



**Dan Sheridan**

# Understanding and Applying the Concept of Implied Volatility

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Sheridan Options Mentoring, Inc.  
[www.SheridanMentoring.com](http://www.SheridanMentoring.com)



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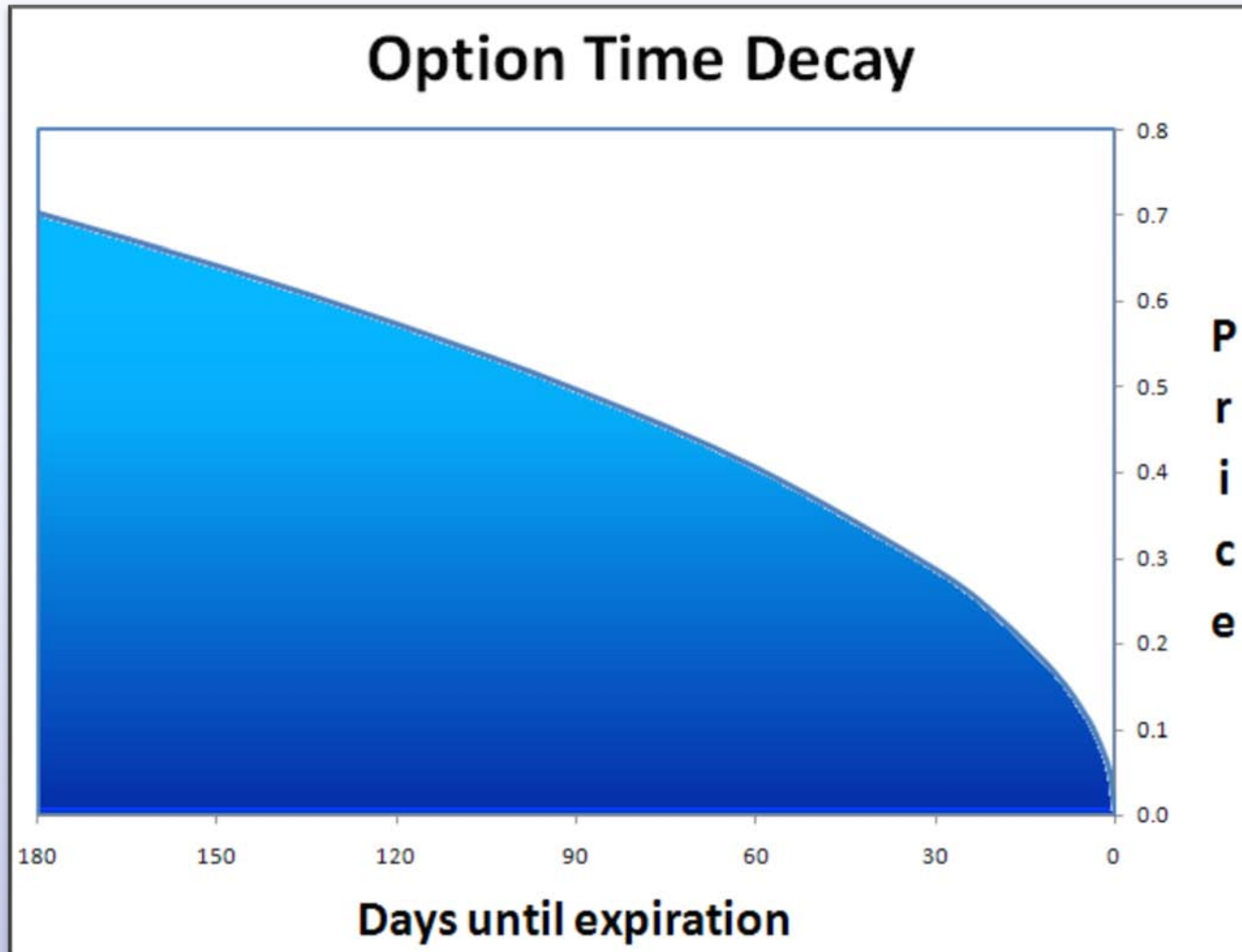
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# Download The Presentation Slides!

You can download the slides here:

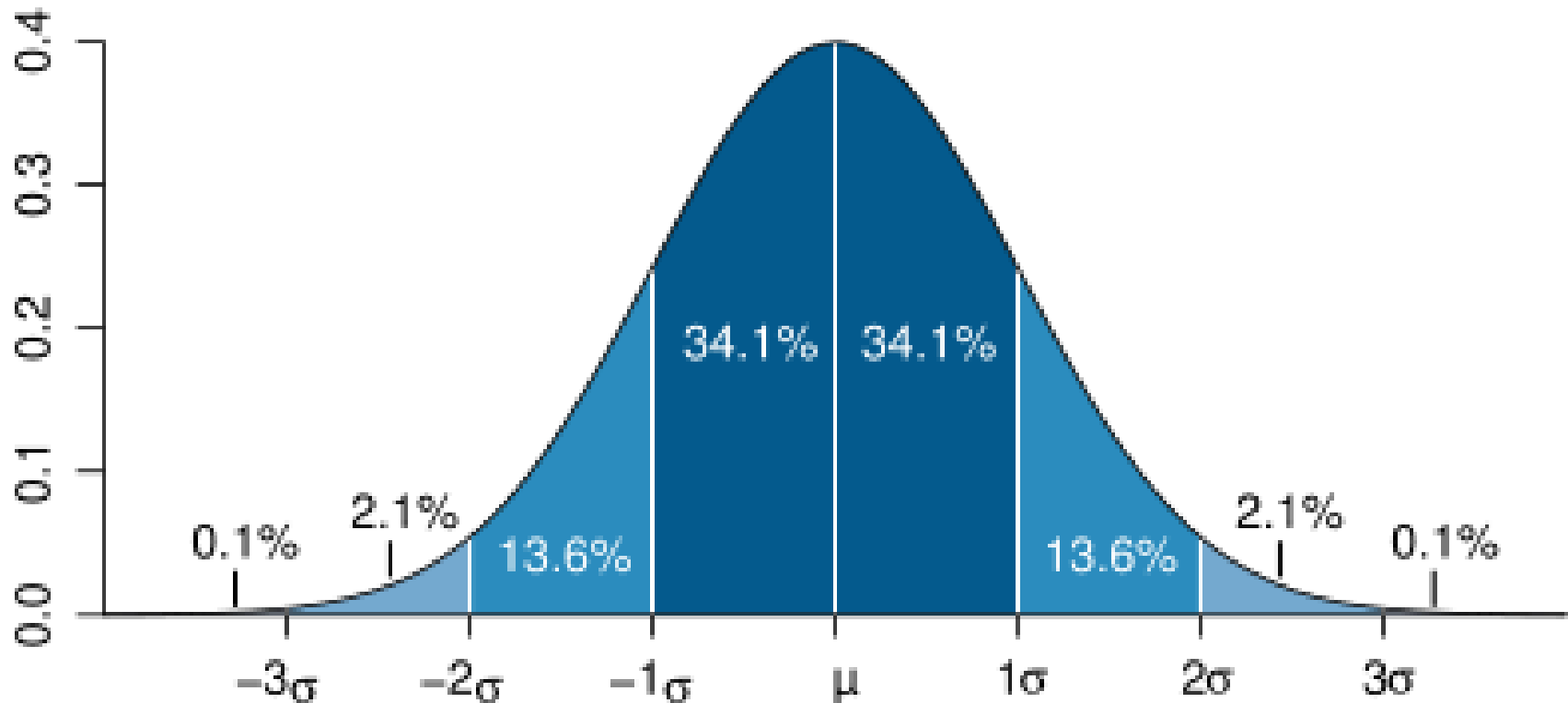
<http://www.sheridanmentoring.com/x/IB11>

