

Technical Analysis

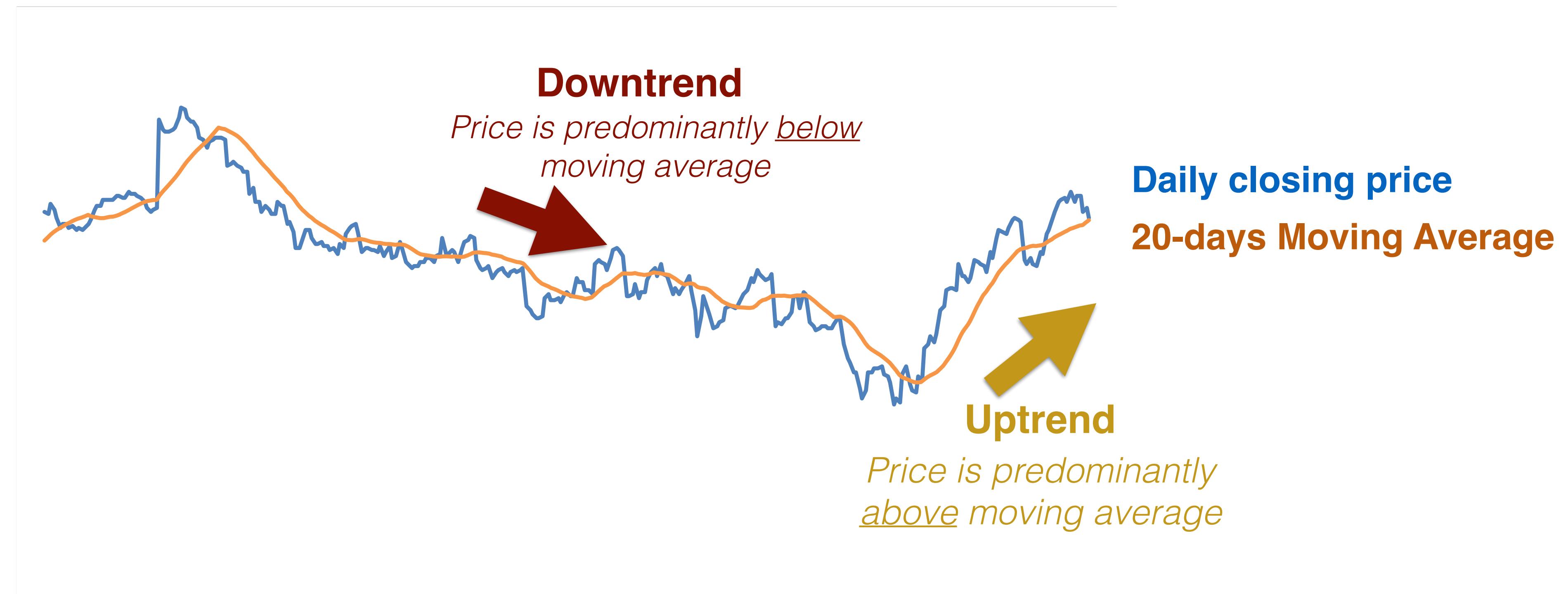
Technical Indicators

1. Price-based Indicators
2. Oscillators
3. Sentiment Indicators
4. Flow-of-Funds Indicators

Price-Based Indicators

Moving Average

Average of the closing price over n periods



Price-Based Indicators

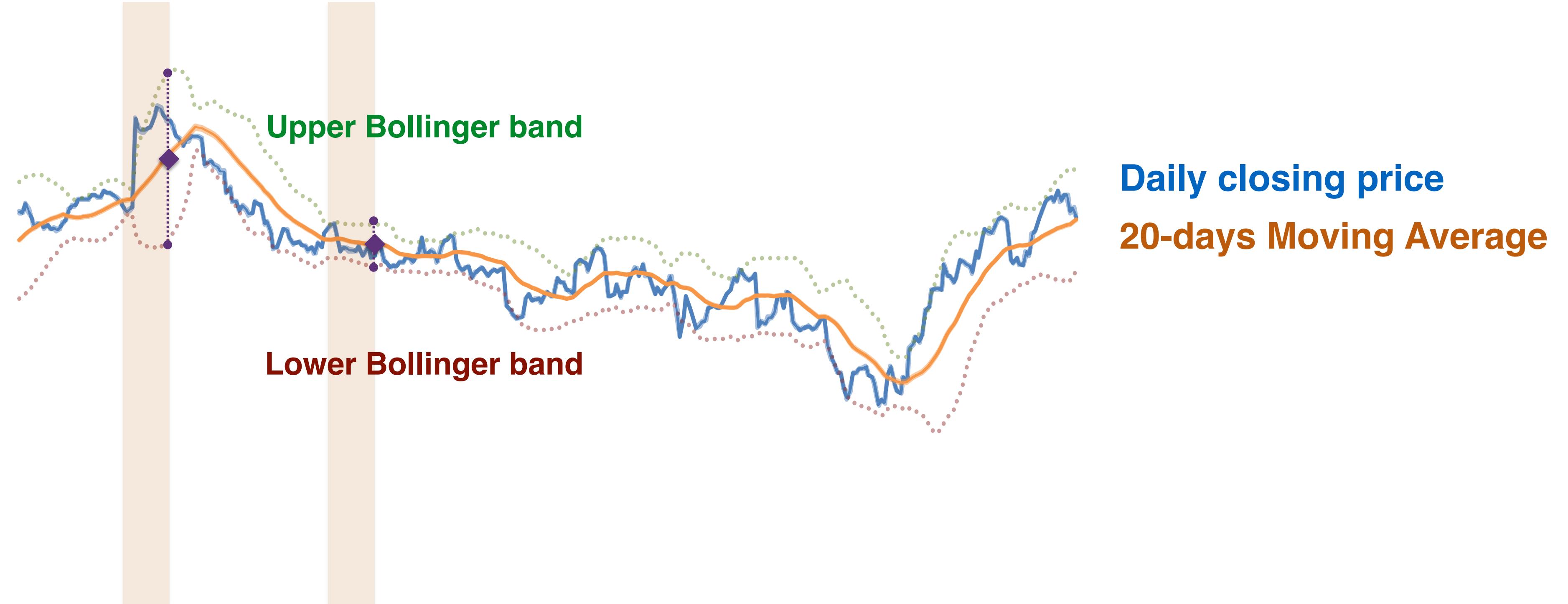
Moving Average

