Proffitt's CEO Hedges His Bet: A Case Study on Options and Ethics

Cliff R. Moll
University of Wisconsin Oshkosh

Robert A. Kunkel
University of Wisconsin Oshkosh

We investigate the financial and ethical implications of the option strategy employed by Proffitt's CEO, Brad Martin, over the summer of 1998. Shortly before announcing plans to buy Saks Holdings Inc., Martin entered into a zero-cost collar covering 500,000 of his 1.9 million shares. The option strategy undertaken by Martin provides students with a real world example highlighting three important financial concepts: (i) profits from a covered collar strategy, (ii) ethical implications of insider transactions, and (iii) signaling theory. Although constructed as a narrative, the exhibit presented at the end of the paper can be used as a case.

INTRODUCTION

Derivatives, particularly options, are a very important topic in finance because they seem to reappear in virtually every upper-level finance course. Undergraduate students are first exposed to the concept of equity options in their introductory finance course. Options are again covered in investments, financial markets, international finance and security analysis courses at many universities. Numerous universities even offer an entire undergraduate course on derivatives.

For many students, options represent the most challenging topic covered in the finance curriculum. This is one reason that students are exposed to options in many different finance courses. Another reason is that a basic understanding of options contracts is essential for professionals in all areas of finance, whether it be corporate finance or investments. Options frequently are used as incentives for managers, hedging instruments in both corporate finance and portfolio management, and speculative instruments. Additionally, options can be used to develop a deeper understanding of the principal-agent relationship.

The purpose of this paper is to provide a real world example of how a zero-cost collar option strategy was employed by Brad Martin, former Chief Executive Officer (CEO) of Proffitt's, the signal that the strategy sent to the market, and the ethical implications involved. Specifically, we discuss:

1. Several option strategies commonly used by investors and/or corporations.
2. Key background information on Proffitt's necessary to understand the option strategy employed by their CEO, Brad Martin.
3. Potential profits/losses of Mr. Martin's collar strategy, both in isolation, and combined with his other holdings in Proffitt's.
4. Ethical implications of Mr. Martin's collar strategy and briefly discuss signaling theory.

The remainder of our paper is organized as follows. First, we explain various option strategies, including a long call, short call, long put, short put, covered call, protective put and collar. Next, we present background information on Proffitt's over the time period preceding Mr. Martin's establishment of the collar strategy. Then, we calculate the potential profits/losses for Mr. Martin under several different scenarios. Finally, we examine the ethical and signaling theory implications of Mr. Martin's strategy and present a detailed solution to the case.

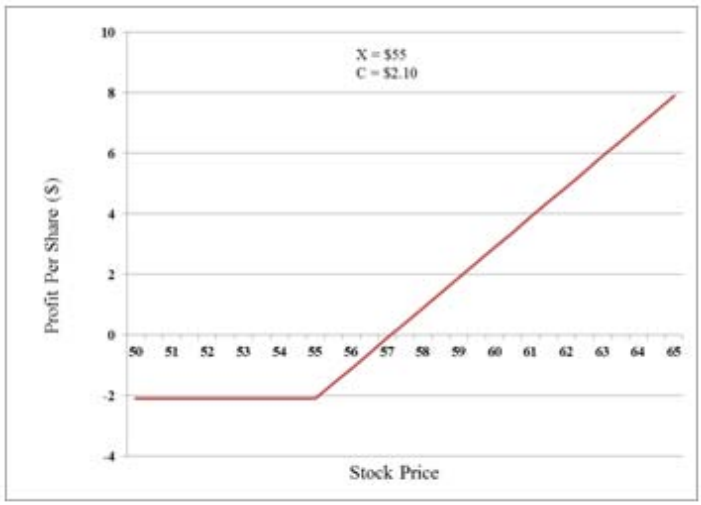
OPTION STRATEGIES

An option is a derivative security. As such, the option's value is derived from the underlying asset. For simplicity, our examples will focus on equity options. However, options exist for many different assets, including but not limited to equities, currencies, debt securities, and commodities.

Call Option

There are two basic option contracts. The first, a call option, gives the buyer/owner the right, but not obligation, to purchase the underlying asset at a prespecified price (the strike price, denoted by X) on or before the expiration date (for an American style option). The buyer pays the call premium, denoted by C, for the call option. The maturity date, call premium, and strike price are all explicitly stated in the option contract. Figure 1 shows the graph of a long call option.

