



# Market Psychology

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# Market Psychology – what is it?

- The consensus of fear and greed among market participants – often referred to as “market sentiment”.
- Also, the measure of fear and greed personally experienced by individual market participants.
- Always contrarian at market extremes

# Measuring Market Psychology

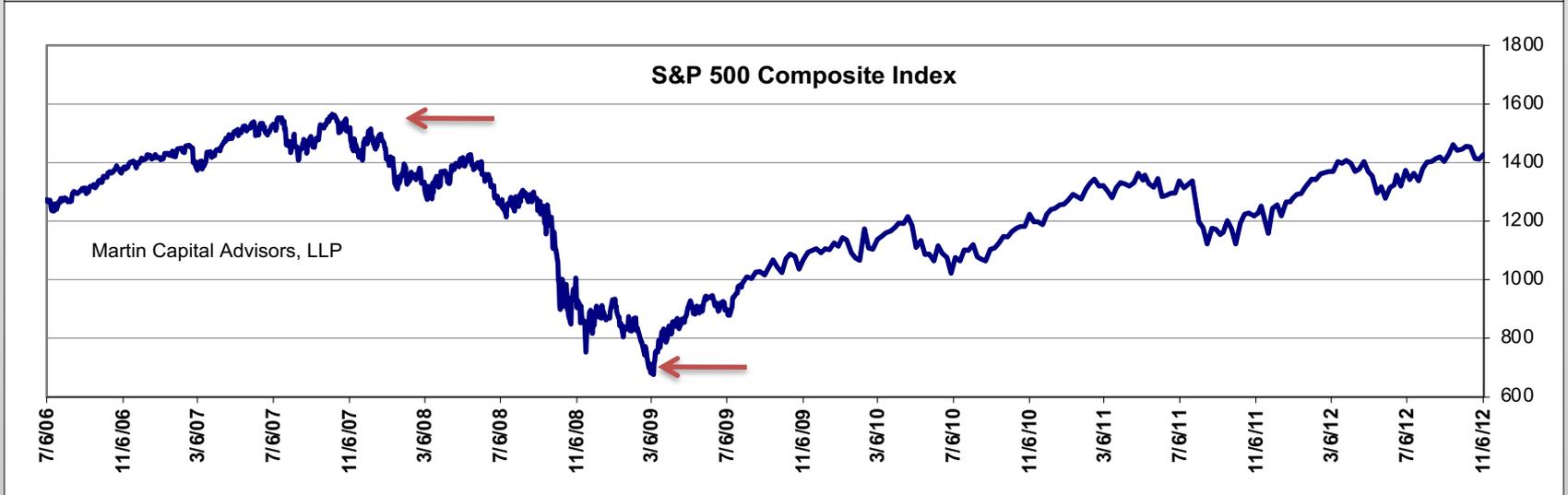
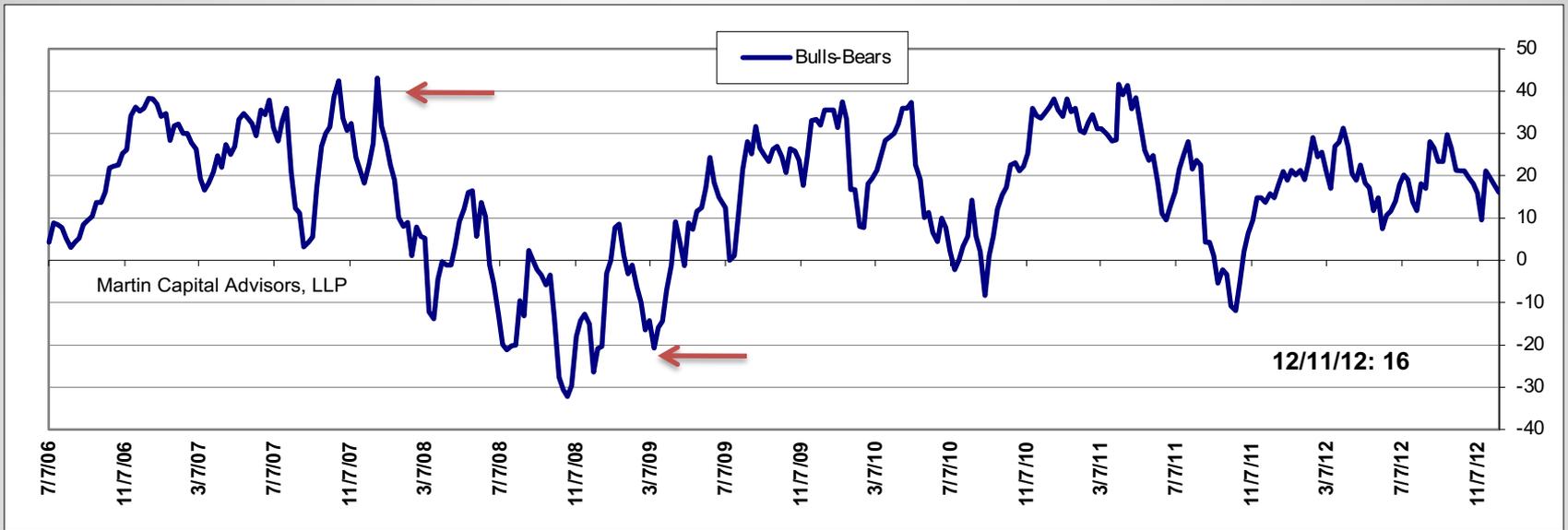
- Surveys
- Option Put/Call Ratios
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- Mutual Fund Flows
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# Surveys

