2008 (www.reuters.com/article/idUSN1641520620080716).

Exhibit 4

Largest Nasdaq Short Interest Ratios

As of September 30, 2010

Company	Industry	Short Interest Ratio (Days to Cover)	2009 Price Change (%)	YTD Change (%)
K-Fed Bancorp	Thrifts & Mortgage Finance	157	35.2	-10.2
InnerWorkings Inc.	Commercial Services & Supplies	90	-9.9	11.4
First Federal Bancshares of Arkansas Inc.	Thrifts & Mortgage Finance	90	-69.8	-19.0
Colony Bankcorp Inc.	Commercial Banks	88	-42.6	-0.8
Cascade Bancorp	Commercial Banks	81	-89.9	-21.2
First South Bancorp Inc. North Carolina	Commercial Banks	79	-18.0	-3.7
Macatawa Bank Corp.	Commercial Banks	77	-39.8	-29.2
Towne Bank	Commercial Banks	77	-52.9	28.1
ReachLocal Inc.	Media	74	---	---
FNB United Corp.	Commercial Banks	70	-58.6	-46.2
Echo Global Logistics Inc.	IT Services	69	---	0.6
United Security Bancshares	Commercial Banks	65	-60.5	6.3
PetMed Express Inc.	Internet & Catalog Retail	63	0.2	-0.9
Great Southern Bancorp Inc.	Commercial Banks	62	86.7	1.9
MAKO Surgical Corp.	Health Care Equipment & Supplies	60	66.2	-13.7
Mean			-19.5	-6.9
Median			-39.8	-2.3
S&P 500			23.5	2.3
Nasdaq			43.9	4.4
Nasdaq 100			53.5	7.4

Sources: FactSet Research Systems, Nasdaq, and Standard & Poor's.

Notes: Short interest is the number of shares that have not been purchased, but eventually must be, for return to the lenders. The short interest ratio is calculated by dividing total short sales by the average daily trading volume. The short interest ratio indicates the number of trading days required to cover the total short interest. Companies that were acquired or merged during the year are not included in this analysis.

Exhibit 5

Largest Nasdaq Short Positions

As of September 30, 2010

Company	Industry	% Shorted	2009 Price Change (%)	YTD Change (%)
Sonic Solutions	Software	44.5	569.9	-3.5
Rubicon Technology Inc.	Semiconductors & Semiconductor Equipment	41.0	376.8	11.7
ATP Oil & Gas Corp.	Oil Gas & Consumable Fuels	37.0	212.5	-25.3
Constant Contact Inc.	Internet Software & Services	35.6	20.8	33.9
Fuel Systems Solutions Inc.	Auto Components	34.9	25.9	-5.2
Blackboard Inc.	Software	34.7	73.0	-20.6
Blue Nile Inc.	Internet & Catalog Retail	34.3	158.6	-29.7
Arena Pharmaceuticals Inc.	Biotechnology	32.8	-14.9	-55.8
athenahealth Inc.	Health Care Technology	31.8	20.3	-27.0
Veeco Instruments Inc.	Semiconductors & Semiconductor Equipment	31.6	421.1	5.5
Ebix Inc.	Software	31.6	104.3	44.1
NutriSystem Inc.	Internet & Catalog Retail	31.4	113.6	-38.3
PetMed Express Inc.	Internet & Catalog Retail	31.3	0.2	-0.9
Synaptics Inc.	Computers & Peripherals	30.3	85.1	-8.2
MELA Sciences Inc.	Health Care Equipment & Supplies	29.1	207.8	-36.8
Mean			158.3	-10.4
Median			104.3	-8.2
S&P 500			23.5	2.3
Nasdaq			43.9	4.4
Nasdaq 100			53.5	7.4

Sources: FactSet Research Systems, Nasdaq, and Standard & Poor's.
Note: Percent shorted is calculated by dividing the short interest shares by the common shares outstanding.

Exhibit 6

Largest NYSE Short Interest Ratios

As of September 30, 2010

Company	Industry	Short Interest Ratio (Days to Cover)	2009 Price Change (%)	YTD Change (%)
Grupo Radio Centro S.A.B. de C.V. ADS	Media	131	3.5	-14.5
Rogers Communications Inc. (Cl B)	Wireless Telecommunication Services	94	3.1	20.7
Ritchie Bros. Auctioneers Inc.	Commercial Services & Supplies	83	4.7	-7.4
Landry's Restaurants Inc.	Hotels Restaurants & Leisure	64	83.5	15.0
Emeritus Corp.	Health Care Providers & Services	53	86.9	-9.0
Bio-Rad Laboratories Inc. (Cl B)	---	48	28.0	-5.7
Media General Inc. (Cl A)	Media	47	348.0	14.3
Lee Enterprises Inc.	Media	43	746.3	-22.8
Life Time Fitness Inc.	Hotels Restaurants & Leisure	40	92.5	58.3
Sealy Corp.	Household Durables	39	25.9	-22.8
TransAlta Corp.	Indp. Power Producers & Energy Traders	39	11.3	-4.0
Central Pacific Financial Corp.	Commercial Banks	37	-87.0	9.2
American Greetings Corp. (Cl A)	Household Durables	36	187.8	-14.7
Tyler Technologies Inc.	Software	36	66.2	1.3
Deltic Timber Corp.	Paper & Forest Products	35	0.9	-3.0
Mean			106.8	1.0
Median			28.0	-4.0
S&P 500			23.5	2.3
NYSE			24.8	1.3

Sources: FactSet Research Systems, New York Stock Exchange, and Standard & Poor's.
Notes: Short interest is the number of shares that have not been purchased, but eventually must be, for return to the lenders. The short interest ratio is calculated by dividing total short sales by the average daily trading volume. The short interest ratio indicates the number of trading days required to cover the total short interest. Companies that were acquired or merged during the year are not included in this analysis.