Average of the closing price over n periods



Price-Based Indicators

Bollinger Bands

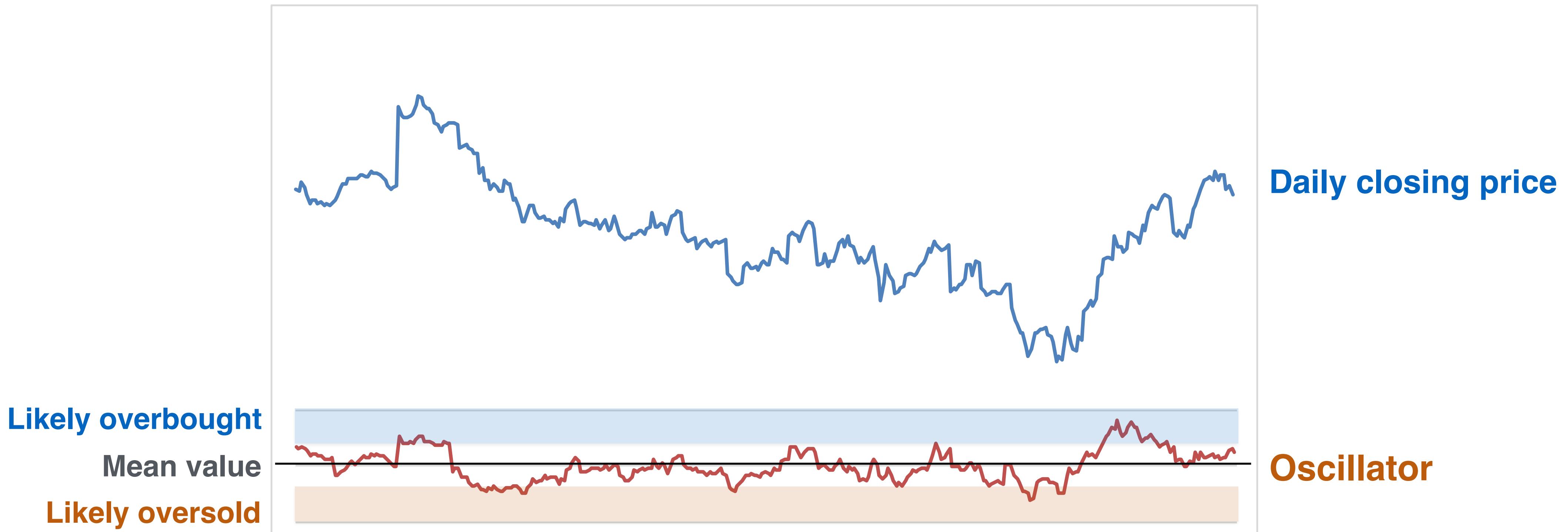


Price-Based Indicators

Bollinger Bands



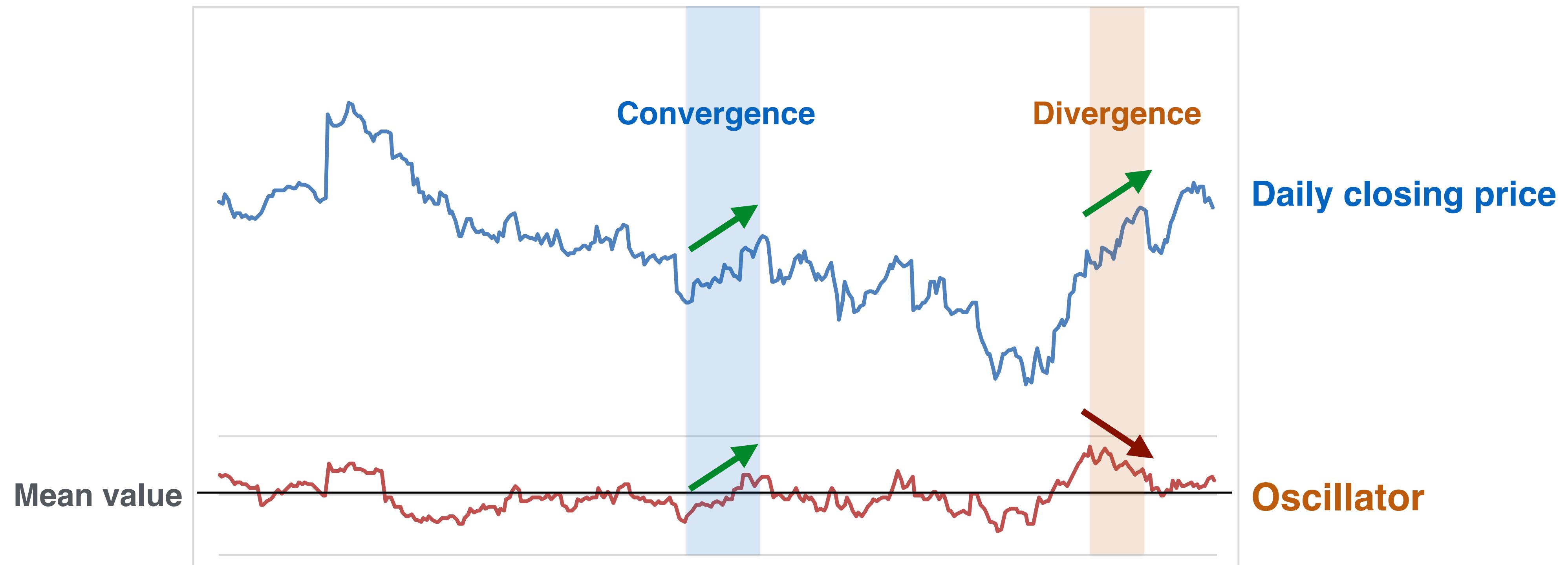
Oscillators



Technical Indicators

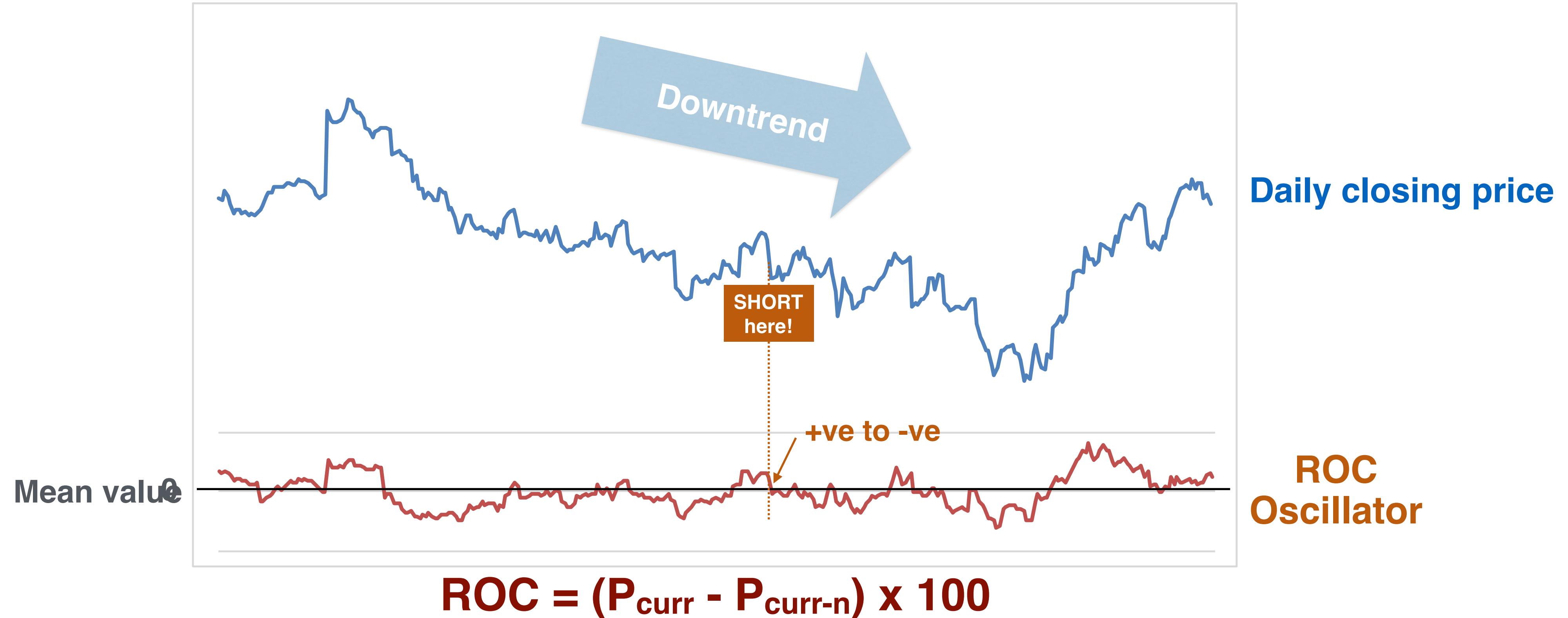
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Oscillators



