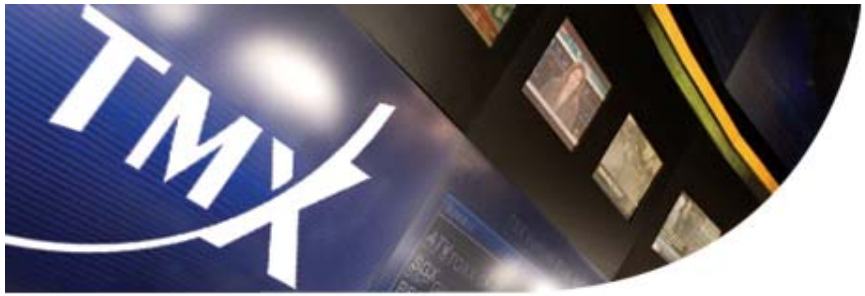

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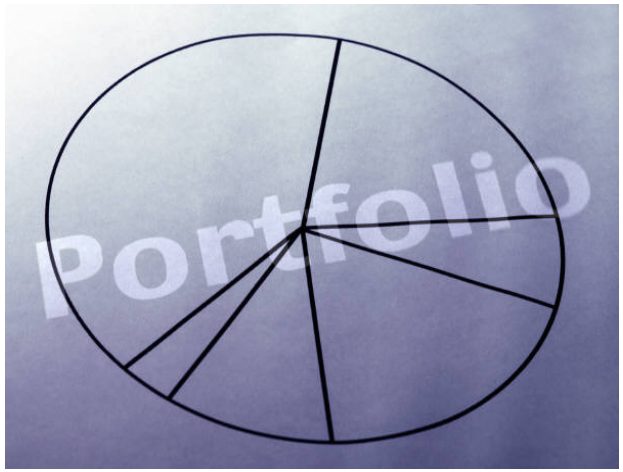
Only the…

PORTFOLIO MATTERS!



A core - satellite investment strategy

Toronto Stock Exchange | TSX Venture Exchange | **Montréal Exchange** | Natural Gas Exchange | Montréal Climate Exchange | Boston Options Exchange

Canadian Derivatives Clearing Corporation | TMX Datalinx | Equicom | PC Bond | Shorcan

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Richard's Excellent Portfolio

October 1992

Stock	Shares	Cost	Outlay
PHILIP MORRIS INTERNATIONAL	177	$ 28.25	$ 5,000
MERCK Be well	123	$ 40.65	$ 5,000
IBM	112	$ 44.64	$ 5,000
intel	606	$ 8.25	$ 5,000
Total Portfolio			$ 20,000

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One Year Later!

October 1993

Stock	Cost	Market	Value
PHILIP MORRIS INTERNATIONAL	$ 28.25	$ 15.25	$ 2,699
MERCK Be well	$ 40.50	$ 23.00	$ 2,829
IBM	$ 44.50	$ 30.75	$ 3,444
intel	$ 8.25	$ 20.00	$ 12,120
Total Portfolio			$ 21,092

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Was I Successful?

Croft's Excellent Portfolio	5.46%
S&P 500 Composite Index	14.68%

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And now…

Stock	Cost	Value	Return
PHILIP MORRIS INTERNATIONAL	$ 5,000	$ 15,515	210.30%
MERCK Be well	$ 5,000	$ 8,898	77.96%
IBM	$ 5,000	$ 39,442	688.83%
intel	$ 5,000	$ 61,254	1125.08%
Total Portfolio	$ 20,000	$ 125,109	525.54%

	Total	Compound
Croft's Excellent Portfolio	525.54%	11.39%
S&P 500 Composite Index	214.88%	6.98%