Exhibit 7

Largest NYSE Short Positions

As of September 30, 2010

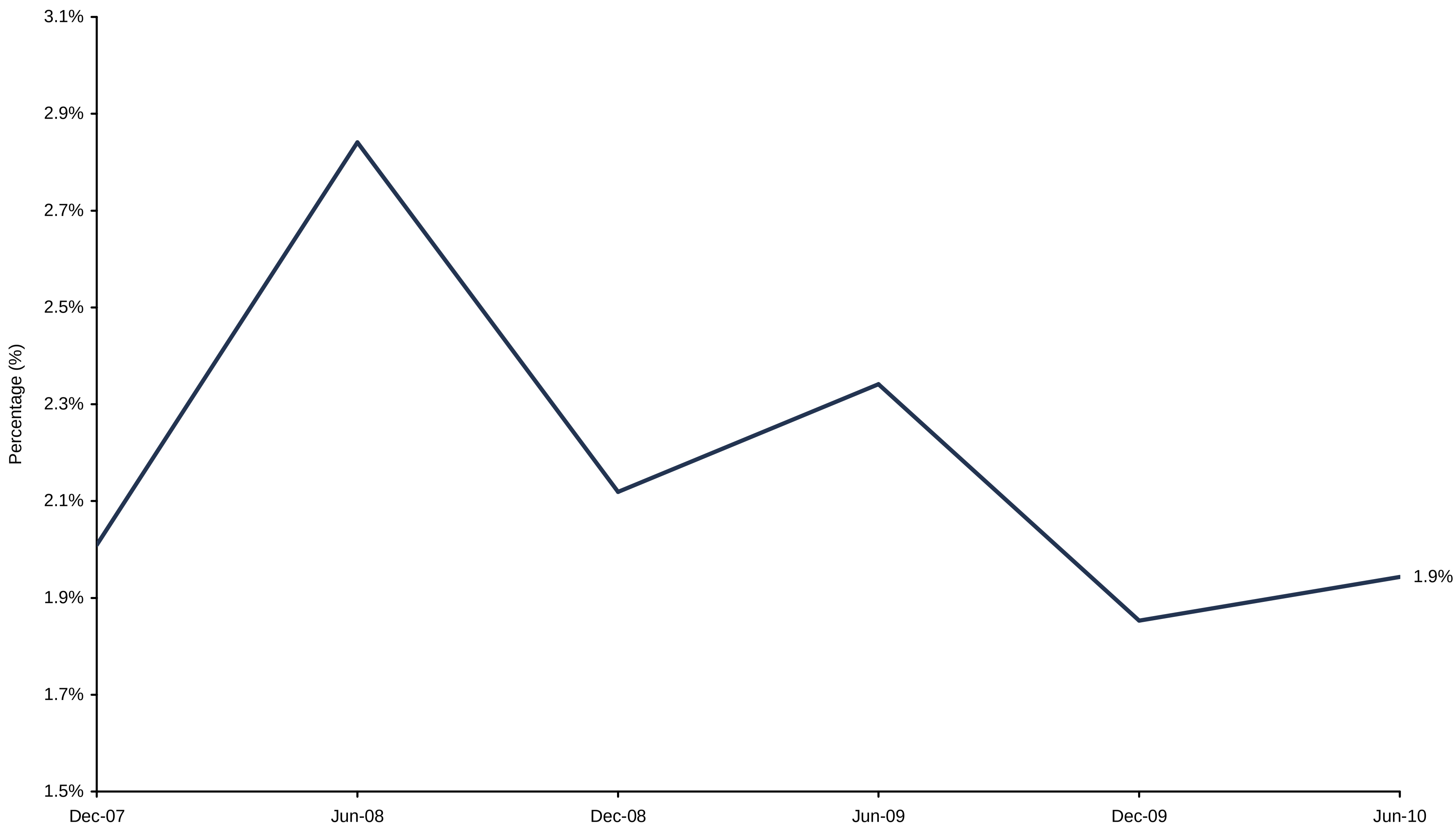
Company	Industry	% Shorted	2009 Price Change (%)	YTD Change (%)
Alliance Data Systems Corp.	IT Services	34.5	38.8	1.0
McClatchy Co. (Cl A)	Media	32.5	342.5	11.0
Great Atlantic & Pacific Tea Co.	Food & Staples Retailing	32.2	88.0	-66.4
iStar Financial Inc.	Real Estate Investment Trusts (REITs)	29.7	14.8	19.5
Hovnanian Enterprises Inc. (Cl A)	Household Durables	28.8	123.3	2.3
Beazer Homes USA Inc.	Household Durables	27.3	206.3	-14.7
Titan International Inc.	Machinery	26.7	-1.7	67.3
DSW Inc. (Cl A)	Specialty Retail	25.4	107.7	10.9
Skechers USA Inc. (Cl A)	Textiles Apparel & Luxury Goods	24.9	129.4	-20.1
Mylan Inc.	Pharmaceuticals	23.9	86.3	2.1
Liz Claiborne Inc.	Textiles Apparel & Luxury Goods	23.8	116.5	8.0
First BanCorp (Puerto Rico)	Commercial Banks	23.1	-79.4	-87.8
Group 1 Automotive Inc.	Specialty Retail	22.6	163.2	5.4
ITT Educational Services Inc.	Diversified Consumer Services	22.5	1.0	-26.8
Life Time Fitness Inc.	Hotels Restaurants & Leisure	22.2	92.5	58.3
Mean			95.3	-2.0
Median			92.5	2.3
S&P 500			23.5	2.3
NYSE			24.8	1.3

Sources: FactSet Research Systems, New York Stock Exchange, and Standard & Poor's.
Note: Percent shorted is calculated by dividing the short interest shares by the common shares outstanding.