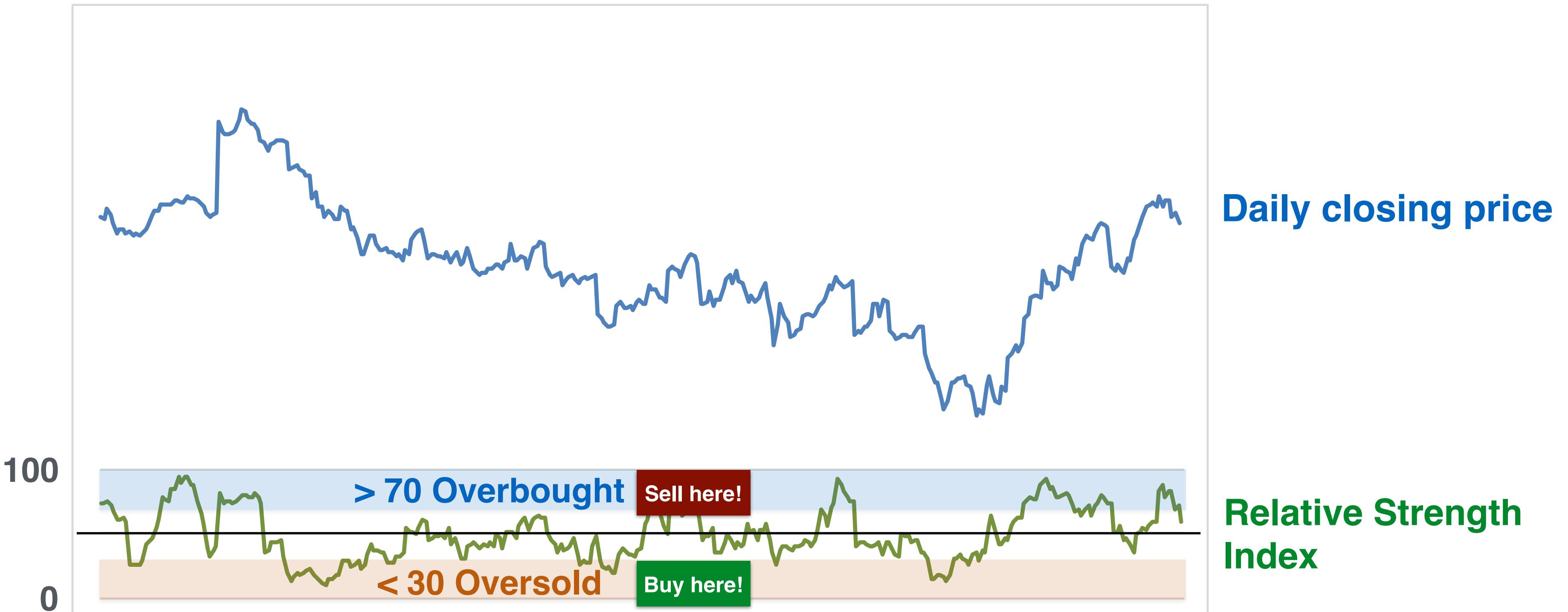
Oscillators

Rate of Change Oscillator



Oscillators

Relative Strength Index



$RS = \text{total price increases} / \text{total price decreases}$ (over n prior periods)

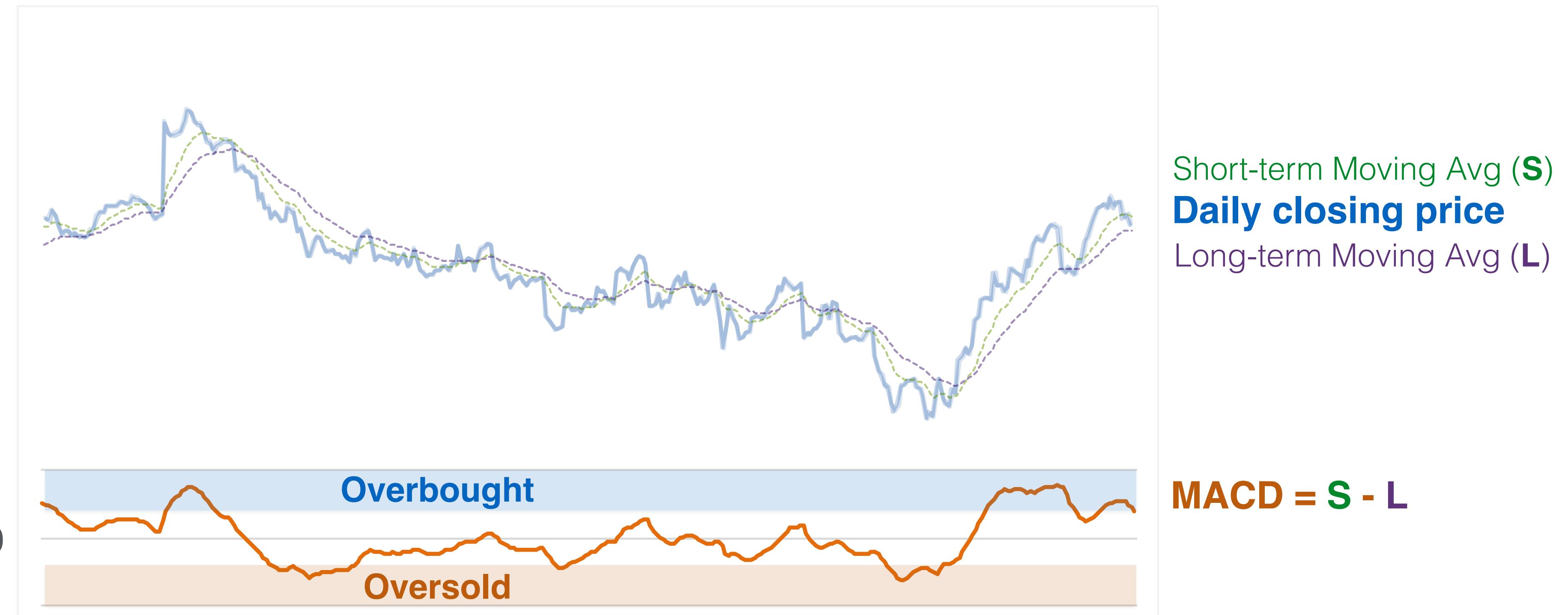
$$RSI = 100 - 100 / (1+RS) \quad (\text{scaled to oscillate between } 0 \text{ and } 100)$$

Technical Indicators

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Oscillators

Moving-Average Convergence/Divergence (MACD)