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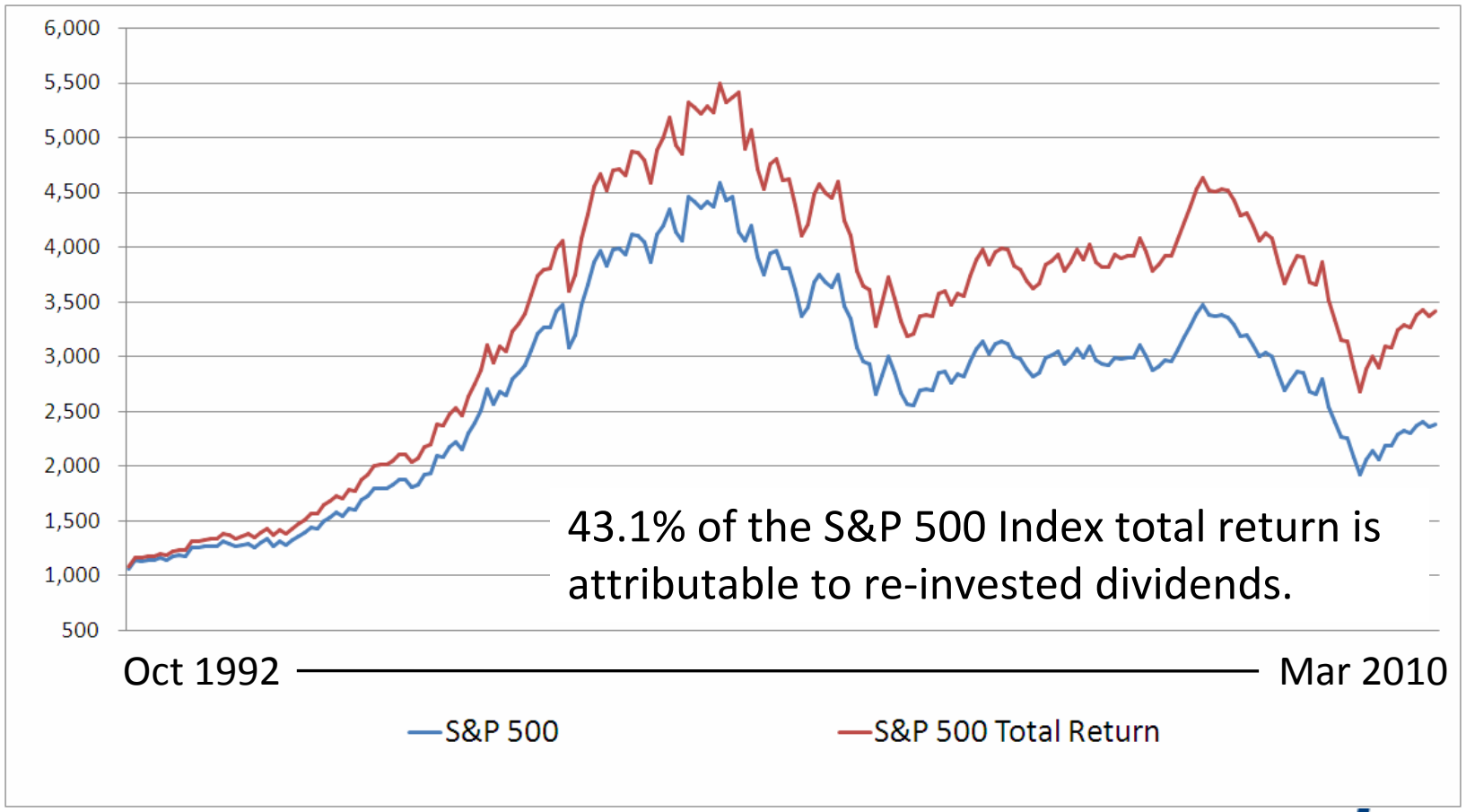
The Value of Dividends!



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How we choose investments

- Loosely defined objectives
  - What we know – the past
  - What we think we know – the present
  - What we will never know – the future
- Short term focus.
  - No defined exit strategy
- Risk is rarely considered and never quantified.
  - Unless it is the result of an emotional response!

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The problem is that human nature

Makes risk assessment critical

- Myopic loss aversion
  - The dark side of visibility
- Investors are not risk averse
  - Investors are loss averse
- Investors are reference dependent
  - Anchor theory and House money
- Risk drives too many of our decisions
  - Emergence of “Black Swan” events
- Is there an answer?

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The answer is risk management…

- To manage risk you must define short, medium and long term responses before making an investment decision…
- Which includes a set of responses to deal with unexpected events.
- Unfortunately we cannot manage risk if we do not understand it, and more importantly, are unable to quantify it.