Exhibit 8

Estimates of Short Positions as a Percentage of Total Market

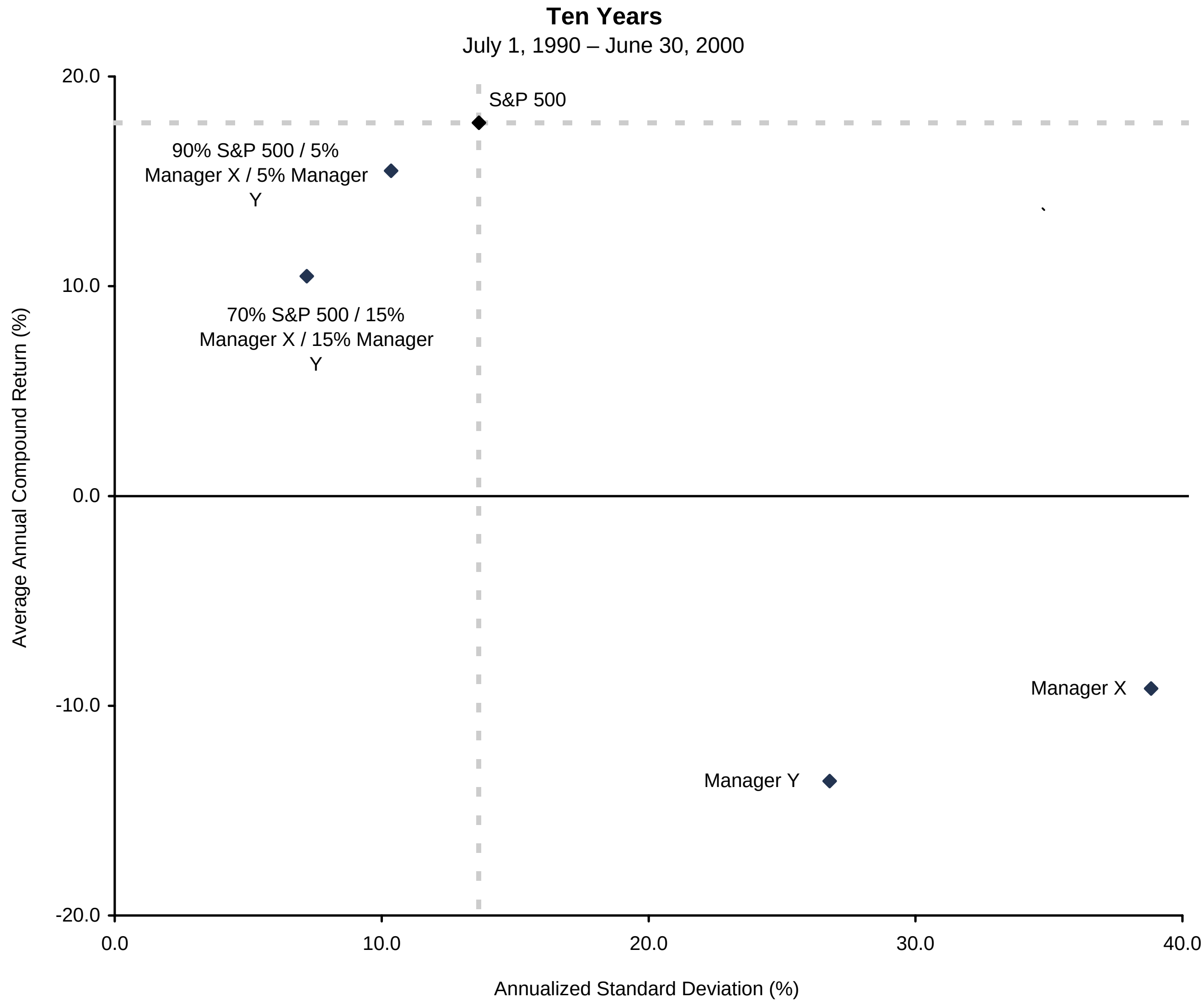
December 31, 2007 – June 30, 2010



Source: FactSet Research Systems.
Note: Data are semi-annual.

Exhibit 9

Risk/Return Analysis for Equity Portfolio with Allocation to Dedicated Short Sellers