FIGURE 1
LONG CALL PROFIT DIAGRAM



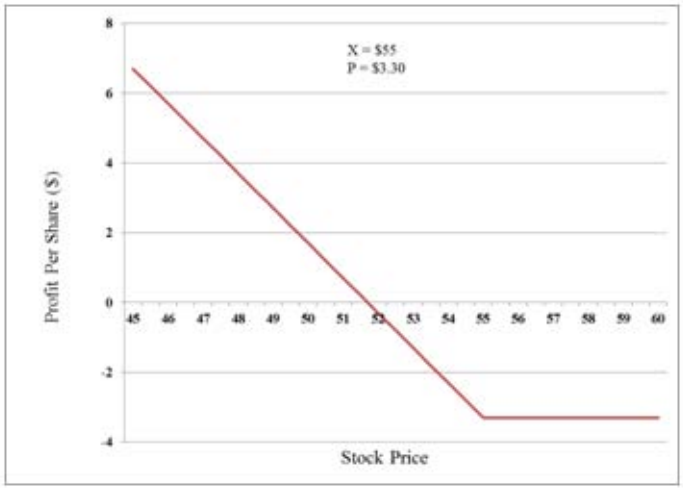
The buyer of a call option is expecting the stock price to increase. Specifically, with a strike price of $55, the option becomes profitable after the stock price increases above the sum of the call premium and the strike price. That is, the breakeven point is: BE = X + C, where X denotes the strike price and C denotes the call premium**.** In the graph above, the breakeven point is $57.10 ($55 + $2.10).

Note that Figure 1 gives the profit to the buyer of the call option. The graph for a short position is the exact opposite as option profits are a zero-sum game. When the stock price increases, the value of the call option (call option profit) increases. When the stock price decreases, the value of the call option (call option profit) decreases. Whatever the buyer gains, comes at the expense of the seller.

Put Option

The second basic option contract is a put option. The put option gives the buyer/owner the right, but not obligation, to sell the underlying asset at a prespecified price (the strike price, denoted by X) on or before the expiration date (for an American style option). The buyer pays the put premium, denoted by P, for the put option. The maturity date, put premium, and strike price are all explicitly stated in the option contract. Figure 2 shows the profit diagram of a long put option.

FIGURE 2
LONG PUT PROFIT DIAGRAM



The buyer of a put option is expecting a decrease in the stock price. Specifically, with a strike price of $55, the put option becomes profitable after the stock price decreases below the difference between the strike price and the put premium. That is, the breakeven point for a put option is: BE = X - P, where X denotes the strike price and P denotes the put premium**.** In the graph above, the breakeven point is $51.70 ($55 - $3.30).

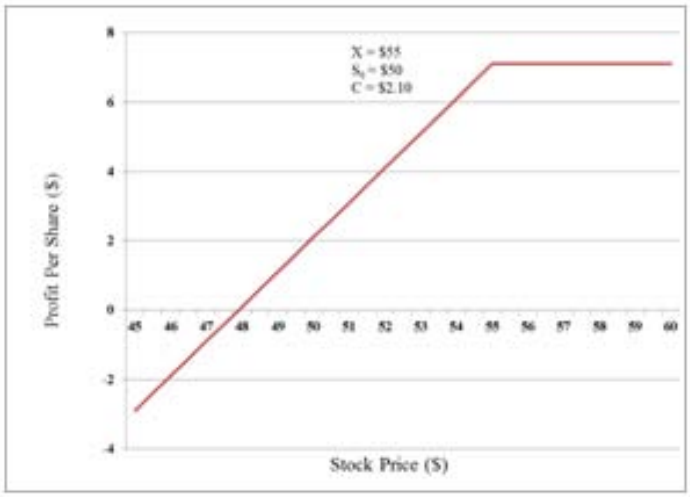
Note that Figure 2 illustrates the profit to the buyer of the put option. The graph for a short position is the exact opposite, as option profits are a zero-sum game. When the stock price increases, the profit from the long put option decreases. When the stock price decreases, the profit from the long put option increases. Again, all gains to the buyer come at the expense of the seller.

Covered Call

Other more complicated option strategies include the covered call, protective put, straddle and collar positions. A covered call is the combination of a long stock position and a short call position. The key inputs for graphing the profit diagram for a covered call include: the call premium, strike price, and original purchase price of the stock. The profit for a covered call is simply the combination of the profit for a long stock position and the profit for a short call position. Figure 3 shows the profit diagram of a covered call position.

People entering into a covered call position are expecting very little movement in the stock price over the life of the option. They are not bearish on the stock (expecting a decline in share price), or else they would have sold the stock and/or entered into a long put. However, they are not very bullish (expecting a large increase in the share price), or else they would not have written/sold the call. Specifically, by selling the call, the investors have limited their upside potential to a maximum of the sum of the strike price (X) and the call premium (C).

