

Interactive Brokers Webcast

Options on ETFs

February 13, 2013
Presented by Russell Rhoads, CFA



Disclosure

CBOE Disclosure Statement

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Options on ETFs

Outline

- **ETF Review**
- **Options on ETFs**
- **Unique ETFs**
- **ETFs with WeeklysSM**
- **Buy Write Simulation**
- **Enhanced Buy Write**
- **Summary / Q&A / Contact**

ETF Review

Overview

- **An Exchange Traded Fund is an investment fund that trades like a stock**
- **Most ETFs are charged with tracking the performance of an index**
- **An ETF is the most common type of what is now referred to as an Exchange Traded Product**
- **The other more commonly traded Exchange Traded Product is the Exchange Traded Note (ETN)**

ETF Review

Exchange Traded Notes

- **An ETN is a debt security issued by a bank that trades like a stock**
- **ETNs typically follows some sort of market bench mark or strategy**
- **An ETN differs from an ETF in that there is no tracking error because the ETN issuer guarantees the holder a return that replicates an index**
- **There is credit risk associated with the issuer of an ETN that is not present with ETFs**

Options on ETFs

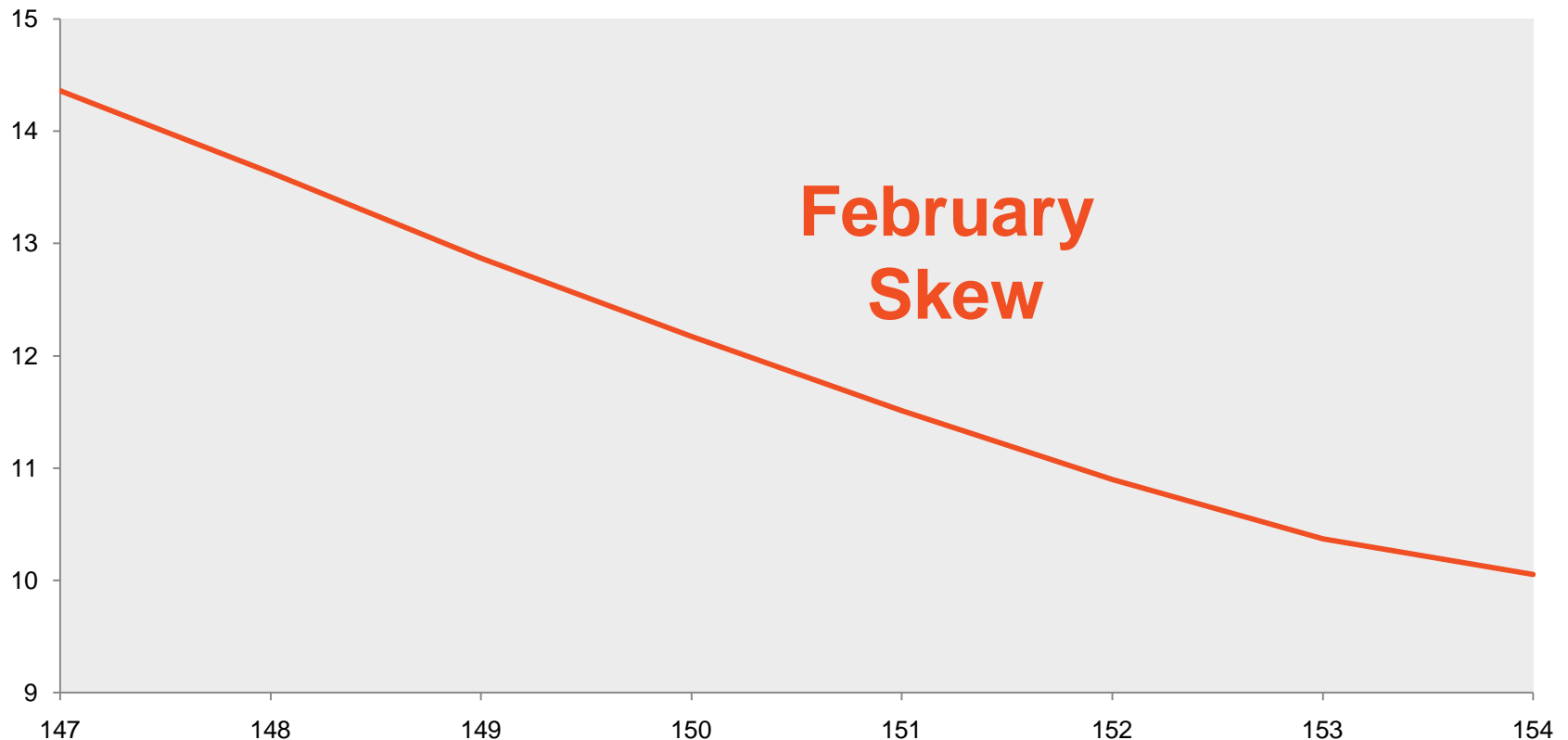
Overview

- **Options on ETFs are structurally the same as equity options**
- **Exercise or assignment of a standard option on an ETF would result in buying or selling shares of the ETF**
- **The price behavior of options on ETFs may be different than the price behavior of options on equities**
- **ETFs are based on the performance on an equity index will experience implied volatility changes that are closer to index than stock options**