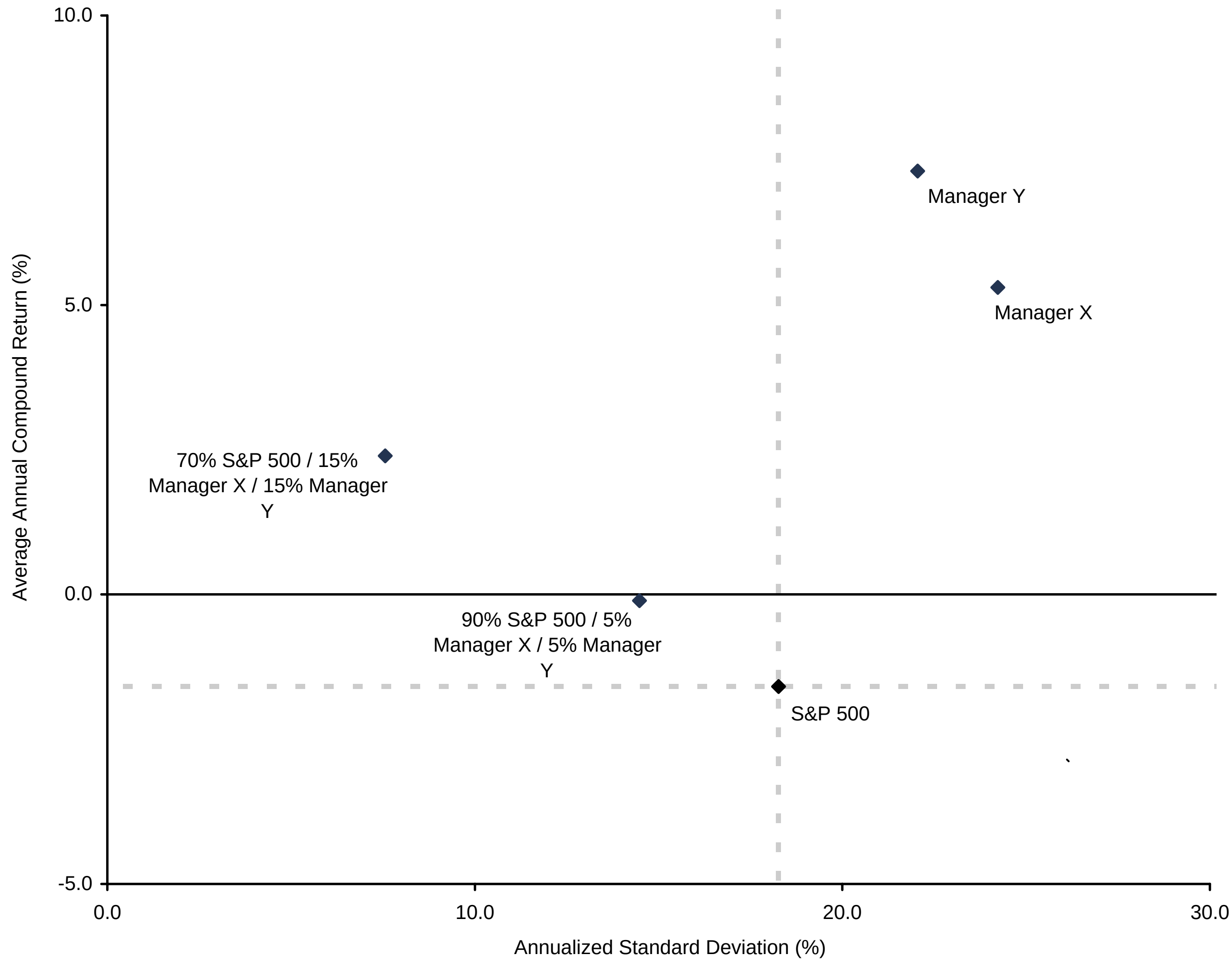
	Average Annual Compound Return	Annualized Standard Deviation	Sharpe Ratio[1]
90% S&P 500 / 5% Manager X / 5% Manager Y	15.5	10.4	1.0
70% S&P 500 / 15% Manager X / 15% Manager Y	10.5	7.2	0.7
Manager X	-9.2	38.8	NM
Manager Y	-13.6	26.8	NM
Index			
S&P 500	17.8	13.6	0.9

Exhibit 9 (continued)

Risk/Return Analysis for Equity Portfolio with Allocation to Dedicated Short Sellers

