

# Valuation

Yardeni Research, Inc.

*March 9, 2014*

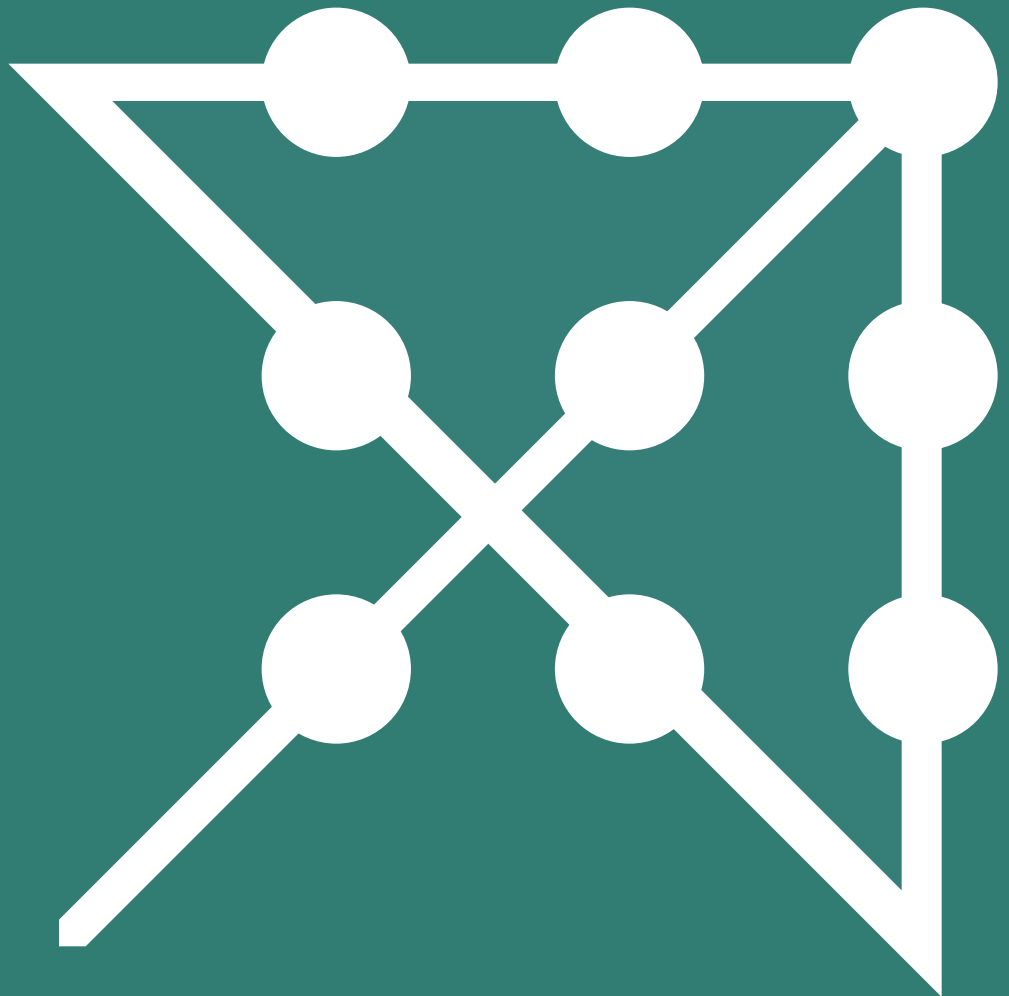
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[blog.yardeni.com](http://blog.yardeni.com)



*thinking outside the box*

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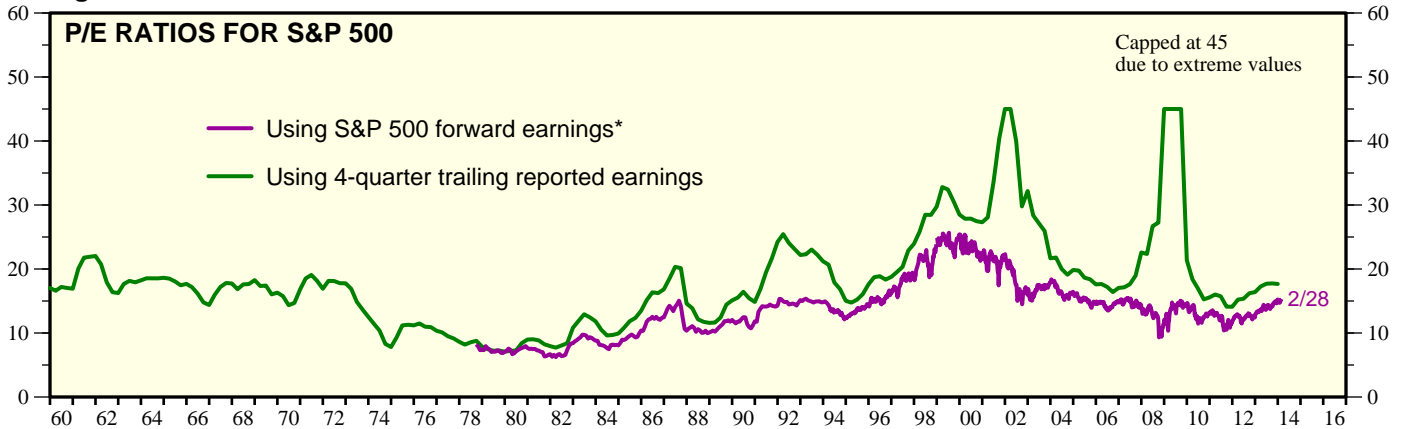
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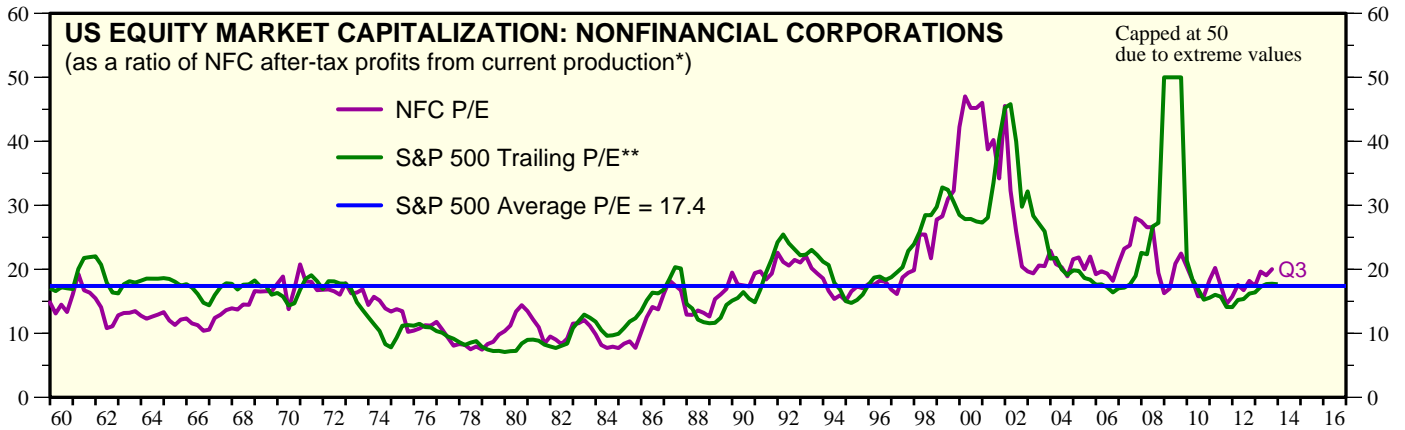
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# P/E Ratios

Figure 1.

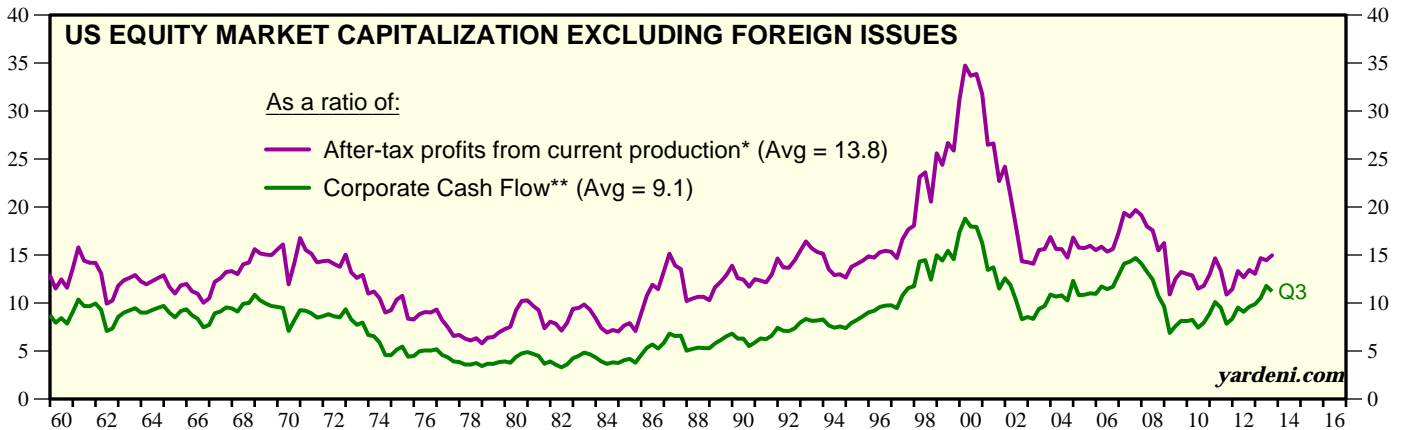


\* Price divided by 12-month forward consensus expected operating earnings per share using mid-month data. Monthly data through April 1994, weekly thereafter.



\* Including IVA and CCadj. These two adjustments restate the historical cost basis used in profits tax accounting for inventory withdrawals and depreciation to the current cost measures used in GDP.

\*\* Using four-quarter trailing reported earnings.



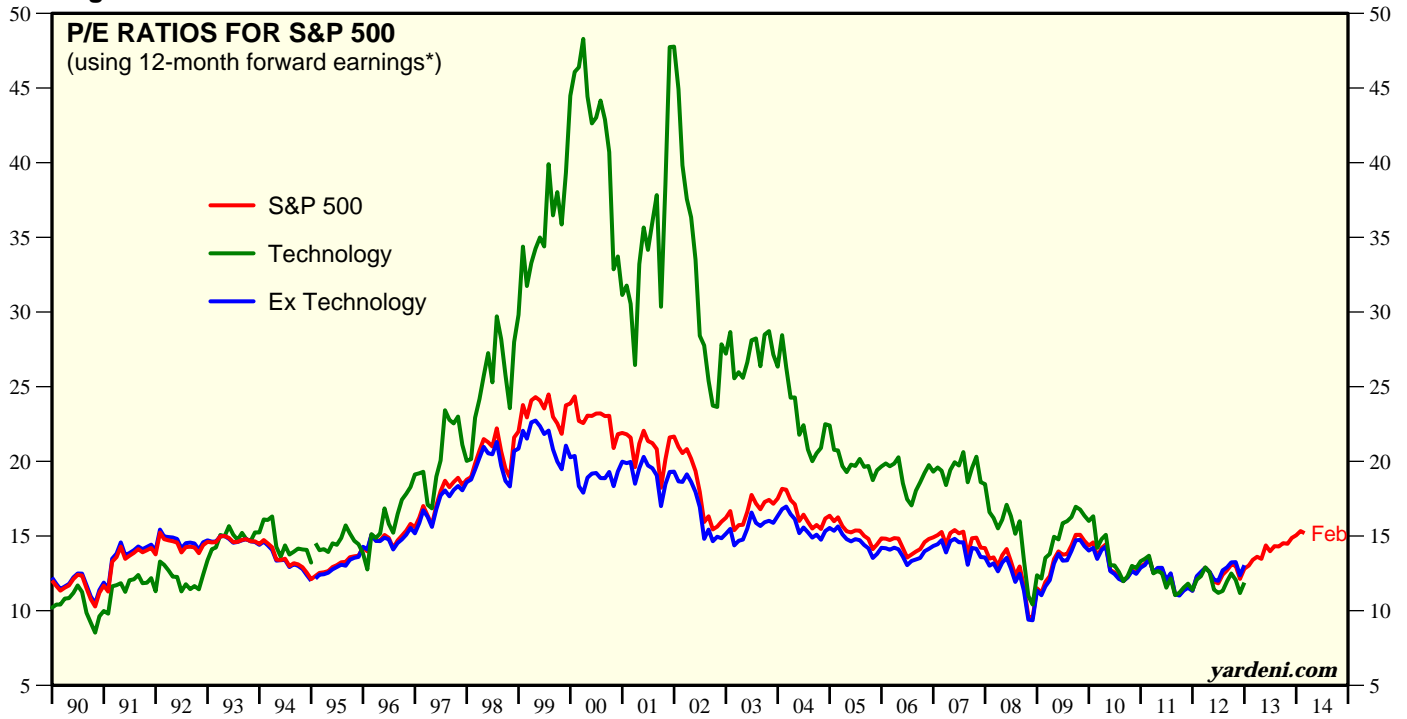
\* Including IVA and CCadj. These two adjustments restate the historical cost basis used in profits tax accounting for inventory withdrawals and depreciation to the current cost measures used in GDP.

\*\* After-tax operating retained earnings plus tax-return-based depreciation.

Source: Thomson Reuters I/B/E/S, US Department of Commerce, Bureau of Economic Analysis, Federal Reserve Board Flow of Funds Accounts, and Standard & Poor's Corporation.

