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**Figure 1.**

**YRI FUNDAMENTAL STOCK MARKET INDICATOR and S&P 500 INDEX**

* YRI Fundamental Stock Market Indicator*

* S&P 500 Index

* Average of Consumer Comfort Index and Boom-Bust Barometer, which is CRB raw industrials spot price index divided by initial unemployment claims, four-week moving average.

Source: Bloomberg, Commodity Research Bureau, Department of Labor, and Standard & Poor’s Corporation.

**Figure 2.**

**YRI BOOM-BUST BAROMETER & CONSUMER COMFORT INDEX**

* Boom-Bust Barometer*

* Consumer Comfort Index

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

Source: Bloomberg, Commodity Research Bureau, Department of Labor.
Figure 3.

S&P 500 INDEX & INDUSTRIAL COMMODITY PRICES

S&P 500 Index
CRB Raw Industrials
Spot Index


Figure 4.

S&P 500 INDEX & INITIAL UNEMPLOYMENT CLAIMS

S&P 500 Index
Initial Unemployment Claims
(thousands, sa, four-week moving average, inverted scale)

Source: US Department of Labor and Standard & Poor’s.
Global Growth Barometer

Figure 5.

YRI GLOBAL GROWTH BAROMETER (on S&P 500 basis) & S&P 500

- YRI Global Growth Barometer* (994.3)
- S&P 500 Index (3253.1)

* Average of Brent crude oil and CRB raw industrials spot price index times 2 and divided by 10. Average then multiplied by 10 and 200 added.
Source: Standard & Poor’s Corporation and Commodity Research Bureau.

Figure 6.

US STOCK PRICES vs. BRENT CRUDE OIL PRICE

- S&P 500 Index
- Brent Crude Oil Price* (dollars per barrel)

* Nearby futures price.
Source: Financial Times and Standard & Poor’s Corporation.
Figure 7.

S&P 500 INDEX vs. CITIGROUP ECONOMIC SURPRISE INDEX
(percent)

S&P 500 minus its 200 day-moving average

Economic Surprise Index


Figure 8.

S&P 500 P/E vs. CITIGROUP ECONOMIC SURPRISE INDEX
(percent)

S&P 500 Forward P/E*

Economic Surprise Index

* Average weekly price divided by 52-week forward consensus expected operating earnings per share.

Source: Standard & Poor's, I/B/E/S data by Refinitiv, and Citigroup.
Investors Intelligence Sentiment

Figure 9.

INVESTORS INTELLIGENCE BULLS & BEARS

Ratio

<table>
<thead>
<tr>
<th>Date</th>
<th>Ratio</th>
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</thead>
<tbody>
<tr>
<td>Dec 24</td>
<td>3.34</td>
</tr>
<tr>
<td>Dec 31</td>
<td>3.31</td>
</tr>
<tr>
<td>Jan 7</td>
<td>3.10</td>
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Percentage Bulls

<table>
<thead>
<tr>
<th>Date</th>
<th>Bulls</th>
<th>Bears</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 17</td>
<td>57.7</td>
<td>17.3</td>
</tr>
<tr>
<td>Dec 24</td>
<td>57.7</td>
<td>17.3</td>
</tr>
<tr>
<td>Dec 31</td>
<td>58.9</td>
<td>17.8</td>
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Percentage Correction

<table>
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<th>Date</th>
<th>Correction</th>
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</thead>
<tbody>
<tr>
<td>Dec 24</td>
<td>25.0</td>
</tr>
<tr>
<td>Dec 31</td>
<td>23.3</td>
</tr>
<tr>
<td>Jan 7</td>
<td>27.1</td>
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</table>

Source: Investors Intelligence.
Figure 10.

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 11.

DOW JONES 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.
Figure 12.

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 13.

DOW JONES INDEX vs. BULL/BEAR RATIO OF 1.0 OR LESS*
(ratio scale)

* Green shaded areas indicates Bull/Bear Ratio equal to or less than 1.0.
Figure 14.

S&P 500 % FROM 200-DMA vs. BULL/BEAR RATIO OF 3.0 OR MORE*

* Red shaded areas indicates Bull/Bear Ratio equal to or more than 3.0.
Source: Standard & Poor’s Corporation.

Figure 15.