Options on ETFs

Implied Volatility Charts

1/30/2013 – SPY @ 150.57

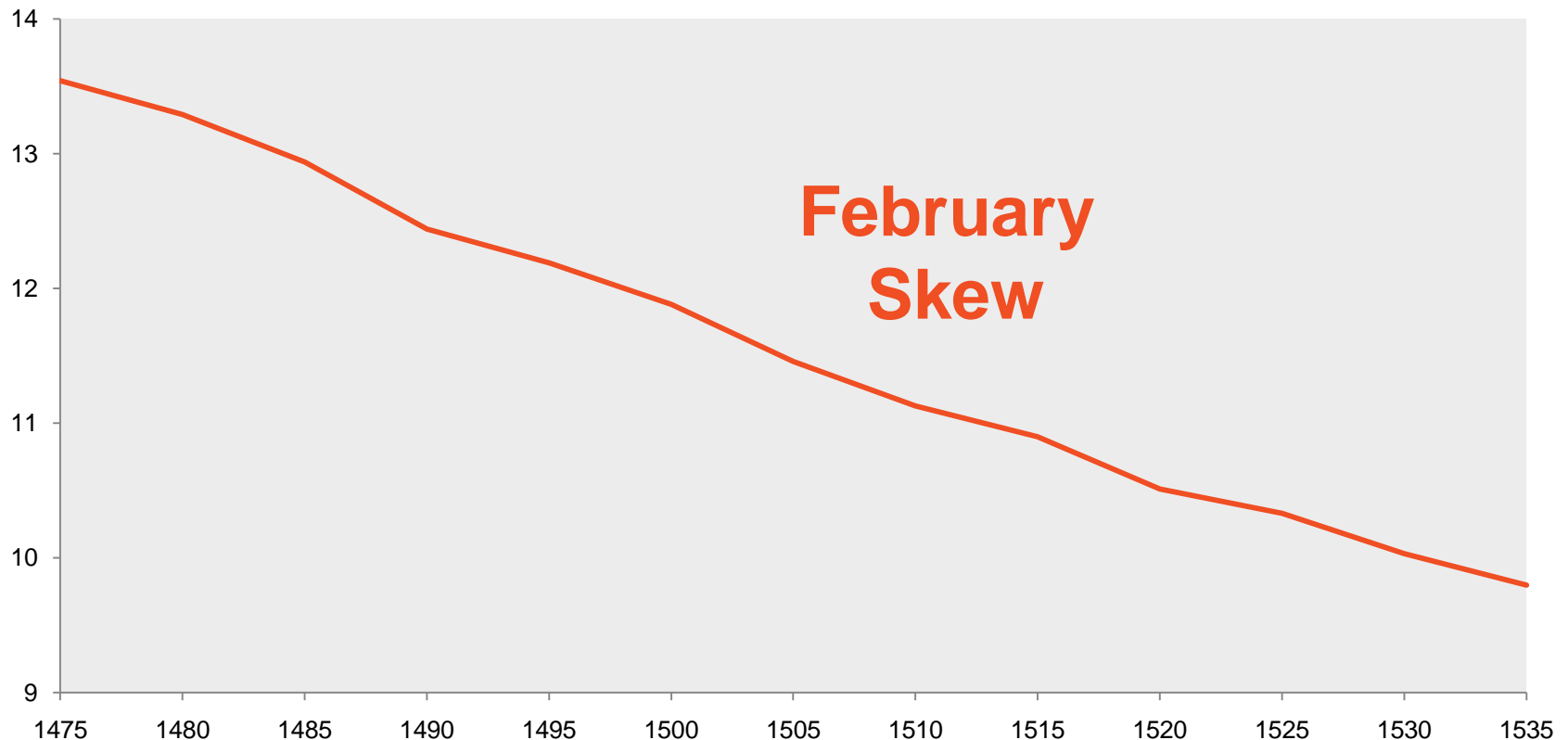


Source: Bloomberg

Options on ETFs

Implied Volatility Charts

1/30/2013 – SPX @ 1506.76

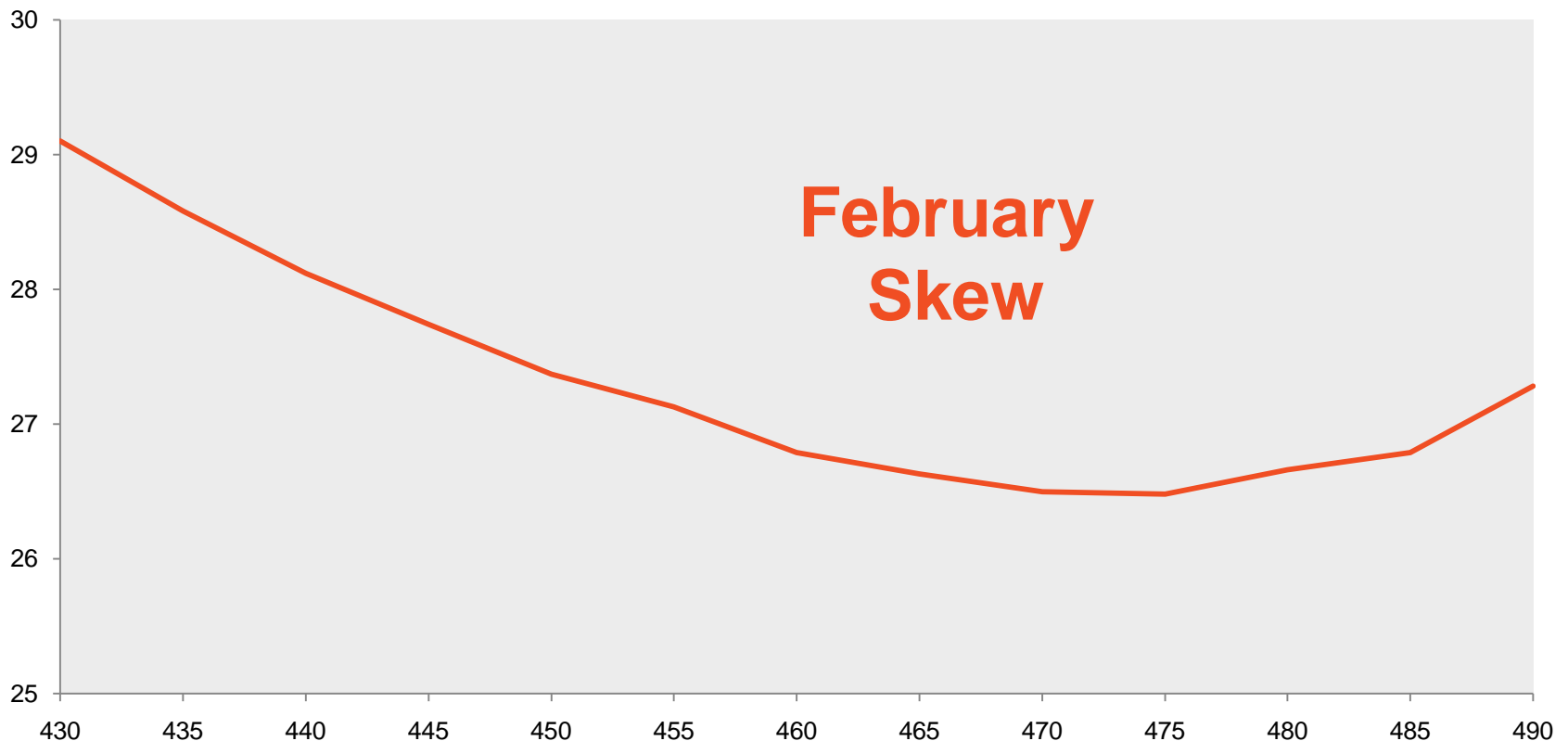


Source: Bloomberg

Options on ETFs

Implied Volatility Charts

1/30/2013 – AAPL @ 459.06



Source: Bloomberg

Options on ETFs

Extended Hours

4:15 Eastern Closing Time –

DIA	QQQ	VIXY	XLP
EEM	SPY	XHB	XLU
EFA	SVXY	XLB	XLV
IWM	UNG	XLE	XLY
IWN	UUP	XLF	XME
MDY	UVXY	XLI	XRT
OEF	VIXM	XLK	

Unique ETFs

Overview

- **There are now exchange traded products that will leverage an index or strategy**
- **Some exchange traded products allow investors to get short exposure to an index or strategy**
- **Finally some products will give investors the ability to have leveraged short exposure to a market or strategy**
- **The performance of some of these types of ETFs may differ from expectations**

Unique ETFs

Performance Example

XYZ Index at 100.00

2 times XYZ Index ETF at 100.00

Day 1 –

XYZ Index down 10% from 100.00 to 90.00

2x XYZ Index ETF down 20% from 100.00 to 80.00

Day 2 –

XYZ Index up 10.00% from 90.00 to 99.00

2x XYZ Index ETF Up 20.00% from 80.00 to 96.00

Unique ETFs

Performance Example

2 Day Summary –

XYZ Index down 1%
100.00 to 99.00

2x XYZ Index ETF down 4%
100.00 to 96.00

ETFs with Weeklys

Overview

- **As of 1/31/2013 there were twenty eight exchange traded funds with weekly options available**
- **Eight of the twenty eight have five consecutive weeks listed (EEM, GLD, GDX, IWM, QQQ, SLV, SPY, XLF)**
- **There are also weekly options available on both leveraged and inverse ETFs as well**