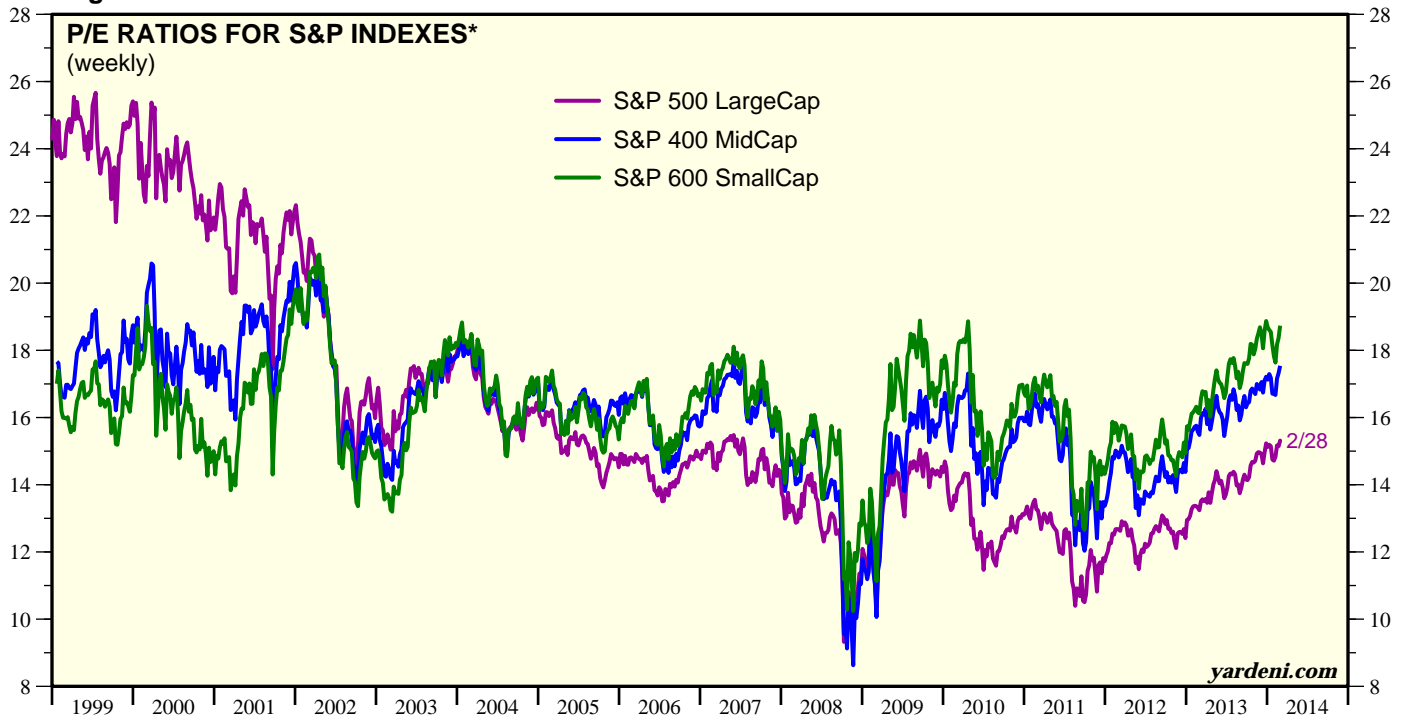
# P/E Ratios

Figure 2.



\* Price divided by 12-month forward consensus expected operating earnings per share using mid-month data.  
Source: Thomson Reuters I/B/E/S.

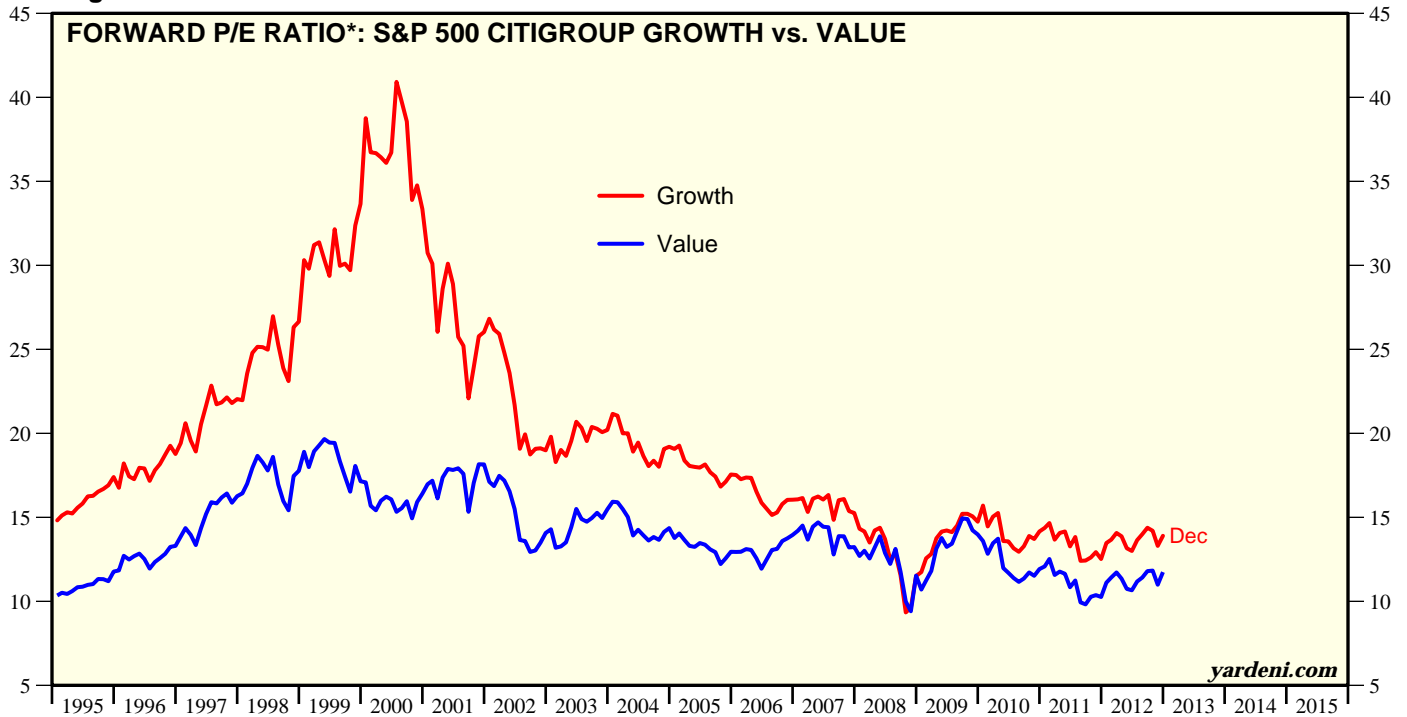
Figure 3.



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

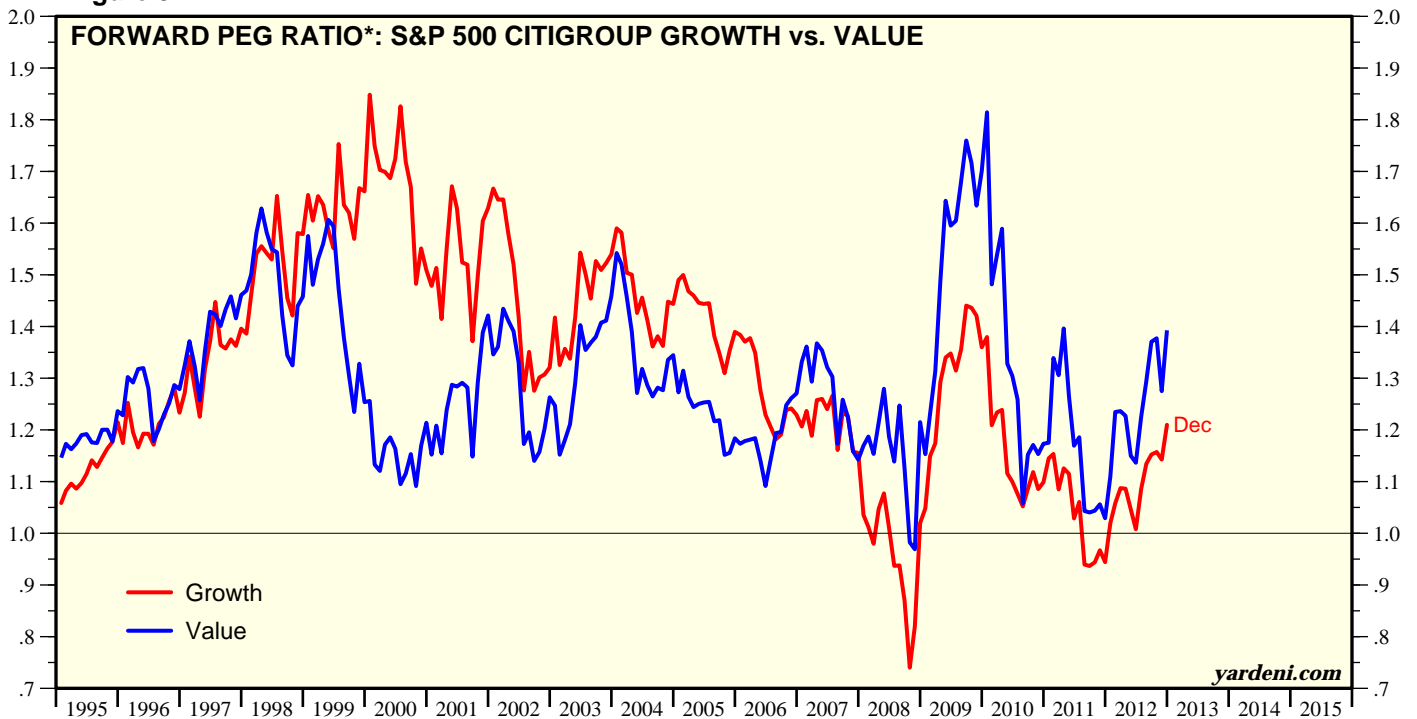
# Growth vs Value P/Es

Figure 4.



\* Using consensus 12-month forward earnings forecasts.  
Source: Thomson Reuters I/B/E/S.

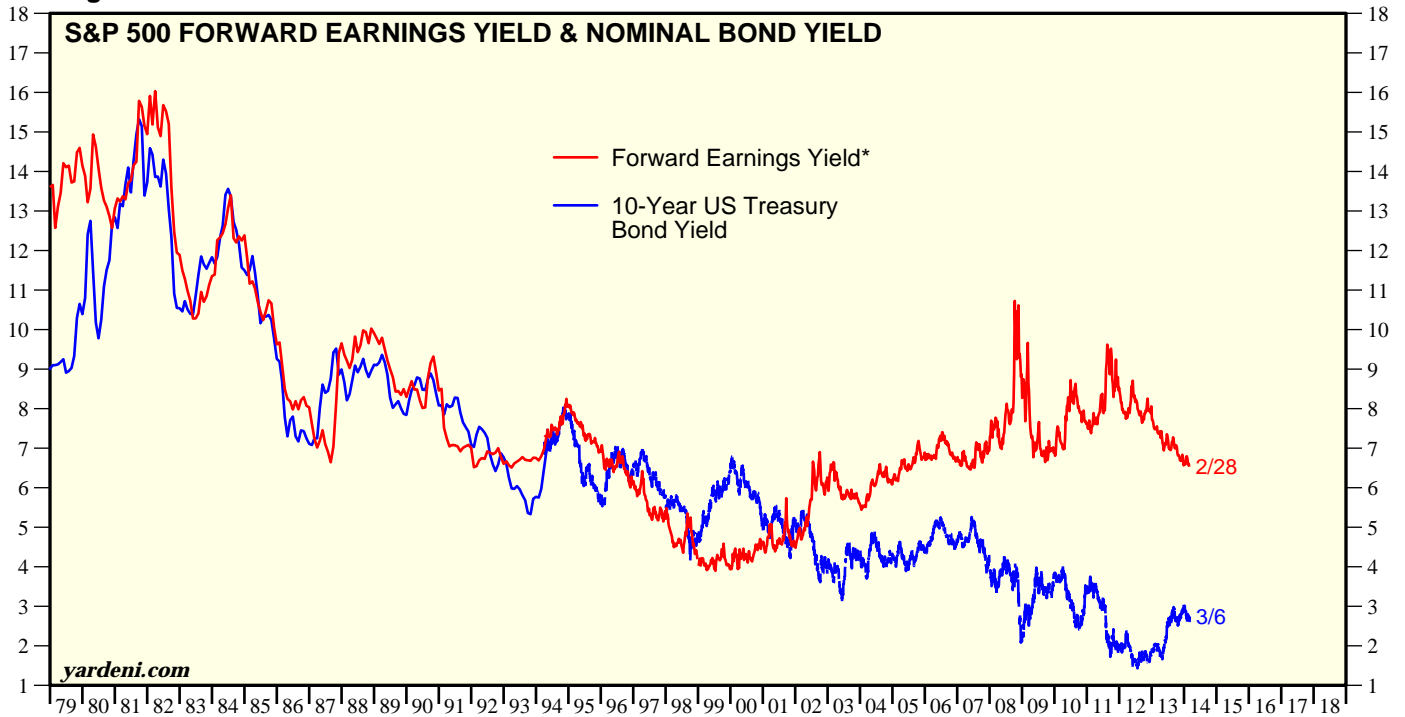
Figure 5.



\* Forward P/E divided by LTEG: Using 5-year forward consensus expected earnings growth.  
Source: Thomson Reuters I/B/E/S.

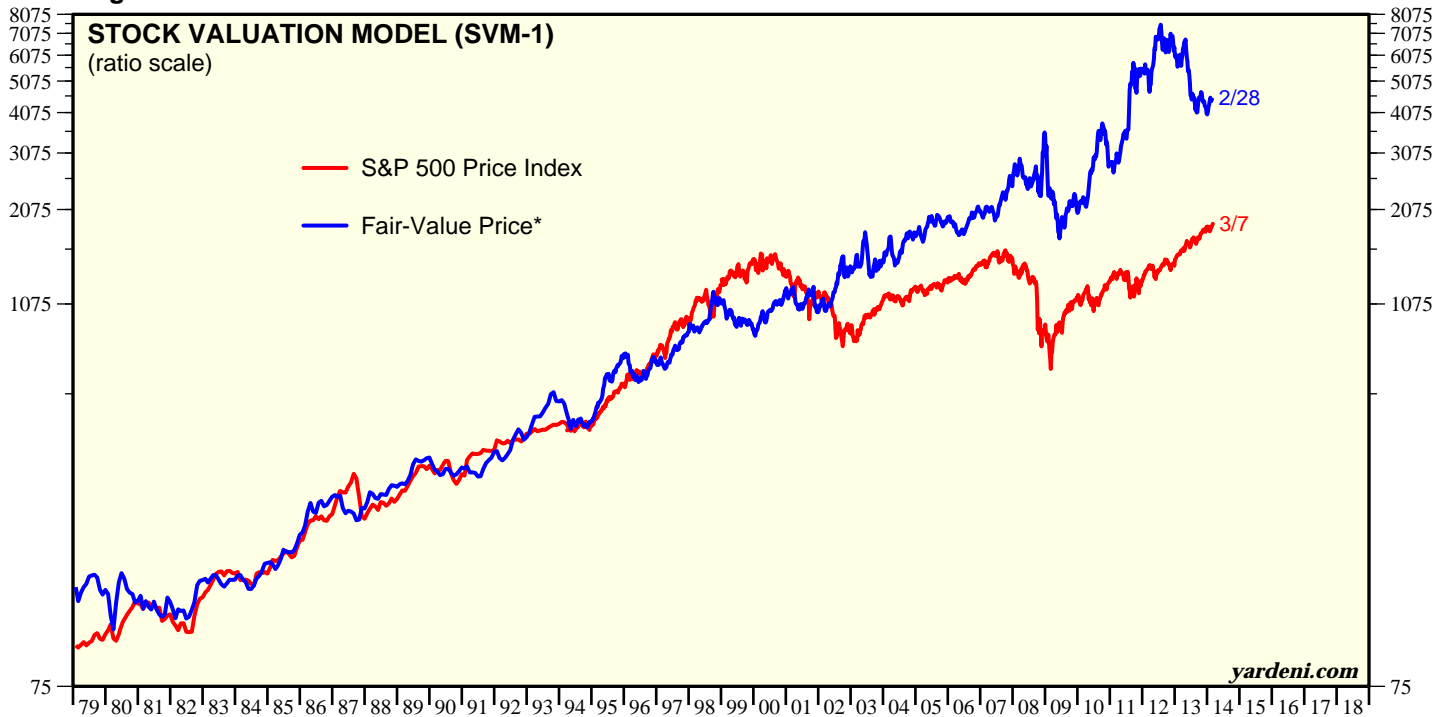
# Valuation: SVM-1 (Fed Model)

Figure 6.



