INVESTORS INTELLIGENCE BULLS & BEARS

Ratio

<table>
<thead>
<tr>
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<th>Bull/Bear Ratio*</th>
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<tr>
<td>Oct 29</td>
<td>3.04</td>
</tr>
<tr>
<td>Nov 5</td>
<td>3.15</td>
</tr>
<tr>
<td>Nov 12</td>
<td>3.22</td>
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Bulls     Bears

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<td>Oct 29</td>
<td>54.2</td>
</tr>
<tr>
<td>Nov 5</td>
<td>57.1</td>
</tr>
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<td>Nov 12</td>
<td>57.6</td>
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Correction

<p>| | |</p>
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<tr>
<td>Oct 29</td>
<td>28.0</td>
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<tr>
<td>Nov 5</td>
<td>24.8</td>
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<tr>
<td>Nov 12</td>
<td>24.5</td>
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Source: Investors Intelligence.
Figure 2.

S&P 500 INDEX vs BULL/BEAR RATIO OF 1.0 OR LESS*
(ratio scale)

* Green shaded areas indicate Bull/Bear Ratio equal to or less than 1.0.
Source: Standard & Poor’s and Investors Intelligence.

Figure 3.

S&P 500 INDEX vs. BULL/BEAR RATIO OF 3.0 OR MORE*
(ratio scale)

* Red shaded areas indicate Bull/Bear Ratio equal to or greater than 3.0.
Source: Standard & Poor’s and Investors Intelligence.
Figure 4.

MARGIN DEBT & S&P 500

S&P 500 Index

Margin Debt* (billion dollars)

* Debit balances in margin accounts at broker/dealers.

Figure 5.

S&P 500 INDEX & BOOM-BUST BAROMETER*

S&P 500 Index

Boom-Bust Barometer

* CRB raw industrials spot price index (weekly average) divided by weekly initial unemployment claims, showing four-week moving average.
Figure 6.

S&P 500 FORWARD EARNINGS & BOOM-BUST BAROMETER
(weekly)

* Time-weighted average of consensus estimates for the current year and next year.

** CRB raw industrials spot price index (weekly average) divided by weekly initial unemployment claims, showing four-week moving average.


Figure 7.

S&P 500 DIVIDEND YIELD vs 10-YEAR BOND YIELD
(percent)

* S&P 500 four-quarter trailing dividends per share divided by quarterly closing value of the S&P 500 index.

Source: Standard & Poor’s Corporation and Board of Governors of the Federal Reserve System.
Figure 8.

S&P 500 OPERATING EARNINGS & YRI FORECASTS
(dollars per share)

YRI Forecasts
- 2019 (163.00)
- 2020 (172.00)
- 2021 (181.00)

Consensus Forecasts
- 2019 (162.77)
- 2020 (178.88)
- 2021 (197.78)

I/B/E/S Actual
- Trailing 4-quarter operating EPS (163.92)

Latest data thru 11/14/19

Source: I/B/E/S data by Refinitiv.

Figure 9.

S&P 500 OPERATING EARNINGS ANNUAL GROWTH FORECASTS
(based on analysts’ consensus estimates, percent, weekly)

Latest data thru 11/14/19

Source: I/B/E/S data by Refinitiv.
Figure 10.

S&P 500 EARNINGS PER SHARE FORECASTS
(analysts' consensus estimates, dollars, weekly, ratio scale)

Latest data thru 11/14/19

Source: I/B/E/S data by Refinitiv.

Figure 11.

S&P 500 OPERATING EARNINGS PER SHARE
(analysts' consensus estimates, dollars, weekly, ratio scale)

Consensus Forecasts
- Annual
- Forward*

* Time-weighted average of consensus estimates for current year and next year.
Source: I/B/E/S data by Refinitiv.
Figure 12.

S&P 500 PROFIT MARGIN MEASURES
(percent)

S&P 500 Operating Profit Margins
- 52-week Forward* (12.0)
- I/B/E/S Operating (11.9)

* Time-weighted average of consensus operating earnings estimates for current and next years.
Source: Standard & Poor’s (for actual revenues) and I/B/E/S data by Refinitiv (for forward revenues).

Figure 13.

S&P 500 AGGREGATE REVENUES & US BUSINESS SALES
(yearly percent change)

- S&P 500 Aggregate Revenues* (2.2)
- Business Sales** (0.5)

* S&P quarterly data, not per share. Revenues are derived by multiplying S&P 500 revenues per share by the S&P 500 divisor for each quarter.
** Manufacturing and trade sales.
Source: Standard & Poor’s and Census Bureau.
Figure 14.

S&P 500 FORWARD P/E RATIO*
(weekly)

*S & P 500 LargeCap (17.6)

* Price divided by 52-week forward consensus expected operating earnings per share.
Source: I/B/E/S data by Refinitiv.

Figure 15.

STOCK MARKET CAPITALIZATION RATIO & S&P 500 PRICE-TO-SALES-RATIO

* Total excluding market value of holdings by US residents of foreign corporate equities, investment fund shares, and ADRs.
** S&P 500 index divided by forward consensus expected revenues per share for S&P 500. Monthly through 2005, then weekly.
Note: Shaded red areas denote S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Federal Reserve Board, Bureau of Economic Analysis, Flow of Funds, and Standard & Poor’s.
**Figure 16.**

RULE OF 20: S&P 500 FORWARD P/E PLUS CPI INFLATION*

* Using forward P/E monthly and yearly percent change in CPI for inflation.
Note: Bear markets are declines of 20% or more (in red shades).
Source: I/B/E/S data by Refinitiv, Standard & Poor’s, and Bureau of Labor Statistics.

**Figure 17.**

S&P 500 REPORTED EARNINGS YIELD* MINUS CPI INFLATION RATE**

* S&P 500 reported earnings as a percent of quarterly average S&P 500 index. Q4-2008 dropped because of negative value.
** Year-over-year percent change in three-month average of each quarter.
Note: Shaded red areas denote S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Standard & Poor’s and Bureau of Labor Statistics.
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