FIGURE 3
COVERED CALL PROFIT DIAGRAM

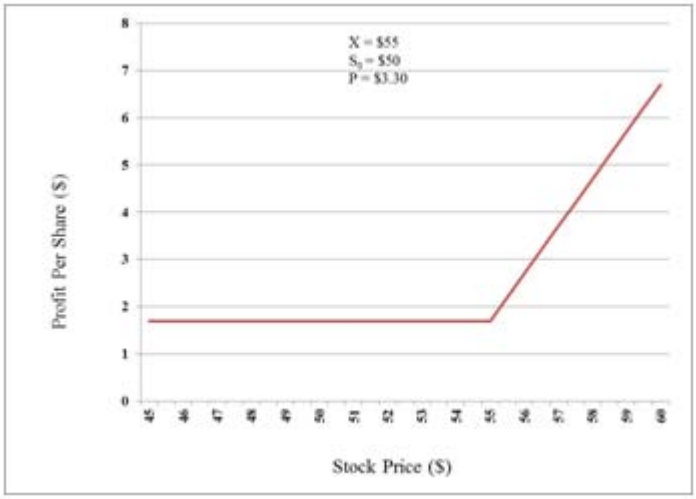


The breakeven point for a covered call is: BE = S_0 - C, where S_0 denotes the purchase price of the stock and C denotes the call premium received. In Figure 3, the breakeven point is $47.90 ($50 - $2.10). Conceptually, the breakeven point represents how far the stock price can fall below the original purchase price of the stock before all of the call premium proceeds have been lost.

Protective Put

A protective put is the combination of a long stock position and a long put position. The key inputs for graphing the profit diagram for a protective put include: the put premium, strike price, and original purchase price of the stock. The profit for a protective put is simply the combination of the profit for a long stock position and the profit for a long put position. Figure 4 shows the profit diagram of a protective put position.

FIGURE 4
PROTECTIVE PUT DIAGRAM



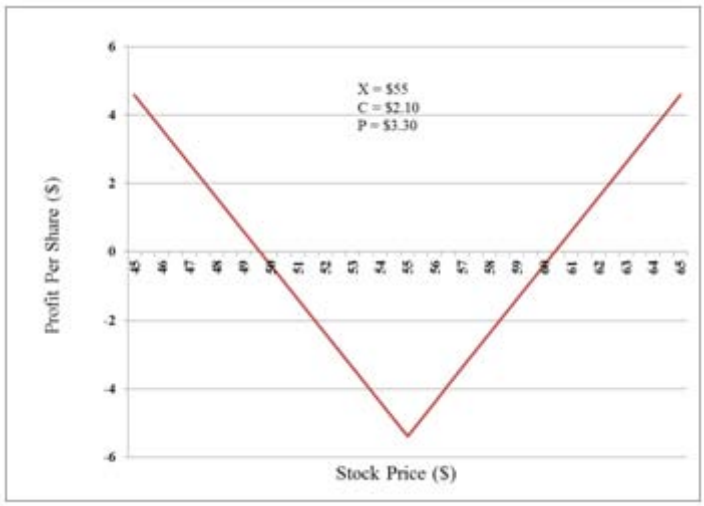
An investor who enters into a protective put position most likely has held the stock for a period of time and is concerned about the possibility of a large decrease in share price. He may enter into the protective put to lock in his gains. The investor is, on the whole, bullish in that he has decided to maintain his long position in the stock. However, the investor essentially purchased an insurance policy on the stock that allows him to sell the stock for the strike price no matter what happens to the share price over the life of the option. The cost of this insurance policy is the put premium. By purchasing the put option on the stock, the investor has limited his downside risk. The least that the investor will profit is the difference between the strike price (X) and the combined premium and purchase price ($P + S_0$). That is, the floor on his investment is $X - P - S_0$.

The breakeven point for a protective put is: $BE = S_0 + P$, where S_0 denotes the purchase price of the stock and P denotes the put premium paid. However, with the protective put, an investor can lock in his gains (prevent a loss) by selecting an option with a strike price that is greater than the sum of the purchase price and the put premium. This is the case in Figure 4. The strike price is \$55, the purchase price is \$50 and the put premium is \$3.30. The worst that the investor can do is a profit of \$1.70. Therefore, there is no breakeven point in Figure 4. However, as long as the strike price is less than the sum of the purchase price and the put premium, a breakeven point will exist and will represent exactly how far the stock price can fall before the investor begins to lose money.

Straddle

A long (short) straddle is the simultaneous purchase (sale) of a call option and a put option with the same strike price and maturity date. The profit for a long straddle is simply the combination of the profit for a long call and the profit for a long put. Figure 5 shows the profit diagram of a long straddle.

FIGURE 5
LONG STRADDLE PROFIT DIAGRAM



An investor who enters into a long straddle is expecting a lot of volatility in the underlying stock. By purchasing the call, the investor can profit from an increase in share price. By purchasing the put, the investor also can profit from a decrease in the share price. The worst possible outcome for the investor is if the stock price is exactly equal to the strike price (X) at maturity. When this happens, both the call option and the put option expire worthless. In the case where both options expire worthless, the profit for the long straddle is: $-(C + P)$.