S&P 500 % FROM 200-DMA vs. BULL/BEAR RATIO OF 1.0 OR LESS*

* Green shaded areas indicates Bull/Bear Ratio equal to or less than 1.0.
Source: Standard & Poor’s Corporation.
AAII Sentiment

* AAII Bull Ratio is the percent of bulls over the percent of bulls plus percent of bears.
Source: American Association of Individual Investors (AAII).
Bull/Bear Ratio vs. Consumer Confidence

Figure 17.

BULL/BEAR RATIO & CONSUMER CONFIDENCE

- Bull/Bear Ratio (4-week average)
- Consumer Confidence Expectations Index

Source: New York Board of Trade, Commodity Futures Trading Commission, and the Conference Board.

Figure 18.

BULL/BEAR RATIO & CONSUMER COMFORT INDEX

- Bull/Bear Ratio (4-week average)
- Consumer Comfort Index

Source: New York Board of Trade, Commodity Futures Trading Commission, and Bloomberg.
Figure 19.

S&P 500 Put Call Ratio

S&P 500 PUT/CALL
(weekly data)

Average = 1.616
(1996-2010)

Source: Chicago Board of Options Exchange.

Figure 20.

S&P 500 Put Call Ratio

S&P 500 PUT/CALL
(4-week ma)

Average = 1.624
(1996-2010)

Source: Chicago Board of Options Exchange.
Volatility

Figure 21.
VIX: S&P 500

Source: Chicago Board Options Exchange.

Figure 22.
VIX: NASDAQ 100

Source: Chicago Board Options Exchange.
Figure 23.

NEW YORK STOCK EXCHANGE WEEKLY VOLUME
(billion shares, 4-week moving average)

Dow Theory

Figure 24.

DOW JONES STOCK AVERAGES
(ratio scale)

Industrials (DJIA)
Transportation (DJTA)


Figure 25.

S&P 500 STOCK INDEXES
(ratio scale)

Industrials Composite*
Transportation Composite

* S&P 500 excluding Financials, Transports, and Utilities.
Source: Standard & Poor’s.
**S&P 500 Moving Averages**

* Dips are declines of less than 10%. Corrections are declines of 10% to 20%. Bear markets are declines of 20% or more. Number of days in parentheses.

Source: Standard & Poor’s Corporation.

**Figure 27.**

S&P 500 INDEX
(as a percent of 200-day moving average)

% from 200-day moving average (8.5)

Source: Standard & Poor’s.
Figure 28. S&P 500 Moving Averages

S&P 500 INDEX*

Latest price: 3237.18
50-dma: 3139.38
200-dma: 2976.17

(+/-) Latest price is 3.0% above the 50-dma.
(+/-) Latest price is 8.1% above the 200-dma.

* Ratio Scale
Source: Standard & Poor's.

Figure 29. S&P 500 INDEX TECHNICALS
THE DEATH CROSS & THE GOLDEN CROSS
(50-dma relative to 200-dma, percent, weekly)

Source: Haver Analytics and Standard & Poor’s Corporation.
Figure 30.

S&P 500* (price indexes)

INDUSTRIALS

CONSUMER DISCRETIONARY*

INFORMATION TECHNOLOGY

CONSUMER STAPLES

MATERIALS

ENERGY

REAL ESTATE

FINANCIALS

COMMUNICATION SERVICES

HEALTH CARE

UTILITIES

---

200-day moving average

* S&P 500 sector price indexes on ratio scales.

Source: Haver Analytics and Standard & Poor’s Corporation.
S&P 500 Sectors Stock Price Index Minus 200-dma

Figure 31.

S&P 500

(price index as percentage of 200-dma)

% from 200-dma (8.5)

INDUSTRIALS

(6.8)

CONSUMER DISCRETIONARY

(4.9)

INFORMATION TECHNOLOGY

(14.4)

CONSUMER STAPLES

(3.9)

MATERIALS

(2.9)

ENERGY

(2.2)

REAL ESTATE

(0.9)

FINANCIALS

Includes Real Estate through September 2016

(8.7)

COMMUNICATION SERVICES

(9.5)

HEALTH CARE

(10.4)

UTILITIES

(4.3)

Source: Standard & Poor's.
Figure 32.

S&P 500 Sectors Stock Price Index Relative to S&P 500

Source: Haver Analytics and Standard & Poor's Corporation.