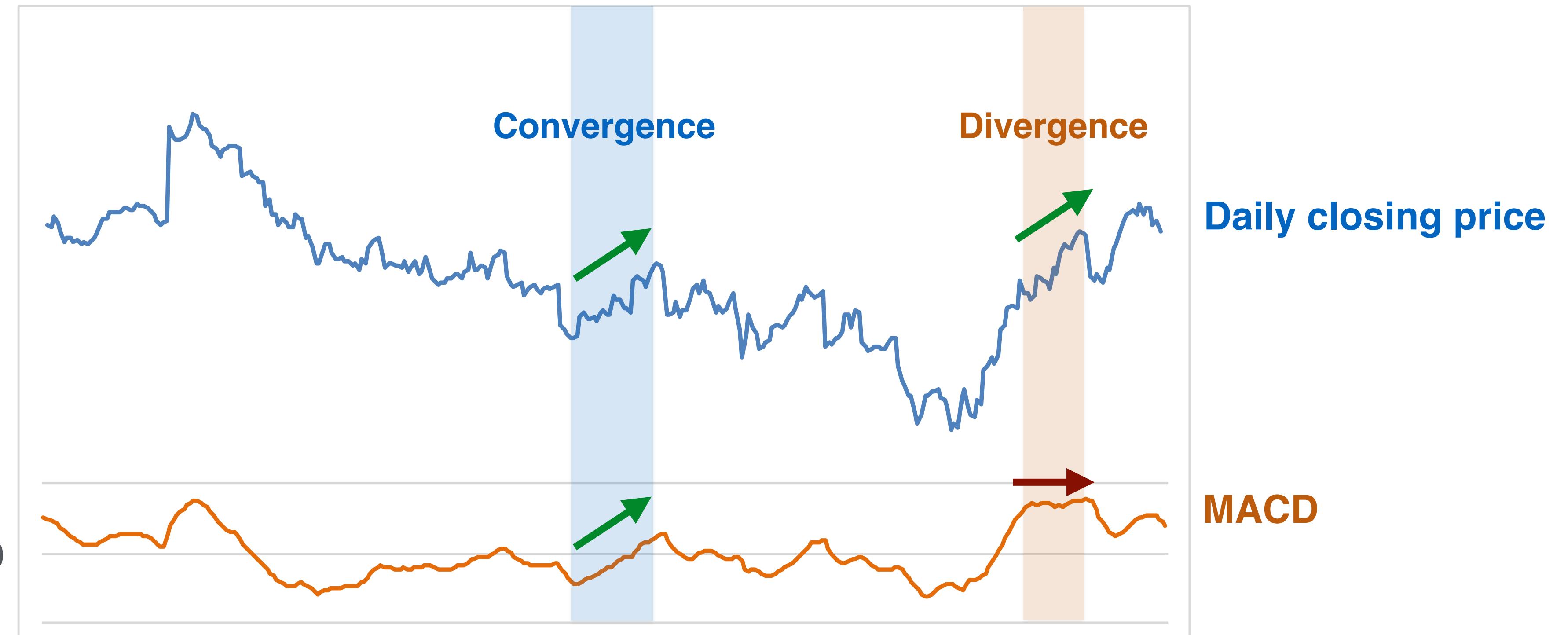


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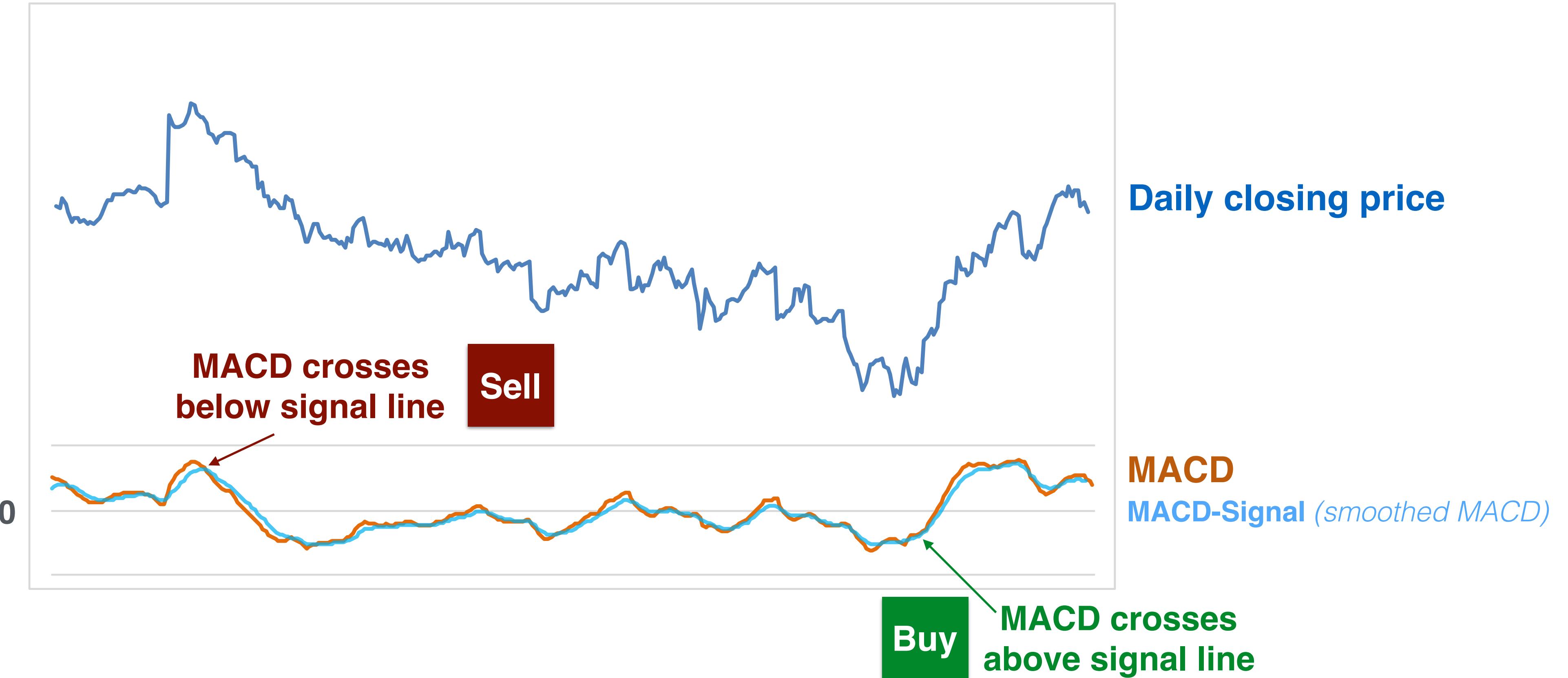
Oscillators

Moving-Average Convergence/Divergence (MACD)



Oscillators

Moving-Average Convergence/Divergence (MACD)



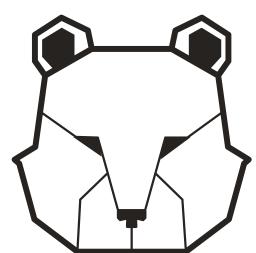
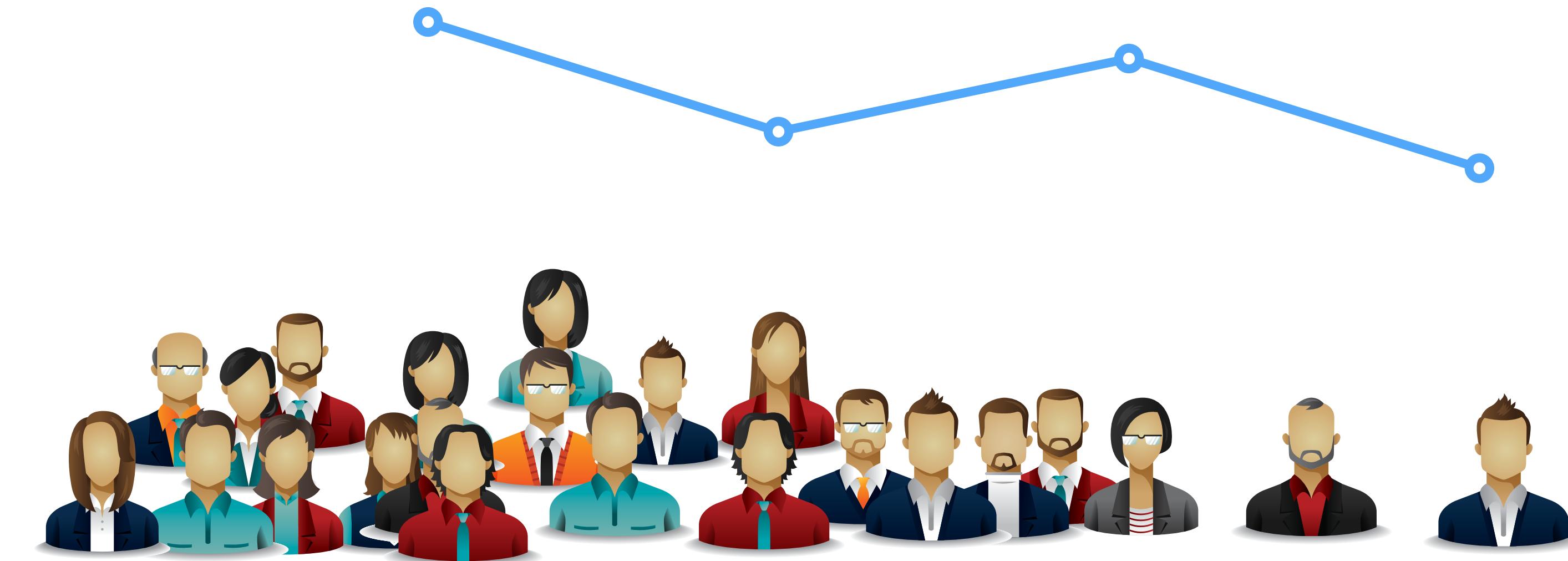
Oscillators

Stochastic

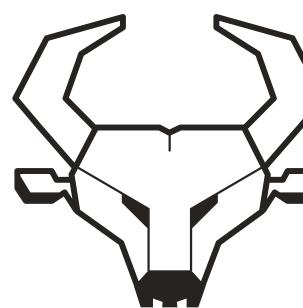
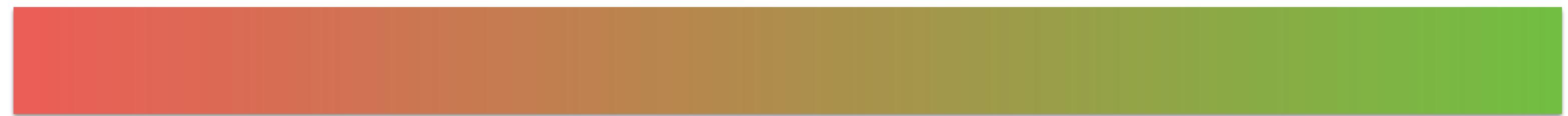