# Insurance Company



# Normal Distribution Bell Curve

## Standard deviation and confidence intervals



**FREE STANDARD DEVIATION CALCULATOR AT:**  
<http://www.sheridanmentoring.com/x/sigma>

# Standard Deviations

## Dan's Short Cuts

Time	Divide by	Multiply by
1 Day	19.112	0.05232
1 Week	7.223	0.13844
2 Weeks	5.108	0.19578
17 Days	4.635	0.21574
31 days	3.433	0.29133

$$\text{Price} \times \text{Volatility} \times \sqrt{\frac{\text{Calendar days}}{365.25}}$$

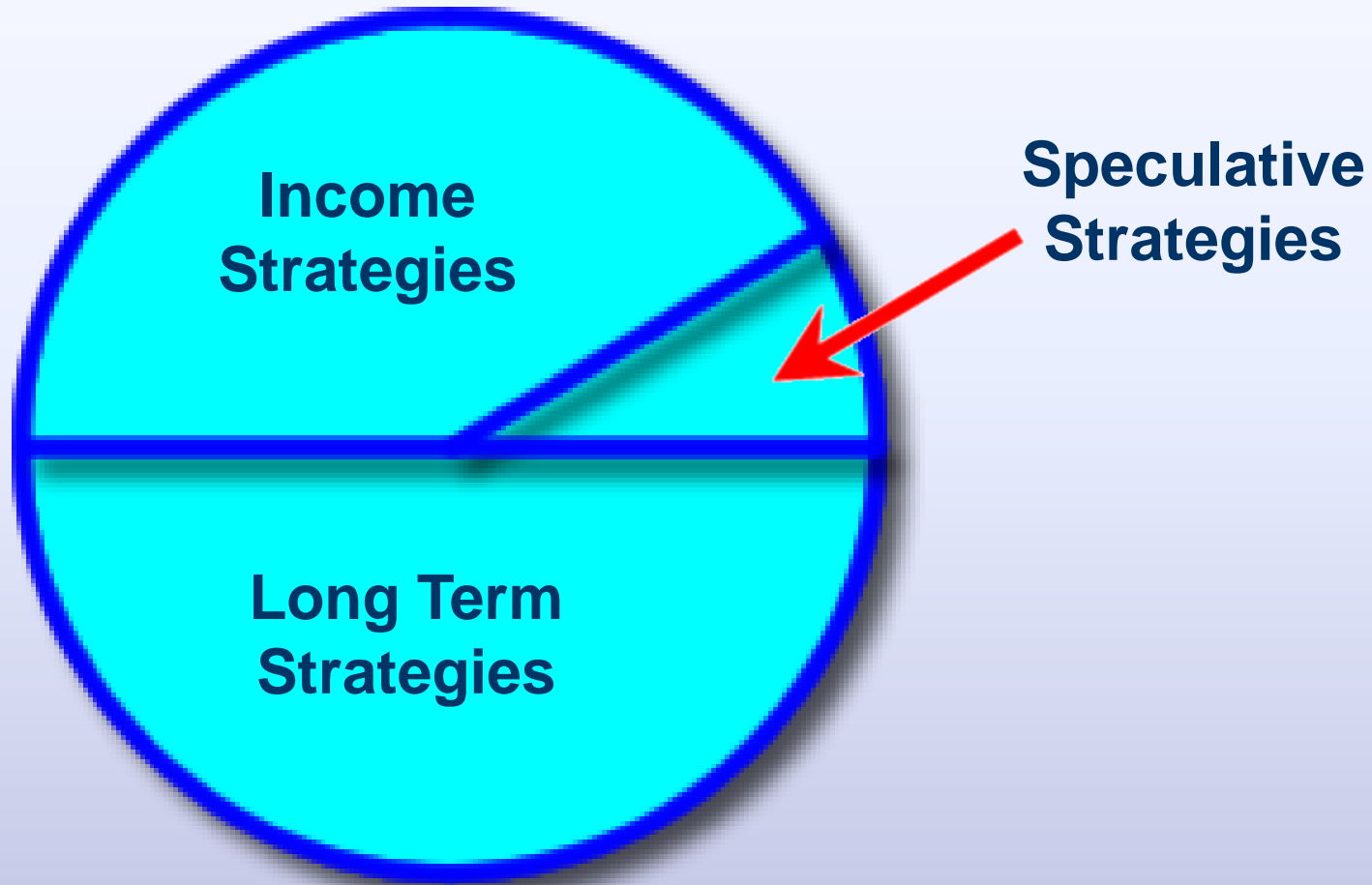
## \$160 Stock with 16% IV

Time	1 SD	Range
26 Days	\$6.83	\$153.17 - \$166.83
54 days	\$9.84	\$150.16 - \$169.84

Download FREE Standard Deviation Calculator

<http://www.sheridanmentoring.com/x/sigma>

# Portfolio Plan



# Portfolio Plan



**Long Calls/Puts,**  
**Diagonal Spreads**  
**OTM Butterflies**  
**Vertical Spreads**  
**Directional Calendars**  
**Long Straddles**



# VIX 15 to 19

## 60% Long VEGA and 40% Short VEGA

- \$10,000 Portfolio \$1000 in cash for adjustments
- \$5400 in Calendars and Double Diagonals
- \$3600 in Condors, credit spreads and Butterflies
- 3-5 trades per month

# **VIX 20 to 25**

## **60% Short VEGA, 40% Long VEGA**

- **\$10,000 Portfolio    \$1000 in cash for adjustments**
- **\$4050 in Calendars and Double Diagonals**
- **\$4950 in Condors, credit spreads and Butterflies**
- **3-5 trades per month**