Ten Years

July 1, 2000 – June 30, 2010



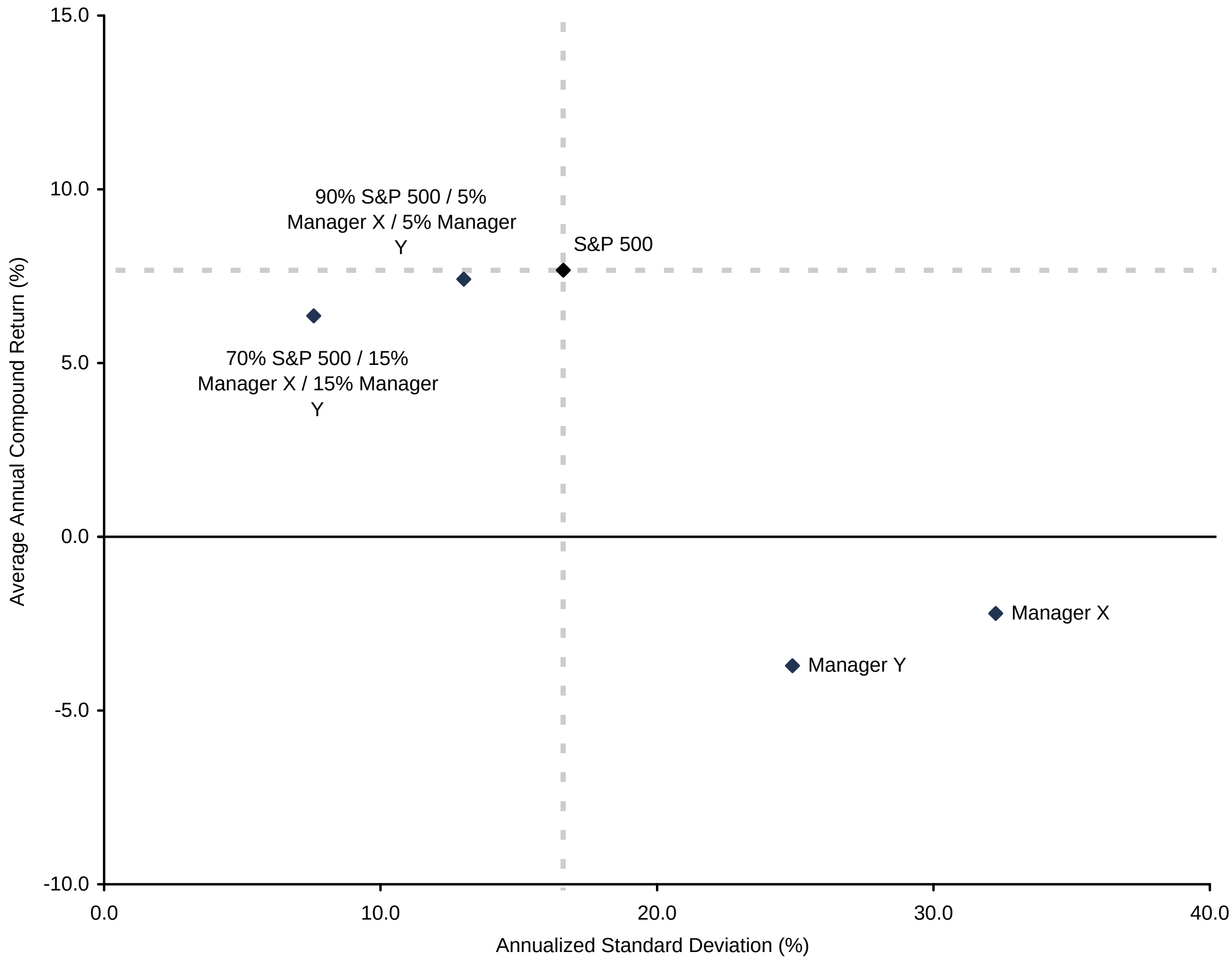
	Average Annual Compound Return	Annualized Standard Deviation	Sharpe Ratio[1]
90% S&P 500 / 5% Manager X / 5% Manager Y	-0.1	14.5	NM
70% S&P 500 / 15% Manager X / 15% Manager Y	2.4	7.6	NM
Manager X	5.3	24.2	0.2
Manager Y	7.3	22.1	0.3
Index			
S&P 500	-1.6	18.3	NM

Exhibit 9 (continued)

Risk/Return Analysis for Equity Portfolio with Allocation to Dedicated Short Sellers

20 Years

July 1, 1990 – June 30, 2010



	Average Annual Compound Return	Annualized Standard Deviation	Sharpe Ratio[1]
90% S&P 500 / 5% Manager X / 5% Manager Y	7.4	13.0	0.3
70% S&P 500 / 15% Manager X / 15% Manager Y	6.4	7.6	0.4
Manager X	-2.2	32.3	NM
Manager Y	-3.7	24.9	NM
Index			
S&P 500	7.7	16.6	0.3

Sources: Cambridge Associates LLC Investment Manager Database and Standard & Poor's.
Note: Calculations are based on net quarterly data.
[1] The Sharpe ratio represents the amount of return over the risk-free rate that can be expected for each unit of risk accepted and is calculated by subtracting the average T-bill return (risk-free return) from the manager's average return, then dividing by the manager's standard deviation.

Appendix A: Case Studies

The following examples illustrate the characteristics short sellers identify as they consider which stocks to sell short. Short sellers typically refer to accounting irregularities, frauds, fads (companies with high sales growth that is unlikely to stay in line with expectations), and lottery tickets (unproven companies developing the "next big thing") when discussing their investment theses. The management firms and companies discussed below are examples only and should not necessarily be interpreted as being in any way endorsed by Cambridge Associates.

Accounting Irregularities

Allied Capital

A short sale that received significant financial press was hedge fund manager David Einhorn's Greenlight Capital selling short shares of business development company (BDC) Allied Capital. Allied Capital, founded in 1958, invests in middle-market private businesses. In his book *Fooling Some of the People All of the Time*, Einhorn describes his five-year battle against Allied Capital.

Einhorn first began investigating Allied Capital in 2002, after he was approached by the managers of a hedge fund specializing in financial institutions who suspected irregularities in Allied Capital's portfolio valuations. According to Einhorn, the managers wanted to discuss these perceived irregularities with him given Greenlight's previous success in 1998 with selling short shares of Sirrom Capital, another BDC with a similar strategy to Allied Capital. After reviewing the evidence, Einhorn decided to research Allied Capital further.

Greenlight built a database of all Allied Capital loans, showing quarterly cost and value for each investment over a period of several years. Greenlight had completed similar analysis on Sirrom Capital years earlier. The results of this analysis confirmed a similar valuation pattern, identifying that Allied Capital had a practice of marking down equity kickers of problem investments while holding the related loans at cost on the balance sheet. Such a practice had previously been a harbinger of future loan write-downs. As a BDC, Allied Capital was required to use "fair value" accounting.

According to Einhorn, to protect its existing investment and delay the day of reckoning, Allied Capital often put more money into apparently troubled situations and/or restructurings without taking proportional markdowns.