**AAll, Investors Intelligence, Market Vane, Consensus Index and many others**

- **Important at market extremes, otherwise neutral**
- **Extremely bearish readings occur at major market bottoms**
- **Extremely bullish readings occur at major market tops**

# Investors Intelligence and S&P 500



# Put/Call Ratios

- **Generally, the greater the ratio, the greater the fear, and vice versa.**
- **As with other sentiment indicators, put/call ratios are most useful at extremes.**
- **A number of factors should be considered in the evaluation of put/call ratios, such as daily volume, open interest, relative pricing between puts and calls (skew), historical volume, trades to open versus trades to close, futures hedging, and strike price values and volumes.**

# CBOE Total Put/Call Ratio

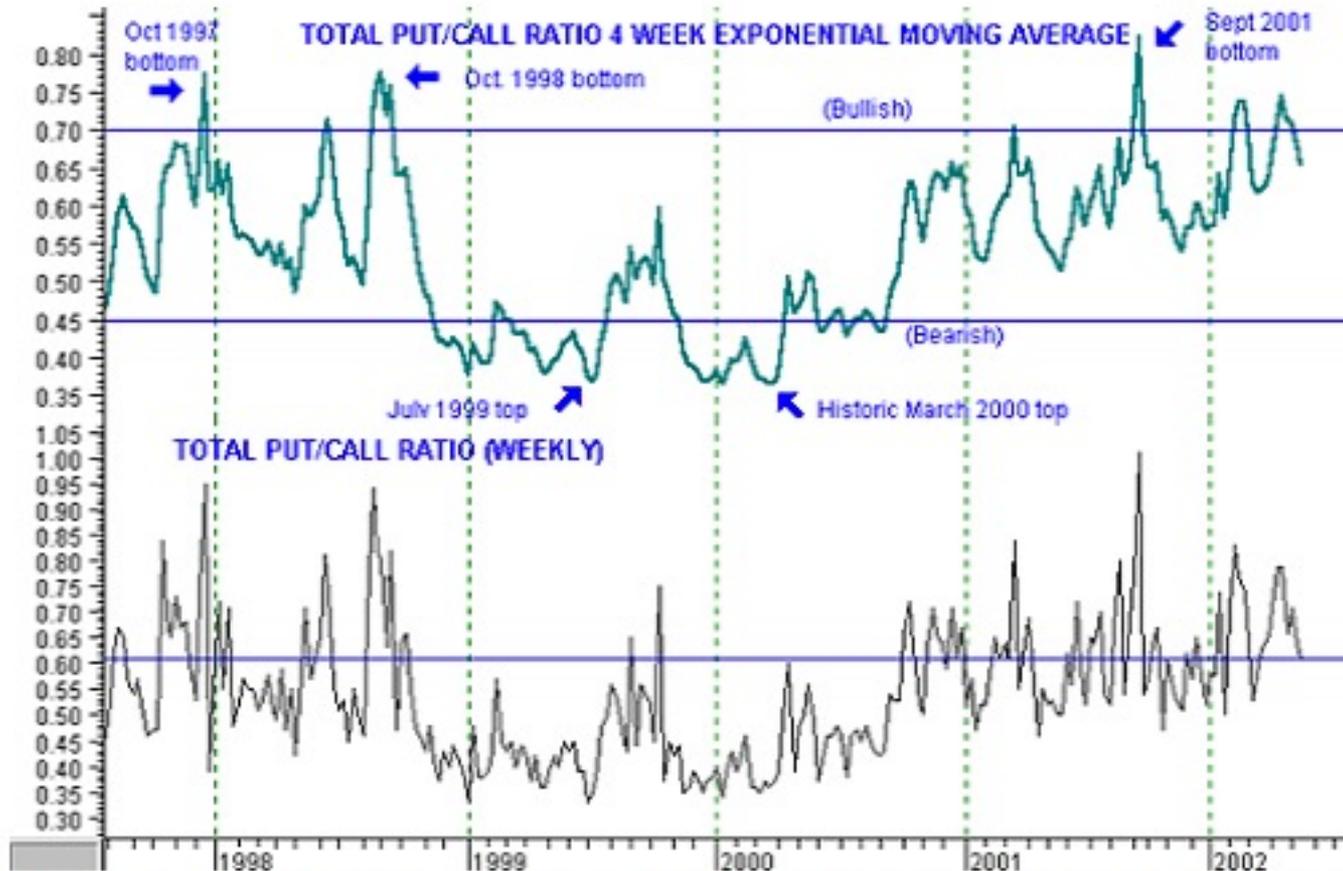
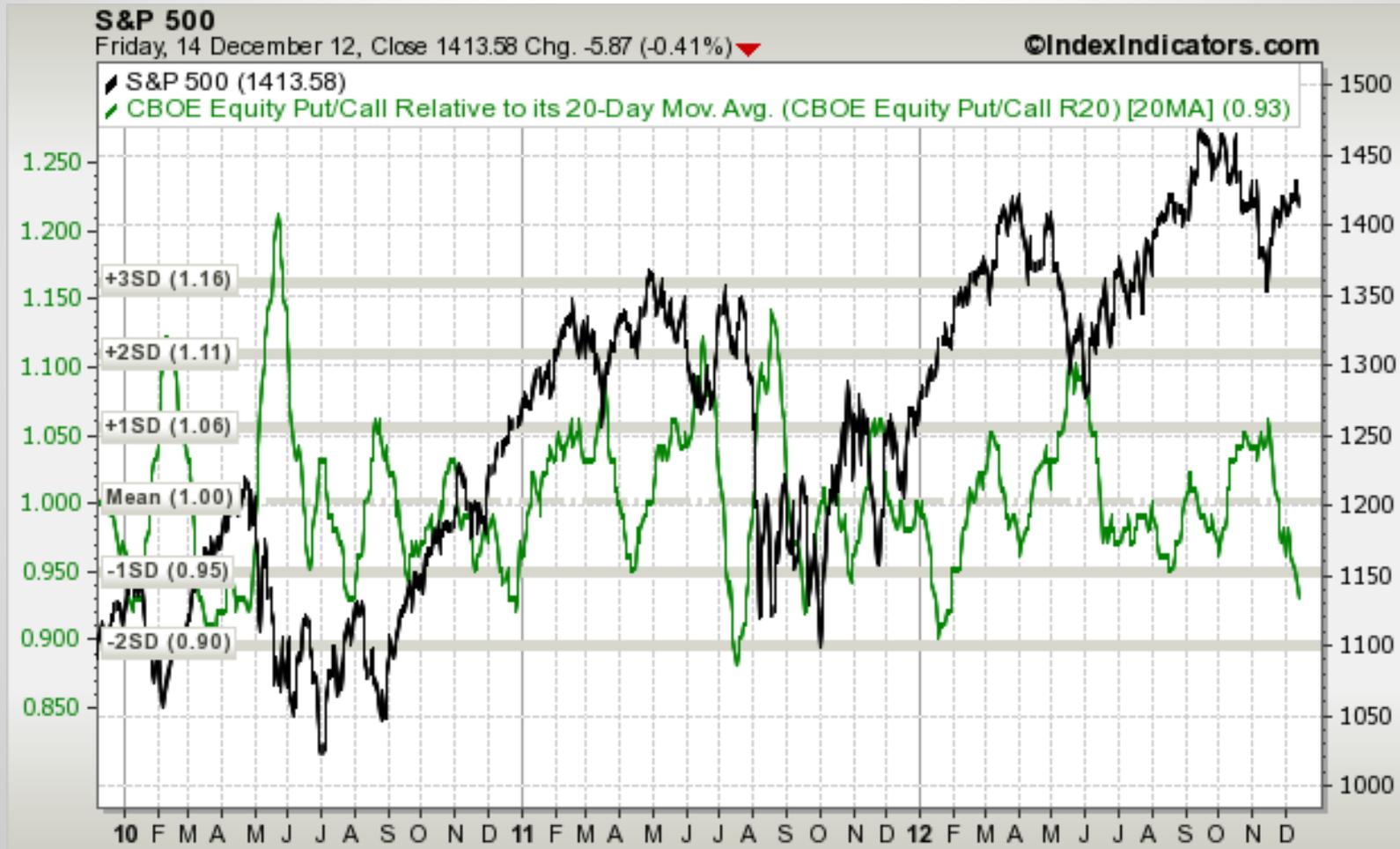