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Quantifying Risk

- Option pricing models provide a metric for measuring risk.
  - Mathematically, it takes approximately three units of risk for each unit of return.
- Option premiums are calculated using a volatility (i.e. risk) input.
  - Understanding **volatility** is as important to an options trader as **earnings** are to a securities analyst.

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The Option Strategy Matrix

	CALL	PUT
BUYER	The right (but not the obligation) to buy	The right (but not the obligation) to sell
SELLER	The potential obligation to sell **SPREADS**	The potential obligation to buy **SPREADS**

STRADDLES

OR

STRANGLES

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Option Pricing Models

Black-Scholes Formula

$$C(S,E,t,r,\sigma) = e^{-\delta t} SN(d_1) - Ee^{-rt} N(d_2)$$

Where:

$$d_1 = [\ln(S/E) + (r - \delta + \sigma^2/2)\, t] / \sigma\sqrt{t}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

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Options Are Like Insurance

Insurance Agent	Options Trader
❑ Value of car	❑ Stock price
❑ Deductible	❑ Strike price
❑ Time span of policy	❑ Time to expiration
❑ Interest Rates	❑ Cost of money
❑ Risk	❑ Volatility

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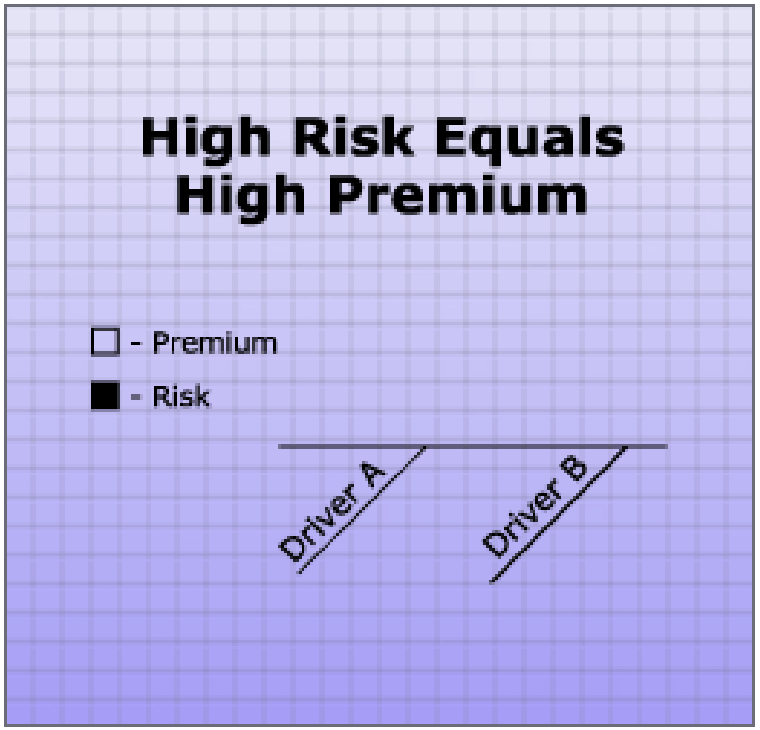
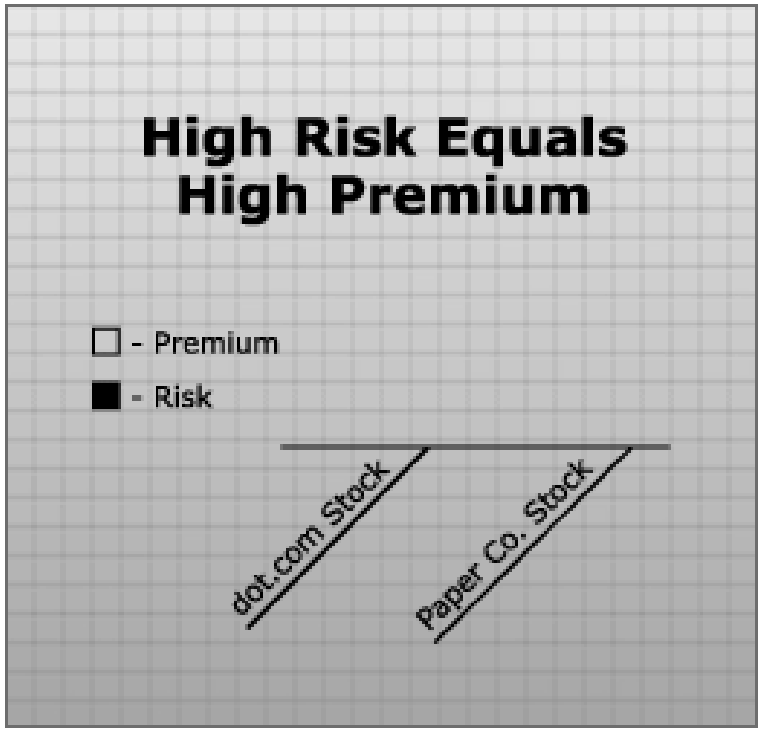
Pricing Similarities