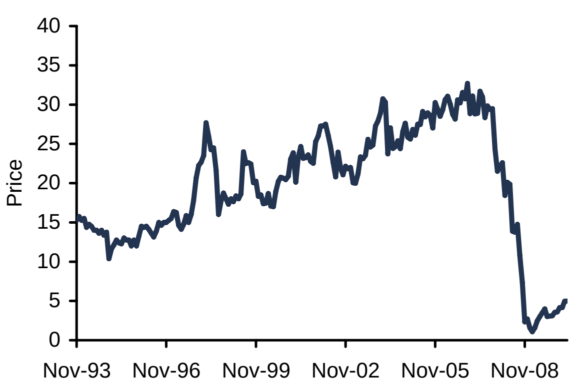
After conducting its research on Allied Capital's portfolio, Greenlight scheduled calls with Allied Capital's management. Greenlight was unsatisfied with the answers it received and Einhorn's short thesis grew stronger. Greenlight put 7.5% of the fund into the Allied Capital short sale at an average price of $26.25 a share.

Einhorn publicly criticized the company at the May 15, 2002, Tomorrows Children's Fund charity conference. Word of the speech spread, and the next morning, Allied Capital opened at $22—a 15% drop from its previous price. Subsequently, the SEC investigated Greenlight for market manipulation. Over the next several years, Einhorn feuded with Allied Capital, even as Allied Capital shares ticked up. In April 2008, Allied Capital released a statement cited in *The Wall Street Journal* that, "Despite [Mr. Einhorn's] relentless attack, no independent third party has concluded that his portrayal of Allied Capital has merit."

The sharp drop in Allied's stock price from May 2007 into March 2009 seems to have been the result of a host of factors, from the credit crisis to the bankruptcy of Ciena, one of the companies in its portfolio. In regard to the bankruptcy of Ciena, David Einhorn commented: "For more than five years it has been clear that Ciena [formerly Business Loan Express] would eventually fail due to its dubious lending practices. Despite their denials, Allied's management has known about Ciena's problems and has carried this investment on its books at inflated values. The authorities should now bring serious enforcement actions against both Allied and Ciena management."[1]

In October 2009, BDC Ares Capital Corporation announced its intention to acquire Allied Capital; the acquisition was completed in April 2010, after which Allied stock no longer traded. An internal SEC review by Inspector General H. David Kotz, made public on March 22, 2010, appeared to validate Greenlight's allegations against Allied Capital.

Allied Capital
November 30, 1993 – April 30, 2010



Source: Bloomberg L.P.

[1] Alistair Barr, "Allied Capital Slumps as Ciena Capital Goes Bust," MarketWatch.com, September 30, 2008 (www.marketwatch.com/story/allied-capital-drops-portfolio-company).

Frauds

Enron

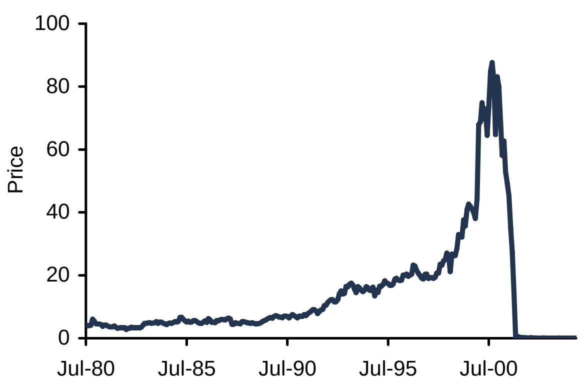
Enron started out in the 1980s as a small Midwestern gas provider and grew to become the world's largest energy trader, with foreign investments and assets valued over $20 billion and subsidiaries operating in over 50 countries. In the fall of 2000, Enron posted revenues triple the size of its 1998 revenues. Around this time, Jonathan Weil of the Texas bureau of *The Wall Street Journal* wrote an article about the "gain-on-sale" accounting method employed by Enron for its long-term energy trades. Enron was valuing its trades based on ungrounded assumptions about the future and booking profits today.

Having learned of this accounting practice, James Chanos, founder and portfolio manager of Kynikos Associates, further examined the financial statements of the company. Kynikos, a short-biased hedge fund based in New York, discovered a significant mismatch between Enron's cost of capital and its return on capital. Enron's costs seemed greater than its return on capital, meaning that the firm was losing money despite recording outsize profits. In addition, there were cryptic disclosures regarding various "related party transactions" described in the company's 1999 Form 10-K. Kynikos also determined that a large number of Enron senior executives were selling the company's stock. Beginning in January 2001, Kynikos spoke with a number of Wall Street analysts about Enron and began shorting Enron stocks in February 2001. "We were struck by how many of them conceded that there was no way to analyze Enron," Chanos said during his February 2002 testimony to Congress.

In August 2001, Enron Chief Executive Officer Jeff Skilling resigned for "personal reasons." As Chanos commented, "In our experience, there is no louder alarm bell in a controversial company than the unexplained, sudden departure of a chief executive officer no matter what 'official' reason is given." Kynikos further added to its short position following Skilling's resignation.

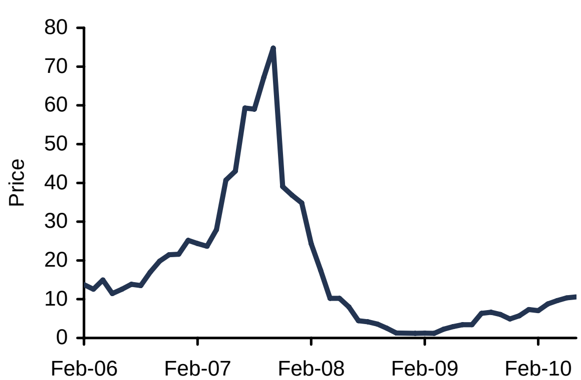
In late October 2001, the SEC announced an inquiry into Enron's accounting practices. The stock that had reached a peak of $90 per share in August 2000 was worthless by December 2001.