Sentiment Indicators

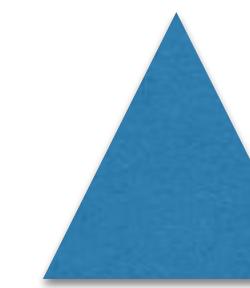
Opinion Polls



Bearish



Bullish



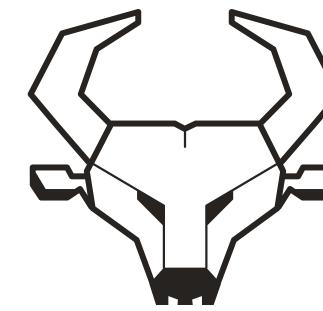
Sentiment Score

Technical Indicators

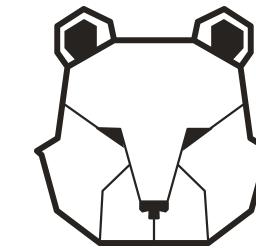
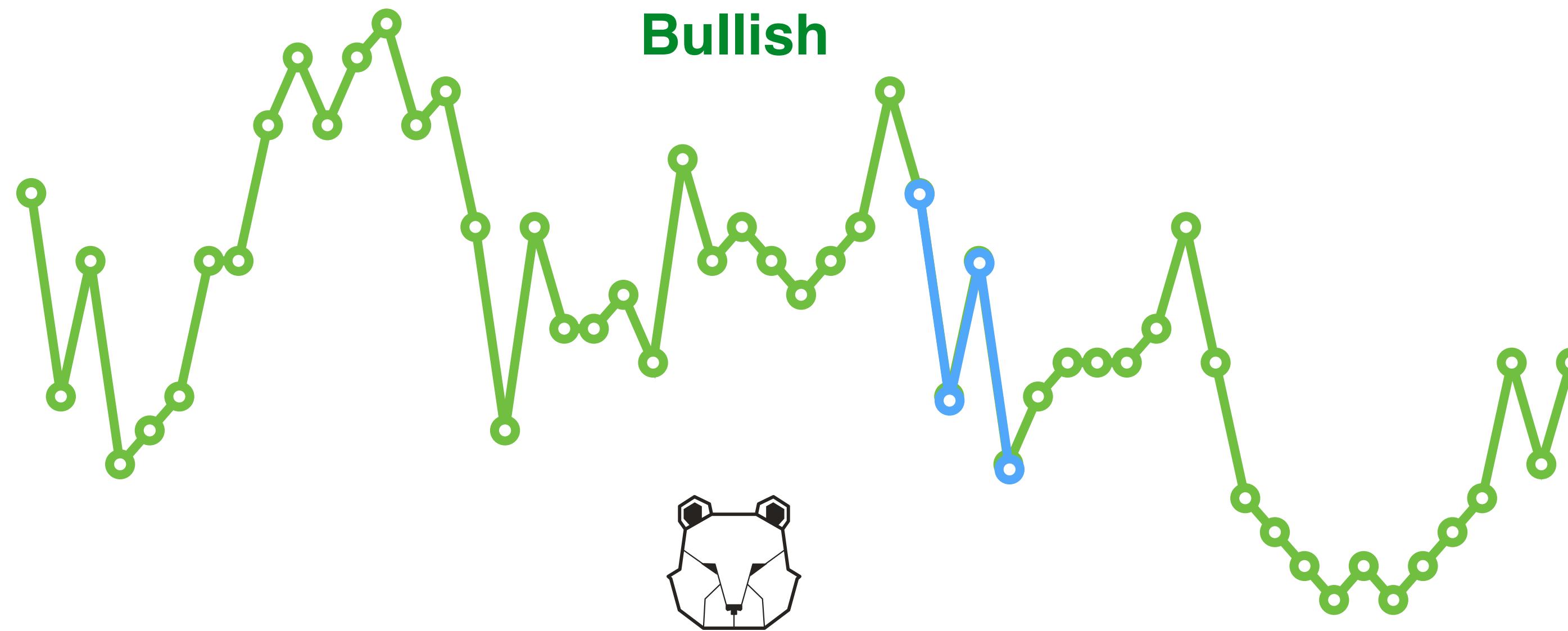
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Sentiment Indicators

Opinion Polls



Bullish



Bearish

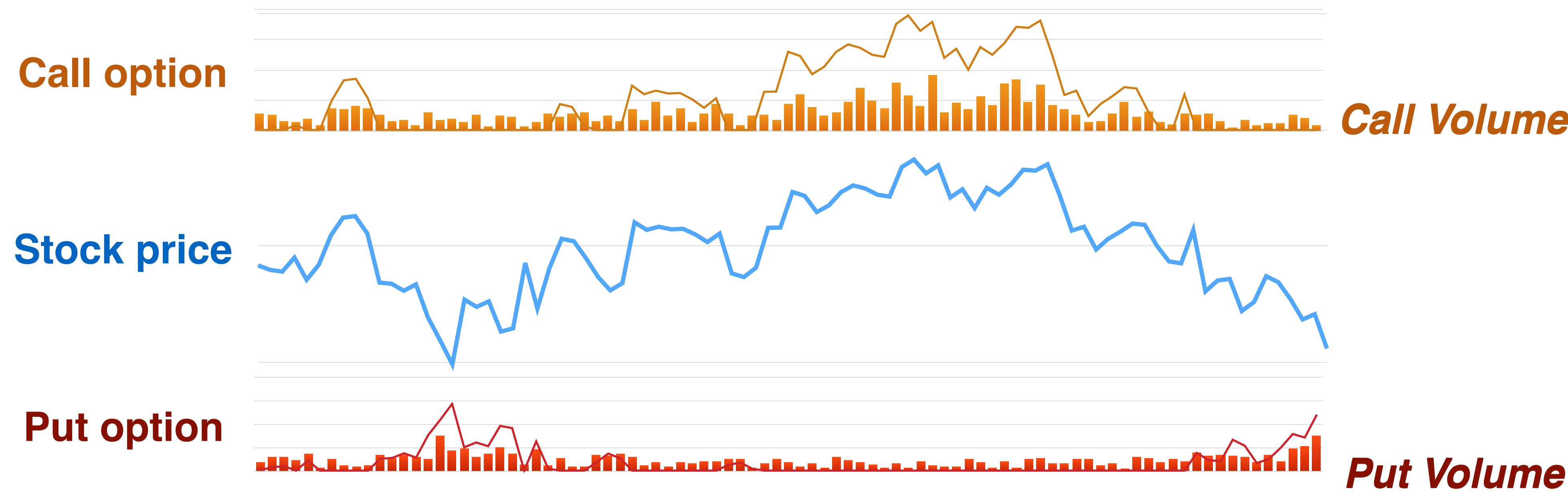
Technical Indicators



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Calculated Statistical Indices

Put/Call Ratio



Technical Indicators

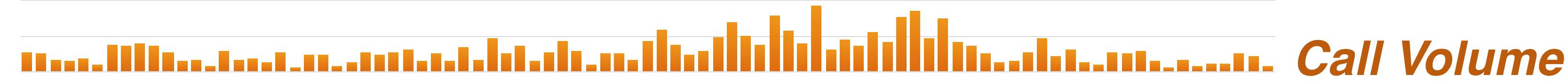


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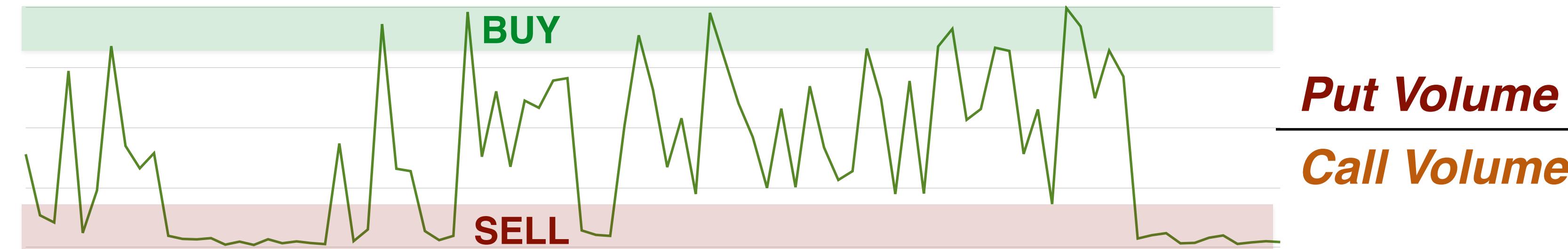
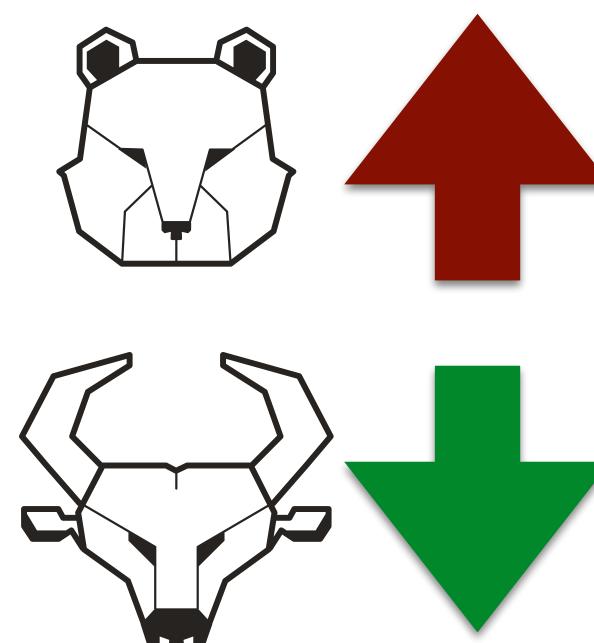
Calculated Statistical Indices