Source: CBOE

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Impact Of Volatility

The Option Pricing Formula		
Stock Price	100	100
Strike Price	100	100
Days to Expiration	178	178
Quarterly Dividend	0.25	0.25
Annual Interest Rate	3%	3%
Volatility	15%	34%
Call Price	$ 4.47	$ 9.44
Put Price	$ 3.86	$ 8.22

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Let's Play Football…

- Pittsburg Steelers Record: 11 – 0
- Detroit Lions Record: 1 – 10
- Playing at Pittsburg
- Who will win the game?

The Implied Trading Range

The Option Pricing Formula					June 5-2010
CIBC				$	71.24
CIBC January	72.00	call			4.00
CIBC January	72.00	put			6.30

Implied Trading Range

Upper Trading Band	72.00	+	10.30	=	82.30
Lower Trading Band	72.00	-	10.30	=	61.70

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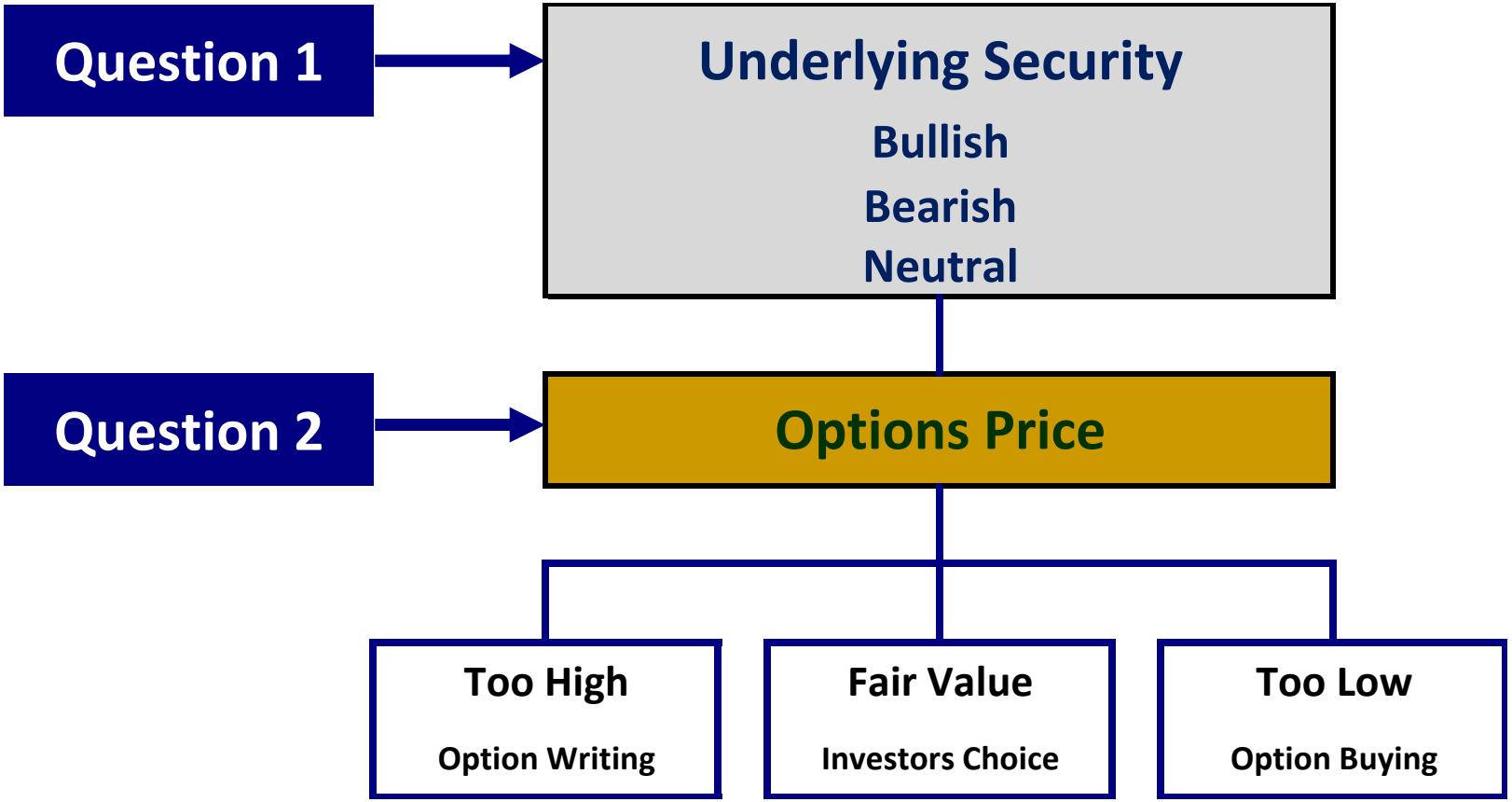
Applying the right strategy



