

Structured Value

A Practical Use of Alternatives for the Value Investor



Peterson Capital Management, LLC

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Agenda

1. Introduction to Structured Value
2. Superinvestor Structured Value Application
3. Case Study 2011
4. Potential Outcomes
5. Advantages / Disadvantages
6. Q&A
7. Appendix
 - Black-Scholes Modeling

What is Structured Value?

Structured value combines modern portfolio products with the time-tested application of deep value investing principles.

Examples include:

1. Cash Secured Put Write to Obtain an Equity Position
2. Covered Call to exit/sell a fully valued position or hedge holding to delay sale for tax purposes
3. Long warrants to Obtain Equity or Gain Indirect Exposure

Superinvestor Application: Warren Buffett (Berkshire Hathaway)

Buffett writes puts.



Coca-Cola: April 1993

- Wrote 30,000 out-of-the-money put contracts (3m shares), later added 20,000 more
- Strike \$35, Price \$1.5, Expiration Dec 1993
- Stock price ~\$36-\$42

Outcome: Earned \$7.5m in premium



Burlington Northern Santa Fe: Q3 2008

- Wrote 55,000 put contracts (5.5m shares)
- Strike Price \$75-\$80
- Expiration Dec 2008

Outcome: Saved hundreds of millions during Burlington Northern purchase



S&P 500, FTSE 100, Euro Stoxx 50, Nikkei 225: 2004-2008

- Wrote European style put contracts across four indices with a \$37.1 billion notional value
- Premium \$4.9 billion
- Expiration Sept 2019 – Jan 2028

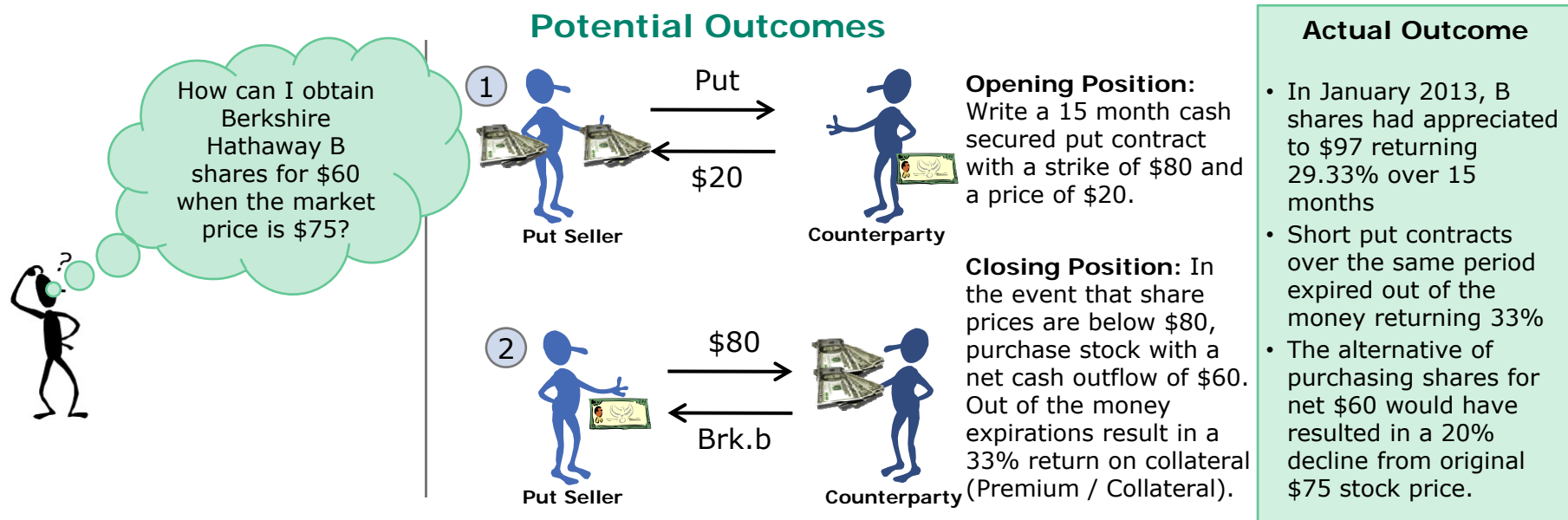
Outcome: TBD

Case Study: Berkshire Hathaway 2011

Structured value can provide an advantage over the traditional buy and hold strategy. One is paid a premium up front that reduces the net purchase price relative to the market price.