Put/Call Ratio

Call option

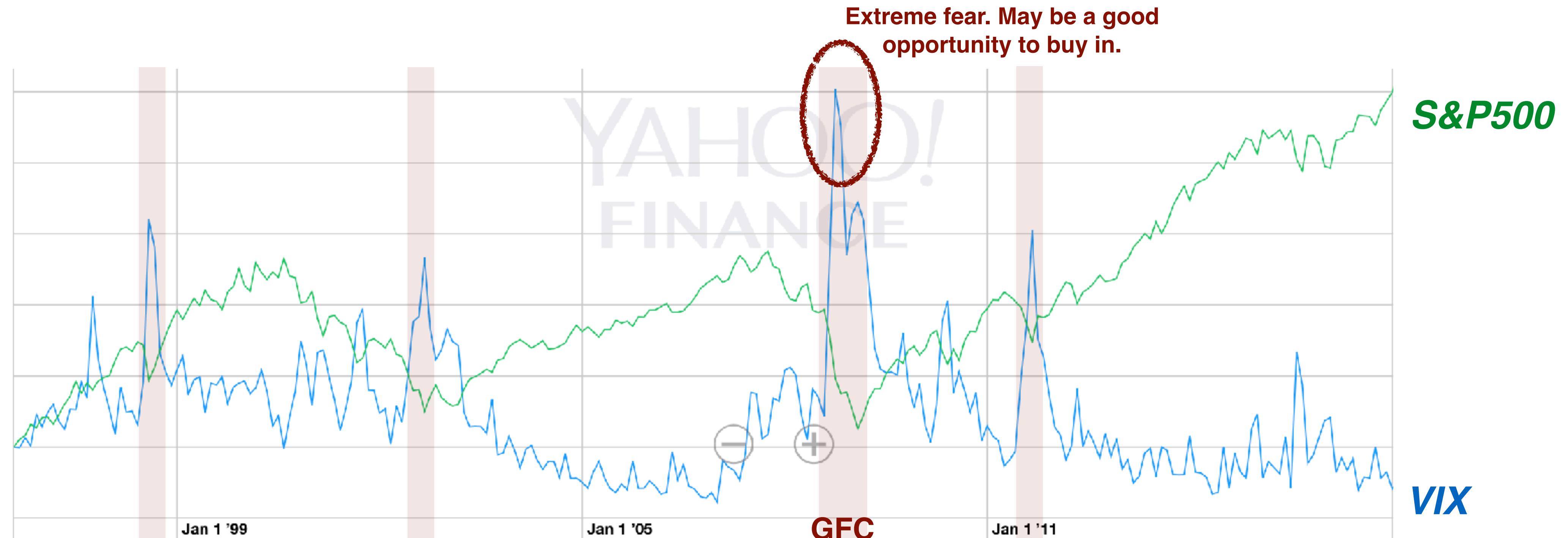


Put option



Calculated Statistical Indices

CBOE VIX



Source: Yahoo! Finance



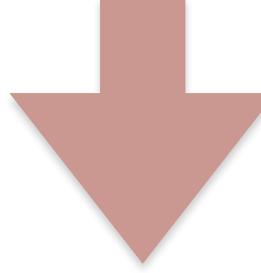
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Calculated Statistical Indices

