**Figure 1.**

*S&P 500 BULL & BEAR MARKETS & CORRECTIONS: 2008-2019 (ratio scale)*

Note: Corrections are declines of 10% or more, while minor ones are 5%-10% (all in blue shades). Bear markets are declines of 20% or more (in red shades). Number of calendar days in parentheses.
Source: Standard & Poor’s.

**Figure 2.**

*YRI EARNED INCOME PROXY & RETAIL SALES*  
(yearly percent change)

* Aggregate weekly hours times average hourly earnings of total private industries times 52.  
Figure 3.

PERSONAL SAVING
(trillion dollars, 12-month sum)

Avg = $409bn

Avg = $983bn

Source: Bureau of Economic Analysis and Haver Analytics.

Figure 4.

PERSONAL SAVING RATE
(percent)

Source: Bureau of Economic Analysis and Haver Analytics.
**Figure 5.**

REAL DISPOSABLE PERSONAL INCOME vs. REAL PERSONAL CONSUMPTION EXPENDITURES
(yearly percent change)


**Figure 6.**

LEADING & COINCIDENT ECONOMIC INDICATORS
(2016=100, sa, ratio scale)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: The Conference Board.
Figure 7.

REAL GDP & LEADING ECONOMIC INDICATORS (yearly percent change)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Conference Board.

Figure 8.

REAL GDP & COINCIDENT ECONOMIC INDICATORS (yearly percent change)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis and Conference Board.
Figure 9.

CITIGROUP ECONOMIC SURPRISE INDEX (percent)

Note: Blue shaded areas denote first half of each year.
Source: Citigroup.

Figure 10.

CITIGROUP ECONOMIC SURPRISE INDEX & 10-YEAR TIPS YIELD

Source: Citigroup and Haver Analytics.
Figure 11.
CITIGROUP ECONOMIC SURPRISE INDEXES
(percentage)

Based on US Dollar
Based on Euro

Source: Citigroup and Haver Analytics.

Figure 12.
CITIGROUP ECONOMIC SURPRISE INDEXES
(percentage)

Based on US Dollar Minus Based on Euro

Source: Citigroup and Haver Analytics.
Figure 13.

S&P 500, FORWARD EARNINGS, and VALUATION
(weekly)

Blue Angels: S&P 500

Actual 10/18/19
Implied* 10/17/19

Source: Standard & Poor’s and I/B/E/S data by Refinitiv.

Figure 14.

ALL COUNTRY WORLD EX-US MSCI, FORWARD EARNINGS, & VALUATION

All Country World Ex-US MSCI Index (In local currencies)
10/21/19
Blue Angels Implied Price Index*
10/11/19

* Implied price index calculated using forward earnings times forward P/Es. Monthly through December 2005, weekly thereafter.
Source: Standard & Poor’s and I/B/E/S data by Refinitiv.
Figure 15.

S&P GOLDMAN SACHS COMMODITY INDEX & TRADE-WEIGHTED DOLLAR
(daily)

Goldman Sachs Commodity Index (nearby futures price)

JP Morgan Nominal Broad Effective Exchange Rate*

Source: Standard & Poor’s, JP Morgan, and Haver Analytics.

Figure 16.

EMERGING MARKETS MSCI STOCK PRICE INDEX (in dollars) & INDUSTRIALS COMMODITY PRICE INDEX
(daily)

Emerging Markets MSCI Stock Price Index (in dollars)

CRB Raw Industrials Spot Price Index*

* Includes copper scrap, lead scrap, steel scrap, tin, zinc, burlap, cotton, print cloth, wool tops, hides, rosin, rubber, and tallow.

Figure 17.

CHINA: REAL GDP

- yearly percent change (6.0)
- quarterly percent change, saar (5.2)

Source: China National Bureau of Statistics and Haver Analytics.

Figure 18.

CHINA: INDUSTRIAL PRODUCTION & REAL RETAIL SALES

(yearly percent change)

- Industrial Production* (5.8)
- Real Retail Sales** (4.8)

* Value added basis.
** Yearly percent change in retail sales minus yearly percent change in CPI.
Source: China National Bureau of Statistics.