

CHAPTER 1

Introduction

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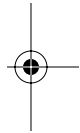
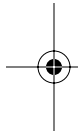
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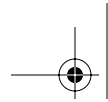
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Selling a long position is the most obvious means of avoiding losses in what is perceived to be an overpriced asset. Short selling, on the other hand, offers a means not just to avoid losses but also to profit from knowledge of overpricing. Although the opportunity to short sell is not new, the surge in hedge funds, many of which used short selling to profit in the bear market, has focused renewed attention on the subject. In fact, many believe that the competition for alpha will force pension funds to relax the “no-short” constraint on their active managers.¹ But for many investors, short selling remains an obscure, even mysterious subject, seemingly more akin to art than investment science.

¹ See Bob Litterman, “The Active Risk Puzzle: Implications for the Asset Management Industry,” *The Active Alpha Investing Series* (Goldman Sachs Asset Management, March 2004).



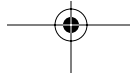


This book reflects the most recent theory and empirical evidence on the practice of short selling. The chapters that follow explain not just the complex mechanics of short selling, but also why we might expect some stocks to become overpriced, strategies for exploiting overpricing, including the use of derivatives, and how short selling can improve portfolio performance and market efficiency. Each chapter contains information relevant to both institutional and individual investors who are currently using or may be contemplating the use of short selling as a part of their investment management strategy. Special emphasis is placed on the risks associated with short selling. For example, short selling is generally viewed as more risky than long investing because prices can always go higher, which implies unlimited losses for a short position.

This book is divided into four sections. Section One covers the mechanics of short selling. The mechanics are relatively complex compared to a normal buy transaction. In Chapter 2, Jeff Cohen, David Haushalter, and Adam Reed explain how short selling, or shorting, a stock in the cash market involves selling a stock that you do not own. The shorted stock is borrowed through a broker and sold in the open market with the proceeds from the sale placed in escrow. Some institutional investors may earn “rebate” interest on these escrowed proceeds. Returning the borrowed shares satisfies the loan; hence, the short seller profits from a decline in price by “selling high and then buying low.” In order to short sell, you must have a margin account and your broker must be able to locate the shares to loan you. The short seller faces the risk that the borrowed shares may be recalled by the lender early (recall risk), as well as the risk of being caught in a so-called “short squeeze,” where price spikes due to price pressure from too many shorts attempting to cover (i.e., buy back the stock) at the same time.

There are alternatives to selling short in the cash market. An investor seeking to benefit from an anticipated decline in the price of a stock, broad-based stock market index, or narrow-based stock market index (e.g., a sector or industry) may be able to do so in the futures or options markets. Selling futures has several advantages to selling short in the cash market. Buying puts and selling calls are two ways to implement a short-selling strategy in the options market. There are trade-offs between buying puts, selling calls, and borrowing the stock in the cash market in order to sell short. The relative merits of using futures and options for short selling, along with a review of futures and options and their investment characteristics, are covered by Frank Fabozzi in Chapter 3.

In Chapter 4, Gary Gastineau describes how short selling exchange-traded funds (ETFs) can mitigate the risks associated with shorting individual stocks. For example, it is essentially impossible to suffer a short squeeze in ETF shares because the number of shares in an ETF can be



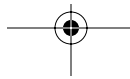


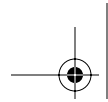
increased on any given trading day. A second advantage is that the “uptick” rule does not apply to ETFs. On the NYSE exchange, this rule means that a short sale may only be done on an uptick or a zero-plus tick; that is, a price that is the same price as the last trade, but higher in price than the previous trade at a different price. On the NASDAQ, you cannot short on the bid side of the market when the current inside bid is lower than the previous inside bid (a downtick). A third advantage that Gastineau discusses relates to hedging with ETF shares instead of derivative contracts. Derivative contracts have limited lives. The most active contracts in any futures market are the near month and the next settlement after the near month. Equity index futures contracts will usually be rolled over about four times a year in longer-term risk management applications. While risk managers could take futures positions with more distant settlements, liquidity is usually concentrated in the nearest contracts. Consequently, risk managers typically use the near or next contract and roll the position forward as it approaches expiration. ETF shares allow for a hedge of indefinite length without “roll risk.”

The five chapters in Section Two cover the theory and evidence on short selling. In Chapter 5, Edward Miller points out that restrictions on short selling mean that prices are often set by the most optimistic investors, with little limited trading opportunities for the less optimistic investors, other than to sell their holdings. The result is potential overpricing in some stocks. The opportunity to short sell such overpriced stocks is exploitable only when the overpricing is due to factors that are likely to be revealed in the relatively near future. Possible opportunities arise from optimistic errors such as extrapolating growth too far in the future, not allowing for new entry or market saturation, or just omitting low probability adverse events from expectations.

Miller builds on these points in Chapter 6 by arguing that a substantial divergence of investor opinion about a stock implies a negative expected return. This is because restrictions on short selling prevent unfavorable opinions from being fully reflected in stock prices. Therefore, with restricted short selling, divergence of opinion tends to raise prices, and profits can be improved by avoiding stocks with high divergence of opinion, especially those analysts disagree about. Miller further demonstrates that because risk correlates with divergence of opinion, the return to risk, both systematic and nonsystematic, is less than what investors would otherwise require. This leads Miller to suggest that typical investors should overweight the less risky stocks in their portfolio.

Owen Lamont provides evidence of overpricing by showing that stocks with high short sale constraints tend to experience particularly low returns in the future in Chapter 7. Lamont also reviews specific cases where extremely high short-sale constraints led to extremely high



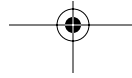


overpricing and thus extremely low subsequent returns. He concludes with a discussion suggesting that the “tech stock mania” of 1998–2000 was attributable to the reluctance of pessimists to go short.