Buy Write

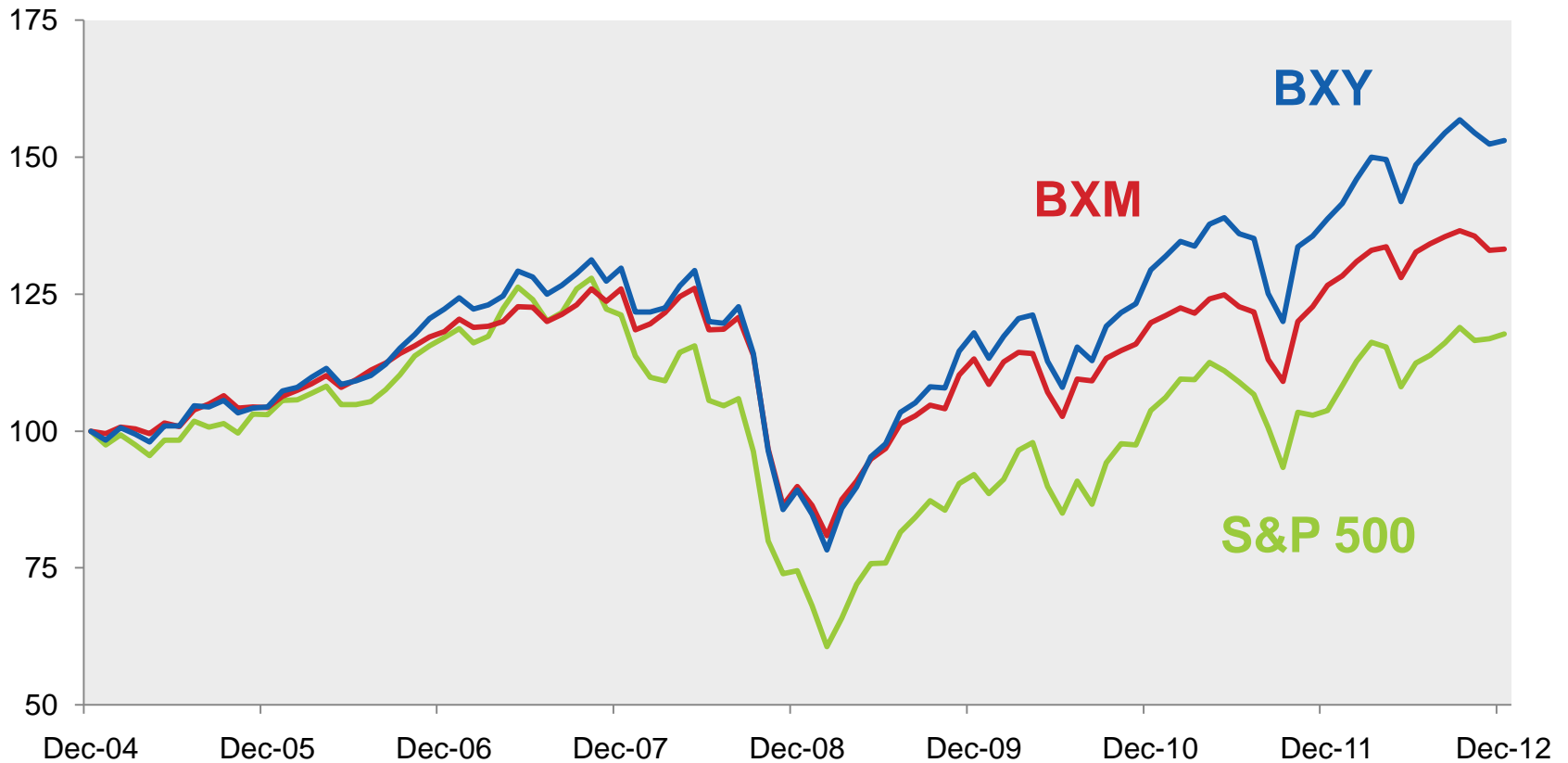
Buy Write Indexes

- Track the performance of a hypothetical buy-write strategy on the S&P 500
- The CBOE S&P 500 BuyWrite Index (BXM) tracks the performance of a hypothetical at the money buy-write strategy on the S&P 500
- The CBOE S&P 500 2% OTM BuyWrite Index (BXY) tracks the performance of a hypothetical out of the money buy-write strategy on the S&P 500
- Both indexes roll positions on a monthly basis

Buy Write

Index Performance

\$100 in Various Indexes – 2005 – 2012



Source: Bloomberg

Buy Write

Simulating Performance

- **Investors can try to simulate the performance of both the BXM and BXY indexes using ETFs and options on ETFs**
- **With shorter dated option contracts investors may be more flexible in following these strategies**
- **Investors may also leverage these strategies through the use of options on ETFs**
- **Any use of leverage should be taken on with the knowledge of potential losses**

Buy Write

Trading Example

- 1/31/2013 – SPY @ 151.00
- Buy 100 SPY at 151.00
- Sell 1 SPY short term call for income
- Feb 8 Expiration Choices –

Strike	Bid		Strike	Bid
150.50	0.95		152.00	0.30
151.00	0.65		152.50	0.20
151.50	0.45		153.00	0.10