Figure 2: Created using Metastock Professional. Data Source: Pinnacle IDX

# Recent CBOE Equity Put/Call Ratios



# Premium Skews

- You can gauge market sentiment of an index or a stock by looking at the cost of puts and calls, i.e., the premium for puts and calls for the equivalent relative strike prices.

## Simple Supply and Demand:

- If premiums on puts are high, market anticipates a selloff.
- If premiums on calls are high, market anticipates a rally.
- The market is always eventually wrong at extremes.

# Call Options March 2013

QQQ current price: \$64.69

# Put Options March 2013

Strike	Symbol	Last	Chg	Bid	Ask
57.00	QQQ130328C00057000	9.00	0.00	7.92	8.07
58.00	QQQ130316C00058000	6.96	↓1.29	6.99	7.12
58.00	QQQ130328C00058000	8.17	0.00	7.05	7.22
59.00	QQQ130316C00059000	6.30	↓1.11	6.14	6.28
59.00	QQQ130328C00059000	6.39	↓0.88	6.25	6.39
60.00	QQQ130316C00060000	5.36	↓0.39	5.34	5.48
60.00	QQQ130328C00060000	5.65	↓0.64	5.46	5.60
61.00	QQQ130316C00061000	4.76	↓0.17	4.59	4.71
61.00	QQQ130328C00061000	4.84	↓0.65	4.76	4.84
62.00	QQQ130316C00062000	4.00	↓0.22	3.90	4.00
62.00	QQQ130328C00062000	4.14	↓0.59	4.03	4.15
63.00	QQQ130316C00063000	3.35	↓0.20	3.27	3.33
63.00	QQQ130328C00063000	3.74	0.00	3.41	3.48
64.00	QQQ130316C00064000	2.66	↓0.38	2.67	2.72
64.00	QQQ130328C00064000	2.88	↓0.20	2.82	2.88
65.00	QQQ130316C00065000	2.15	↓0.30	2.13	2.19
65.00	QQQ130328C00065000	2.24	↓0.26	2.28	2.34
66.00	QQQ130316C00066000	1.68	↓0.28	1.66	1.71
66.00	QQQ130328C00066000	1.82	↓0.16	1.81	1.86
67.00	QQQ130316C00067000	1.24	↓0.21	1.27	1.31
67.00	QQQ130328C00067000	1.41	↓0.24	1.40	1.45
68.00	QQQ130316C00068000	0.94	↓0.16	0.95	0.99
68.00	QQQ130328C00068000	1.10	↓0.35	1.06	1.11
69.00	QQQ130316C00069000	0.69	↓0.08	0.69	0.72
69.00	QQQ130328C00069000	0.82	↓0.23	0.78	0.82
70.00	QQQ130316C00070000	0.50	↓0.03	0.48	0.52
70.00	QQQ130328C00070000	0.60	↓0.16	0.57	0.61
71.00	QQQ130316C00071000	0.33	↓0.14	0.33	0.36
71.00	QQQ130328C00071000	0.53	0.00	0.40	0.44
72.00	QQQ130316C00072000	0.23	↓0.09	0.23	0.25
72.00	QQQ130328C00072000	0.29	↓0.07	0.28	0.32