Steven Jones and Glen Larsen illustrate, in Chapter 8, how short selling has the potential to improve upon the mean-variance return performance of portfolios. The opportunity to short sell effectively doubles the number of assets, and this clearly offers the potential to reduce portfolio variance since the covariances of the second set of stocks (potentially held short) have the opposite sign from the respective covariances in the first set of stocks (potentially held long). Jones and Larsen stress that while short selling offers the potential to improve realized portfolio efficiency, there is no guarantee of portfolio efficiency improvement without perfect foresight. That is, if one can be certain of the forecasted means and covariances, then short selling improves mean-variance efficiency as a simple matter of portfolio mathematics. A review of the current empirical research suggests that covariance forecasts are so fraught with error that realized portfolio efficiency might actually be improved by restricting or even prohibiting short positions. Jones and Larsen point out, however, that this empirical research focuses on risk reduction and ignores the potential for identifying overpriced stocks. They also emphasize that short positions must be actively managed due the risk of recall and the transitory nature of overpricing.

In Chapter 9, Jones and Larsen provide an overview and analysis of nearly all of the academic research, from the past 25 years, on the information content of short sales. In opposition to Miller’s overpricing hypothesis, mentioned above, the rational-expectations-based literature argues that overpricing could persist only where high levels of short interest are unanticipated, prior to announcement. However, the empirical evidence on whether short interest can be used to predict future returns is quite mixed, with much of the debate turning on the timing of the interval over which to measure the accumulation of short interest or future returns. Jones and Larsen conclude that there is ample evidence of overpricing in stocks that are costly to short, but short sales and short interest, while potentially useful, provide no easily discernible signal.

The question remains as to whether there are any proven strategies for spotting short-sale candidates? Three techniques are discussed in Section Three. In Chapter 10, Ron Gutfleish and Lee Atzi discuss their strategy for “buying stress and shorting comfort.” The strategy is intended to take advantage of the tendency of perpetual optimists, cheerleaders (including analysts and portfolio managers), and speculators to ignore signs that their expectations are not being confirmed. Gutfleish and Atzi look for evidence that a company is beginning to compromise its future in order to continue to produce the earnings or



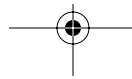


sales growth trajectory that their followers expect. Firms may be able to trade off future performance for current results for a number of quarters to keep Wall Street happy. Just a couple of the accounting gimmicks they watch for are: (1) a heavy reliance on nonrecurring events and (2) businesses with high operating leverage that run factories full out while accumulating excess inventory. The latter gimmick allows management to book lower unit costs and inflate gross margins, while writing off the inventory later as a nonrecurring charge.

In Chapter 11, James Abate and James Grant show that while short selling based on poor or deteriorating fundamentals is a time-tested strategy, it has all too often been implemented using accounting earnings and relative valuation indicators. They offer guidance on how to use *net present value* (NPV) and *economic value added* (EVA) as part of an active short selling strategy. The financial characteristics of firms that have created economic value as well as those that have destroyed it are analyzed. Abate and Grant conclude that EVA provides a robust framework, consistent with finance theory, for selecting both long and short candidates.

In Chapter 12, Bruce Jacobs and Kenneth Levy describe how a market-neutral portfolio is constructed from long and short positions so as to incur virtually no systematic or market risk. Long-short portfolios free investors from the nonnegativity constraint imposed on long-only portfolios and relax the restrictions imposed by benchmark portfolio weights. The result is increased flexibility in both the pursuit of return and in the control of risk. Jacobs and Levy also suggest that active portfolio managers can achieve improved performance with an integrated optimization that considers both the long and short positions simultaneously. To a large extent, however, the performance of a market-neutral portfolio is determined by the value-added through security analysis and selection.

The topic of short selling and market efficiency is covered in Section Four. The importance of short selling to the global equity market is investigated in Chapter 13 by Arturo Bris, William Goetzmann, and Ning Zhu. They collected information on short sales regulations and practices for about 80 markets around the world. Their survey of world markets suggests that, while as much as 93% of the world's equity market capitalization is potentially shortable, there are also particular regions of the world where it is difficult to take a short position. These include several countries in Southeast Asia and South America. In addition, Bris, Goetzmann, and Zhu find important periods when nonshortable securities are a major determinant of the global equity portfolio. While stocks in these markets might be slightly less prone to extreme price drops, they are also less efficiently priced. For a large sample of countries in which short sales are not allowed or not practiced in the local market, they find a migration of capital over the last decade towards the *American Depository Receipt* (ADR)





or *Global Depository Receipt* (GDR) market. The trend appears to be that markets with regulations facilitating efficiency are winning the battle for international capital flows. This is to some extent because the issue of whether a security is easily shortable is an important one for many institutional investors and investment managers.

In Chapter 14, the final chapter of the book, Edward Miller notes that modern financial theory makes an important distinction between diversifiable and nondiversifiable (or systematic risk). He argues that divergence of opinion is correlated with both. This, in the presence of restrictions on short selling, has interesting implications for the security market efficiency and thus investment policy. The marginal investors in stocks with high divergence of opinion are more likely to be overly optimistic. The implication is that share prices will not reflect the valuations of informed investors because they are restricted in short selling the overvalued stocks. Just a few of the financial puzzles that Miller attributes to divergence of opinion in the presence of restrictions on short selling include: (1) Why bearing nonsystematic risk may be rewarded; (2) why the rewards to systematic risk (i.e., beta) are lower than standard finance theory predicts; (3) why closed-end funds usually trade at discount; and (4) why value additivity does not hold in mergers and divestitures.