There are two separate breakeven points for a long straddle. The lower breakeven point occurs at: BE = X – P – C, where X denotes the strike price, P denotes the put premium and C denotes the call premium. Conceptually, the lower breakeven point represents the stock price that would lead to a payoff for the long put that is exactly enough to cover the cost of the call and put premiums. The upper breakeven point occurs at: BE = X + P + C, where X denotes the strike price, P denotes the put premium and C denotes the call premium. Conceptually, the upper breakeven point represents the stock price that would lead to a payoff for the call option that is exactly enough to offset the cost of the call and put premiums.

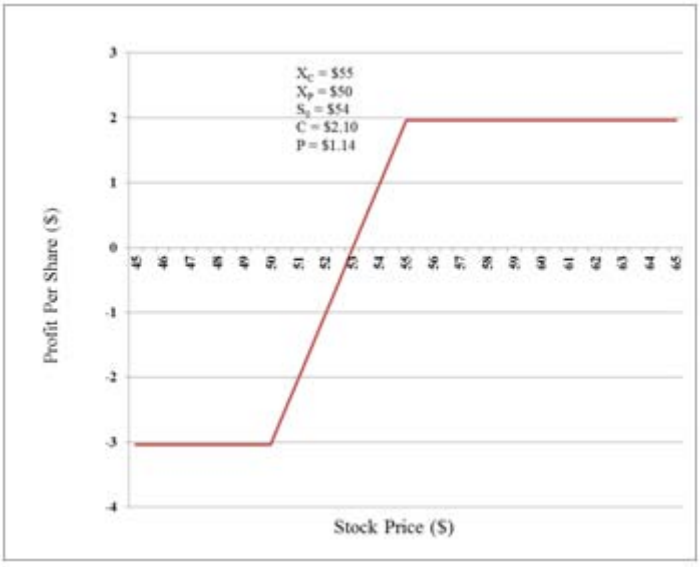
The profit diagram for the short straddle is the mirror image of the profit diagram for the long straddle. Specifically, the profit diagram for the short straddle can be obtained by reflecting the profit diagram for the long straddle over the horizontal axis. Note that although the holder of a long straddle is long volatility (expecting a lot of volatility in the underlying stock price), the holder of a short straddle is short volatility. That is, he expects very little volatility in the stock price.

Collar

The last option strategy considered is the collar. The collar is constructed by holding shares of the underlying stock while simultaneously purchasing a put and selling a call. A zero-cost collar is a special case where the proceeds from selling the call (the call premium received) cover the cost of purchasing the put (the put premium paid). Figure 6 shows the profit diagram for a collar.

An investor who enters into a collar position wishes to remain long in the stock, but wants to reduce the downside risk. Specifically, the investor sells a call to fund the purchase of a put option. The collar protects the investor from a sudden sharp drop in the price of the stock. However, by selling the call to fund the purchase of the put, the investor forfeits a portion of the upside potential of the stock. As such, the holder of a collar has capped both his potential profits and his potential losses.

FIGURE 6
COLLAR PROFIT DIAGRAM



The breakeven point for a collar occurs at: BE = S_0 – C + P, where S_0 denotes the purchase price of the stock, P denotes the put premium, and C denotes the call premium. The breakeven point for the collar in Figure 6 is $53.04 ($54 – $2.10 + $1.14). We show in Figure 6 that the investor has traded his upside potential for the elimination of a large portion of downside risk.

BACKGROUND INFORMATION

Proffitt's, purchased by Brad Martin in 1984, began as a family owned four-store chain based in Alcoa, Tennessee. Mr. Martin began pursuing an aggressive growth strategy in 1994 with the purchase of McRae's on March 31, 1994. Mr. Martin's acquisition strategy didn't stop there. Proffitt's purchased ParksBelk from parent Belk Company in April 1995. Proffitt's then acquired two companies in 1996 (Younkers and Parisian) and in 1997 (Herberger's and Carson Pirie Scott). In three short years, Proffitt's had grown from a relatively small regional department store chain to a national department store powerhouse. By 1997, Proffitt's footprint covered roughly approximately half of the United States.[1]

More impressive, Proffitt's growth was not limited to top line sales. While Proffitt's annual sales growth averaged 132 percent over the five-year period ending near the end of 1997, Proffitt's EPS figures also had grown at very attractive rates. The end result was an increase in share price from roughly $11 to $30 over the five-year time period.

By July 1998, Proffitt's announced the acquisition of Saks Holdings Inc. The Saks acquisition marked the first time Proffitt's had purchased a nationally known name. Prior to the Saks acquisition, all of Proffitt's targets were regional department store chains. Following the acquisition, Proffitt's changed its name to Saks Inc., the holding company for luxury retailer Saks Fifth Avenue.

BRAD MARTIN'S HEDGE ON PERSONAL HOLDINGS OF PROFFITT'S STOCK

It was over the time period immediately prior to the announcement of Saks Holdings Inc., that Brad Martin began hedging his ownership interest in Proffitt's. Specifically, on May 22nd, Mr. Martin entered into a zero-cost collar transaction covering 500,000 of his remaining 1.9 million shares in Proffitt's. Then, between May 27th and May 29th, Mr. Martin sold 223,925 shares of Proffitt's stock on the open market at $38 to $39 a share. Subsequently, on July 6th, Proffitt's unveiled plans to buy Saks Holdings Inc. for $2.1 billion in stock.