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A Real Life Example

September 1987…

- General Motors @ $83.50

  GM November 85 calls $1.750

October 19, 1987…

- General Motors @ $57.00

  GM November 85 calls $1.375

October 20, 1987…

- General Motors @ $72.00

  GM November 85 calls $0.875

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Are Markets Efficient?

The Option Pricing Formula			June 5-2010
iShares S&P/TSX Large Cap Index Fund			$ 17.15
XIU January	17.00	call	0.58
XIU January	17.00	put	0.55

Implied Trading Range S&P / TSX Large Cap Fund

Upper Trading Band	17.50	+	0.82	=	18.32
Lower Trading Band	17.50	-	0.82	=	16.68

Implied Trading Range TSX Composite Index

Upper Trading Band	11,569	+	762	=	12,331
Lower Trading Band	11,569	-	762	=	10,807

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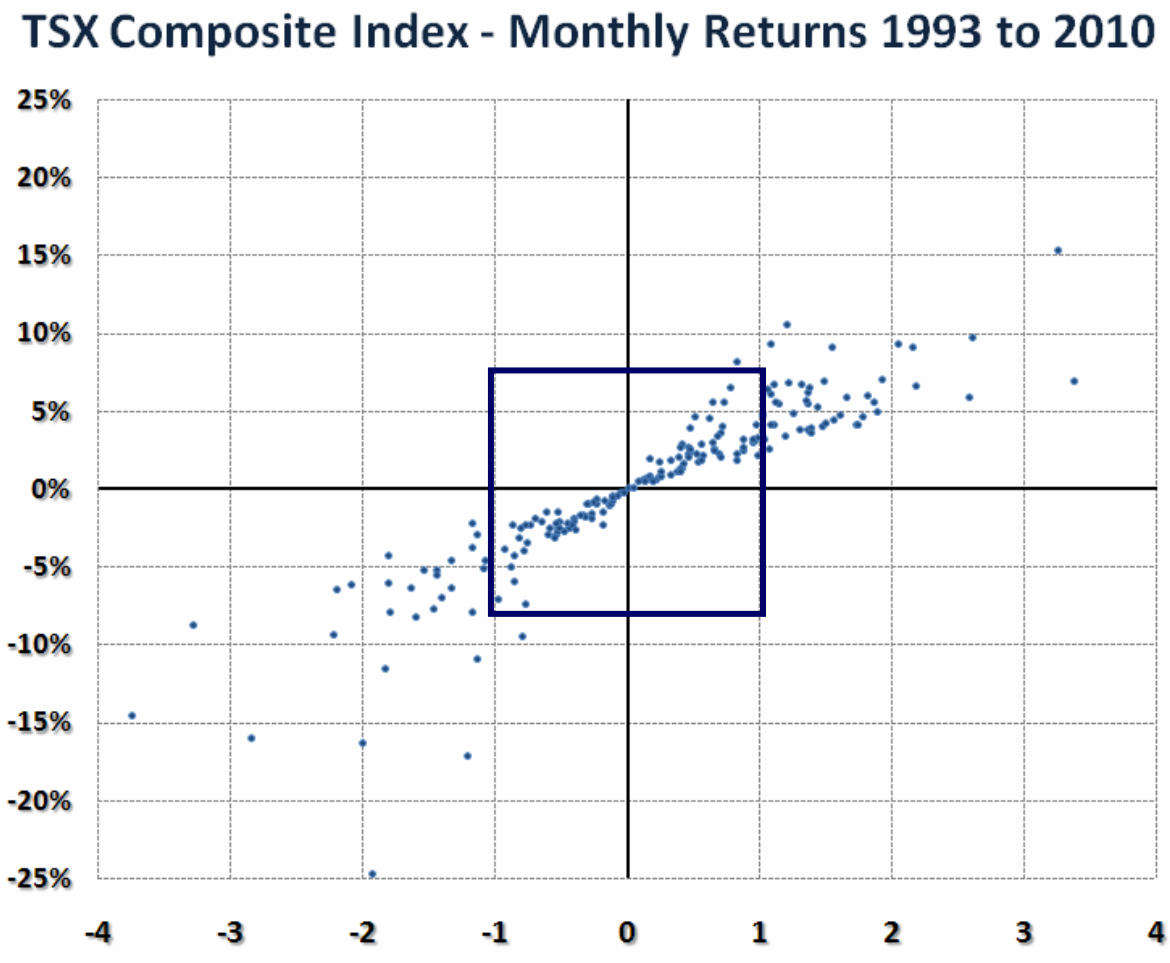
Testing the theory