Example

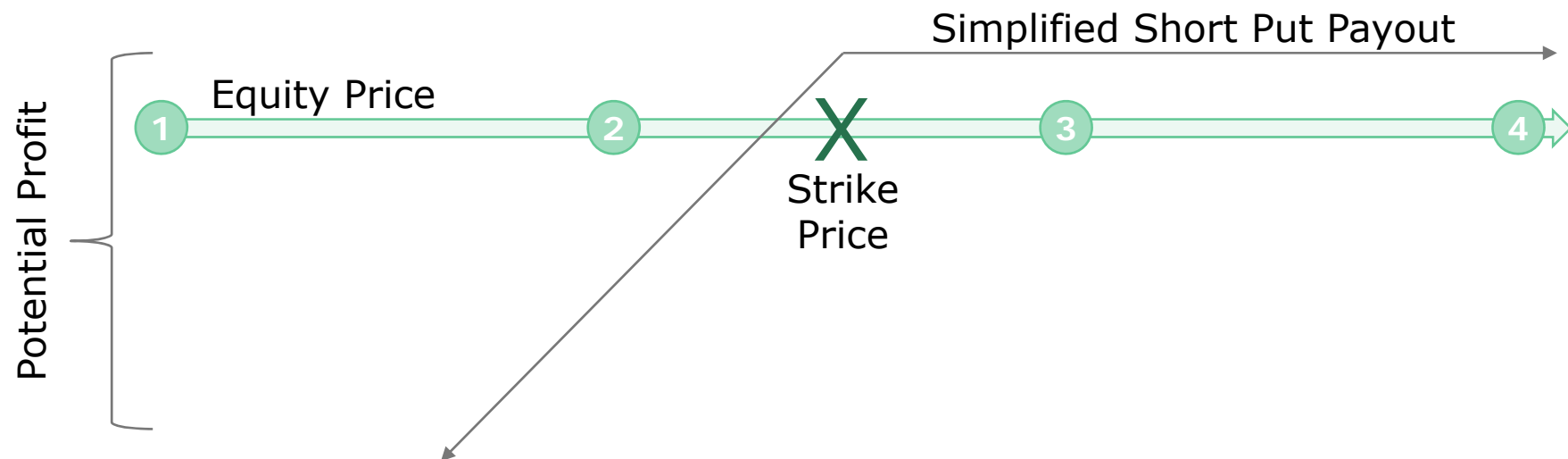
1. Identify shares of undervalued stock that intended for purchase
2. Sell cash secured puts on the underlying equity
3. Collect a premium for the contract immediately and commit to purchase undervalued securities in the future if they remain below strike price
4. Hold contracts until expiration



Potential Short Put Expiration Outcomes

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- 1 Firm Bankruptcy: Total Loss = Strike - Premium
- 2 Stock Price (above zero) < Strike Price: Obtain Equity. Equity Price = Strike - Premium
- 3 Stock Price (slightly) > Strike Price: Earn Premium. Return (%) = Premium/Collateral
- 4 Stock Price (significantly) > Strike Price: Miss Gain. Return (%) = Premium/Collateral



Advantages and Disadvantages: Cash Secured Short Put Strategy

Advantages

1. Behavioral/Psychological Advantage
 - Forced rational action during periods of volatility or depressed prices
2. Timing Diversification
 - Multiple contract expirations increase probability of in-the-money expiration
3. Cost Averaging Tool
 - Design a premium capture or cost average opportunity
4. Embedded Margin of Safety
 - Receive the premium discount to strike price
5. Avoidance of Premature Accumulation
 - Earn premium while waiting
6. Potential Accumulation Method for Low Volume Securities

Disadvantages

1. Requires patient, long-term outlook
2. Purchase most mistakes
3. Miss gains from rapidly appreciating equity

Most importantly, only write a cash secured put when you are prepared and willing to own the underlying asset.

Questions and Answers

Q & A

Appendix

Appendix

The Black-Scholes-Merton Option Pricing Model (BSM)

You can think of the BSM as stock price times a probability minus the present value of the exercise price times another probability

Symbol	Greek	Definition	Put Price if Greek is High	Put Price if Greek is Low
T	Theta	Time to expiration	High	Low
S_0	Delta	Asset Price	Low	High
X	Strike	Exercise Price	High	Low
Rf	Rho	Risk-free rate	Low	High
σ	Vega	Volatility	High	Low

Ideal Sale

BSM Model

$$C_0 = [S_0 * N(d_1)] - [X * e^{-Rf * T} * N(d_2)]$$

$$d_1 = \{ \ln(S_0/X) + [Rf + (0.5 * \sigma^2)] * T \} / \{ \sigma * \sqrt{T} \}$$

$$d_2 = d_1 - (\sigma * \sqrt{T})$$

Ideal conditions for selling put contracts:

- Long Dated
- Low Asset Price
- High Strike Price
- Low Risk Free Rate
- High Volatility

Most importantly, only sell a put when you are prepared and willing to own the underlying asset.