# VIX 25 to 30

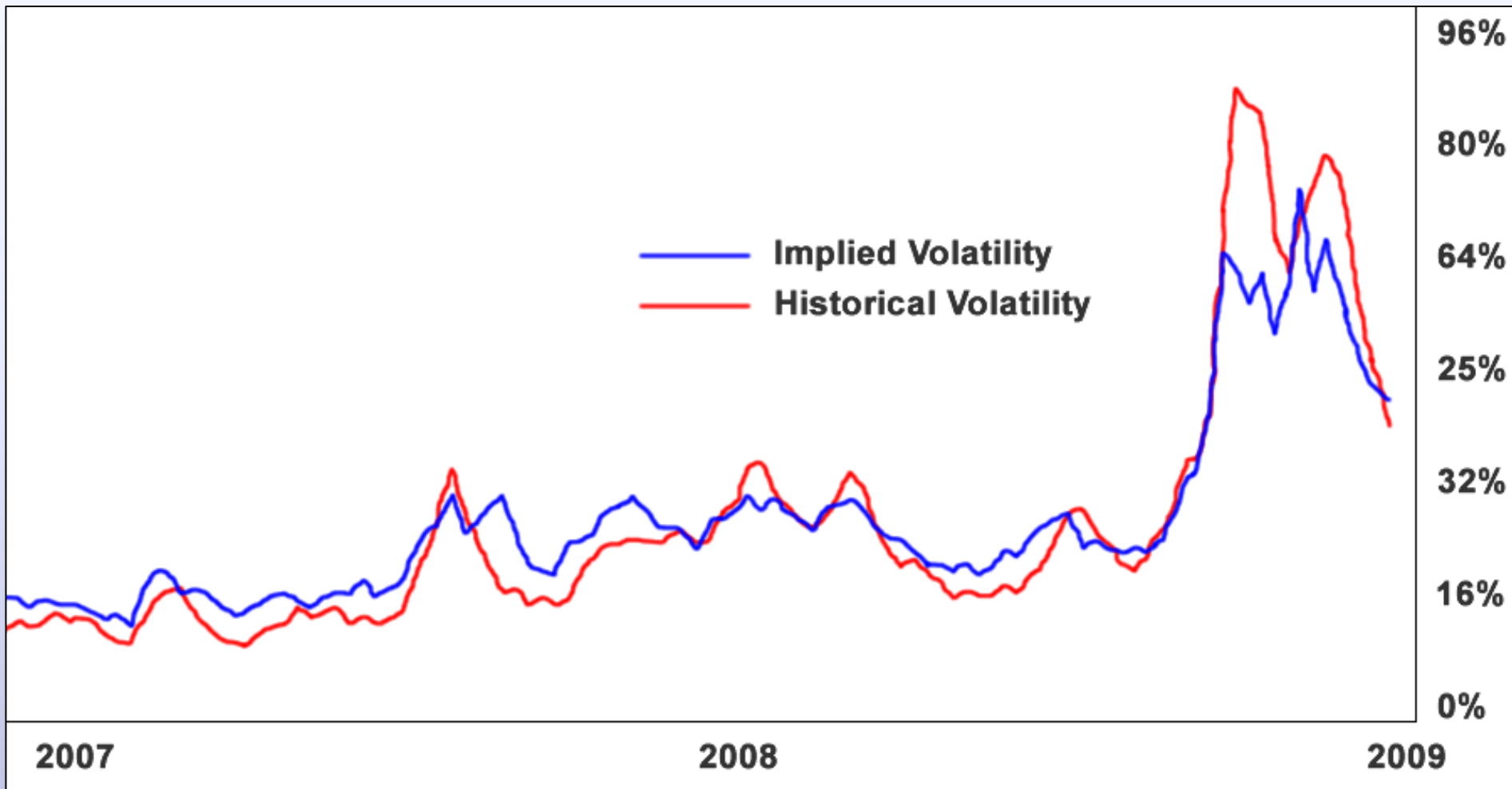
## 70% Short VEGA and 30% Long VEGA

- \$10,000 Portfolio \$1000 in cash for adjustments
- \$3600 in Calendars and Double Diagonals
- \$5400 in Condors, credit spreads and Butterflies
- 3-5 trades per month

# Implied Volatility

- **The Volatility percentage that justifies the market price of an option**

# Implied Volatility



# Implied Volatility

**XYZ Price: \$439.98**

	<b>FEB(36)</b>	
<b>Options</b>	<b>Price</b>	<b>IV</b>
<b>440 Calls</b>	<b>\$28.60</b>	<b>52.4%</b>

# What IV to Input to Get \$28.60?

**XYZ Price: \$439.98**

	<b>FEB(36)</b>	
<b>Options</b>	<b>Price</b>	<b>IV</b>
<b>440 Calls</b>	<b>\$16.60</b>	<b>30.5%</b>

# Do we need Higher IV to get \$28.60?

**XYZ Price: \$439.98**

	<b>FEB(36)</b>	
<b>Options</b>	<b>Price</b>	<b>IV</b>
<b>440 Calls</b>	<b>\$23.60</b>	<b>43.2%</b>