\* 12-month forward consensus expected earnings divided by S&P 500 Index. Monthly through April 1994, weekly after.  
Source: Thomson Reuters I/B/E/S and Board of Governors of the Federal Reserve System.

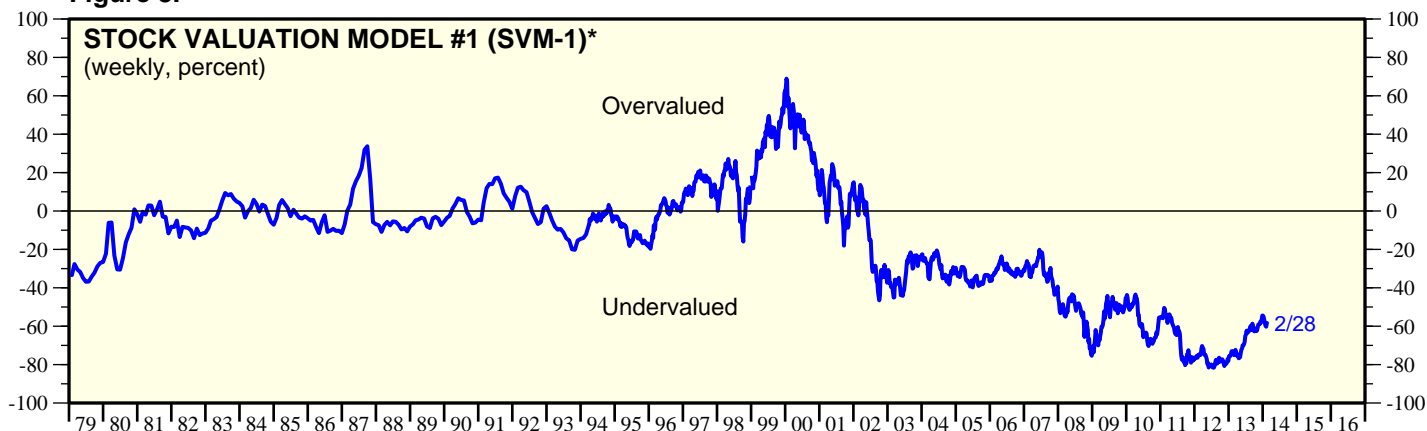
Figure 7.



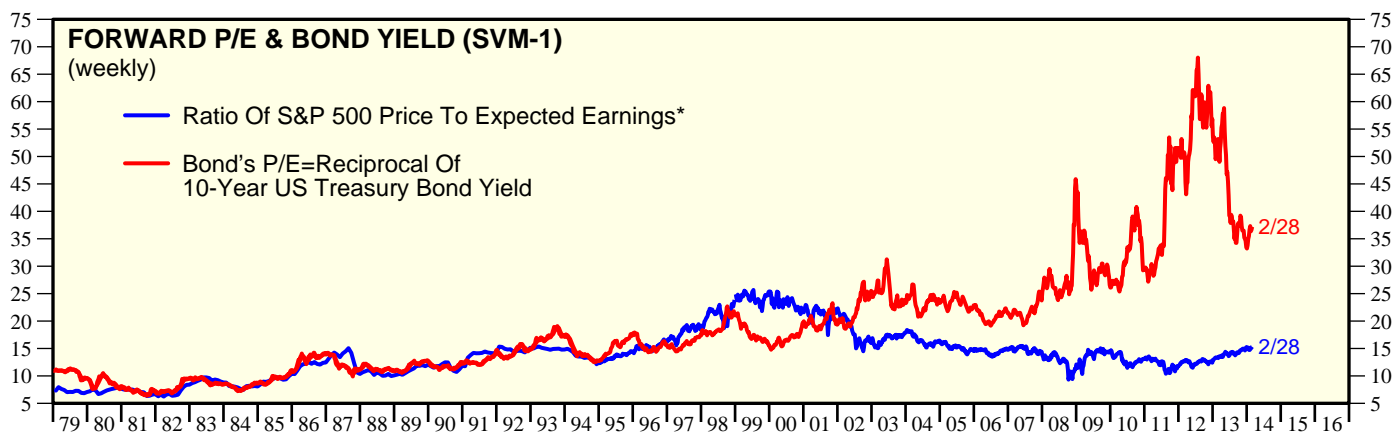
\* 12-month forward consensus expected earnings divided by 10-year US Treasury bond yield. Monthly through April 1994, weekly after.  
Source: Thomson Reuters I/B/E/S and Board of Governors of the Federal Reserve System.

# Valuation: SVM-1 (Fed Model)

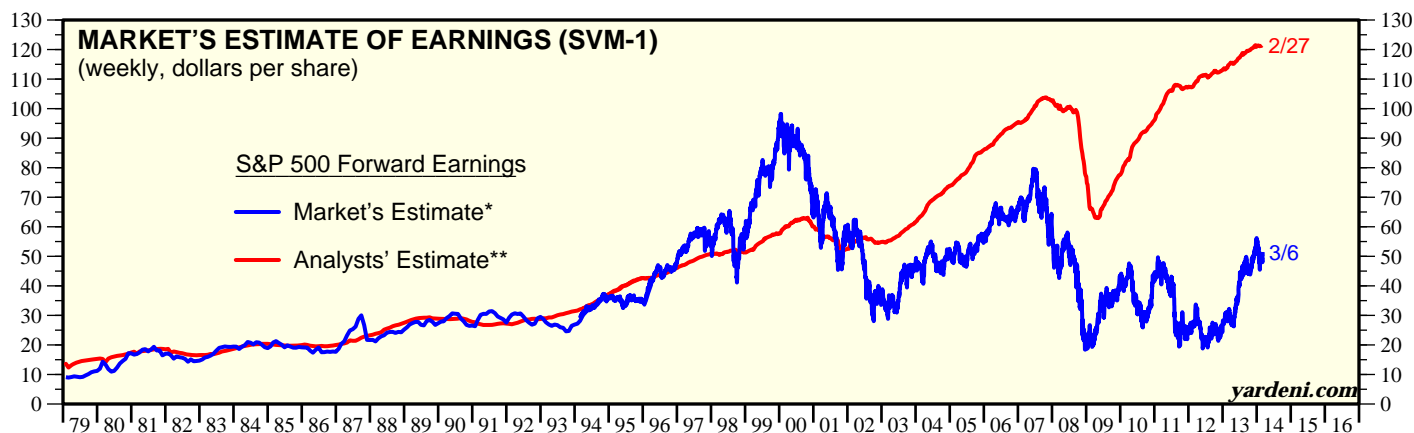
Figure 8.



\* Ratio of S&P 500 Index to its fair value (52-week forward consensus expected S&P 500 operating earnings per share divided by the 10-year US Treasury bond yield). Monthly through April 1994, weekly thereafter.



\* 52-week forward consensus expected S&P 500 operating earnings per share. Monthly through March 1994, weekly thereafter.



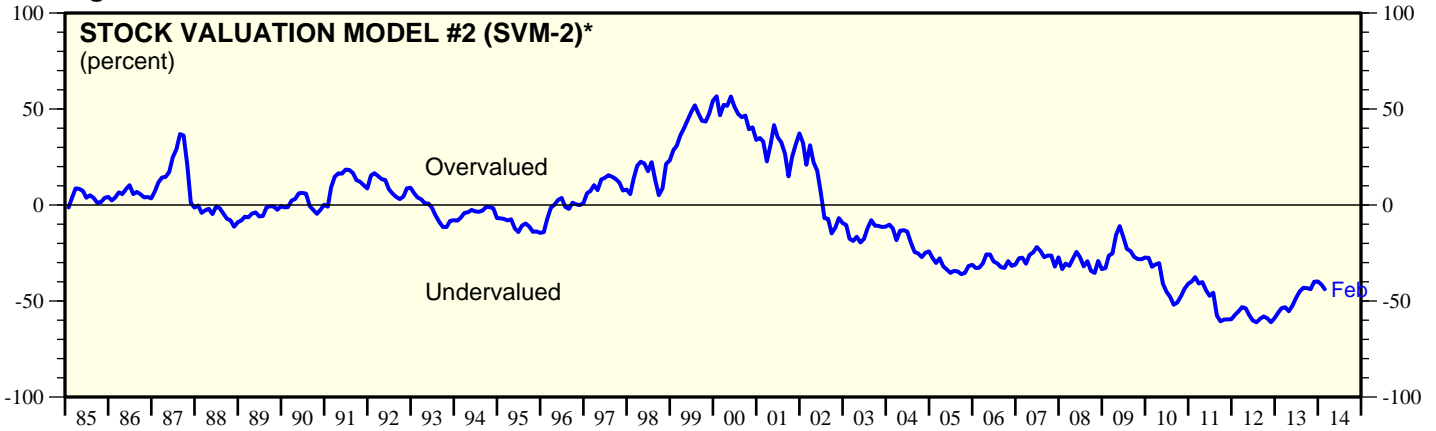
\* S&P 500 index multiplied by 10-year government bond yield. Monthly through March 1994, weekly thereafter.

\*\* 12-month forward consensus expected S&P 500 operating earnings per share. Monthly through March 1994, weekly thereafter.

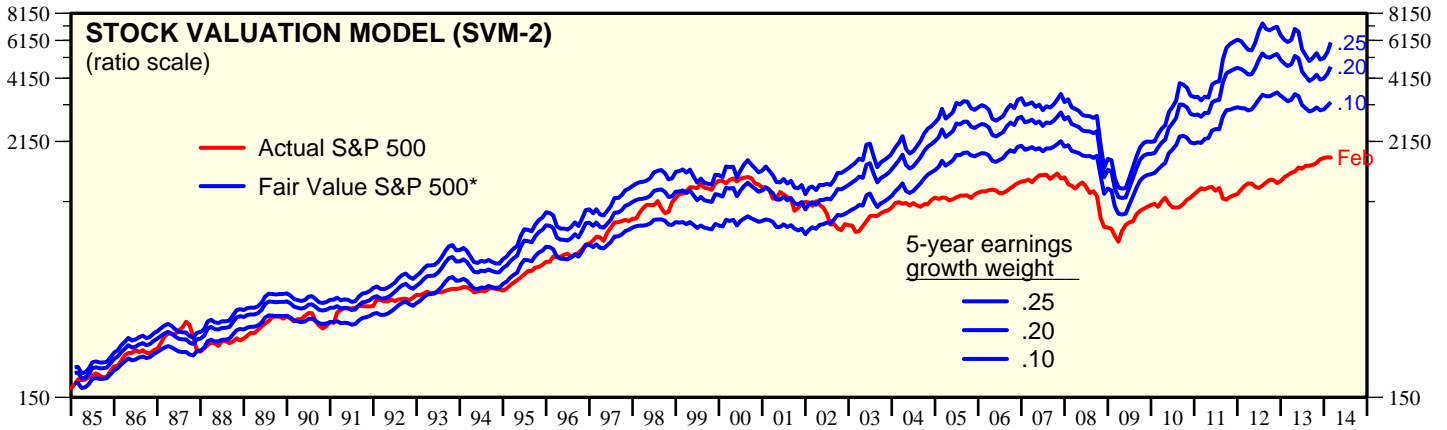
Source: Standard & Poor's Corporation and Thomson Reuters I/B/E/S.

# Valuation: SVM-2 (Yardeni Model)

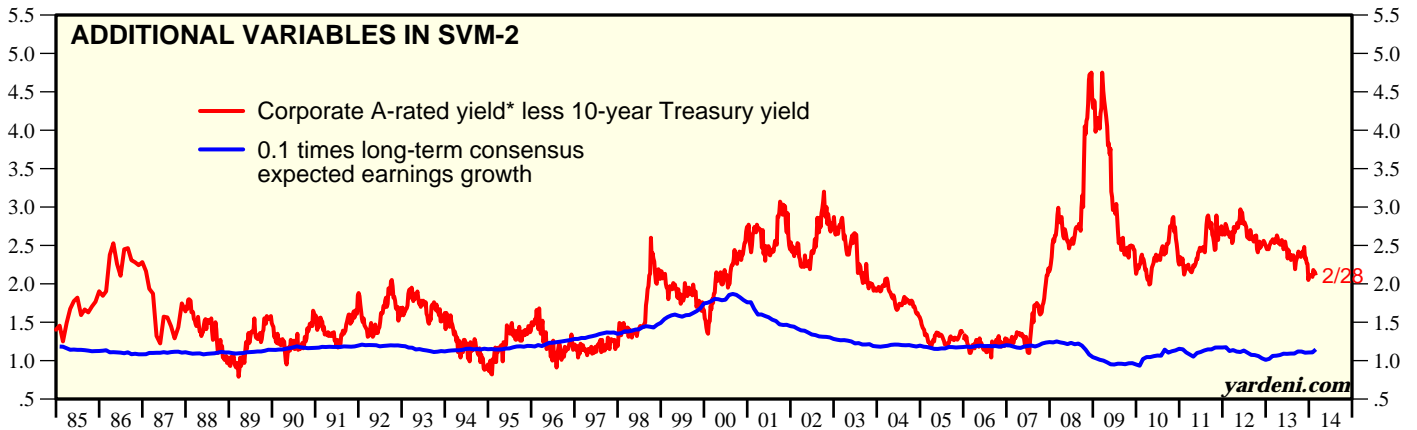
Figure 9.



\* Ratio of S&P 500 index to its fair value (12-month forward consensus expected S&P 500 operating earnings per share divided by the difference between Moody's A-rated corporate bond yield less fraction [0.10] of 5-year consensus expected earnings growth).



\* Fair value is 12-month forward consensus expected S&P 500 operating earnings per share divided by the difference between Moody's A-rated corporate bond yield less fraction (as shown above) of 5-year consensus expected earnings growth.

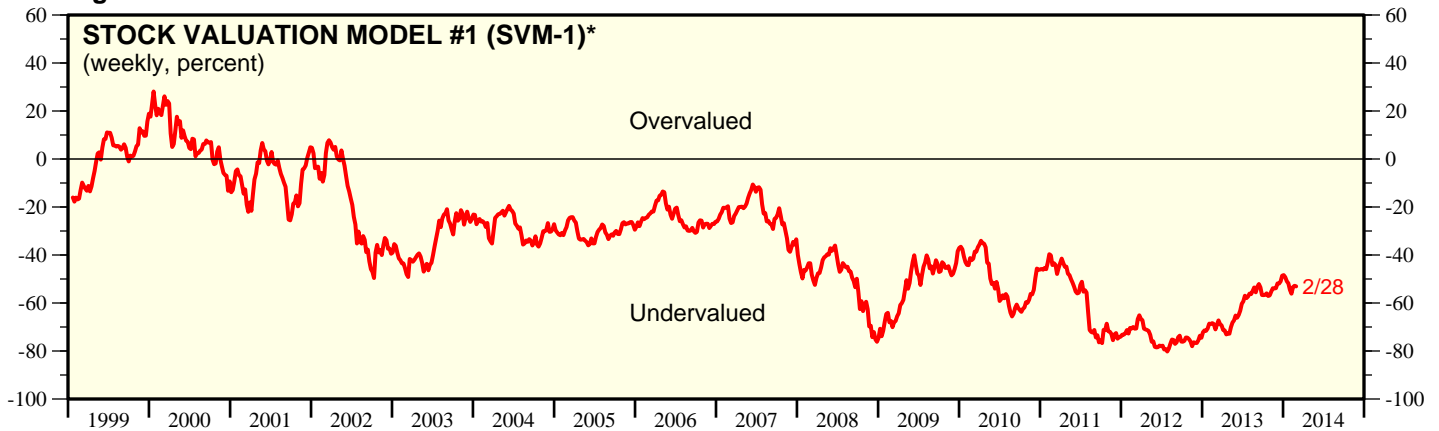


\*Moody's corporate A monthly through 1987, then weekly through 2005. Beginning in 2006 S&P corporate A.  
Source: Moody's Investors Service and Thomson Reuters I/B/E/S.