The cost is \$1.37 for the 60 puts that are \$4.69 out of the money compared to a cost of \$0.82 for the 69 calls that are \$4.31 out of the money. Puts are much more expensive than calls.



Current Price



Strike	Symbol	Last	Chg	Bid	Ask
57.00	QQQ130316P00057000	0.67	↑0.26	0.62	0.66
57.00	QQQ130328P00057000	0.73	↑0.18	0.73	0.77
58.00	QQQ130316P00058000	0.77	↑0.18	0.76	0.80
58.00	QQQ130328P00058000	0.93	↑0.28	0.89	0.93
59.00	QQQ130316P00059000	0.97	↑0.29	0.94	0.98
59.00	QQQ130328P00059000	1.13	↑0.34	1.08	1.12
60.00	QQQ130316P00060000	1.22	↑0.17	1.14	1.19
60.00	QQQ130328P00060000	1.37	↑0.16	1.30	1.35
61.00	QQQ130316P00061000	1.42	↑0.21	1.39	1.44
61.00	QQQ130328P00061000	1.17	0.00	1.56	1.61
62.00	QQQ130316P00062000	1.75	↑0.27	1.69	1.74
62.00	QQQ130328P00062000	1.89	↑0.14	1.87	1.91
63.00	QQQ130316P00063000	2.15	↑0.49	2.04	2.09
63.00	QQQ130328P00063000	1.70	0.00	2.23	2.27
64.00	QQQ130316P00064000	2.50	↑0.45	2.44	2.50
64.00	QQQ130328P00064000	2.68	↑0.30	2.64	2.68
65.00	QQQ130316P00065000	2.90	↑0.17	2.92	2.98
65.00	QQQ130328P00065000	3.05	↑0.22	3.10	3.15
66.00	QQQ130316P00066000	3.58	↑0.50	3.46	3.53
66.00	QQQ130328P00066000	3.73	↑0.71	3.62	3.70
67.00	QQQ130316P00067000	4.01	↑0.26	4.05	4.17
67.00	QQQ130328P00067000	4.17	0.00	4.15	4.35
68.00	QQQ130316P00068000	4.83	↑0.64	4.75	4.85
68.00	QQQ130328P00068000	4.37	0.00	4.86	5.96
69.00	QQQ130316P00069000	4.52	0.00	5.49	5.60
69.00	QQQ130328P00069000	5.74	↑0.66	5.61	5.72
70.00	QQQ130316P00070000	6.50	↑0.53	6.27	6.41
70.00	QQQ130328P00070000	5.13	0.00	6.36	6.53
71.00	QQQ130316P00071000	6.98	0.00	7.12	7.26
71.00	QQQ130328P00071000	8.13	0.00	6.66	7.89
72.00	QQQ130316P00072000	7.46	0.00	7.35	8.92
72.00	QQQ130328P00072000	7.10	0.00	8.05	8.23

# Volatility Index

- **VIX – designed to show expected market volatility through a formula measuring prices on S&P 500 index options.**
- **As with other indicators of market psychology, the VIX is most useful at market extremes.**
- **When Put/Call ratios spike upward, the VIX spikes, too.**