# GOOG Price Chart

## Earnings Dates Show in Red

Date: 4/14/2011

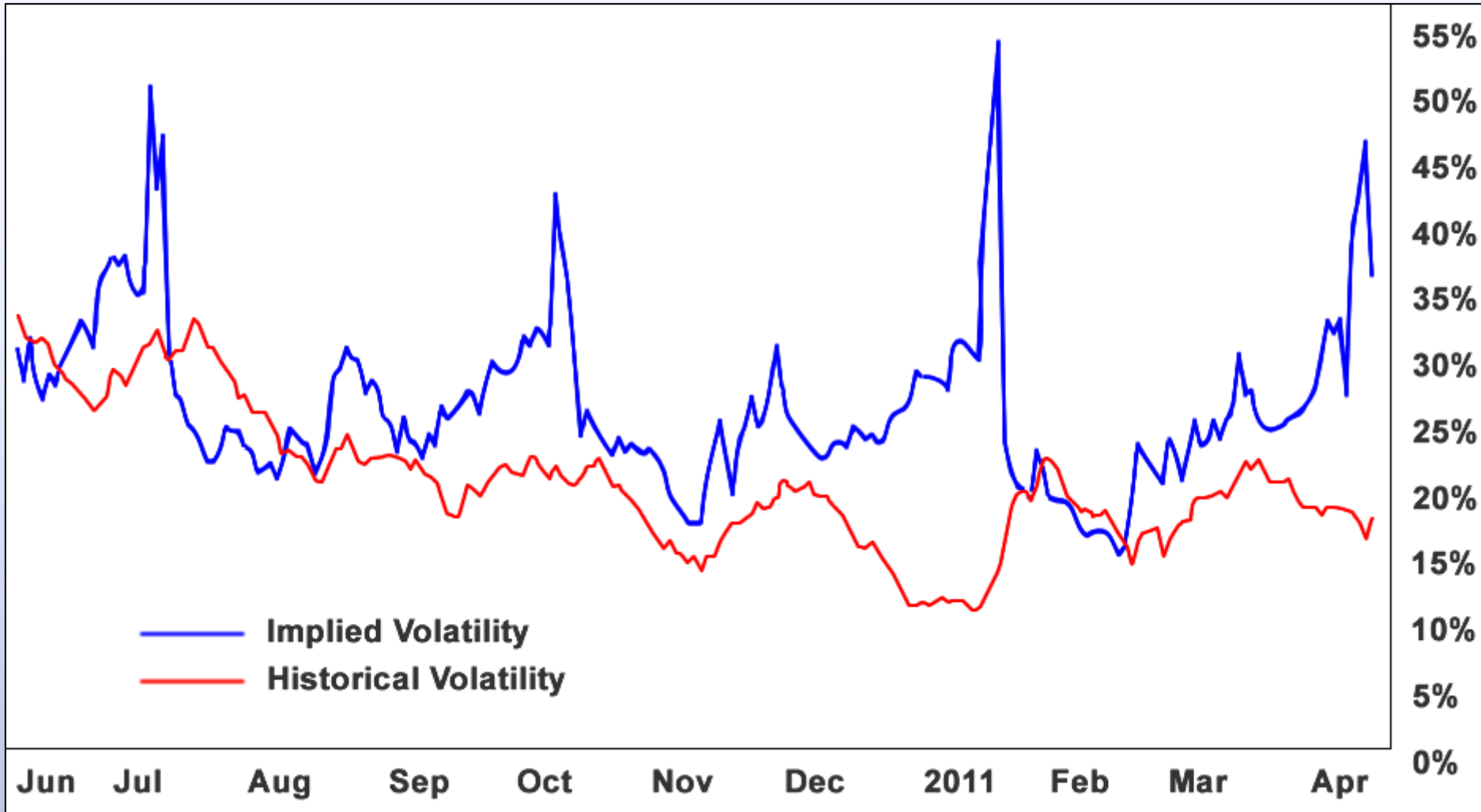
Price: \$578.52



# GOOG Volatility Chart

Date: 4/14/2011

Price: \$578.52



# GOOG At-the-Money Calendar

Date: 4/14/2011

Price: \$578.52

Options	APR(2)				MAY(37)			
	Price	IV	Vega	Trade	Price	IV	Vega	Trade
580 Calls	\$12.30	76.3%	17.1	-10	\$21.40	30.0%	73.4	+10

Delta	41.5
Gamma	-6.4
Theta	3,514
Vega	563.7
Debit	9,100

# GOOG At-the-Money Calendar

Date: 4/14/2011

Price: \$578.52

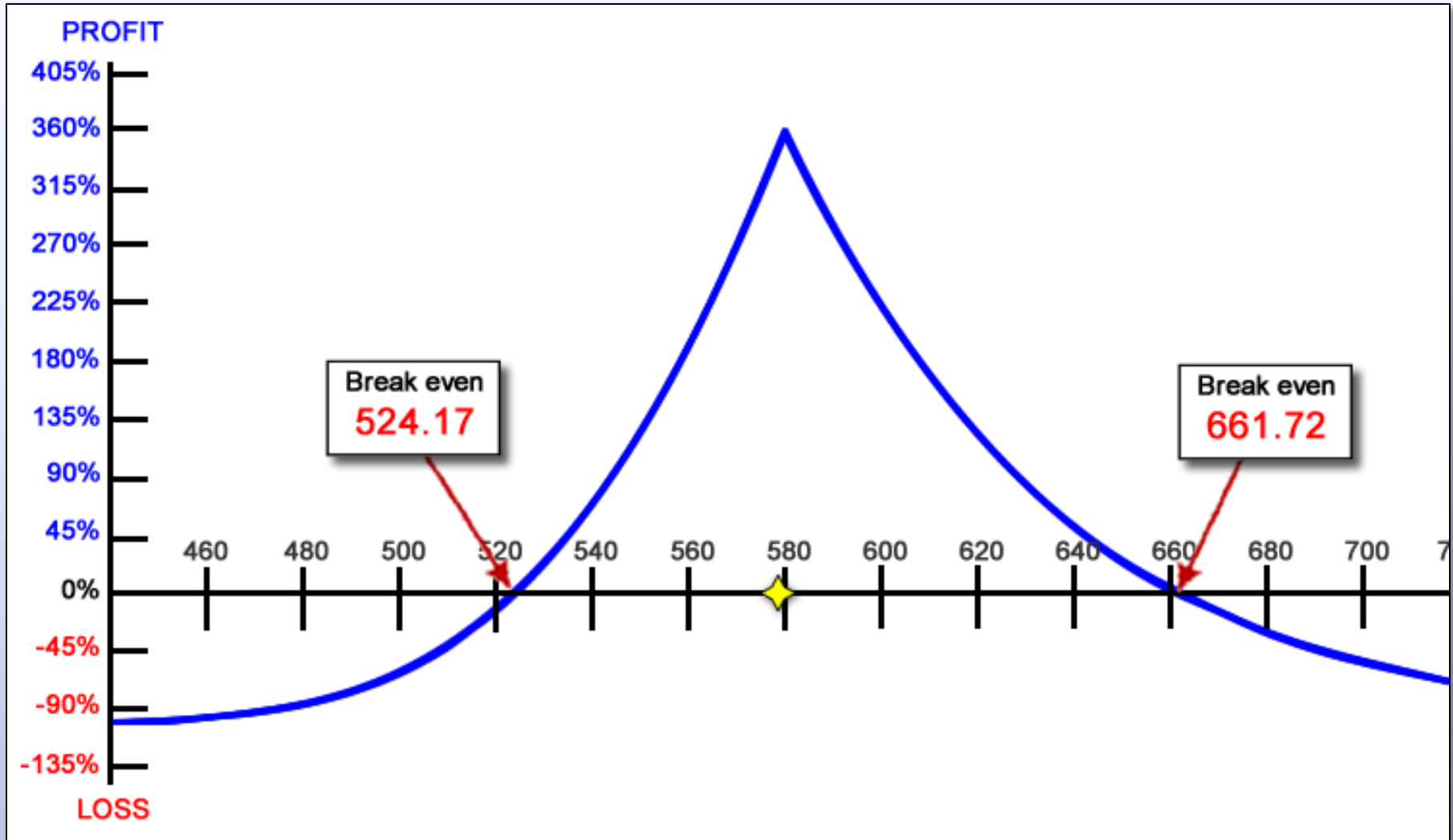
	MAY(37)				JUN(65)			
Options	Price	IV	Vega	Trade	Price	IV	Vega	Trade
580 Calls	\$21.40	30.0%	73.4	-10	\$27.10	28.6%	97.3	+10