Longer term trends seem to support efficient market hypothesis



Monthly option premium matched or exceeded the return of the underlying index 60.31% of the time based on 194 monthly data points from Feb 1993 to Feb 2010.

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But, shorter term…

movements are random and unpredictable

Looking at shorter time horizons, the arguments are less clear. Based on 3881 daily observations option premiums matched or exceeded the trading range of the underlying index only 32.41% of the time.

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Short Term Random Behavior

Implied Trading Range S&P / TSX Large Cap Fund

Upper Trading Band	17.50	+	0.82	=	18.32
Lower Trading Band	17.50	-	0.82	=	16.68

In essence this is telling us that in the majority of instances, there will be a point during a 30 day straddle where the buyer will be in a profitable position.

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What does this tell us…

Longer term, the stock market is efficient?

- That current market values reflect an unbiased view based on all known available information.
- Short term market fluctuations are random and unpredictable.
- Markets tend to overshoot up or down in the medium term.
- A stock's current value is the markets best guess as to its long term return potential.

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The Options Market Is Efficient

- Current option values reflect an unbiased view based on all known available information.
- Options value risk, referred to as implied volatility.
- Short term fluctuations in volatility are random and unpredictable.
- An options price is the markets best guess at quantifying short and medium term risk.

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Strategies for an efficient market

In our search for alpha!

- Covered call writing
- Short term straddle buys
- Double up double down
- Calendar spreads

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Covered Call Writing

Buying into the concept of efficient markets

- Establish a price at which you are willing to sell the stock
- Reduce your risk (i.e. downside price) by the premium received
- Create tax advantaged cash flow
  - Premium is taxed as a capital gain
- The downside; you end up losing your best performing stocks while retaining the dogs.

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Covered Writing

Works better in certain sectors

Implied Volatility: ~30%

Trade Date: June 5-2010				Units	Price	Totals
Buy	Barrick Gold			1,000	43.92	43,920.00
Sell	ABX Jan (2010)	44.00	calls	1,000	4.55	(4,550.00)
	Per Share Dividend			0.11		
	Number of Dividend Payments			2		

The Outcome as of January 2010

Share Price Above	44.00	12.37% *	20.16% **
Share price unchanged	43.92	12.17% *	19.83% **
Downside Break Even	$ 39.16		

* Actual Return over time period

** Annualized return

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Three Out Of Four Ain't bad!