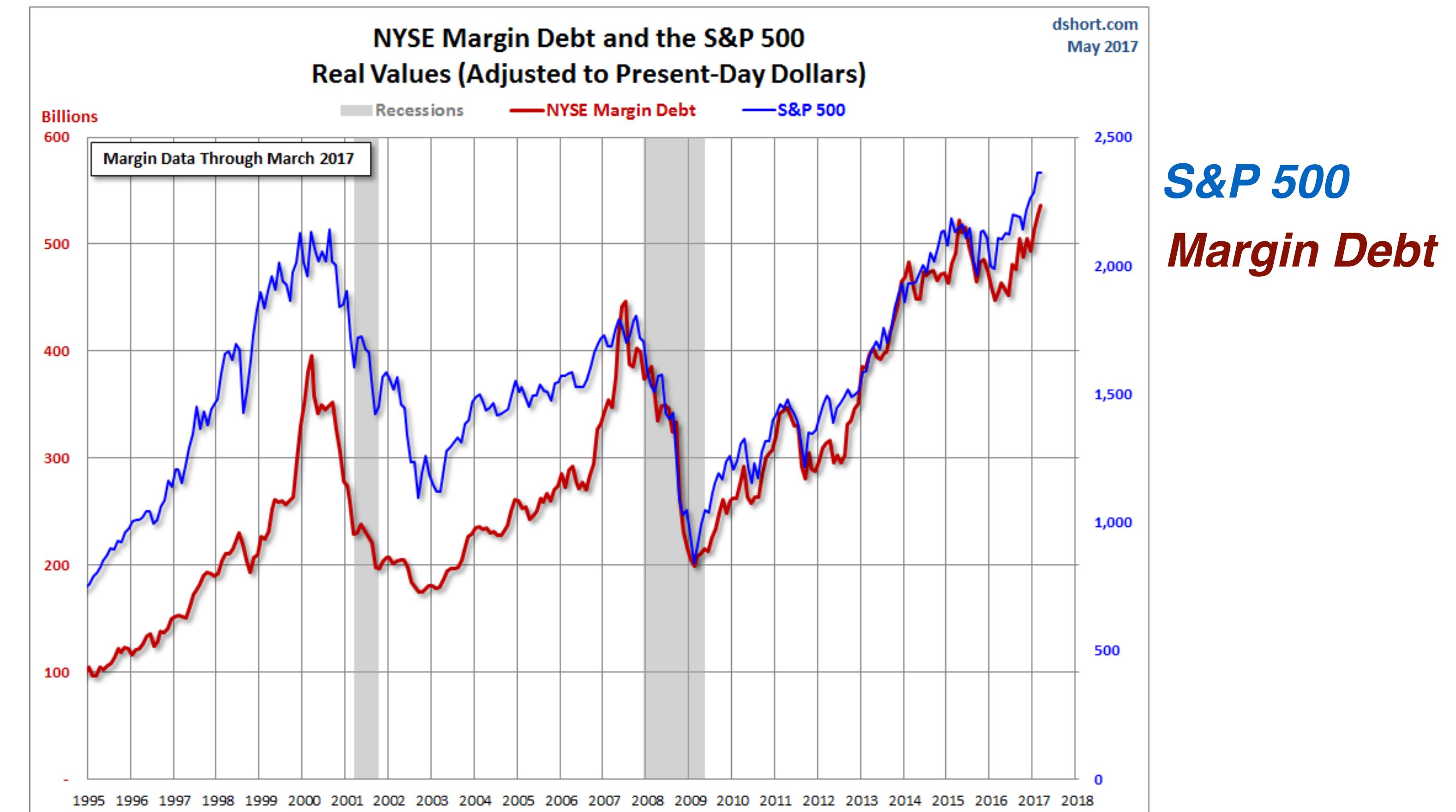
Margin Debt

Prices



*Debt hits
margin limit*

Debt

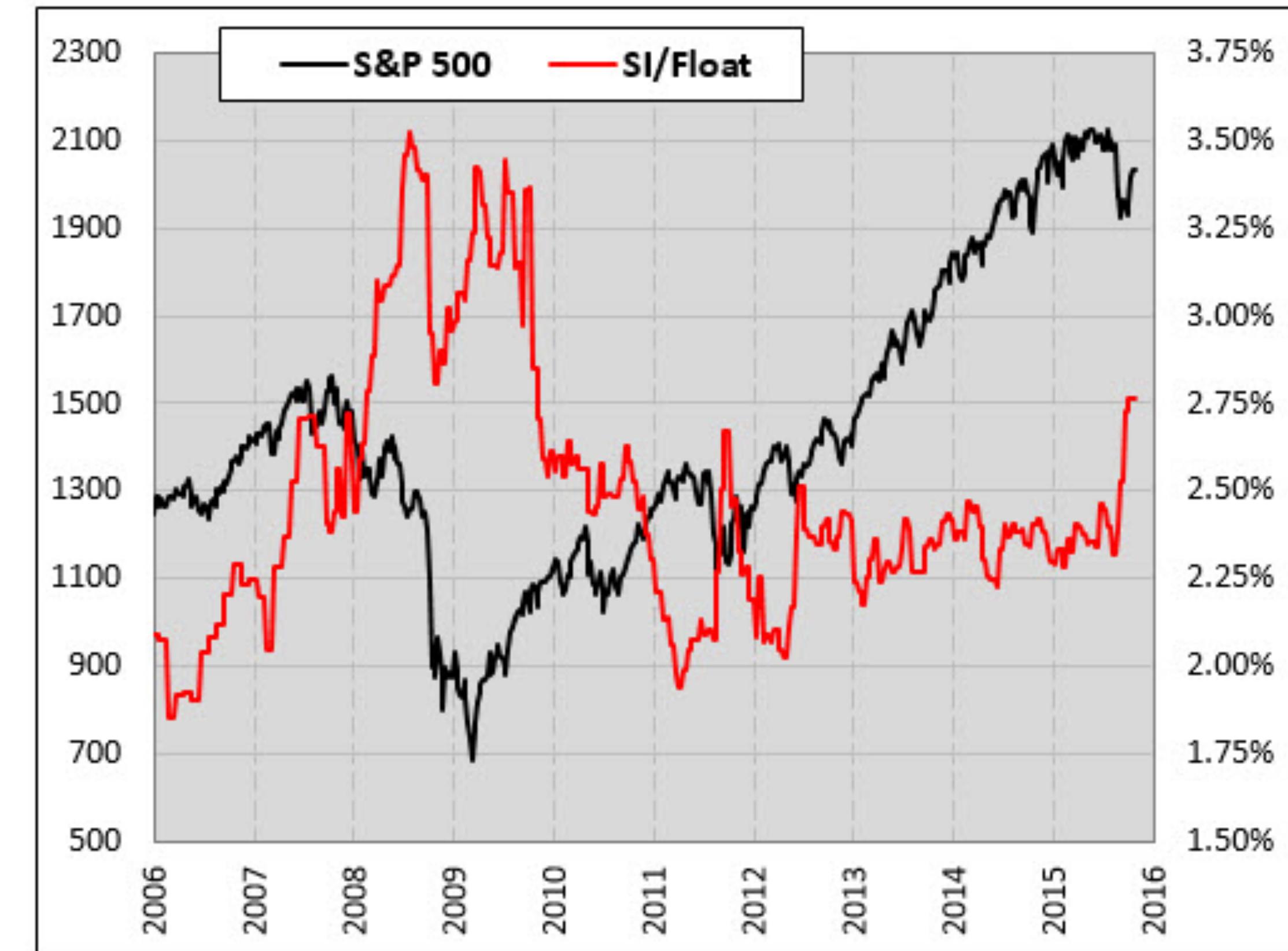


Source: dshort.com

Calculated Statistical Indices

Short Interest Ratio

Short Interest *No. of stocks sold short*
—
Avg Daily Trading Volume



Source: schaeffersresearch.com



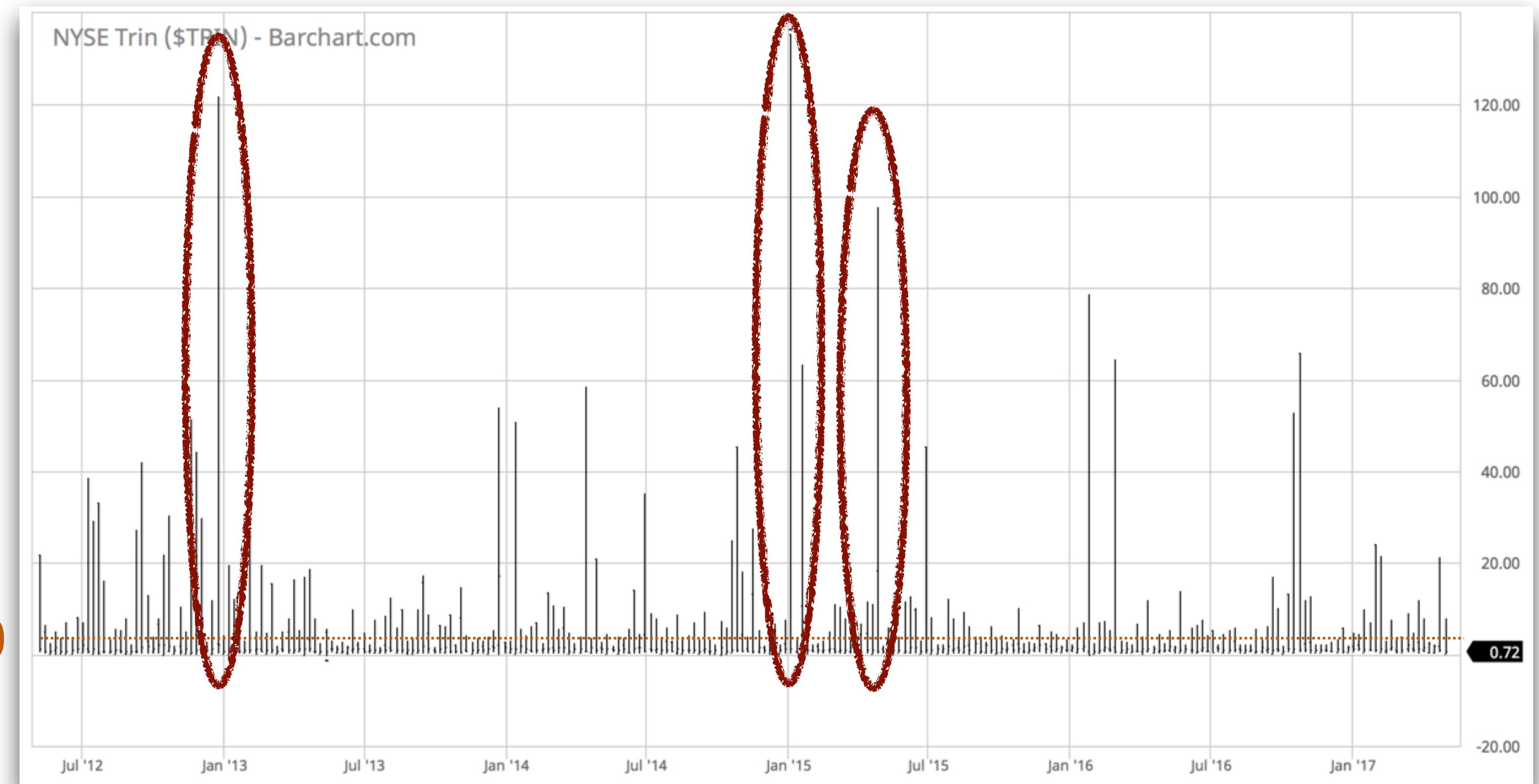
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Flow of Funds Indicators

Arms Index (TRIN)

No. advancing shares / No. declining shares
Vol of advancing shares / Vol of declining shares