Delta	8.6
Gamma	-1.6
Theta	85.1
Vega	238.5
Debit	5,700

# GOOG At-the-Money Calendar

Date: 4/14/2011

Price: \$578.52



# Implied Volatility of a spread

**XYZ Price: \$91.54**

	FEB(37)		APR(93)	
Options	Price	IV	Price	IV
85 Calls	\$11.50	69.8%	\$14.50	61.8%

**What Volatility will get us \$3?**

# Implied Volatility of a spread

**XYZ Price: \$91.54**

	FEB(37)		APR(93)	
Options	Price	IV	Price	IV
85 Calls	\$9.37	49.1%	\$12.37	49.1%

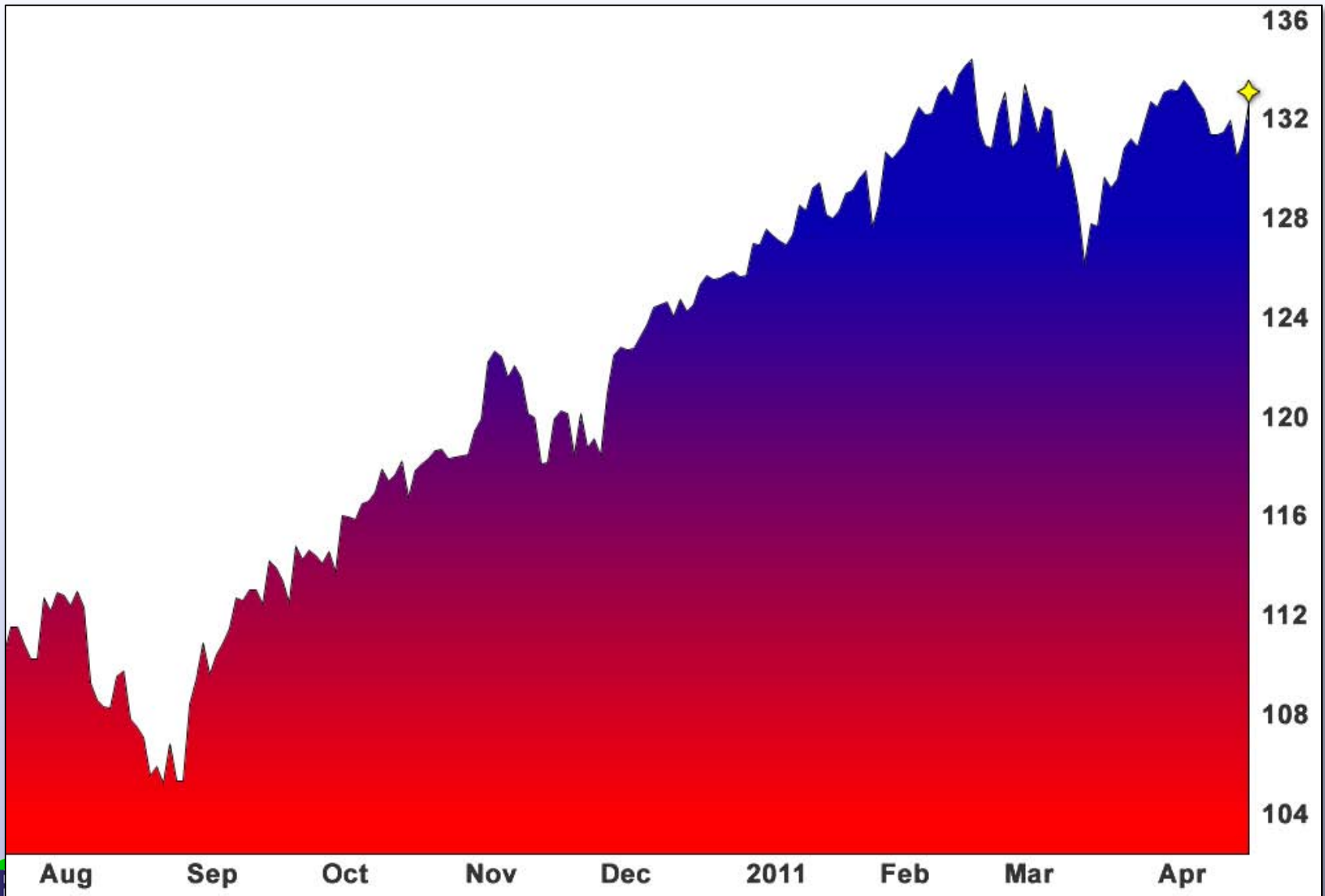
**Formula for Implied Volatility of a Spread =  
Love Option IV minus Difference between IV's times 1.5**