- Covered option writing outperforms if
  - Markets decline (you will lose less)
  - Markets are stable
  - Markets rise slightly
- The strategy underperforms if
  - Markets rise quickly and significantly

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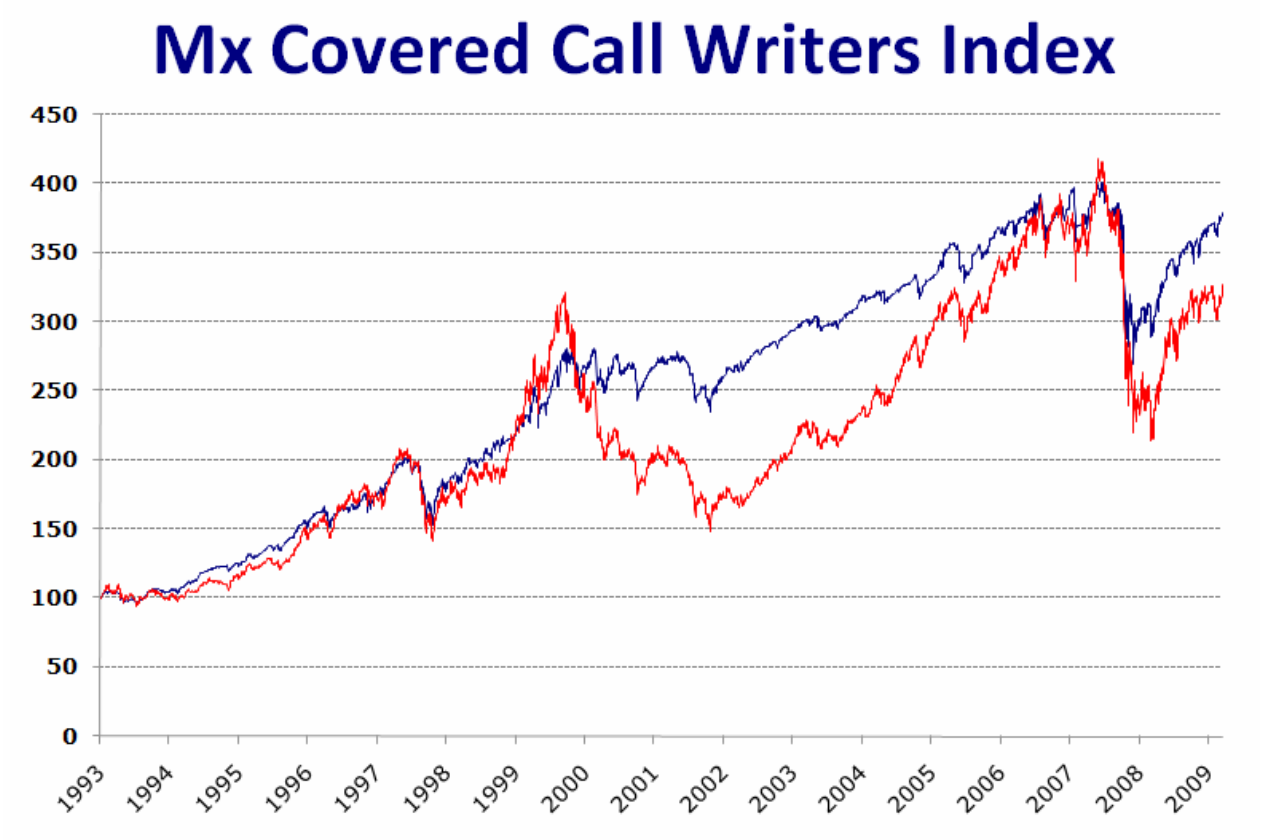
Covered writing generates Alpha!



Compound Return

Option Writing: 8.50%

S&P TSX 60: 7.52%

Standard Deviation

Option Writing: 13.05%

S&P TSX 60: 19.20%

MX Covered Option Writing Index

iShares Cdn Large Cap 60 Index Fund

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Straddle Buying

- Check volatility levels.
  - Mx Volatility Index for Canadian equity.
  - VIX for US equity
- Buy an at-the-money call plus an at-the-money put (i.e. same strike price) with a minimum of one month to expiry.
- Look for an opportunity to exit the position at some point prior to maturity.