Sell 1 SPY Feb 8, 2013 151 Call at 0.65

Buy Write

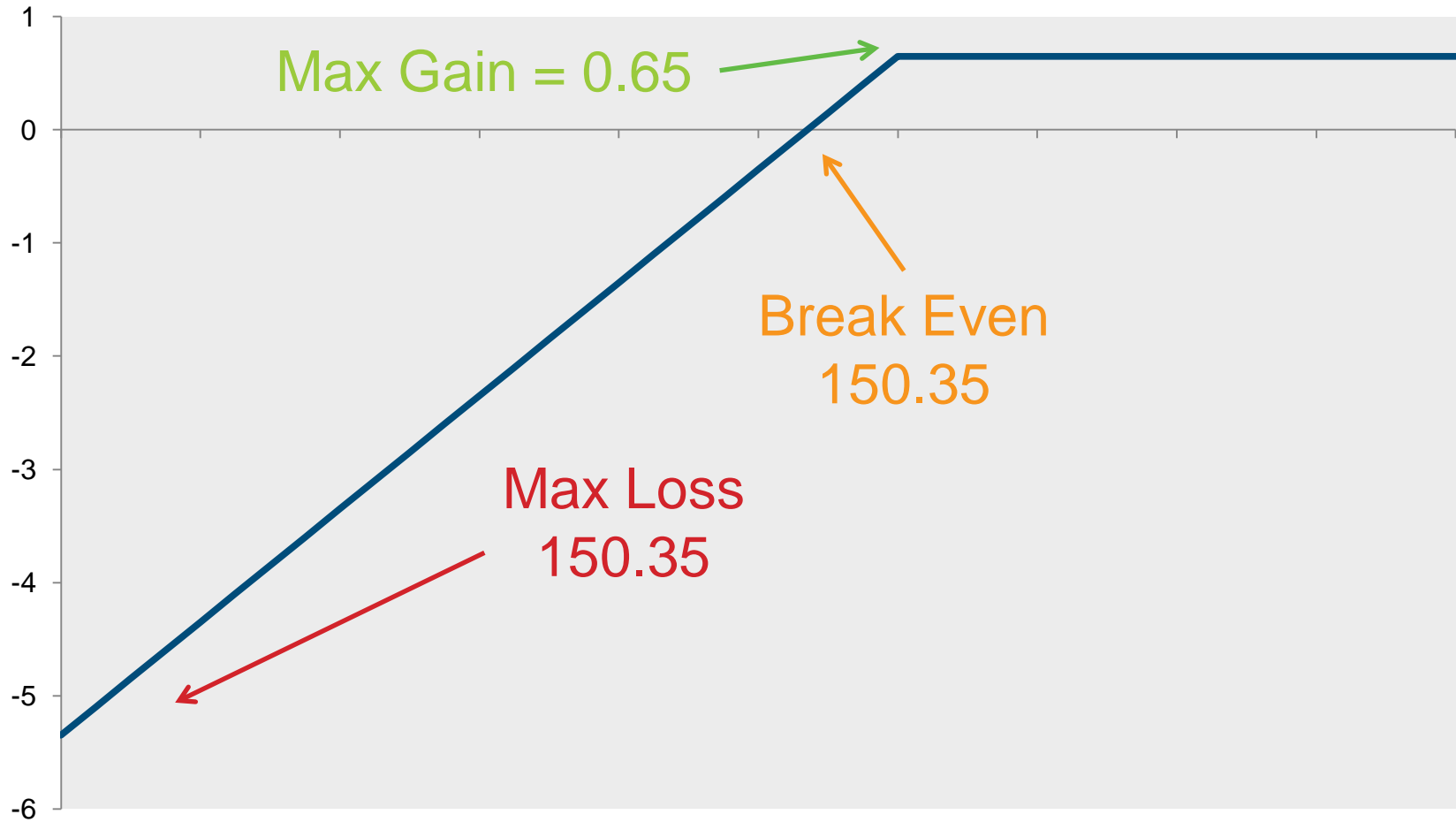
Trading Example

Payoff at Feb 8 Expiration

SPY	Long 100 SPY	Short 1 Feb 8, 2013 151 Call	Cost	Running P/L
148	148.00	0.00	(150.35)	(1.35)
149	149.00	0.00	(150.35)	(0.35)
150	150.00	0.00	(150.35)	0.65
151	151.00	0.00	(150.35)	1.65
152	152.00	(1.00)	(150.35)	1.65
153	153.00	(2.00)	(150.35)	1.65
154	154.00	(3.00)	(150.35)	1.65

Buy Write

Payoff Diagram



Max Gain = 0.65

Break Even
150.35

Max Loss
150.35

Buy Write

Weekly Expiration

- Roll short SPY call to new position
- The art of trading can play into this decision
- Bullish outlook – roll to higher strike
- Neutral outlook – roll to at the money strike
- Bearish on market – roll to slightly in the money strike
- Also flexibility regarding expiration due to the availability of five weekly expiration dates

Enhanced Buy Write

Trading Example

- 1/31/2013 – SPY @ 151.00
- Buy 1 SPY Dec 31, 2013 120 Call at 31.00 to gain long market exposure (note – SPY dividends will not be received)
- Sell 1 SPY short term call for income
- Feb 8 Expiration Choices –

Strike	Bid		Strike	Bid
150.50	0.95		152.00	0.30
151.00	0.65		152.50	0.20
151.50	0.45		153.00	0.10