**Example: 61.8% - 1.5 x (69.8-61.8) = 61.8 - 12 = 49.8%**

# SPY Price Chart

Date: 4/21/2011

Price: \$133.78

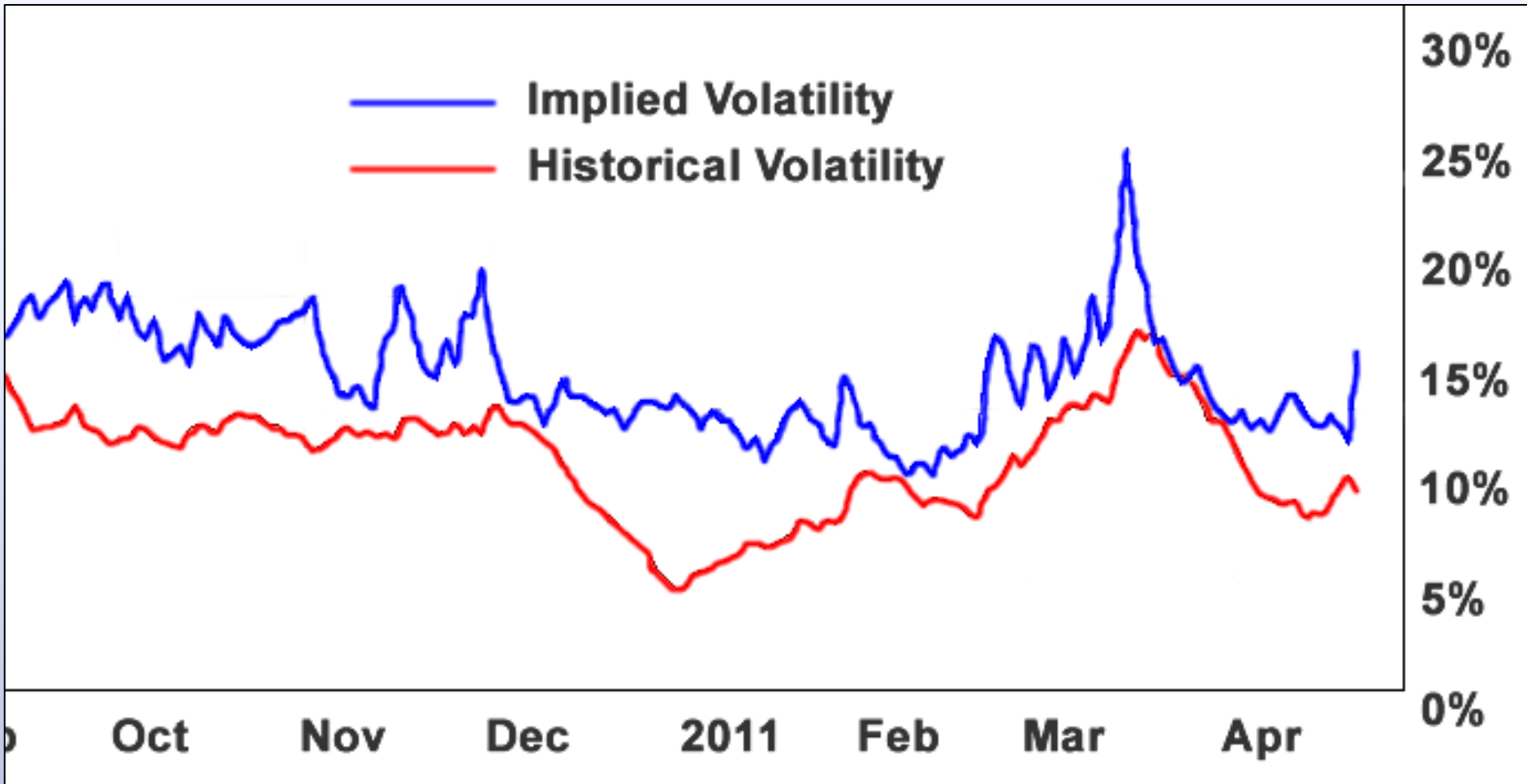




# SPY Volatility Chart

Date: 4/21/2011

Price: \$133.78



# SPY At-the-Money Calendar

Date: 4/21/2011

Price: \$133.78

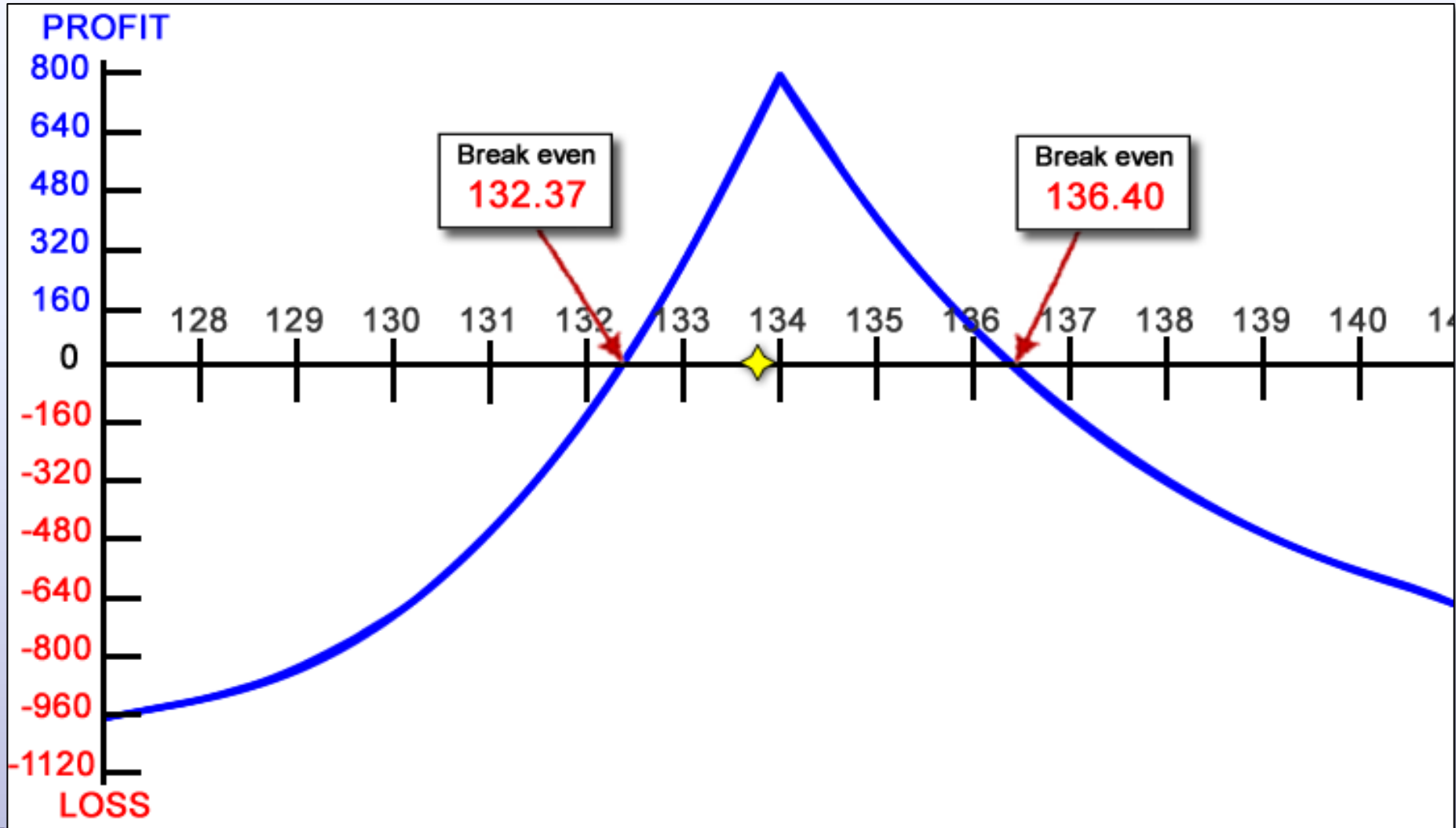
Options	MAY(30)				JUN(58)			
	Price	IV	Vega	Trade	Price	IV	Vega	Trade
134 Calls	\$1.70	11.5%	15.3	-10	\$2.70	13.5%	21.1	+10