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Straddle Buy Example

Straddle Buy Example *				April 8-2010
Canadian Natural Resources				$ 36.54
Buy CNQ May	36.00	call		2.40
Buy CNQ May	36.00	put		1.80
* Example only, not a recommendation			Total Cost	$ 4.20

Straddle Profit Zone

Upper Trading Band	36.00	+	4.20	=	40.20
Lower Trading Band	36.00	-	4.20	=	31.80

Maximum Risk **$ 4.20 at $ 36.00**

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Double Up Double Down

Dollar cost averaging your portfolio

- The strategy involves buying the underlying shares.
- We then sell a close to the money call and a close to the money put.
- The call obligates us to sell the shares we own at the strike price of the option. In this scenario, the put expires worthless.
- The put requires us to buy additional shares at the strike price of the option. In this scenario, the call expires worthless.

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A defined set of responses

Trade Date: June 5 - 2010					Units	Price	Totals
Buy	Research In Motion				1,000	63.23	63,230.00
Sell	RIM	December	62.00	calls	10	8.00	(8,000.00)
Sell	RIM	December	62.00	Puts	10	6.35	(6,350.00)
Out of pocket cost for initial shares							48,880.00
Per share cost							$ 48.88

Per Share Dividend	-
Number of Dividend Payments	-

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Rim Rises

Potential - RIM above $62.00

Short call obligates the sale of your RIM stock at $62 per share, put expires.

	Cost of shares		63,230.00
Less	Premium received	-	14,350.00
Less	Dividends received		-
Equals	Net out of pocket		48,880.00
	Received from sale		62,000.00
	% Return		26.84%

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RIM Declines

Obligation - RIM below $62.00

Short put obligates you to buy additonal 1000 shares at $62 per share

	Per share cost	$	63.23
Less	Premium received	-	14.35
Less	Dividends received		-
Equals	Net out of pocket	$	48.88
Plus	Per share cost (put)	$	62.00
	Average per share cost	$	55.44
	Discount from current price		12.32%

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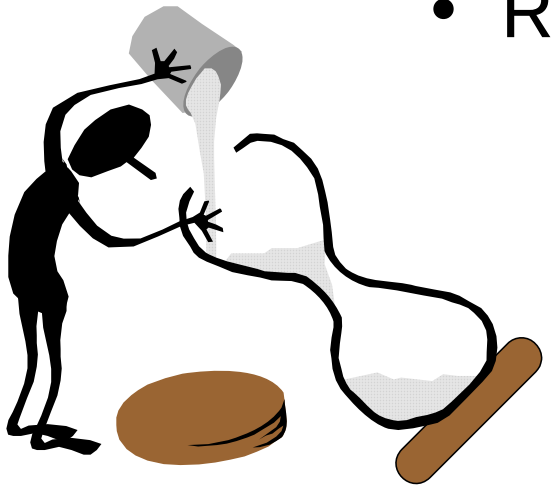
The Calendar (time) Spread

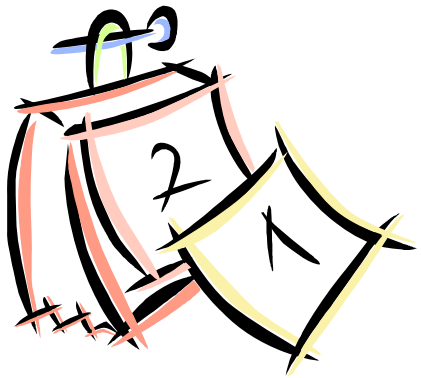
Also known as the event spread



- Rarely used… often profitable
- Puts time is on your side!
- Look for an edge!

The Strategy

- Buy a longer term call
- Sell a shorter term call with the same strike price
- Net debit is maximum risk



The Edge

Look for a short term option that is trading at a higher implied volatility than the longer term option.

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An Event Spread Example

Trade Date:	July 14			
XYZ @ $83				IV
July	85	calls	1.500	78%
August	85	calls	3.375	42%
October	85	calls	5.750	38%

Sell July 85 calls, buy October 85 calls

July 17, stock closed at $83.125

October 85 calls closed at $5.75 (26% profit)

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Questions

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