Enron
July 31, 1980 – November 30, 2004



Source: Bloomberg L.P.

Crocs Inc.
February 28, 2006 – July 31, 2010



Source: Bloomberg L.P.

Fads

A fad is a company with recent very high sales growth that is unable to keep sales levels in line with expectations. Fads are often consumer discretionary items whose sales are dictated by fashions and styles. Investors often believe that a company's product will continue to grow in popularity and do not consider that the stock may be significantly overpriced.

Crocs Inc.

Crocs Inc. sold unique shoes that were extremely popular with consumers because of their comfortable design and lightweight material. The company had a successful initial public offering (IPO) in February 2006 and its stock price rose steadily until the spring of 2007, when it tripled after six months. Many investors loved the stock, believing that the company's distribution improvements, product line expansion, and international expansion would maintain sales and earnings growth and cement the company as a major competitor in the global footwear industry.

Many short sellers, however, suspected that Crocs shoes were only a fad. They believed that the company's attempts to diversify its product line would fail and that its main product had an unsustainable sales growth since it had become fully penetrated at retail. In addition, accounting signals such as increases in inventory balances indicated that sales growth was ebbing. After hitting a peak of more than $70 a share in October 2007, the stock traded one year later at about $2 a share, after Wall Street accepted that previous sales levels were unsustainable.

Lottery Tickets

Lottery tickets are unproven companies looking to develop the "next big thing." They have the potential for large positive investment outcomes, but a very low probability of achieving success. Market participants might overpay for stocks exhibiting such characteristics, as was the case during the dot-com boom (see Russell 3000 Technology Index graph below), when many investors hoped that certain small start-up companies could grow successfully at astonishing rates. Instead, the stock of the majority of these companies became worthless, with only a few survivors. Investors suffered massive losses by effectively "playing the lottery."

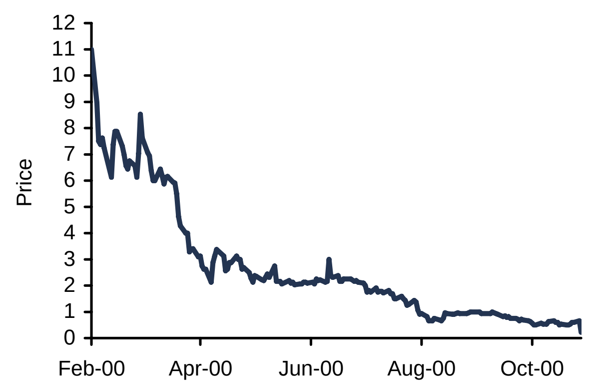
Pets.com

Pets.com was an online retailer of pet food and other pet products. It launched in August 1998 and went from an IPO on the Nasdaq to liquidation in 270 days. The company's IPO at $11 a share gave it a market cap in excess of $300 million as of February 2000. The company had negative gross margins and spent millions in advertising to attract customers. In its IPO prospectus, the company reported net sales of $5 million, cost of goods sold of $11.6 million, and marketing and sales expenses of $31 million for the quarter ended December 31, 1999. Overall, the company reported a $42 million net loss. Its business model was ultimately based on the hope that customers would purchase pet food and supplies online. Within less than a year of its IPO, the company had gone bankrupt. ■

Russell 3000 Technology Index
January 31, 1995 – September 30, 2009

Source: Bloomberg L.P.

Pets.com
February 11, 2000 – November 7, 2000



Source: Bloomberg L.P.
Note: The graph shows daily data from the IPO of Pets.com on February 11, 2000, of $11, until its closing announcement 270 days later. Pets.com stock traded near zero between November 7, 2000, and June 22, 2004, when the company's liquidation was complete.

Appendix B: Short-Selling Regulations

SEC Regulation SHO

The most important modern piece of legislation regarding short selling is Regulation SHO from the Securities and Exchange Commission (SEC).

SEC Regulation SHO was approved in 2004, with compliance required by January 3, 2005. Its intent was to both simplify and modernize short-sale guidelines by establishing a regulatory framework to govern short sales.

Regulation SHO had three primary objectives:

- To establish uniform *locate* and *close-out* requirements that addressed problems with failures to deliver, including potentially abusive naked short selling. Naked short selling refers to the practice of selling short securities without first borrowing, or arranging to borrow, the securities in time to make delivery to the buyer by the settlement date.

- To create a uniform order-marking requirement for sales of all equity securities as long, short, or short exempt.

- To temporarily suspend SEC and self-regulatory organization (SRO) short sale price tests (e.g., uptick rule, zero-plus tick, etc.) in a group of securities to evaluate the overall effectiveness and necessity of such restrictions, with the impact to be studied over the period of one year. The SEC eliminated the uptick rule on July 6, 2007, based on the results of the study.

The first objective provided the most significant enhancement to existing rules. The institution of a locate mandate requires broker-dealers to find a source from which to borrow the stock before settlement occurs. Thus, a broker-dealer must have reasonable grounds to believe that the security can be borrowed so that it may be delivered by the date that delivery is due before effecting a short sale order in any equity security. This process of locating a source from which to borrow the stock must be documented prior to executing the short sale. An important exception to the locate requirement was originally included in Regulation SHO for market makers. Based on the importance of a market maker's ability to quickly and reliably provide liquidity to markets, market makers engaged in bona fide market-making activities are exempt from Regulation SHO's locate requirement. However, these institutions must still abide by the close-out regulation, as well as an additional pre-borrow requirement.