Delta	13.1
Gamma	-33.9
Theta	5.0
Vega	57.9
Debit	1,000

# SPY At-the-Money Calendar

Date: 4/21/2011

Price: \$133.78



# SPY Straddle

**Date: 4/21/2011**

**Price: \$133.78**

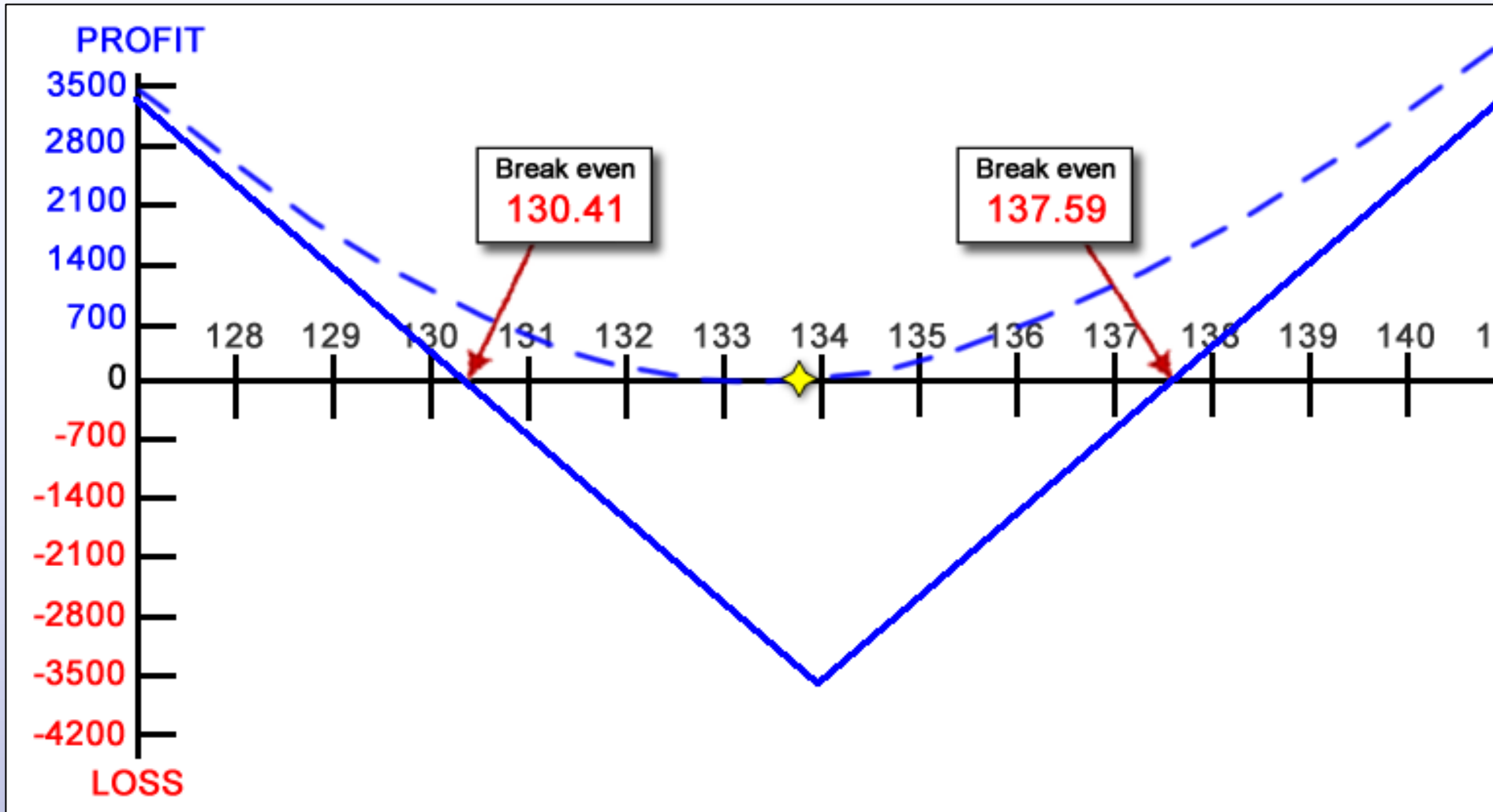
	MAY(30)			
Options	Price	IV	Vega	Trade
134 Calls	\$1.70	11.5%	15.3	+10
134 Puts	\$1.90	11.8%	15.3	+10