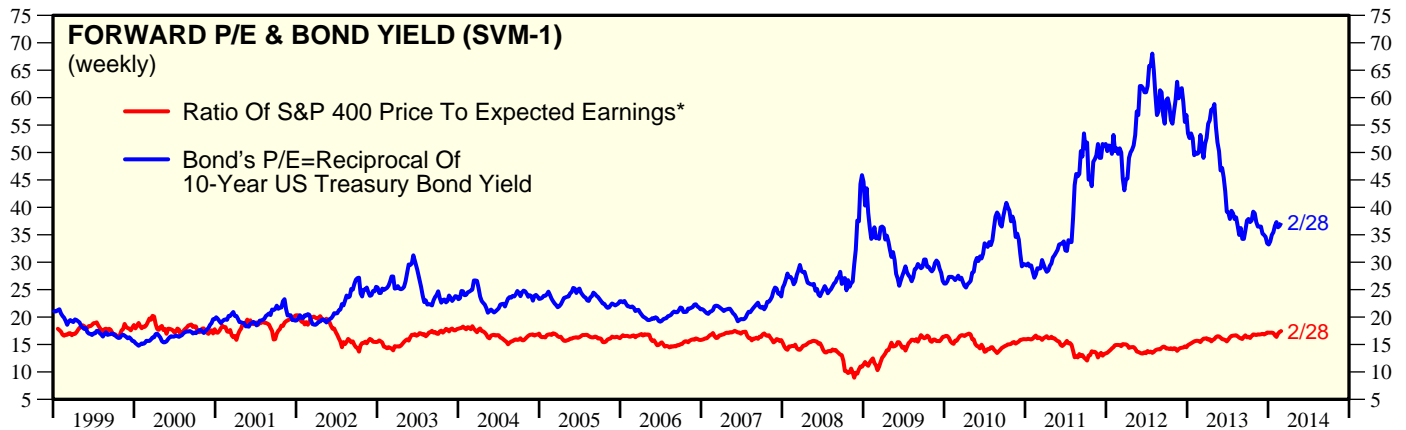


# Valuation: SVM-1 (S&P 400)

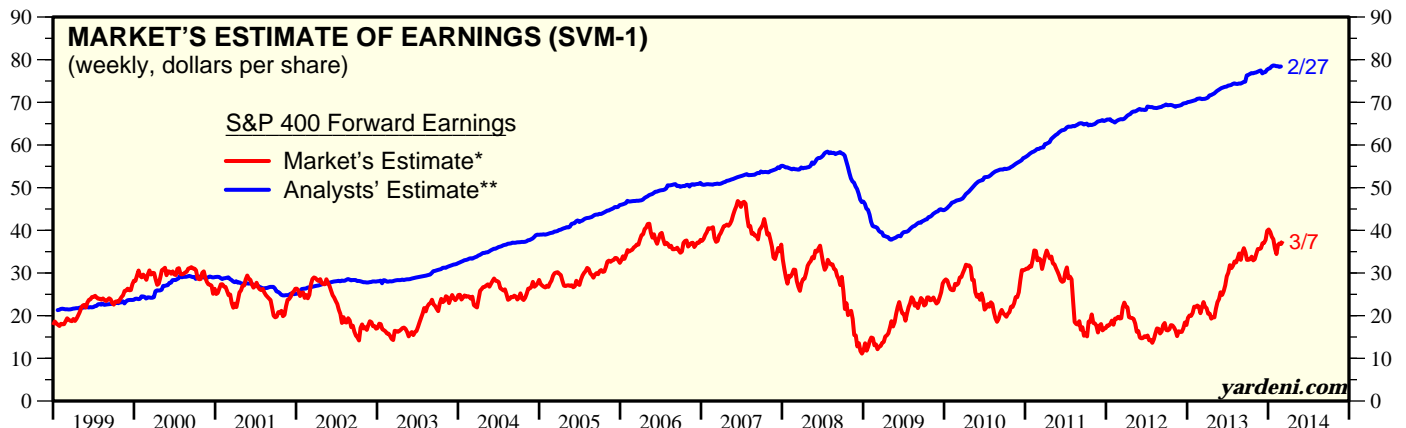
Figure 10.



\* Ratio of S&P 400 Index to its fair value (52-week forward consensus expected S&P 400 operating earnings per share divided by the 10-year US Treasury bond yield).



\* 52-week forward consensus expected S&P 400 operating earnings per share.



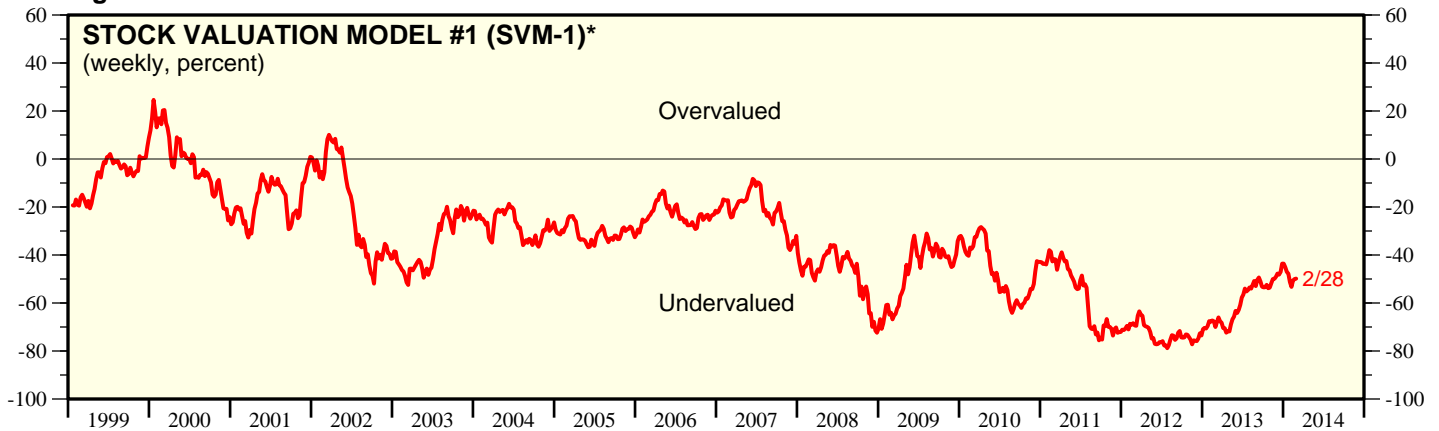
\* S&P 400 index multiplied by 10-year government bond yield.

\*\* 52-week forward consensus expected S&P 400 operating earnings per share.

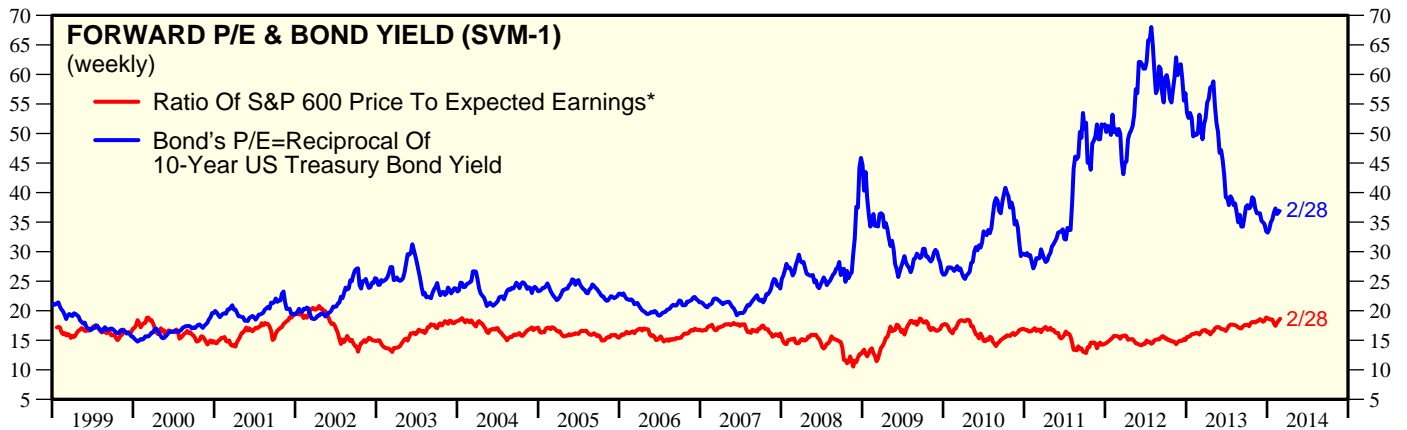
Source: Standard & Poor's Corporation and Thomson Reuters I/B/E/S.

# Valuation: SVM-1 (S&P 600)

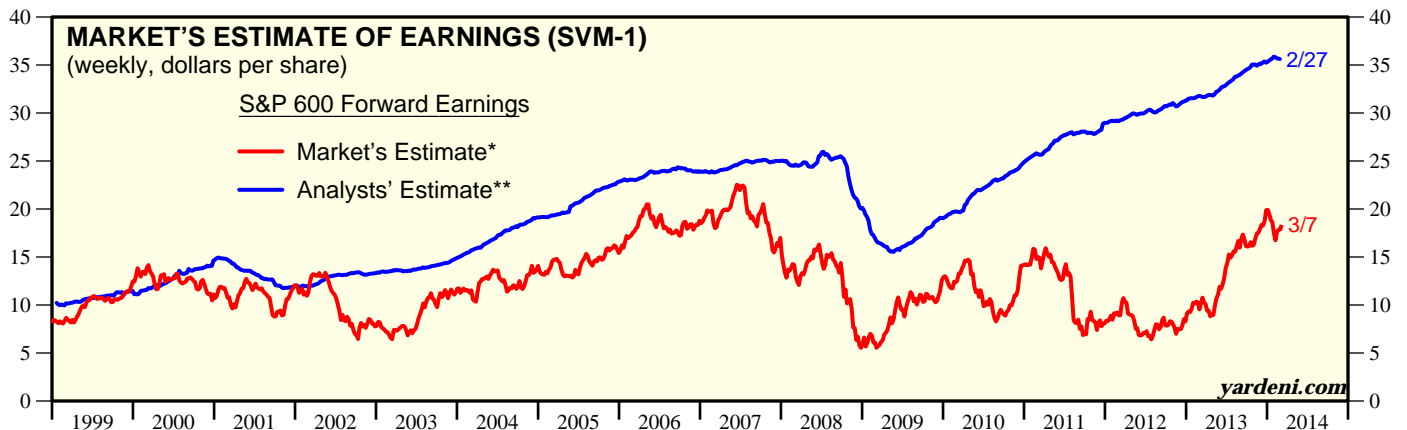
Figure 11.



\* Ratio of S&P 600 Index to its fair value (52-week forward consensus expected S&P 600 operating earnings per share divided by the 10-year US Treasury bond yield).



\* 52-week forward consensus expected S&P 600 operating earnings per share.



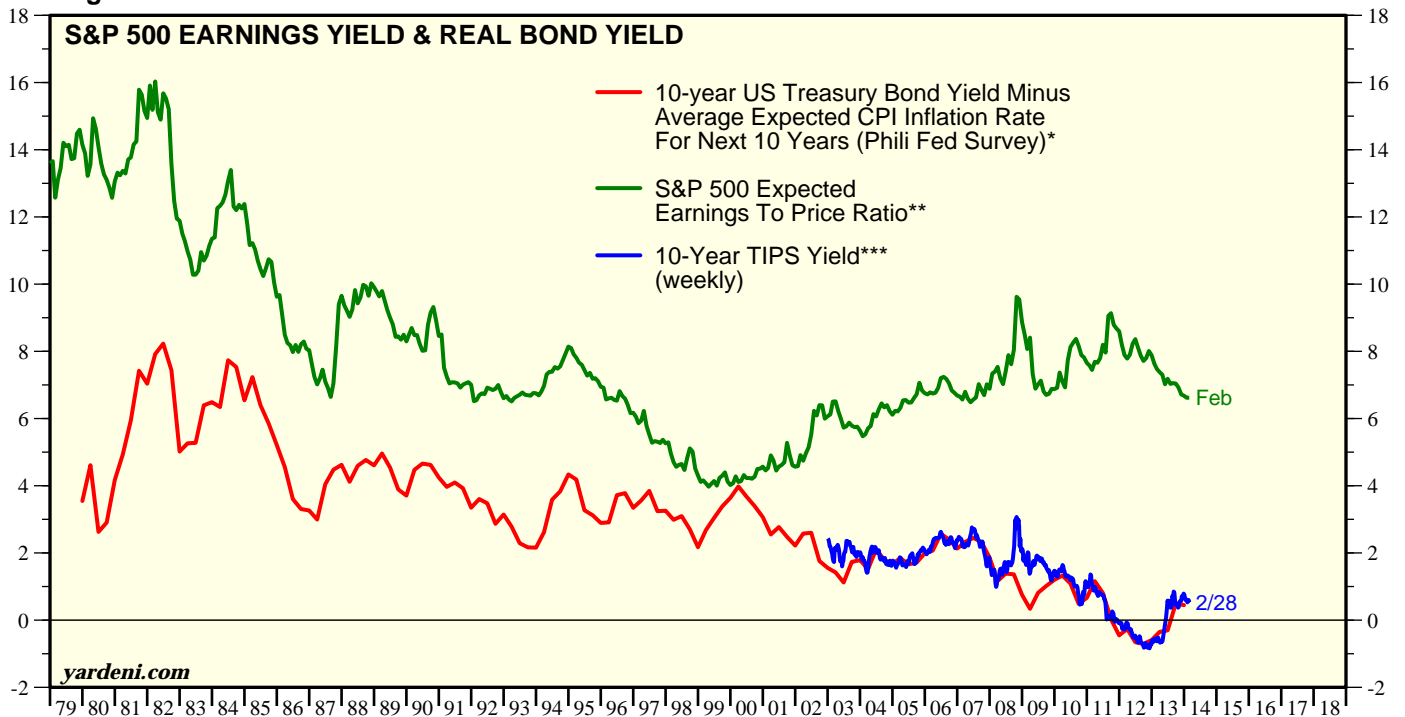
\* S&P 600 index multiplied by 10-year government bond yield.