**\$SPX** S&P 500 Large Cap Index INDX

© StockCharts.com

13-Dec-2012 2:52pm

Open 1418.07 High 1438.59 Low 1415.64 Last 1418.75 Volume 7.7B Chg +0.68 (+0.05%) ▲

— \$SPX (Weekly) 1418.75



**\$CPCE** CBOE Options Equity Put/Call Ratio (EOD) INDX

© StockCharts.com

11-Dec-2012

Open 0.62 High 0.62 Low 0.59 Close 0.59 Chg -0.05 (-7.81%) ▼

— \$CPCE (Weekly) 0.59

▒ Volume undef



**\$VIX** Volatility Index - New Methodology INDX

© StockCharts.com

12-Dec-2012

Open 16.47 High 16.47 Low 15.41 Close 15.95 Chg +0.05 (+0.31%) ▲

— \$VIX (Weekly) 15.95

▒ Volume undef



# Options on the VIX

- You can also look at the options on the VIX specifically.
- Put/call ratios and skews reflect the opposite sentiment of other options, e.g., long calls on the VIX are the equivalent of long puts for other options.

# VIX Options for March 2013

## Closed at 17.00 on Friday

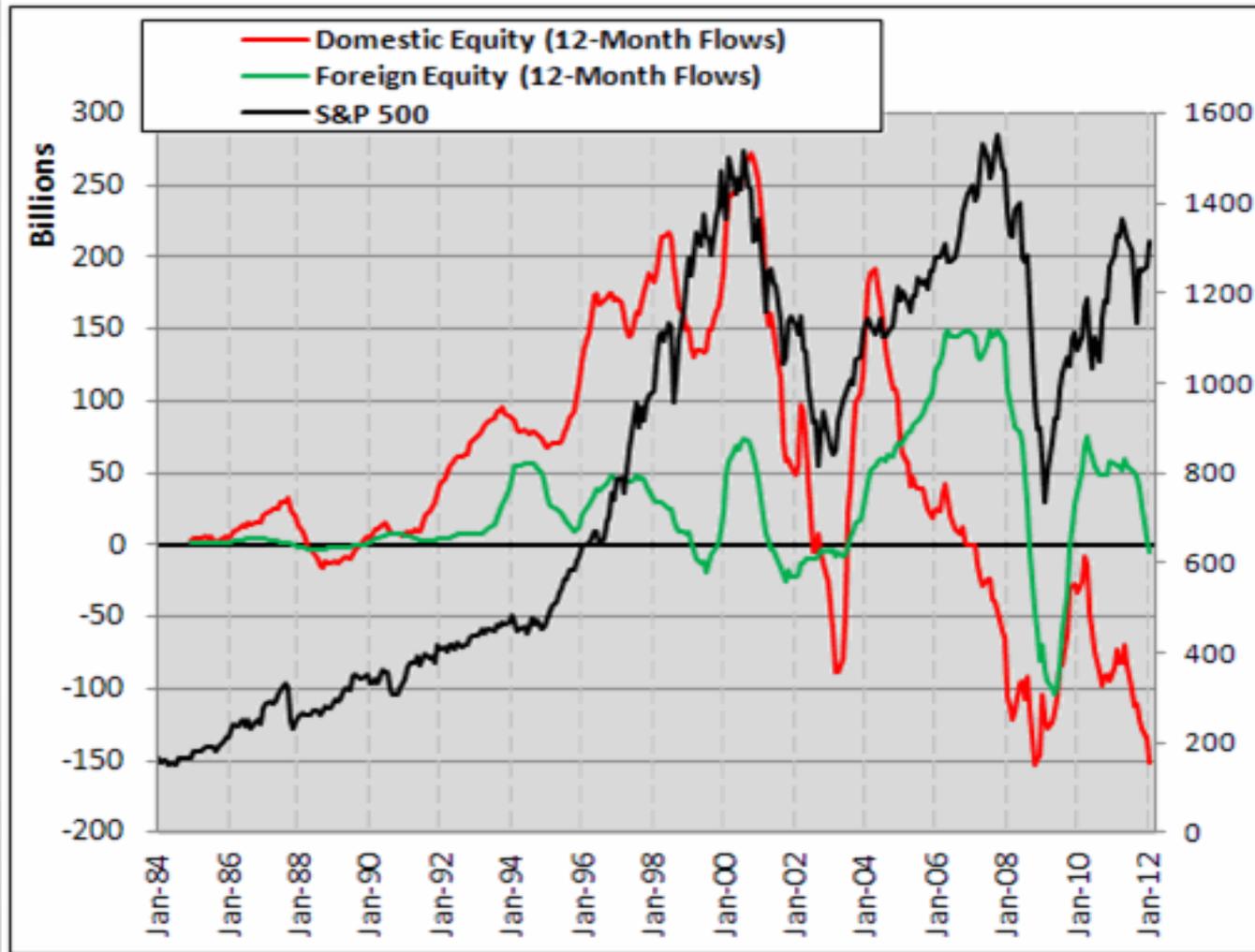
### Call Options

Call Options		Expire at close Tuesday, March 19, 2013					
Strike	Symbol	Last	Chg	Bid	Ask	Vol	Open Int
10.00	VIX130320C00010000	9.70	0.00	9.10	9.20	3	19
13.00	VIX130320C00013000	6.39	0.00	6.20	6.40	1	29
14.00	VIX130320C00014000	5.70	0.00	5.30	5.60	17	44
15.00	VIX130320C00015000	4.60	0.00	4.60	4.80	3	1,351
16.00	VIX130320C00016000	4.00	0.00	4.00	4.20	1	96
17.00	VIX130320C00017000	3.80	0.00	3.40	3.70	7	4,182
18.00	VIX130320C00018000	2.95	0.00	3.00	3.30	5	6,522
19.00	VIX130320C00019000	2.75	0.00	2.65	2.85	1	6,030
20.00	VIX130320C00020000	2.40	0.00	2.35	2.55	108	8,050
21.00	VIX130320C00021000	1.85	0.00	2.05	2.30	701	20,129