By entering into a zero-cost collar strategy, Mr. Martin wrote call options, with a strike price of $58.49, on 500,000 shares of stock, and used the proceeds to purchase put options with a strike price of $34.63. The implication was that Mr. Martin traded his upside potential for downside risk protection.

Martin's Long Stock Holdings

Before discussing the potential proceeds from the collar hedge, first we examine what Mr. Martin would have received had he simply sold his 1.9 million shares of Proffitt's stock in the open market. At a price of $30 per share, Mr. Martin would have received $57 million for his stake in the company. At $45 per share, Mr. Martin sold his stake in the company for $85.5 million. Meanwhile, at a selling price of $65 per share, Mr. Martin would have received $123.5 million.

Martin's Collar

Next, we consider only the collar employed by Mr. Martin (i.e., we do not consider the 1.4 million shares he owned that were not hedged with the collar). For simplicity, we assume that the strike price for the call is $58, and the strike price for the put is $35. Further, given that Mr. Martin is using a zero-cost collar, we know that the premium paid for the put is the exact same as the premium generated by selling the call. We assume that both the call and put premiums are $3 per share. Given this information, students are asked to calculate the value of the collar under three different scenarios: (i) the stock price at expiration is $30, (ii) the stock price at expiration is $45, and (iii) the stock price at expiration is $65. It often is helpful when going over the case to construct the following profit table (Table 1), which stresses that the profit for any option strategy is simply the sum of the profits across each individual position.

TABLE 1
PROFIT TABLE FOR COLLAR

	Profit		
	$S_t < X_p$	$X_p \leq S_t \leq X_c$	$X_c < S_t$
Stock	$S_t - S_0$	$S_t - S_0$	$S_t - S_0$
Short call	$+ C$	$+ C$	$- (S_t - X_c - C)$
Long put	$X_p - S_t - P$	$- P$	$- P$
Combined position (collar)	$X_p - S_0 + C - P$	$S_t - S_0 + C - P$	$X_c - S_0 + C - P$

Note: X_p is the strike price for the put; X_c is the strike price for the call; P is the put premium; C is the call premium; S_0 and S_t represent the purchase price of the stock and stock price at expiration, respectively

For the purposes of the case, we assume that the purchase price of Proffitt's stock for Mr. Martin is equal to zero. The implication of this assumption is that the profit diagram becomes a proceeds diagram instead. Using the simplified profit equations in Table 2, we see that Mr. Martin's proceeds from the collar would be $17.5 million ($35 X 500,000) if the share price was $30. Mr. Martin's proceeds would be $22.5 million ($45 X 500,000) if the share price was $45 at expiration. Meanwhile, Mr. Martin's proceeds would be $29 million ($58 X 500,000) if the share price was $60 when the options expired.

Martin's Entire Proffitt's Exposure

Next, we consider Mr. Martin's entire exposure to Proffitt's. On May 22nd, 1997, Mr. Martin has 500,000 shares hedged with a zero-cost collar and 1,400,000 unhedged shares. We show the value of Mr. Martin's shares at $35, $45 and $65 per share. We show in the bottom row of Table 3 that the value of Mr. Martin's exposure lies between $59.5 million and $120 million. The main conclusion to be drawn from Table 3 is that, even though Mr. Martin has hedged his downside risk with the zero-cost collar, his wealth (value of his combined exposure) increases with an appreciating share price.

TABLE 2
PROFIT TABLE FOR MARTIN'S ZERO-COST COLLAR

	Profit		
	$S_t < \$35$	$35 \leq S_t \leq 58$	$58 < S_t$
Stock	$S_t - 0$	$S_t - 0$	$S_t - 0$
Short call	$+ 3$	$+ 3$	$- (S_t - 58 - 3)$
Long put	$35 - S_t - 3$	$- 3$	$- 3$
Combined position (collar)	$35 - 0 + 3 - 3$	$S_t - 0 + 3 - 3$	$58 - 0 + 3 - 3$
Simplified combined position	35	S_t	58

Note: the strike price for the put is $35; the strike price for the call is $58; the put premium and call premiums are both $3; the purchase price of the stock is $0; and S_t represents the stock price at expiration

TABLE 3
TOTAL VALUE OF MARTIN'S PROFFITT'S HOLDINGS
(MILLIONS OF DOLLARS)

Stock Price at Expiration	$30	$45	$65
(a) 1,900,000 unhedged shares	57.0	85.5	123.5
(b) 1,400,000 unhedged shares	42.0	63.0	91.0
(c) 500,000 shares hedged with a collar	17.5	22.5	29.0
(d) Combined holdings (b + c)	59.5	85.5	120.0

The Big Picture

Students often miss the big picture of what exactly is happening. They assume that, because Mr. Martin has entered into a zero-cost collar, he does not care if the stock price increases. However, most of Mr. Martin's exposure to Proffitt's stock is unhedged. Specifically, at the time that he enters into the zero-cost collar, he has 1,400,000 shares that are not hedged with the collar. Thus, for those 1,400,000 shares, the higher the price of Proffitt's, the more valuable Mr. Martin's position is. Therefore, Mr. Martin still has plenty of incentive to maximize the price of Proffitt's stock.