\*\* 52-week forward consensus expected S&P 600 operating earnings per share.

Source: Standard & Poor's Corporation and Thomson Reuters I/B/E/S.

# Valuation: Equity Risk Premium

Figure 12.



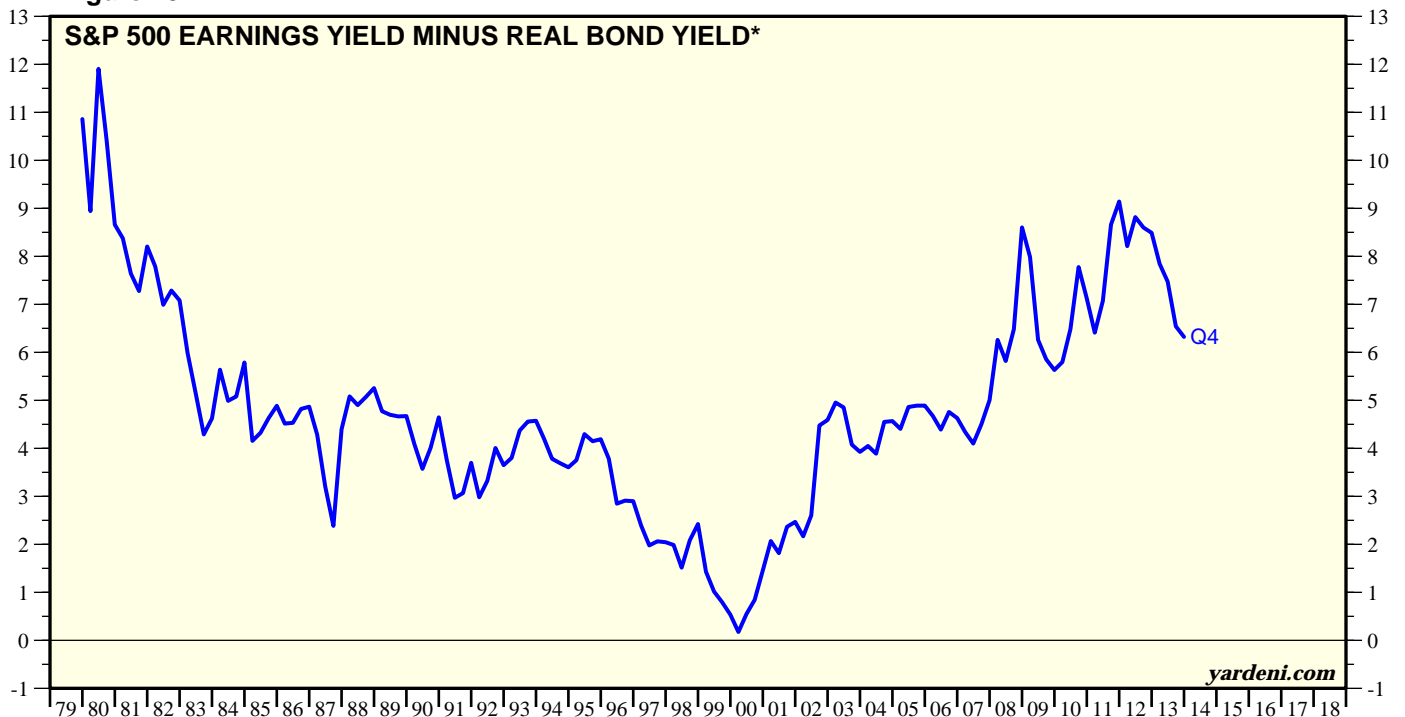
\* Data from 1979 to 1991 quarterly, monthly thereafter.

\*\* Earnings-price ratio is based on the Thomson Reuters I/B/E/S consensus estimates of earnings over the coming 12 months.

\*\*\* Yields on Treasury inflation protected securities (TIPS) adjusted to constant maturities.

Source: Board of Governors of the Federal Reserve System, US Treasury, Thomson Reuters I/B/E/S, and Federal Reserve Bank of Philadelphia.

Figure 13.

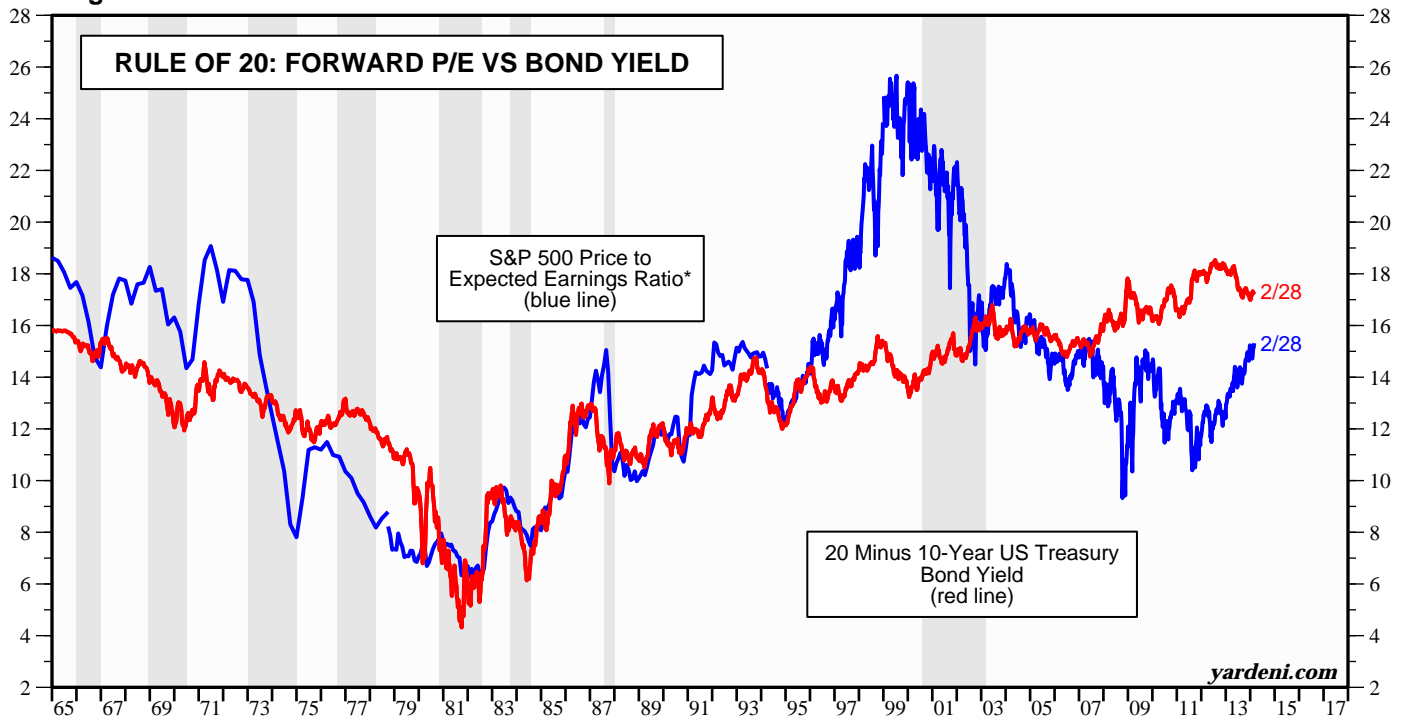


\* S&P 500 forward expected earnings to price ratio minus 10-year Treasury bond yield minus average expected CPI inflation rate for next 10 years (Phili Fed Survey).

Source: Board of Governors of the Federal Reserve System, US Treasury, Thomson Reuters I/B/E/S, and Federal Reserve Bank of Philadelphia.

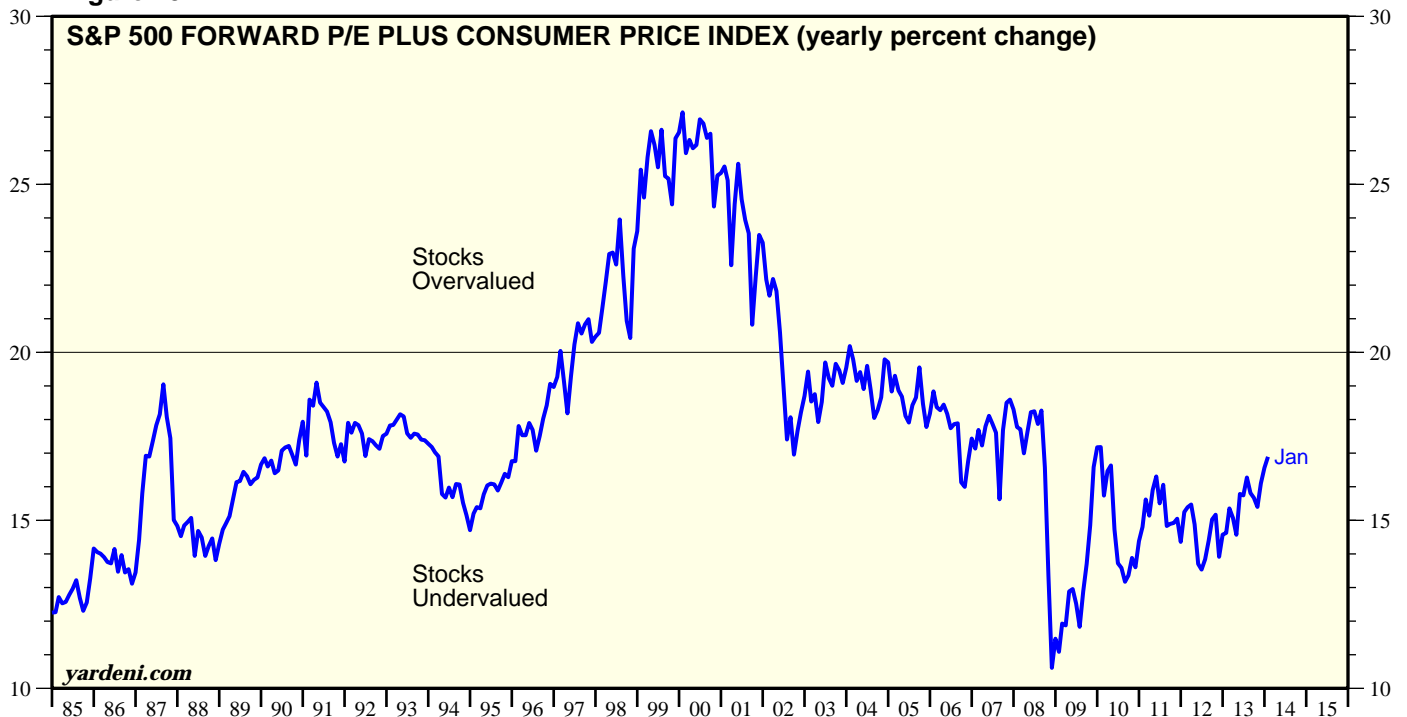
# Valuation: Rules of 20

Figure 14.



\* Using four-quarter trailing reported earnings per share from 1965 to September 1978. Then 12-month forward consensus expected S&P 500 operating earnings per share from October 1978 through March 1994, weekly after.  
 Note: Shaded areas are periods when S&P 500 fell 15% or more.  
 Source: Thomson Reuters I/B/E/S and Board of Governors of the Federal Reserve System.

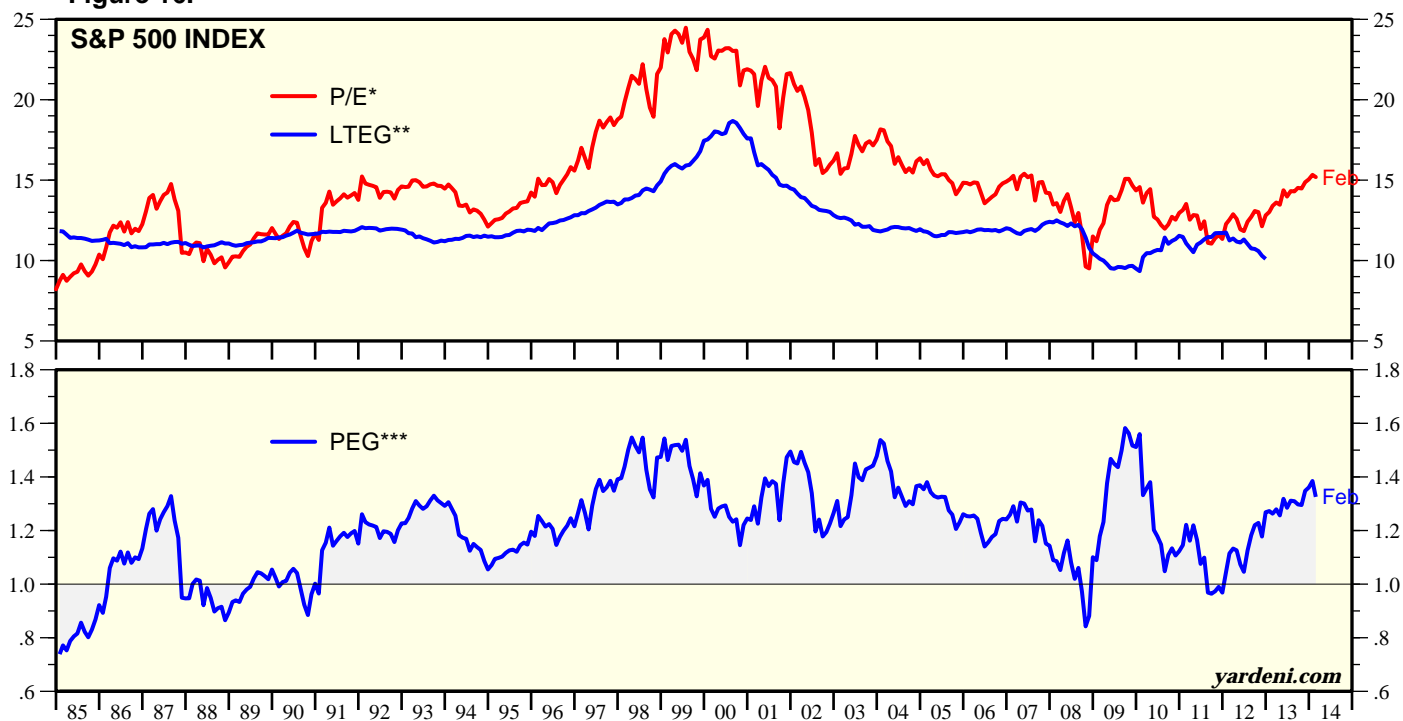
Figure 15.



Source: Thomson Reuters I/B/E/S and US Department of Labor, Bureau of Labor Statistics.

# Valuation Models

Figure 16.