### Put Options

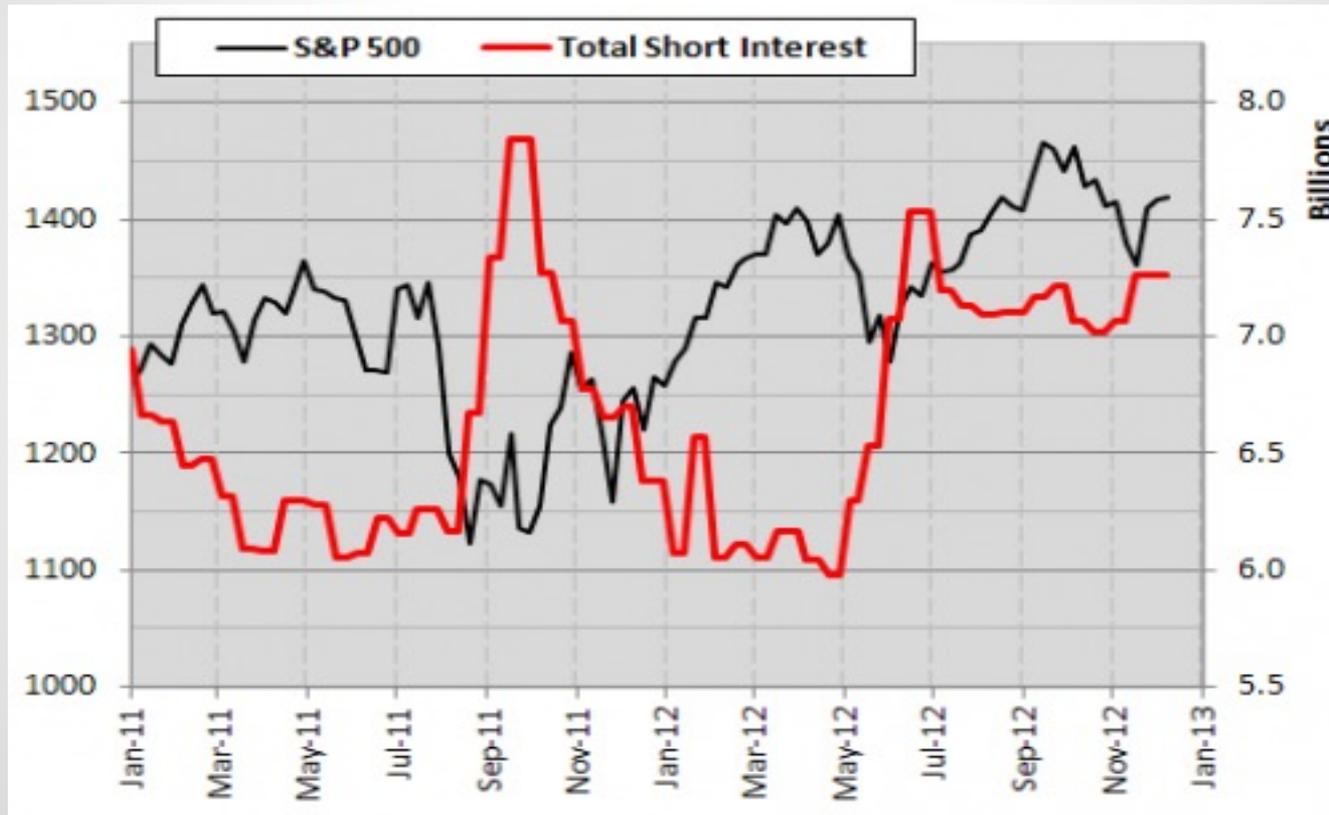
Put Options		Expire at close Tuesday, March 19, 2013					
Strike	Symbol	Last	Chg	Bid	Ask	Vol	Open Int
13.00	VIX130320P00013000	0.13	0.00	N/A	0.15	20	60
14.00	VIX130320P00014000	0.30	0.00	0.15	0.30	150	1,312
15.00	VIX130320P00015000	0.50	↑0.03	0.45	0.60	7	32,935
16.00	VIX130320P00016000	0.96	0.00	0.80	0.95	50	28,593
17.00	VIX130320P00017000	1.35	↓0.15	1.25	1.45	10	7,492
18.00	VIX130320P00018000	1.92	↑0.02	1.80	2.00	801	34,040
19.00	VIX130320P00019000	2.55	↑0.03	2.45	2.60	16	20,331
20.00	VIX130320P00020000	3.24	↓0.16	3.10	3.30	400	8,458
21.00	VIX130320P00021000	4.30	0.00	3.80	4.00	400	16,563

# Mutual Fund Flows



# Short Interest

Measures short positions in stocks and indexes



# Insider Trading

- Available from a variety of sources
- Often difficult to interpret
- More valuable for individual securities than market in general
- Only non-contrarian sentiment indicator

# Futures

- Can be a useful sentiment indicator
- Affect index options statistics

# Market Performance

**Markets are driven by buying and selling. Although stocks eventually go higher, in the short-term they often over-react to both positive and negative information.**

# Market Valuation

**Always expensive at long-term major market tops  
and cheap at bottoms**

# Anecdotal Evidence

- Gauging media sentiment – not easy most of the time, but it is fairly apparent at market extremes.
- When most people seem adamant about the direction of the market, it's a good time to think about taking the other side of their trade.
- When you personally feel very worried about your stock market position, you're probably on the verge of being right, if you can stay with it.

# Market Cycles and Market Psychology

- *Bull Markets are born in pessimism, grow on skepticism, mature on optimism, and die of euphoria – Sir John Templeton*
- *Bull markets climb a wall of worry – market maxim*
- *Be fearful when others are greedy, and greedy when others are fearful – Warren Buffett*

# Where are we now?



# Contrarian Considerations

- Timing the market is always a game of probabilities.
- The strange world of bubbles: *The market can remain irrational longer than you can remain solvent* – attributed to John Maynard Keynes
- Be aware of market psychology and what it tells you about risk, but focus on investing for the long-term.
- The stock market is biased to the upside, with about a 10% annualized total return since 1926.



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