Students do usually understand why Mr. Martin uses the collar. Over the period between 1994 and 1998, Proffitt's merges with or acquires seven different companies. With each merger or acquisition, there is a non-zero probability that the merger or acquisition will be unsuccessful, leading to the acquiring firm (Proffitt's in this case) decreasing in value. There is an extensive literature on the short- and long-term success of acquiring firms.

Overall, the literature finds that in the short time period surrounding the announcement of a merger, acquiring firms generate virtually zero abnormal returns. Some studies find insignificant abnormal returns to the acquirer, other studies find small positive and significant abnormal return, and several studies find negative abnormal returns. Overall, the evidence is mixed at best.[2] Mitchel and Stafford (2001) examine the three year post-merger period and find that acquirers reliably generate negative abnormal returns. However, the post-merger returns depend upon how the merger is financed. Mergers financed with stock generate significantly negative abnormal returns, and mergers financed with cash generate insignificant negative abnormal returns. Their results generally are consistent with those of other studies and suggest that acquirers seem to overpay for targets initially AND experience negative abnormal returns following the acquisition.

Given the empirical literature surrounding the merger and acquisition market, it is not surprising that Mr. Martin enters into a zero-cost collar. Proffitt's recently has completed numerous mergers and acquisitions. Further, the most recent acquisition of Saks Holdings Inc. represents a drastic change from Proffitt's prior acquisitions. Previous acquisitions were of regional department stores. However, the Saks acquisition involves the purchase of a nationally known firm. Given the high level of uncertainty, Mr. Martin likely uses the zero-cost collar to hedge against a sharp decline in Proffitt's share price. However, Mr. Martin is not the only one concerned about a possible decline in Proffitt's share price. Notable sellers over the same time period include Director John W. Borden (5,687 shares), Director Stanton J. Bluestone, and Senior Vice President Julia Bently (10,000 shares).

SIGNALING THEORY AND ETHICAL CONSIDERATIONS

Signaling Theory

Given the feeble track record of acquiring firms on both the announcement date and on a long-run basis, it is not surprising that the market generally views an acquisition as a negative signal. The

acquisition of Saks Holdings Inc. by Proffitt's is no exception. In the two trading days immediately following the Saks acquisition announcement, Proffitt's share price fell nearly 14 percent.

However, that is not the only relevant signal sent by Proffitt's in the summer of 1998. Mr. Martin's zero-cost collar position opened on May 22nd also represents a signal to the market. In setting up a zero-cost collar, Mr. Martin has signaled to the market that he is concerned about the future success of Proffitt's recent merger and acquisition activity. Signaling theory, a highly debated topic in the finance and accounting literature, suggests that managers send signals to the market, either purposefully or inadvertently, through their financial disclosures and trading behavior. Research has shown that managers time their trades according to the release of information. Noe (1999) finds that managers sell more shares after good news releases than after bad news forecasts, and buy more shares after bad news than after good news releases. This implies that managers choose the timing of their trades in order to maximize their gains from trading on information disclosures. Cheng and Lo (2006) also find that managers strategically time their purchase and sale of stock around voluntary disclosure decisions.

Ethical Considerations

When asked about the ethical implications of Mr. Martin's actions, students typically are split evenly. One-half of the class believes that Mr. Martin's actions were completely ethical. Conversely, the other half of the class believes that Mr. Martin acted unethically by engaging in a covered collar strategy on his personal shares. Several of these students have such a strong view on their position that they find it difficult to understand why anyone would not agree with them. In fact, typically there are a few students who believe that the activity should be illegal. During class discussion, the instructor should remind students that the acquisition of Saks by Proffitt's represents a very risky move for both Proffitt's and Mr. Martin. If the merger were to fail such that Proffitt's went bankrupt, shareholders could lose 100% of their equity. In the event of bankruptcy, Mr. Martin would lose $72.2 million ($38 per share x 1.9 million shares) without the covered collar. In such a doomsday scenario, Mr. Martin's covered collar strategy doesn't create a profit for Mr. Martin. The collar simply reduces his loss to $54.7 million, which is still a substantial loss. However, students who *incorrectly* believe that Mr. Martin wanted the stock price to decrease are correct to consider the activity unethical, as management has a responsibility to maximize shareholders, wealth, not decrease it!