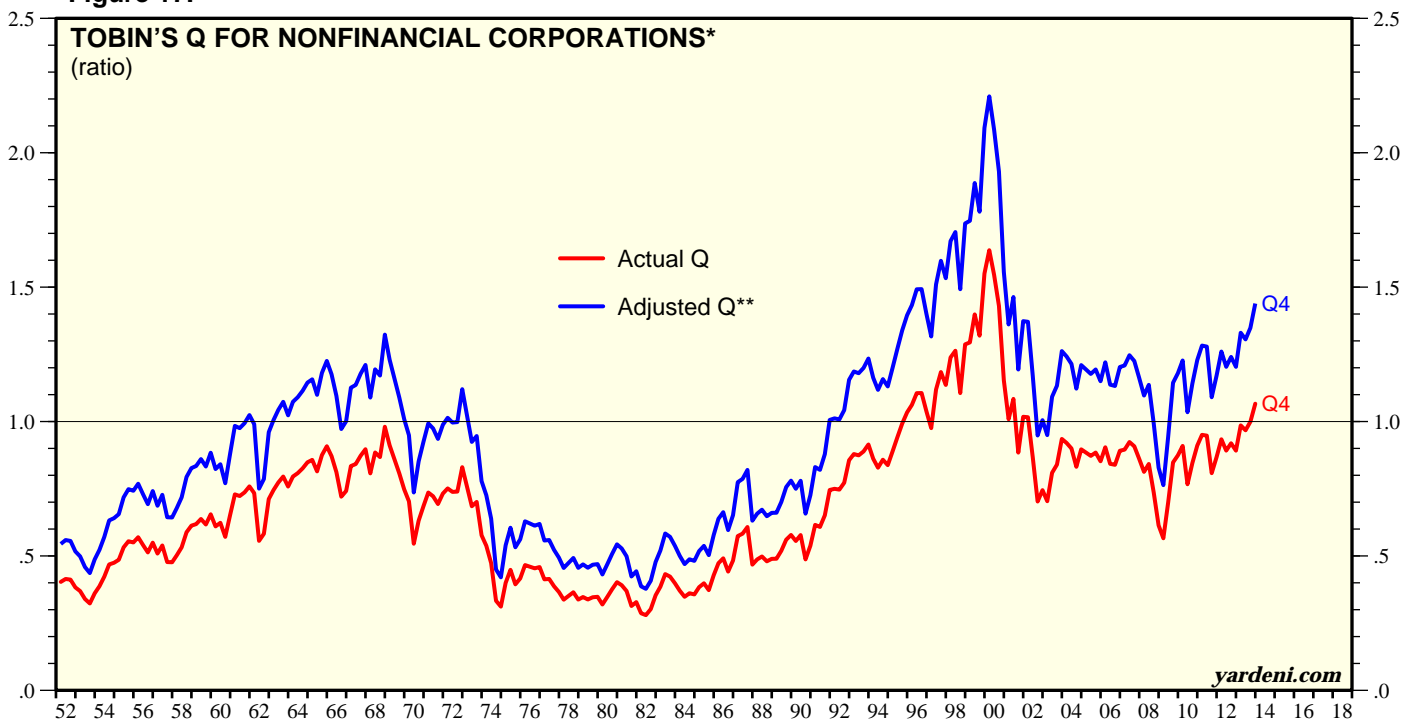
\* P/E = price-to-earnings ratio using mid-month price and 12-month forward consensus earnings expectations.

\*\* LTEG = consensus median 5-year expected earnings growth.

\*\*\* PEG = P/E divided by LTEG.

Source: Thomson Reuters I/B/E/S.

Figure 17.



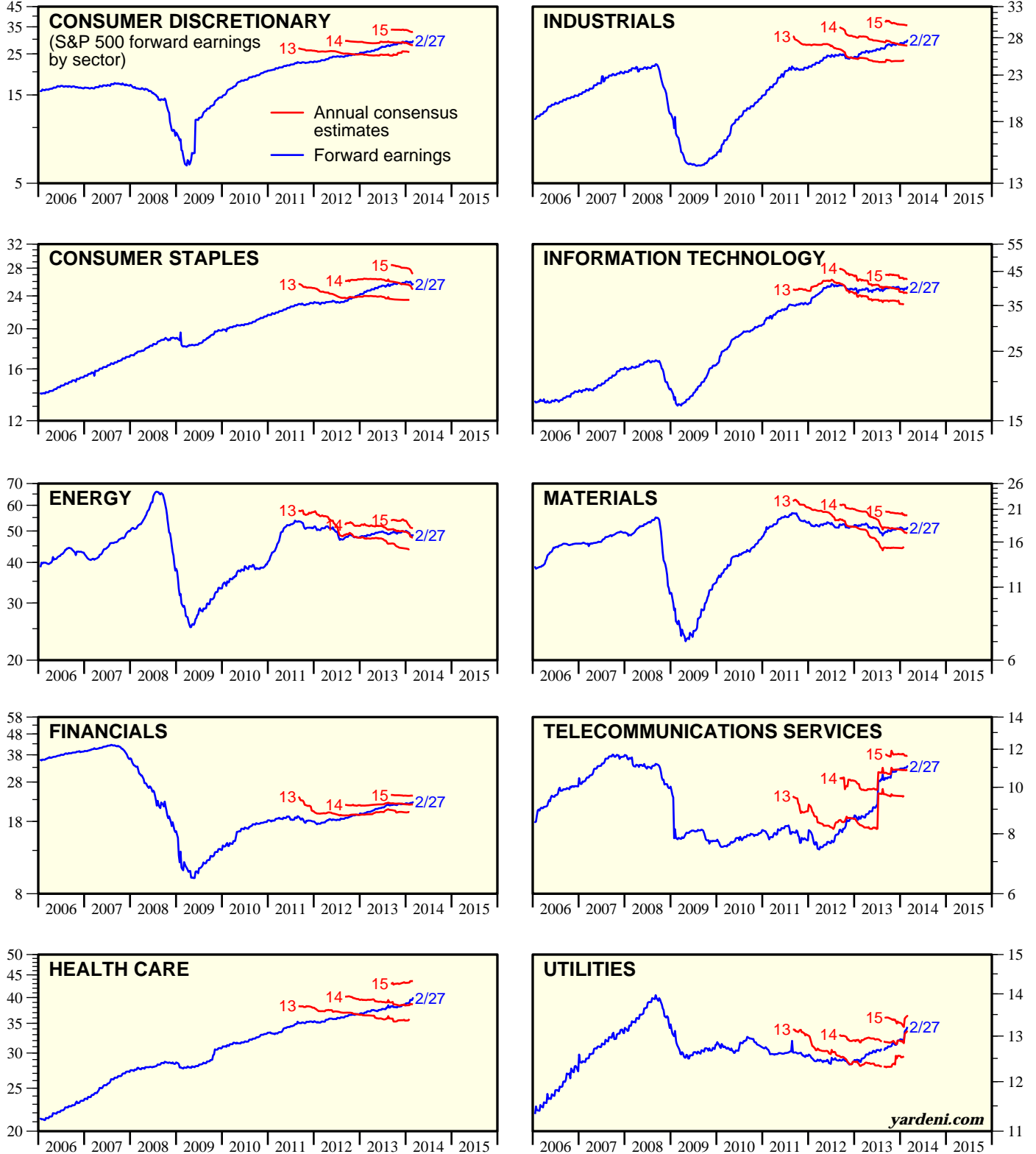
\* Ratio of market value of equities to net worth at market value, which includes real estate (including structures) at market value and equipment, software, and inventories at replacement cost.

\*\* Actual divided by average since 1952.

Source: Federal Reserve Board Flow of Funds Accounts.

# S&P 500 Forward Earnings

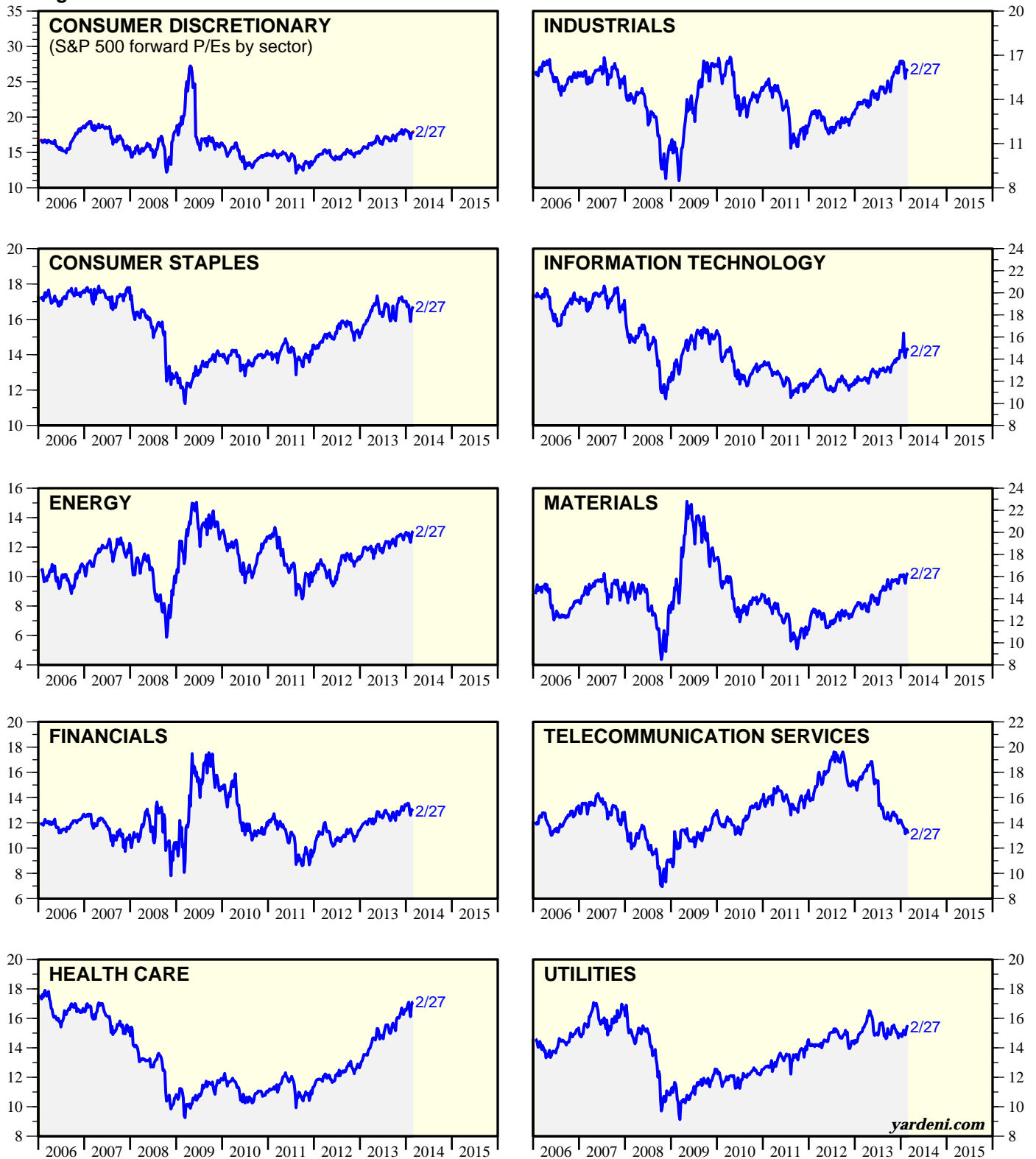
Figure 18.



Source: Thomson Reuters I/B/E/S.

# S&P 500 Valuation

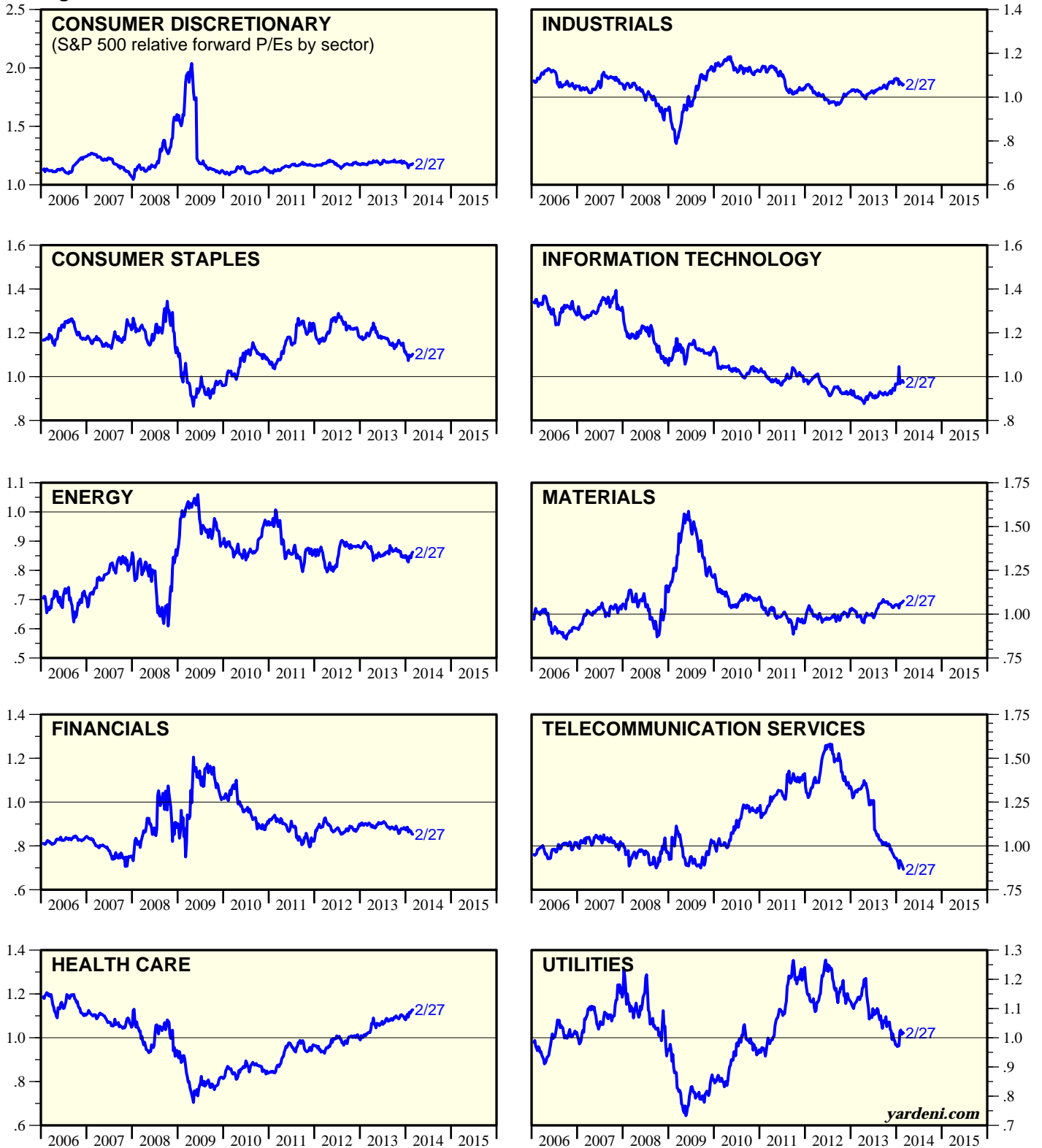
Figure 19.



Source: Thomson Reuters I/B/E/S.

# S&P 500 Relative Valuation

Figure 20.