Sell 1 SPY Feb 8, 2013 151 Call at 0.65

Enhanced Buy Write

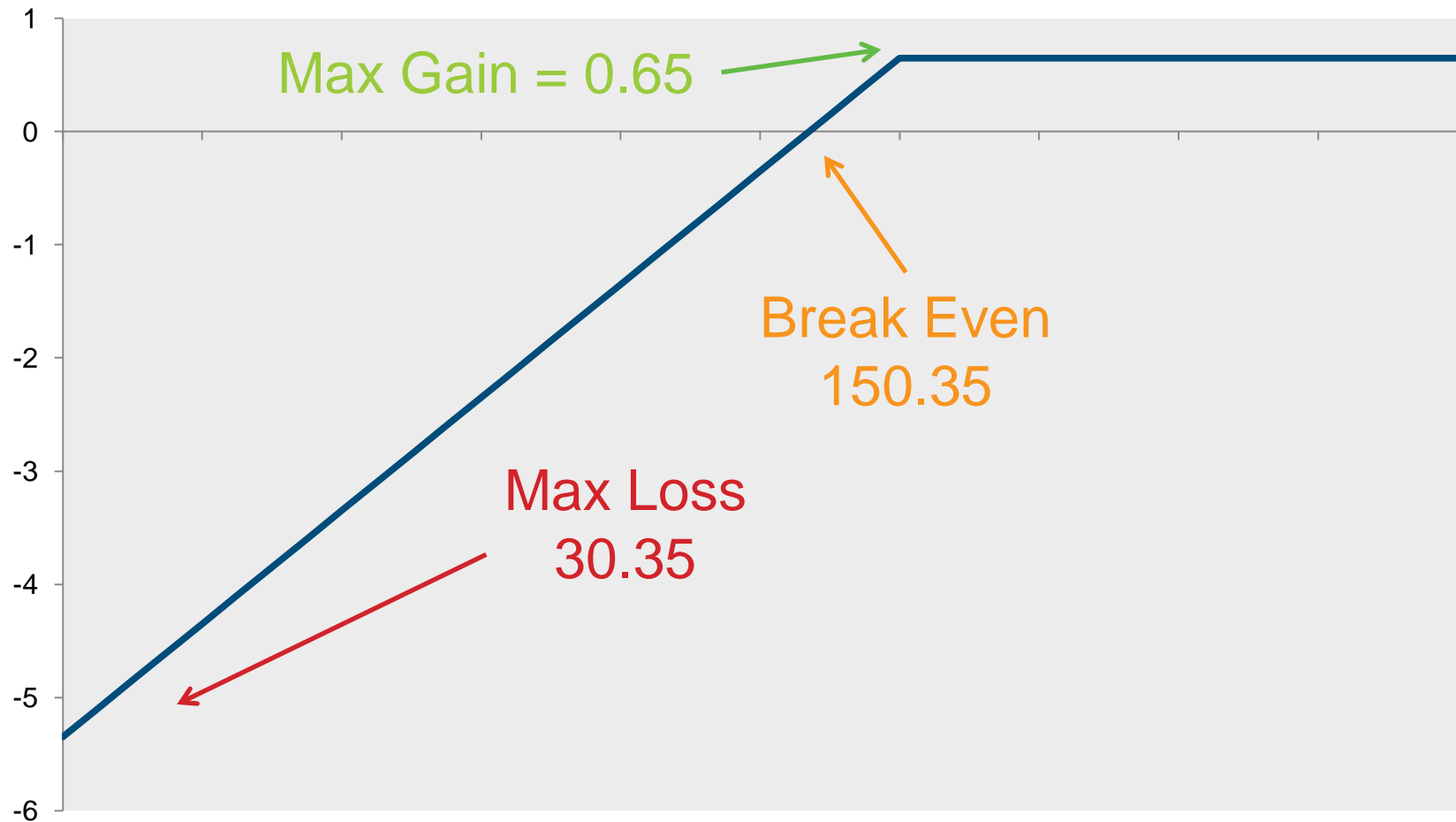
Trading Example

Payoff at Feb 8 Expiration

SPY	Long 1 Dec 31, 2013 120 Call	Short 1 Feb 8, 2013 151 Call	Cost	Running P/L
148	28.00	0.00	(30.35)	(2.35)
149	29.00	0.00	(30.35)	(1.35)
150	30.00	0.00	(30.35)	(0.35)
151	31.00	0.00	(30.35)	0.65
152	32.00	(1.00)	(30.35)	0.65
153	33.00	(2.00)	(30.35)	0.65
154	34.00	(3.00)	(30.35)	0.65

Enhanced Buy Write

Payoff Diagram



Enhanced Buy Write

Summary

- **This approach is leveraged through using a deep in the money call option in place of the SPY exchange traded fund**
- **The short term dollar profit and loss through this approach matches the performance of the first strategy**
- **Be aware using this approach does not results in the holder of the in the money call receiving any dividends paid to holders of the SPY ETF**

Summary

Review

- **There are a wide variety of exchange traded funds that have listed option markets**
- **Be aware of any potential pitfalls that may be associated with leverage and inverse exchange traded funds**
- **Strategies that have worked well in the past may be replicated with options on ETFs**

Summary

Resources / Contact

www.cboe.com/weeklys

www.cboe.com/bxm

www.cboe.com/bxy

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