CASE SOLUTION

We provide a list of recommended questions about the Proffitt's case and solutions to those questions in Appendix 1. In addition to the solutions, we provide a grading template with the number of recommended points for each question. We continue to include a question to generate student feedback which has given us the opportunity to improve not only the Proffitt's case, but also our lectures and our class discussion on the related options material.

CONCLUSION

We provide a real world example of how a zero-cost collar option strategy was employed by Brad Martin, former Chief Executive Officer (CEO) of Proffitt's in the summer of 1998, following several years of frequent mergers and acquisitions. After completing this case, students should be able to:

1.) Discuss what a zero-cost collar is, and understand the circumstances when such a strategy would best be utilized.
2.) Calculate the profits/losses for a zero-cost collar, using real world data.
3.) Discuss basic signaling theory, as it relates to both insider trading activity and merger and acquisition announcements.
4.) Discuss the principal-agent relationship and the ethical considerations of corporate insiders using derivative contracts as a means of hedging personal exposure.

We show that Mr. Martin, through his zero-cost collar strategy, was simply managing risk. He had a great deal of money invested in Proffitt's, not to mention his own human capital. Having a zero-cost collar position did not significantly change his objective. Even after opening the collar position, Mr. Martin still benefited from an increasing share price.

Our case is unique in that it ties several areas of the finance literature together (e.g., options, insider trading, and signaling theory), using a simple real world example. We have taught the case successfully to undergraduate students for over twenty semesters. Therefore, our case represents a simple classroom-tested approach to teaching students about options, tying together several financial theories with one real-world example.

ENDNOTES

1. Background information on Proffitt's, its acquisitions, and eventual acquirer (Belk) is from numerous online and print sources. Sources include: Bentley (1995, 2005), Berner (1997, 1998), Busillo (1997), Saunders (1998), Williamson (1995), Yeldell (2005, 2006), and the editors of *Business Wire* (1998).

2. Asquith, Bruner, and Mullins (1983) find that bidding firms generate positive but statistically insignificant returns on the announcement day. Meanwhile Dodd (1980), Eger (1983), Firth (1980), and Varaiya (1985 and 1988) all find that bidding firms generate statistically significant negative returns at or around the announcement date. Meanwhile, Ruback and Mikkelson (1984) find that the abnormal returns to the bidding (acquiring) firm depend upon the nature of the acquisition. They find that hostile acquisitions lead to significant negative abnormal returns to the acquirers while non-hostile takeovers resulted in significant positive abnormal returns for the acquirer.

REFERENCES

Asquith, P., Bruner, R. F., and Mullins, D. W., Jr. (1983). The gains to bidding firms from merger. *Journal of Financial Economics,* 11, 121-139.

Bentley, J. (1995, Mar 15). Proffitt's, inc. announces record fourth quarter and year-end results. *Business Wire*. Retrieved from http://search.proquest.com/docview/447025952?accountid=9355

Bentley, J. (2005, Apr 29). Saks incorporated agrees to sell Proffitt's/McRae's to Belk, Inc. for $622 million and explore strategic alternatives for northern department store group and club libby lu. *Business Wire*. Retrieved from http://search.proquest.com/docview/445450629?accountid=9355

Berner, R. (1997, Oct 30). Proffitt's to acquire Carson Pirie Scott for stock now valued at $835 million. *Wall Street Journal*. Retrieved from http://search.proquest.com/docview/398599551?accountid=9355

Berner, R. (1998, Feb 10). Proffitt's gains on big department-store competitors --- friendly acquisitions help it slowly grow to be nation's fourth largest. *Wall Street Journal*. Retrieved from http://search.proquest.com/docview/398620909?accountid=9355

Busillo, T. (1997). Proffitt's talks acquisitions. *Home Textiles Today*, 19, (12), 6. Retrieved from http://search.proquest.com/docview/223077228?accountid=9355

Cheng, Q., and Lo, K. (2006). Insider trading and voluntary disclosures. *Journal of Accounting Research*, 44, 815-848.

Dodd, P. (1980). Merger proposals, managerial discretion and stockholder wealth. *Journal of Financial Economics*, 8, (June), 105-138.

Editors, B. (1998, Aug 03). Proffitt's, Inc. to acquire 15 locations from Dillard's, Inc. *Business Wire*. Retrieved from http://search.proquest.com/docview/446842213?accountid=9355

Eger, C. E. (1983). An empirical test of the redistribution effect in pure exchange mergers. *Journal of Financial and Quantitative Analysis*, 18, (December), 547-572.

Firth, M. (1980). Takeovers, shareholder returns and the theory of the firm. *Quarterly Journal of Economics*, (March), 235-260.