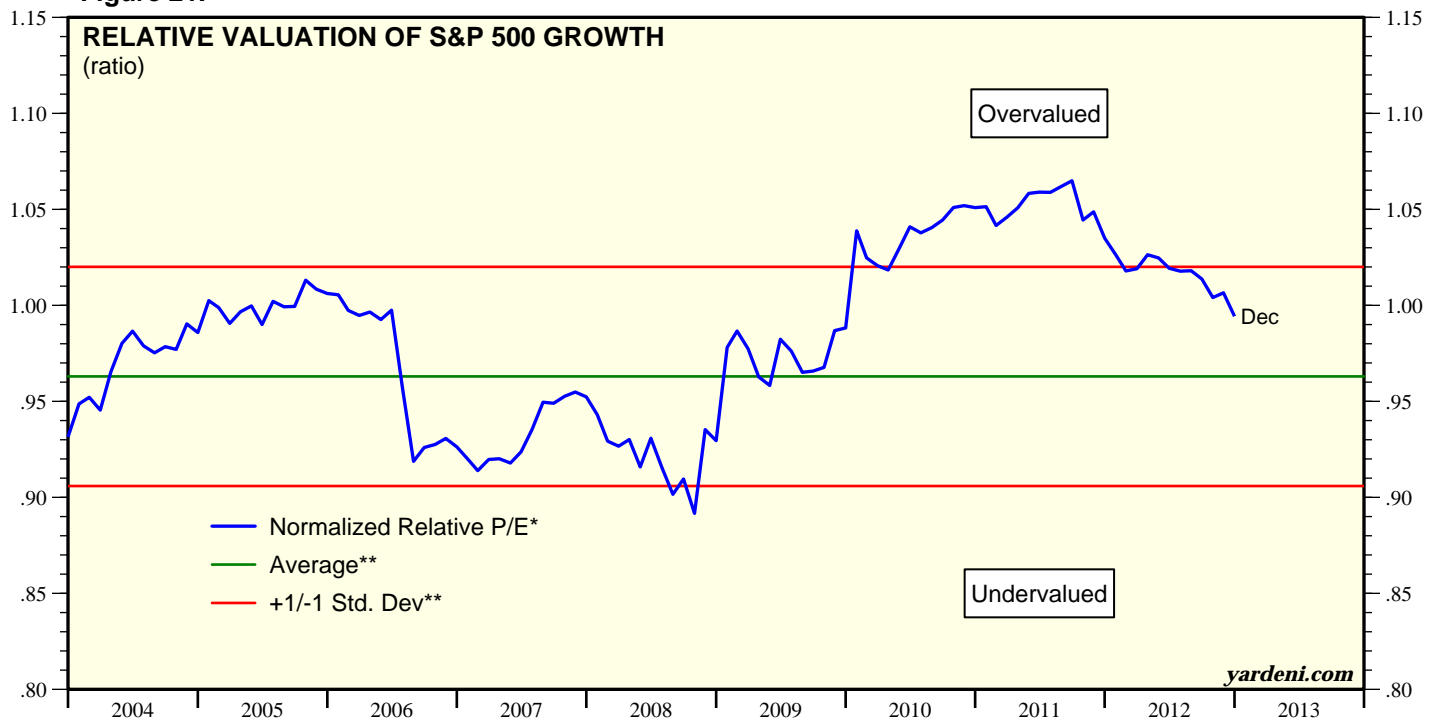


\* Sector's forward P/E divided by S&P 500 forward P/E.  
Source: Thomson Reuters I/B/E/S.



# Relative Valuation: S&P 500 Growth vs. S&P 500 Value

Figure 21.

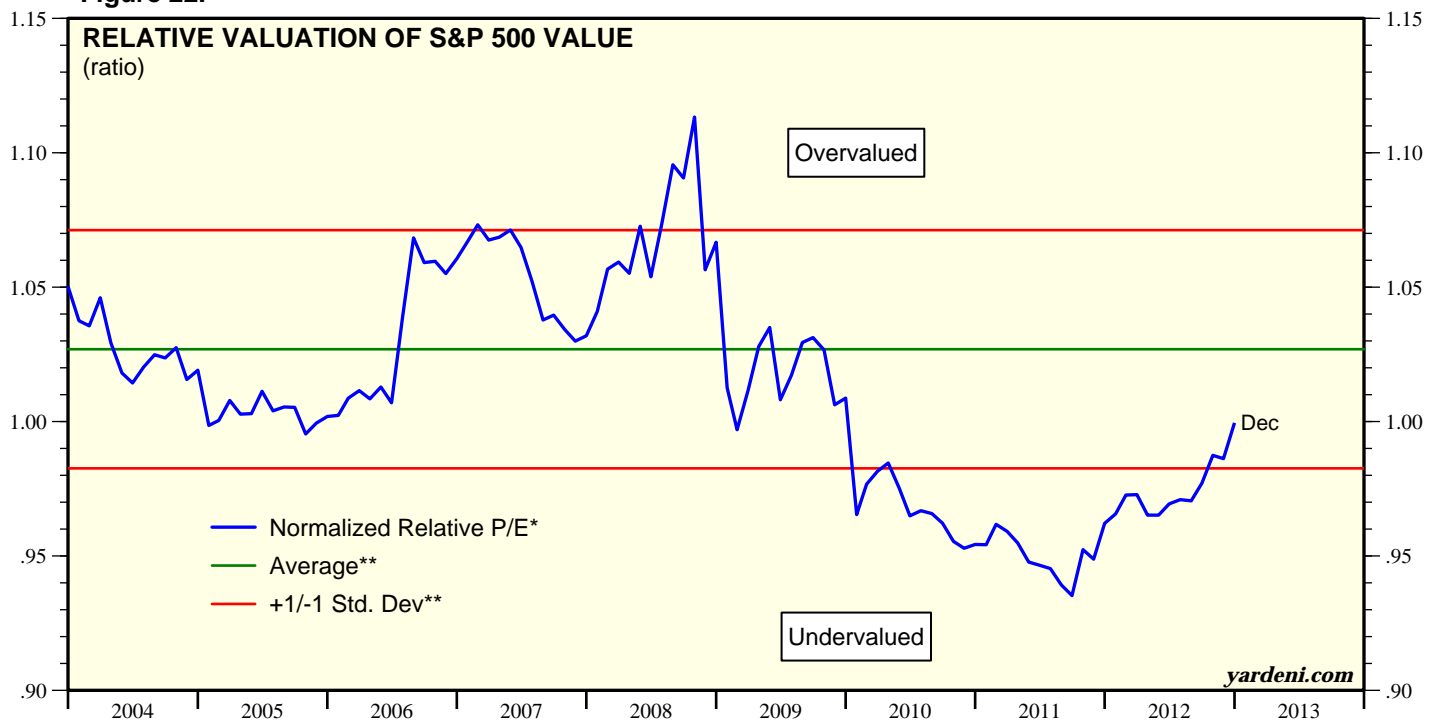


\* Normalized Relative P/E is relative P/E divided by the prior 36 month average of the relative P/E. Relative P/E is P/E divided by P/E of S&P 500.

\*\* The average and standard deviation is based on the monthly Normalized Relative P/E values spread over the last 10 fiscal years.

Source: Thomson Reuters I/B/E/S.

Figure 22.



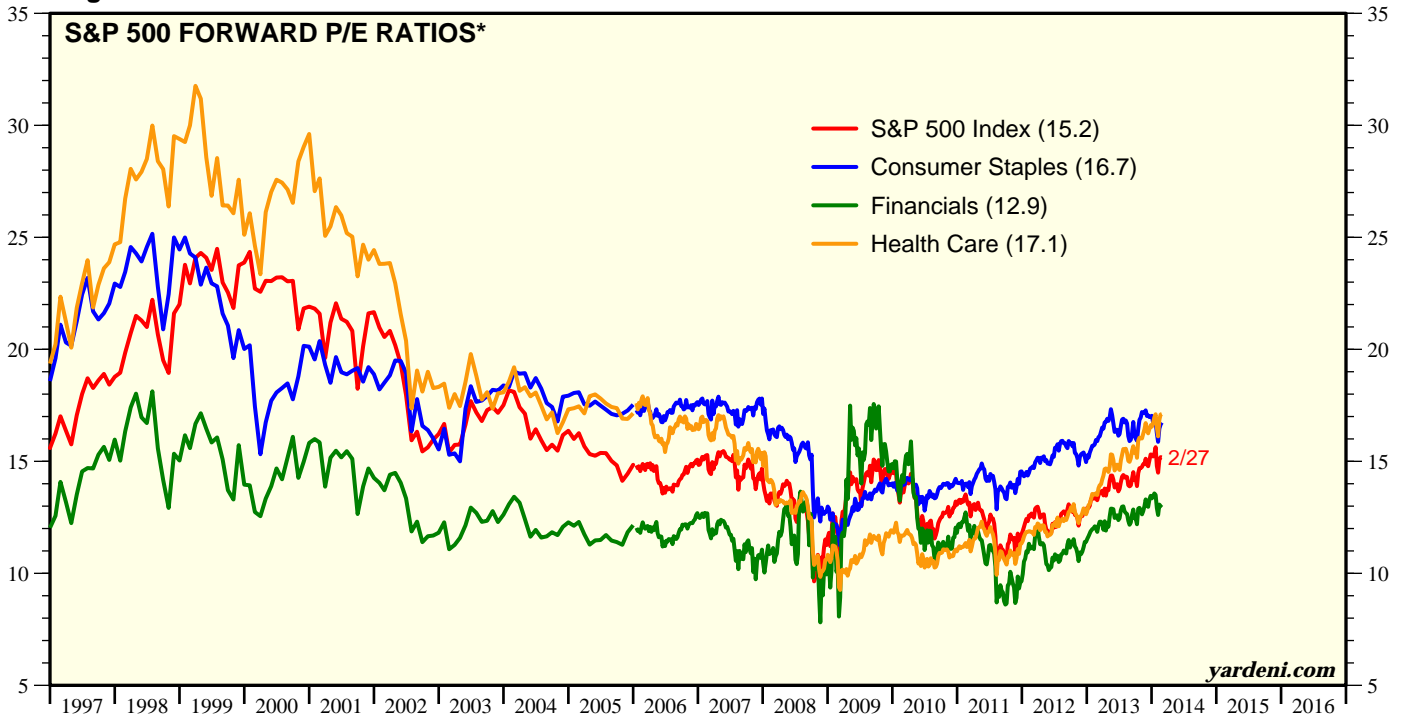
\* Normalized Relative P/E is relative P/E divided by the prior 36 month average of the relative P/E. Relative P/E is P/E divided by P/E of S&P 500.

\*\* The average and standard deviation is based on the monthly Normalized Relative P/E values spread over the last 10 fiscal years.

Source: Thomson Reuters I/B/E/S.

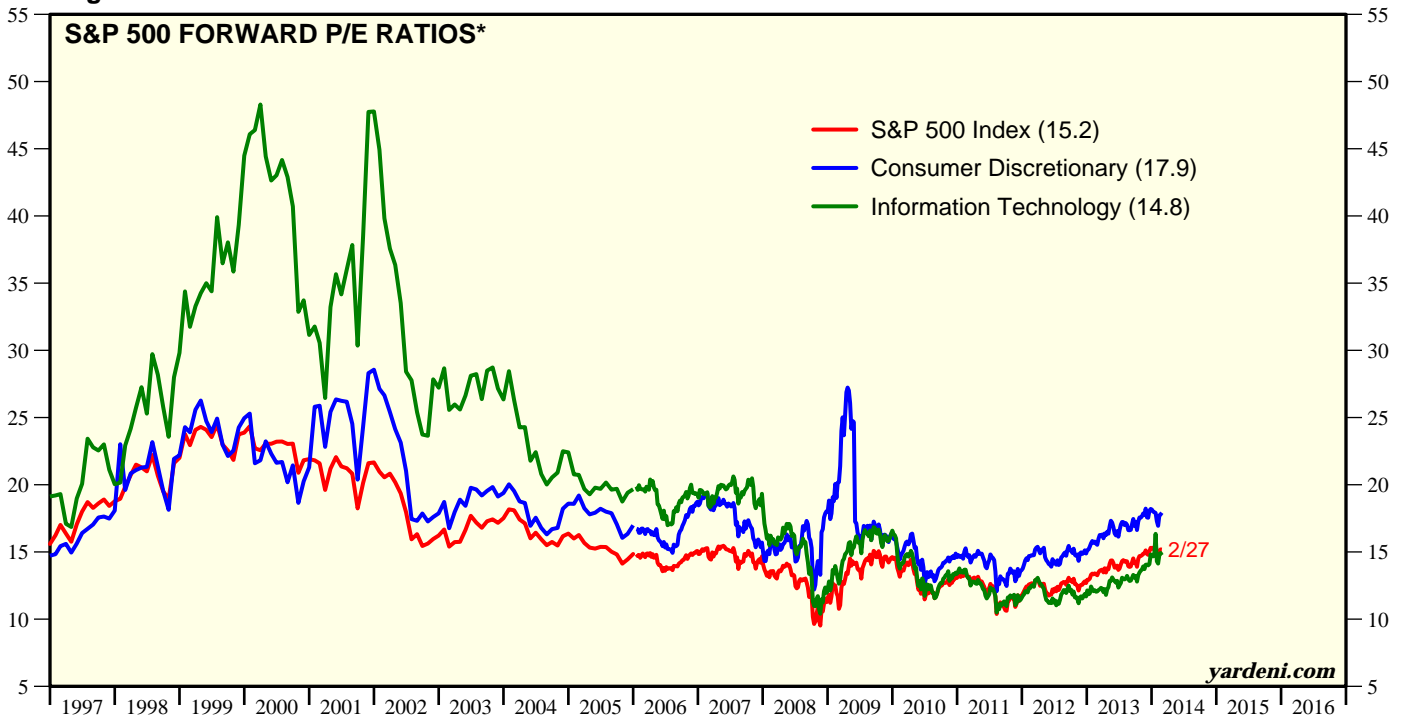
# S&P 500 Sector P/Es

Figure 23.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

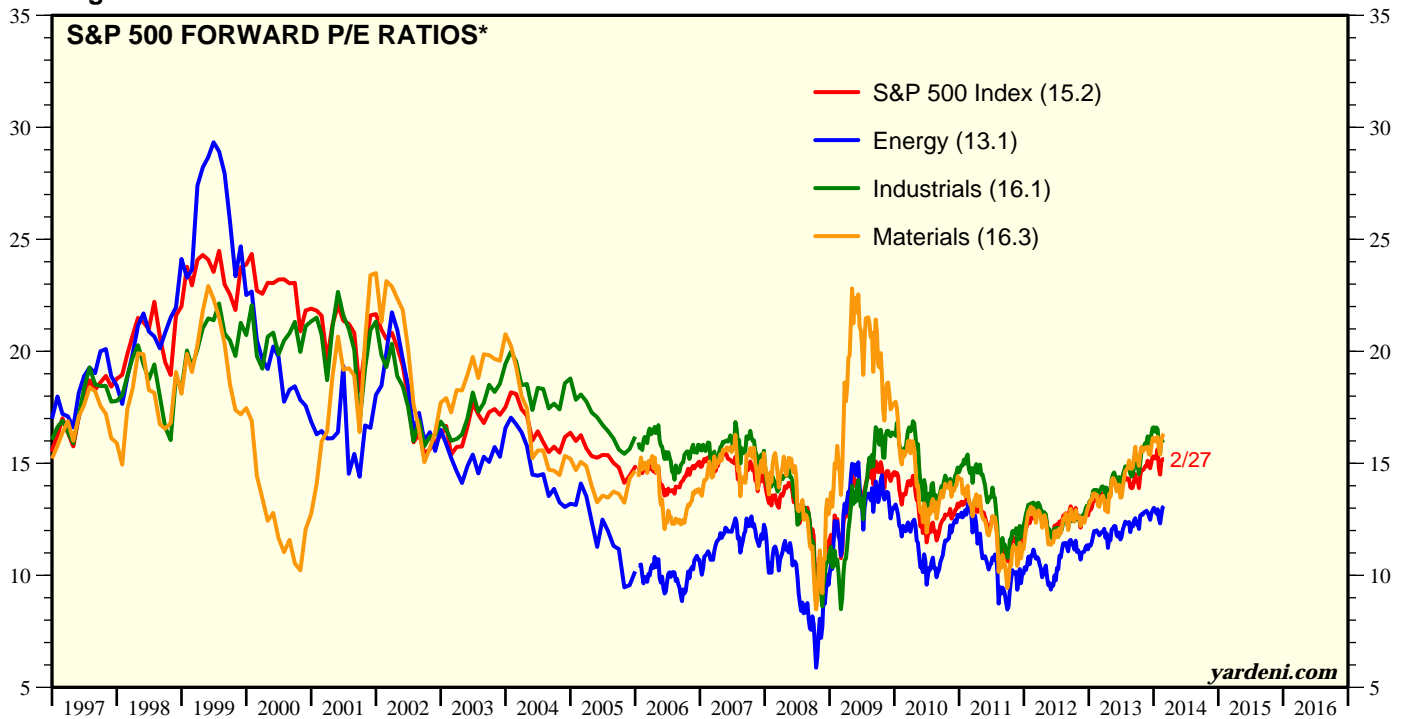
Figure 24.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