Source: barcharts.com



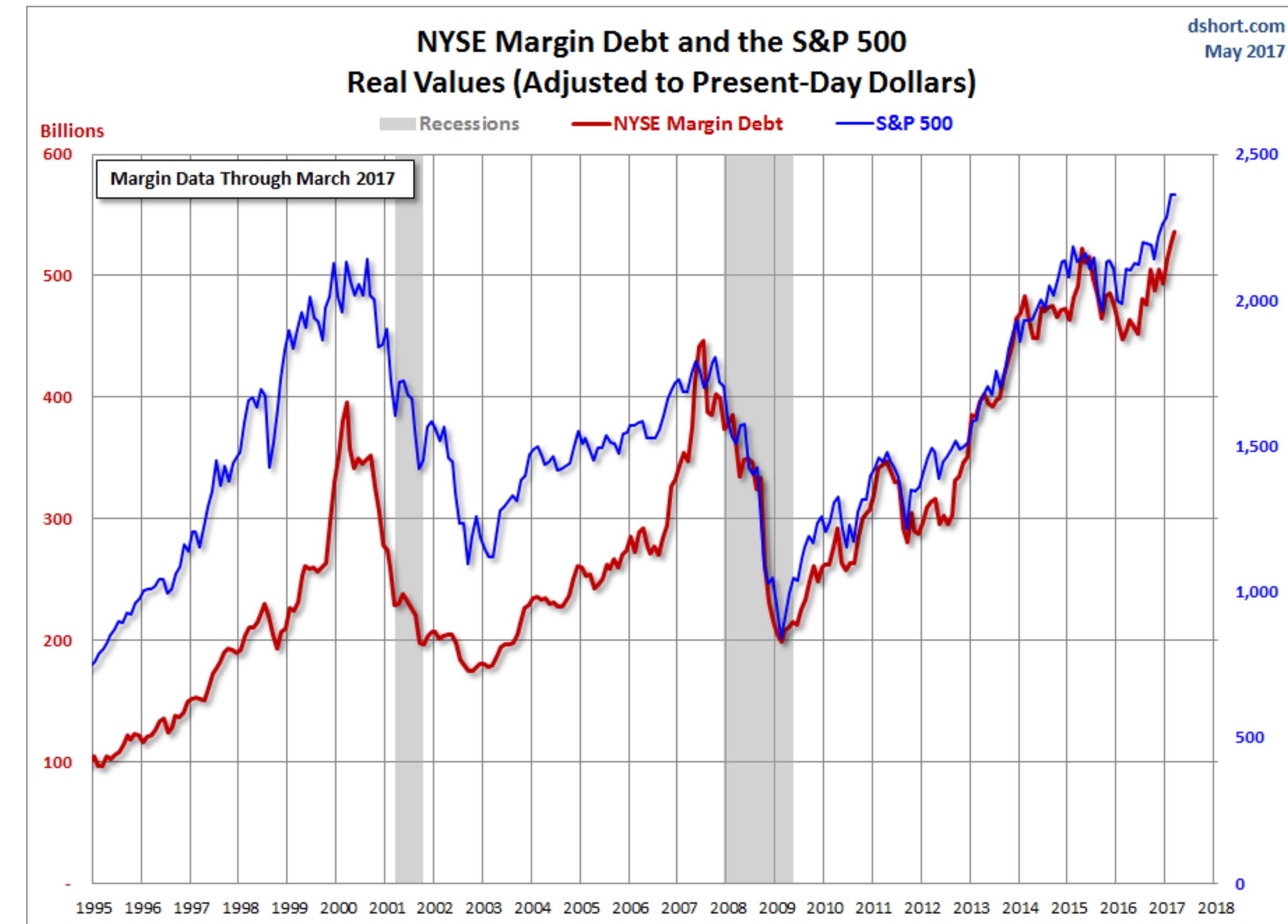
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4. Flow-of-Funds Indicators

Flow of Funds Indicators

Margin Debt

Buying
Debt



S&P 500
Margin Debt

Source: dshort.com

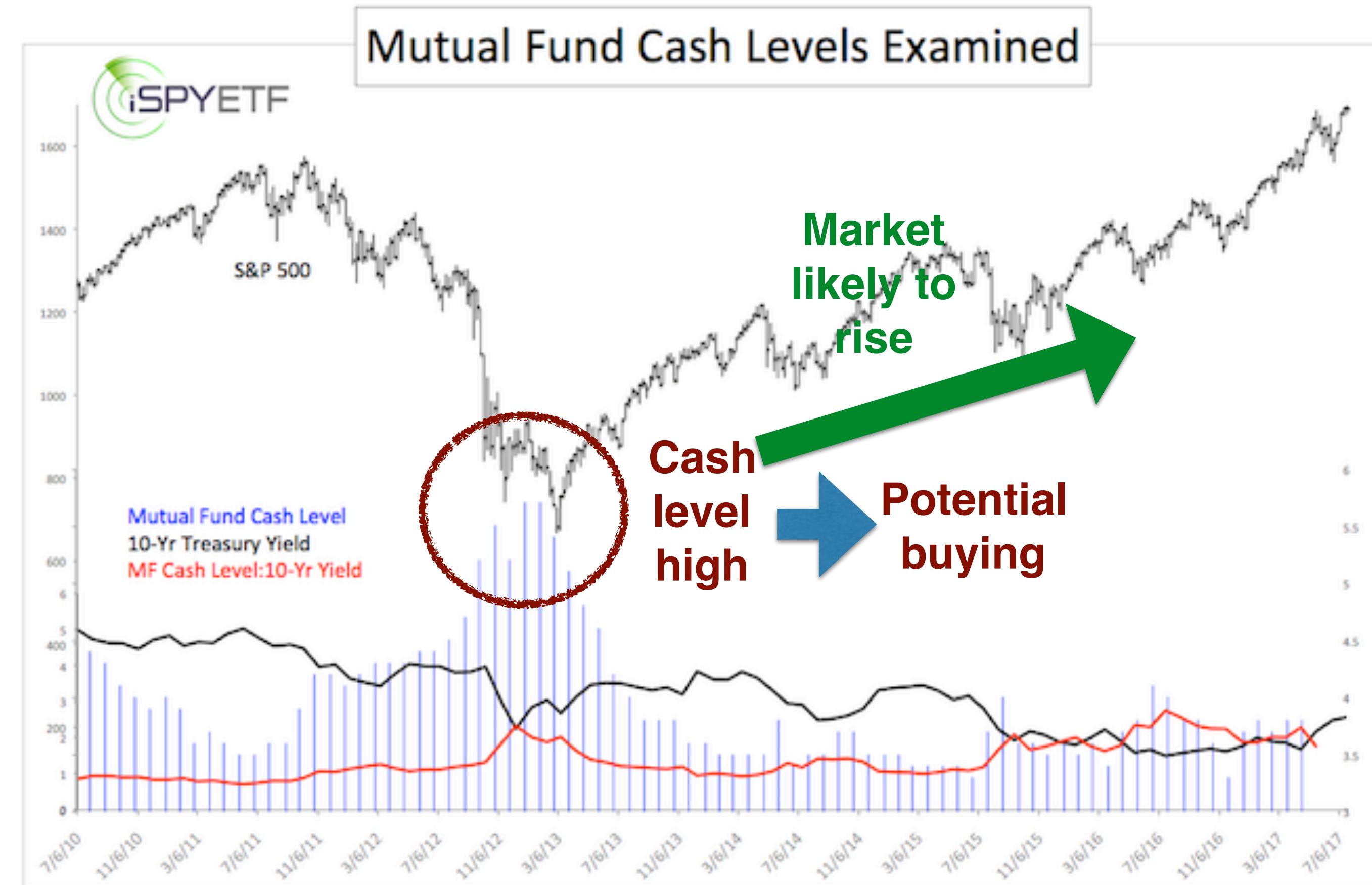


Technical Indicators

1. Price-based Indicators
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4. Flow-of-Funds Indicators

Flow of Funds Indicators

Mutual Fund Cash Position



Flow of Funds Indicators

New Equity Issuance and Secondary Offerings



Technical Indicators

Technical Indicators

Price-based

- Moving average lines
- Bollinger bands

Oscillators

- Rate of change oscillator
- Relative strength index
- MACD
- Stochastic oscillator

Sentiment

- Opinion polls
- Put/call ratio
- CBOE Volatility Index
- Margin debt
- Short interest ratio

Flow of Funds

- Arms index
- Margin debt
- Mutual fund cash position
- New and secondary market offerings