A close-out requirement for threshold securities not delivered to the purchasing party of the transaction by the settlement date, known as a fail to deliver, was also enacted. A threshold security is defined as any equity security that has an aggregate fail-to-deliver position for five consecutive settlement days at a registered clearing agency, totaling 10,000 shares or more, and representing at least 0.5% of the issuer's total shares outstanding. For an equity security to qualify for a threshold list, the issuer of the security must be registered or required to file reports with the SEC. According to the SEC, since fails to deliver can occur for many reasons through both long and short sales, they are not necessarily the result of short selling or evidence of abusive or naked short selling. A main reason for increased scrutiny in this area was to combat abusive naked short selling by minimizing the overall number of fails to deliver.

For broker-dealers that are participants in a registered clearing agency, action must be taken to close out failure-to-deliver positions (e.g., open fails) in threshold securities that have persisted for 13 consecutive settlement days. Closing out requires the broker-dealer to purchase securities of a like kind and quantity. Until the position is closed out, the broker-dealer, or any broker-dealer for which it clears transactions, may not execute further short sales in that threshold security without borrowing or entering into a bona fide agreement to borrow the security (this is called the pre-borrowing requirement).

Temporary Rule 204T of Regulation SHO, an interim final rule effective October 17, 2008, through July 31, 2009, enhanced the delivery requirements of Regulation SHO. By mandating that participants of registered clearing agencies deliver securities by settlement date, or immediately purchase or borrow securities to close out the fail-to-deliver position by no later than the beginning of regular trading hours on the settlement date directly following the day the participant experienced the fail-to-deliver position, the SEC intended to provide a powerful disincentive to anyone who might otherwise have engaged in abusive naked short selling. Any participant found in violation of the temporary rule was subsequently unable to short sell the security for itself or the account of another, unless it had either already borrowed or arranged to borrow the security until the open fail was closed out.

A feared byproduct of the close-out requirement previously discussed is a short squeeze resulting from the upward price movements that occur when purchases of threshold securities artificially drive prices upward. According to the SEC, there has been little evidence to date of rapid and unusual upward price movement in threshold stocks.

Alternative Uptick Rule

The alternative uptick rule (Rule 201) approved on February 24, 2010, imposes restrictions on short selling only when a stock has triggered a circuit breaker by experiencing a price decline of at least 10% in one day. At that point, short selling will be permitted if the price of the security is above the current national best bid.

Rule 201 includes the following features:

- *Short Sale–Related Circuit Breaker*: The circuit breaker would be triggered for a security any day in which the price declines by 10% or more from the prior day's closing price. As noted by *The Wall Street Journal's* Matt Phillips, "The rule will apply to stocks that are listed on exchanges and traded over the counter. The SEC estimates that about 1.3% of stocks would hit that 10% barrier on any given day, according to Dow Jones. Of course that would likely go up during times of major market stress and volatility, such as the kind we've seen over the last couple years."

- *Duration of Price Test Restriction*: Once the circuit breaker has been triggered, the alternative uptick rule would apply to short sale orders in that security for the remainder of the day as well as the following day.

- *Securities Covered by Price Test Restriction*: The rule generally applies to all equity securities that are listed on a national securities exchange, whether traded on an exchange or in the over-the-counter market.

- *Implementation*: The rule requires trading centers to establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent the execution or display of a prohibited short sale.

According to James Chanos, the chairman of the Coalition of Private Investment Companies (CPIC) and founder of short-seller Kynikos, "This [rule] puts a government thumb on the scale of stock prices. Efforts to prop up stock prices where the fundamentals will not sustain them will inevitably fail."

International Short-Selling Regulations

Although a complete review of international regulations is beyond the scope of this paper, there are a few events of particular note. In Europe, Germany recently imposed a temporary ban on naked credit default swaps of euro government bonds, as well as naked short sales of a number of European financial stocks. The ban, which took effect in May 2010 in reaction to turmoil in the Eurozone, is expected to last until March 31, 2011. The United Kingdom's temporary ban on short selling of particular financial stocks in 2008 lapsed in 2009 and has not been renewed. The U.K. Financial Services Authority did extend its current disclosure regime for short sales, requiring disclosures if a net short position exceeds 0.25% of a company's issued shared capital or increases by 0.1% bands above that (e.g., the net short position reaches 0.35%, 0.45%, and so on).

For countries in the European Union, the European Commission has recently published draft legislation regulating the short selling of European securities. The draft legislation includes a number of rules, among which are rules prohibiting naked short selling; rules prohibiting short sales on securities that have declined by 10% in a single trading day; and public disclosure of net short positions that reach, exceed, or fall below 0.5%. The legislation also allows the European Securities and Markets Authority to further regulate short selling in "emergency" circumstances. This regulation is expected to come into effect some-time in 2012.

In Asia, China, which had previously not permitted the practice, launched short selling on the Shanghai and Shenzhen stock exchanges in April 2010. India, similarly, is looking to boost short selling by building a framework for securities lending. In contrast, Japan announced in July 2010 that it would extend its ban on naked short selling, which has been in place since October 2008, until October 31, 2010. Japan also has an uptick rule, requirements for verifying and flagging trades, and daily announcements by its exchanges of aggregate short selling. ■