Mitchell, G.A. and Stafford, E. (2001). New evidence and perspectives on mergers. *The Journal of Economic Perspectives*, 15, (Spring), 103-120.
Noe, C. (1999). Voluntary disclosures and insider transactions. *Journal of Accounting and Economics*, 27, 305–326.
Ruback, R. S., and Mikkelson, W. H. (1984). Corporate investments in common stock. Working paper. Cambridge: Massachusetts Institute of Technology, Sloan School of Business.
Saunders, L.E. (1998, Jul 08). Proffitt's chairman hedges bet on stock; street continues to question Saks deal. *Wall Street Journal*. Retrieved from http://search.proquest.com/docview/398879777?accountid=9355
Varaiya, N. P. (1985). A test of Roll's Hubris Hypothesis of corporate takeovers. Working paper. Dallas, TX: Southern Methodist University, School of Business.
Varaiya, N. P. (1988). The 'winner's curse' hypothesis and corporate takeovers. *Managerial and Decision Economics*, 9, (3), 209-219.
Williamson, T. (1995). Younkers-Proffitt's deal yields Carson as major shareholder. *The Business Journal,* 13, (4), 1. Retrieved from http://search.proquest.com/docview/222386840?accountid=9355
Yeldell, C. (2005, Apr 30). Area's 86 years of Proffitt's ends. *Knight Ridder Tribune Business News*. Retrieved from http://search.proquest.com/docview/463601778?accountid=9355
Yeldell, C. (2006, Mar 05). Belk working to keep Proffitt's customers happy. *Knight Ridder Tribune Business News*. Retrieved from http://search.proquest.com/docview/461312026?accountid=9355

APPENDIX 1

CASE SOLUTION

Financial Engineering Case: Proffitts' CEO Hedges His Bet
Recommended time allocation is 3 to 4 hours over four days.
(Shown as a 15 point assignment with answers shaded)

1. Read "Proffitt's Chairman Hedges Bet On Stock; Street Continues to Question Saks Deal" written by Laura Saunders Egodigwe and printed in the July 8, 1998 *Wall Street Journal*. Note that in May 1998, the chairman of Proffitt's, Brad Martin, entered a zero-cost covered collar on Proffitt's stock. Then in July 1998, Martin announced a proposed takeover of Saks Holdings.

   For the following questions assume: (i) expiration date for the option contracts is October, (ii) option premium is $3 for both calls and puts, and (iii) exercise prices for calls and puts are $58 and $35, respectively.

2. Evaluate Martin's situation without any options.

	Stock Price	Value of Martin's 1.9 million shares of Proffitt's stock	Points (2 total)
a.	$30	$57 Million	**-2 if two or three incorrect**
b.	$45	$85.5 Million	**-1 if one incorrect**
c.	$65	$123.5 Million	

3. Evaluate a zero-cost covered collar strategy … your answers would apply to any zero-cost covered collar, not just Martin's. Note an uncovered collar does not include a stock position, and a covered collar does include a stock position.

   a. How many option and stock positions are involved in a covered collar?
   1 long stock position — **Not graded**
   2 option positions (1 short call and 1 long put)

   b. State whether the option and stock positions are long or short.

	Points (3 total)	
short call	**-1 if not short call**	students must identify
long put	**-1 if no long put**	short or long position
long stock	**-1 if no long stock**	to receive credit

   c. Explain why the strategy is called a zero-cost.

   Call premiums pay put premium so zero cost. — **Points (1 total)** **-1 is no answer**

4. Calculate the value of Martin's zero-cost covered collar on 500,000 shares of Proffitt's stock … you are to ignore his remaining 1.4 million shares of Proffitt's stock.

	Stock Price on Expiration Date	Value of the zero-cost covered collar on 500,000 shares of Proffitt's stock	
a.	$30	$17.5 Million	**Not graded**
b.	$45	$22.5 Million	
c.	$65	$29.0 Million	

5. Calculate the combined value of both (i) the zero-cost covered collar on 500,000 shares, and (ii) the remaining 1.4 million shares of Proffitt's stock.

	Stock Price	Combined Value
a.	$30	$59.5 Million
b.	$45	$85.5 Million
c.	$65	$120.0 Million

Points (2 total)
-2 if two or three incorrect
-1 if one incorrect

6. Discuss whether Martin wants Proffitt's stock price to increase or decrease after the takeover.

Martin wants Proffitt's stock price to increase so his wealth increases.

Points (2 total)
-2 if answer is "decrease"
-1 if answer is "increase to $58" as Martin would like price to continue above $58

7. Discuss why Martin entered into a zero-cost covered collar.

Points (1 total)
-1 if no answer

8. Discuss if the zero-cost covered collar was a good idea.

Points (1 total)
-1 if no answer

9. Discuss whether you feel it was ethical for Martin to enter into the zero-cost covered collar.

Points (1 total)
-1 if no answer

10. a. Check the box that describes how useful this assignment was in bridging practical applications with theoretical foundations.

Excellent	Good	Fair	Poor	No Opinion

Points (1 total)
-1 if no answer

b. Would you like to see this homework changed? If so, discuss how.

Not graded

c. Record how long this homework took to complete (to the nearest ½ hour).

Points (1 total)
-1 if no answer