Delta	89.3
Gamma	184.4
Theta	-59.9
Vega	305.8
Debit	3,600

# SPY Straddle

Date: 4/21/2011

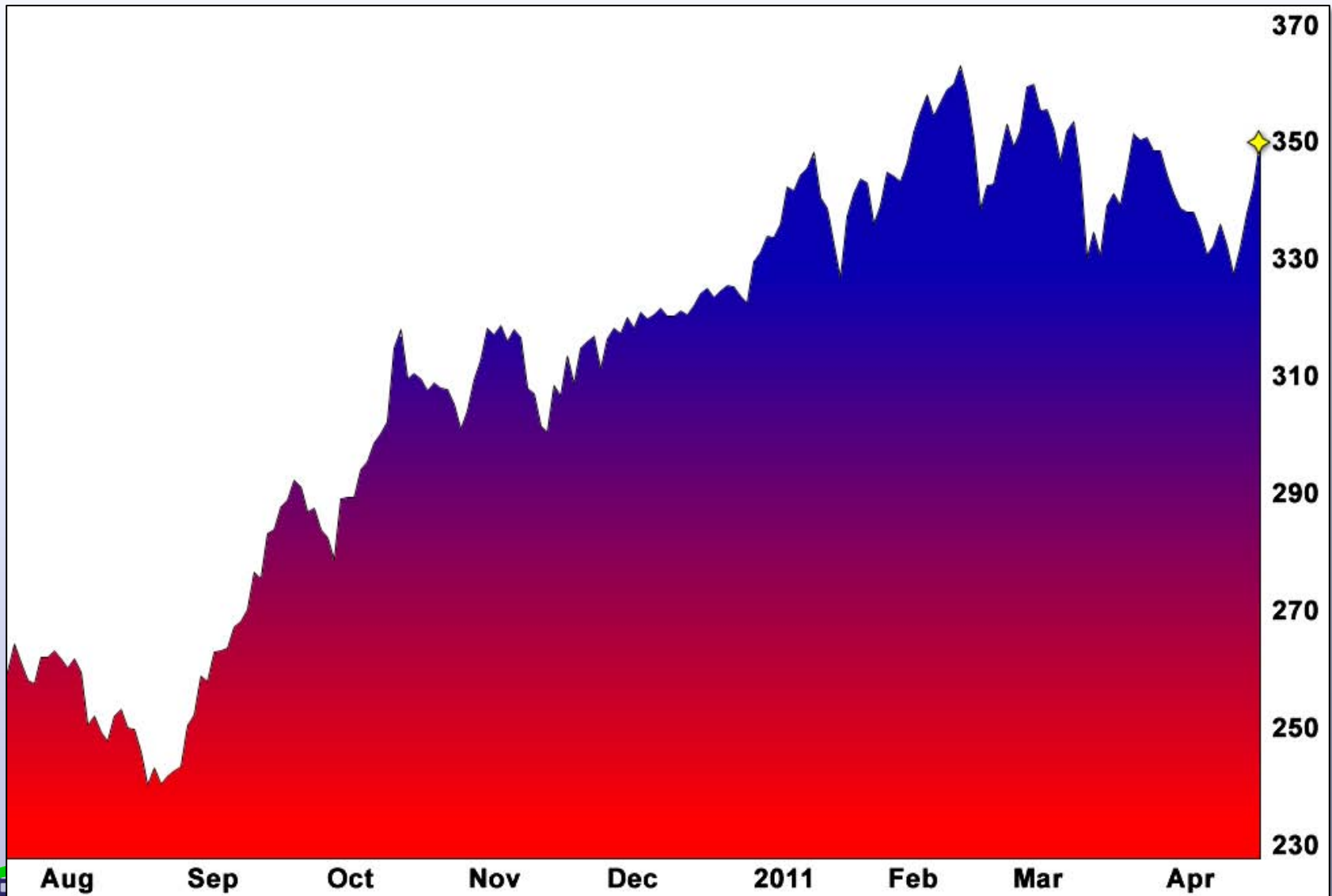
Price: \$133.78



# AAPL Price Chart

Date: 4/21/2011

Price: \$350.70



# AAPL Synthetic Covered Call

Date: 4/21/2011

Price: \$350.70

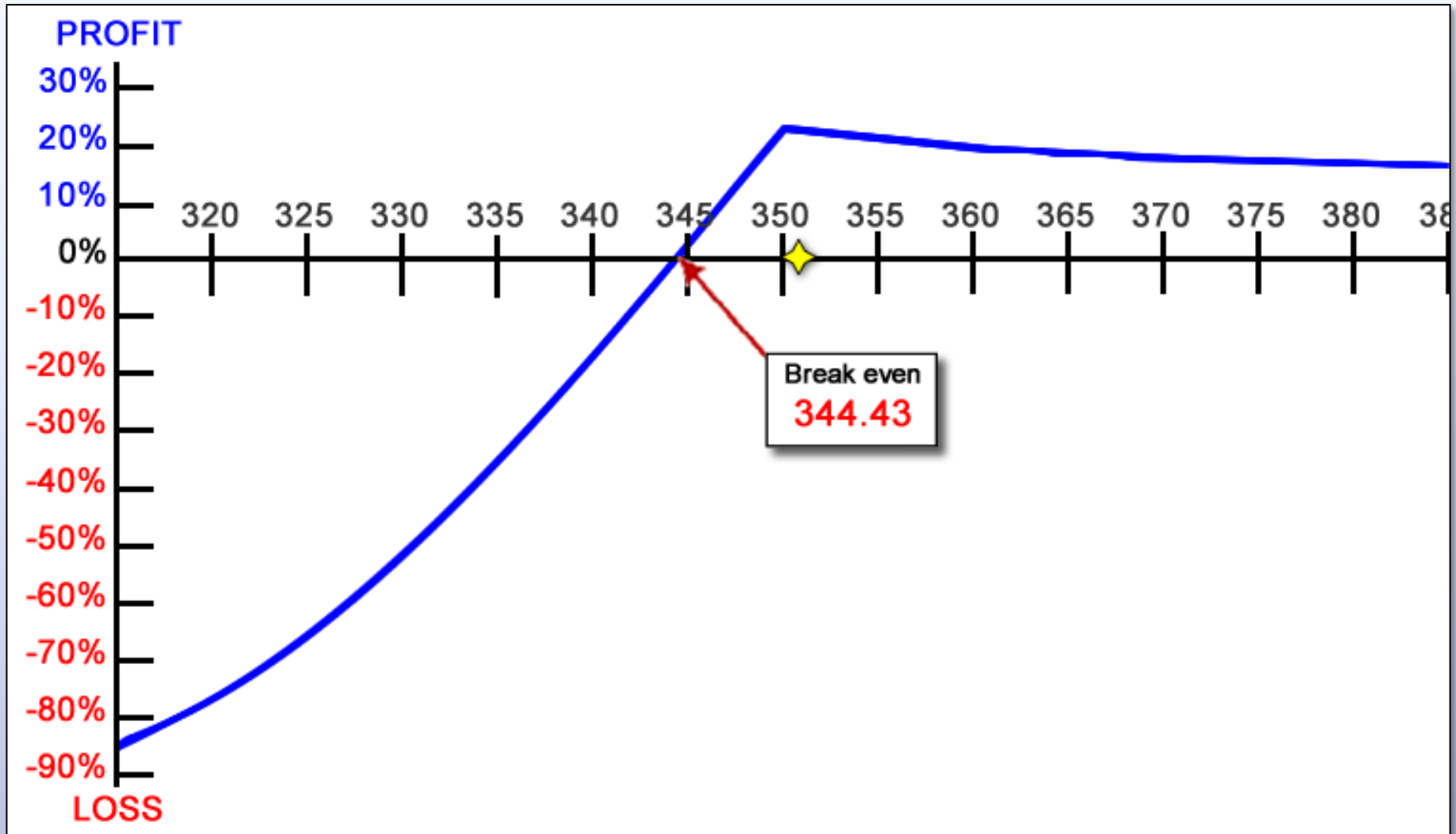
	MAY(30)				JUN(58)				
Options	Price	IV	Vega	Trade	Price	IV	Vega	Delta	Trade
350 Calls	\$8.70	20.8%	40.0	-1					
325 Calls					\$30.50	26.2%	41.1	83.1	+1

Delta	27.4
Gamma	-1.6
Theta	4.7
Vega	1.1
Debit	2,180

# AAPL Synthetic Covered Call

Date: 4/21/2011

Price: \$350.70





# Website Walk Through's

## See What's on the Other Side

Let us show you a behind the scenes look at what our mentoring program and what our trading community is like. Dan pioneered option mentoring and has the most robust program with the best support to help you learn and continue to grow as a trader.

Take a few minutes to see for yourself how we can help take your option trading to the next level.

Sign up for your website walk through at  
<http://www.sheridanmentoring.com/x/WT>





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