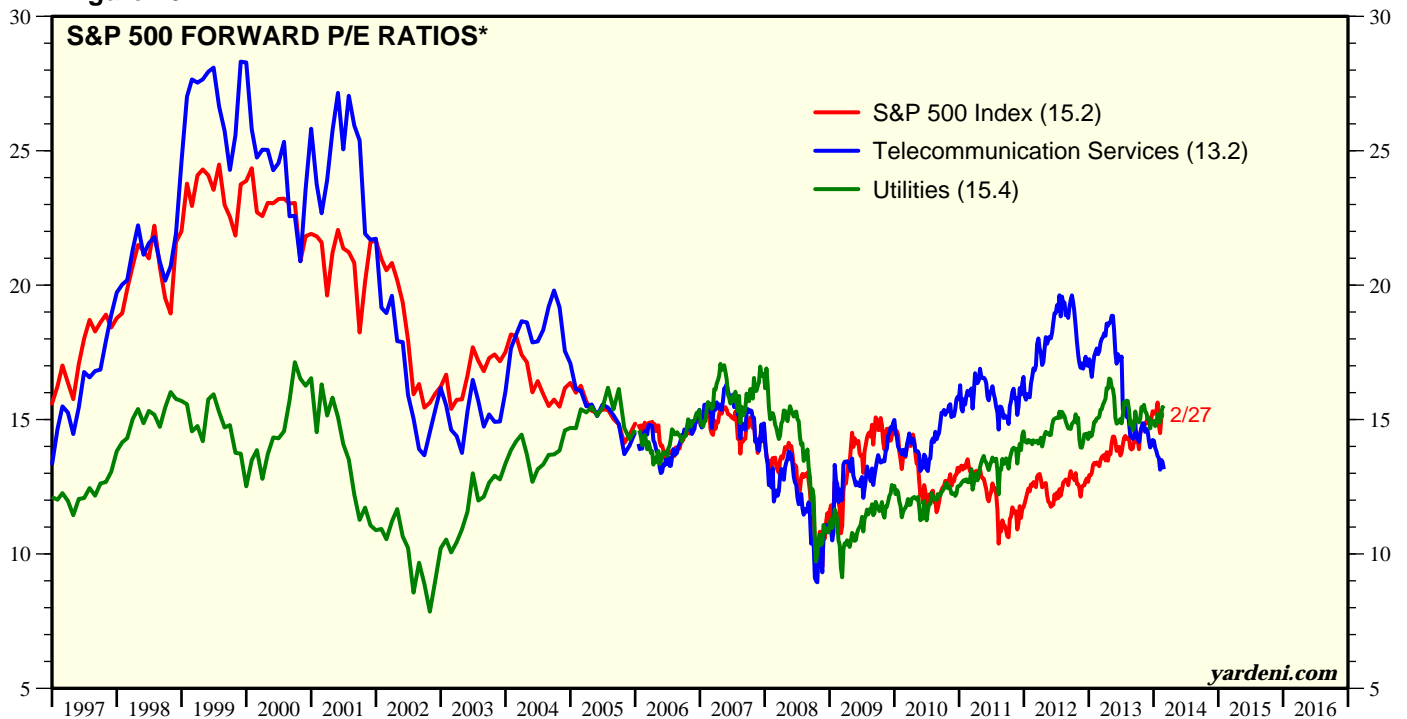
# S&P 500 Sector P/Es

Figure 25.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

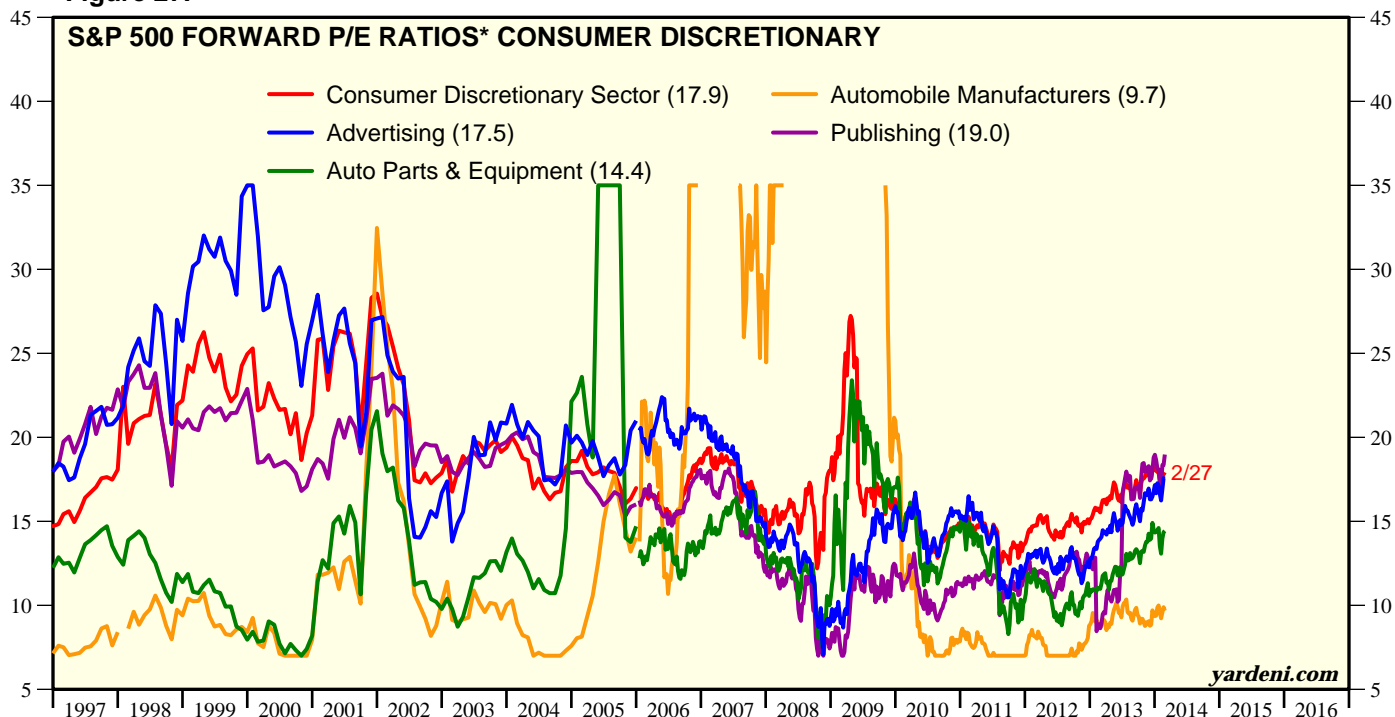
Figure 26.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

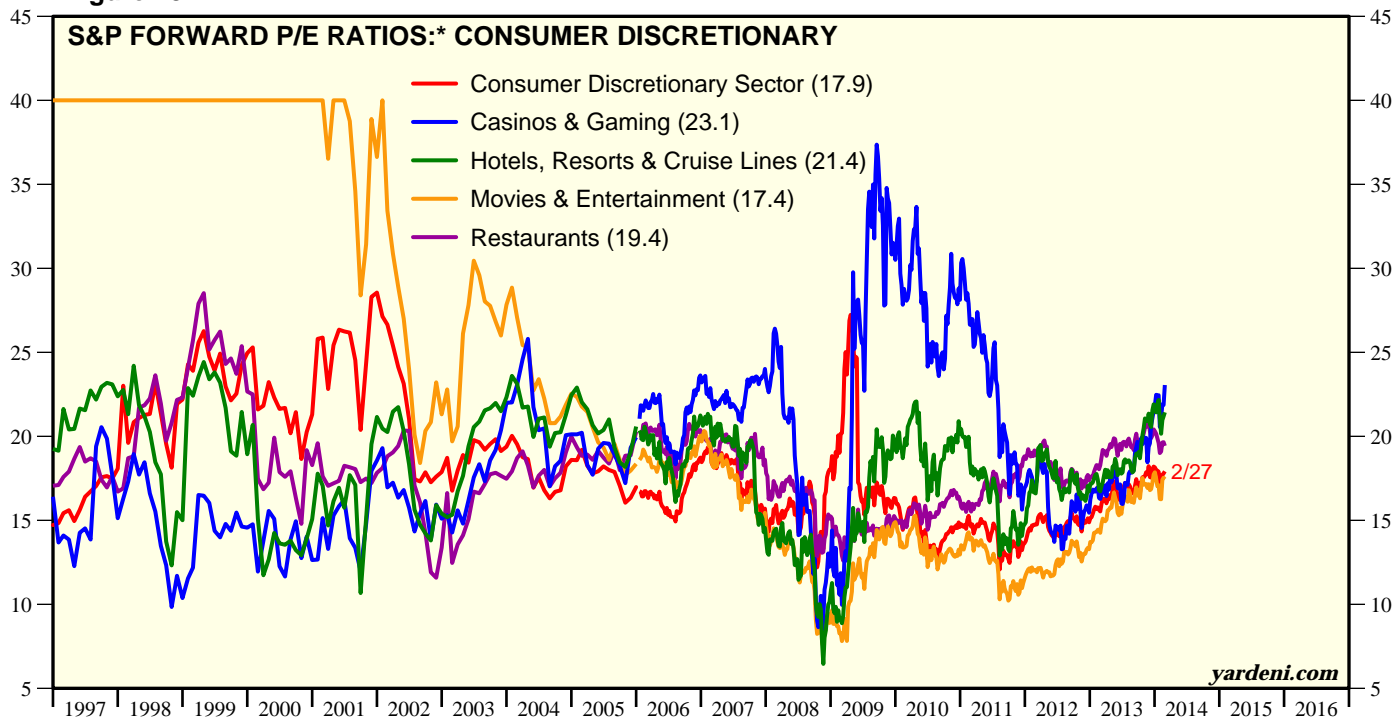
# Consumer Discretionary P/Es

Figure 27.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 7 and 35 for all industries.  
Source: Thomson Reuters I/B/E/S.

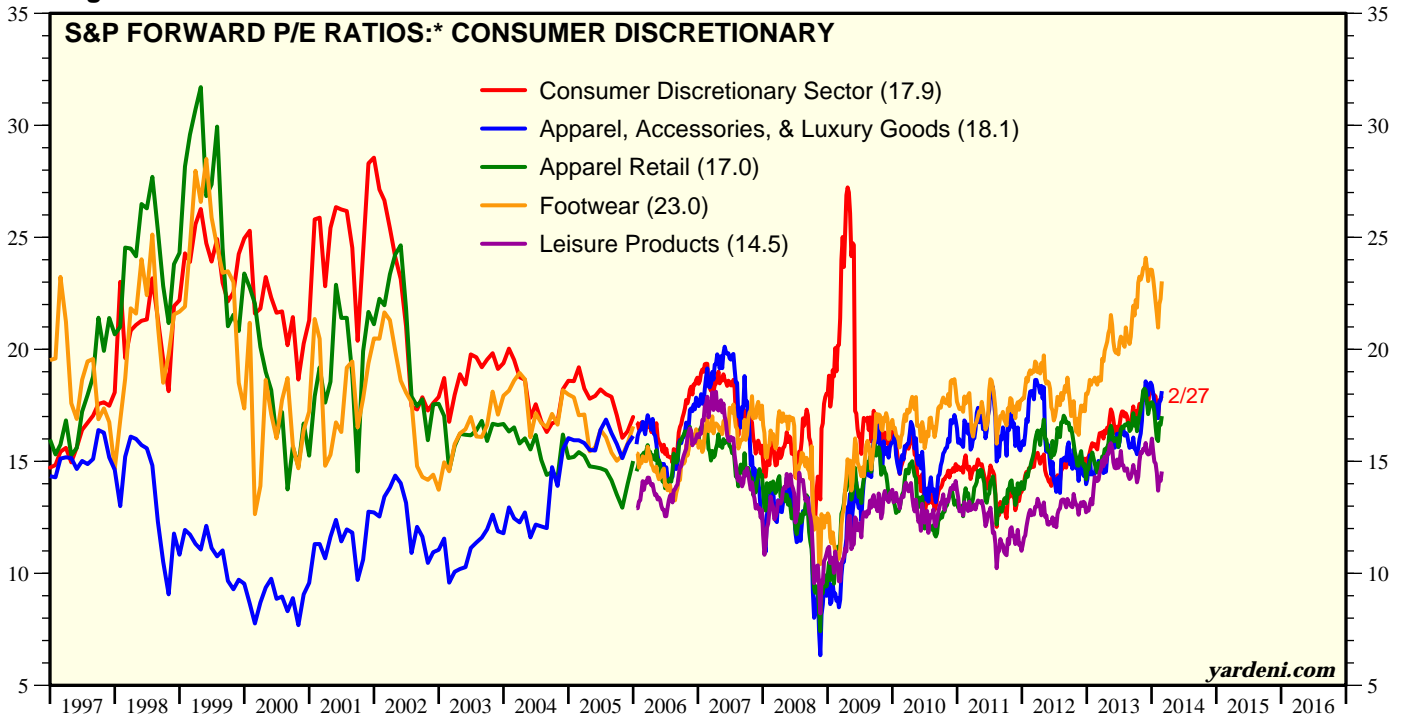
Figure 28.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 40 for all industries.  
Source: Thomson Reuters I/B/E/S.

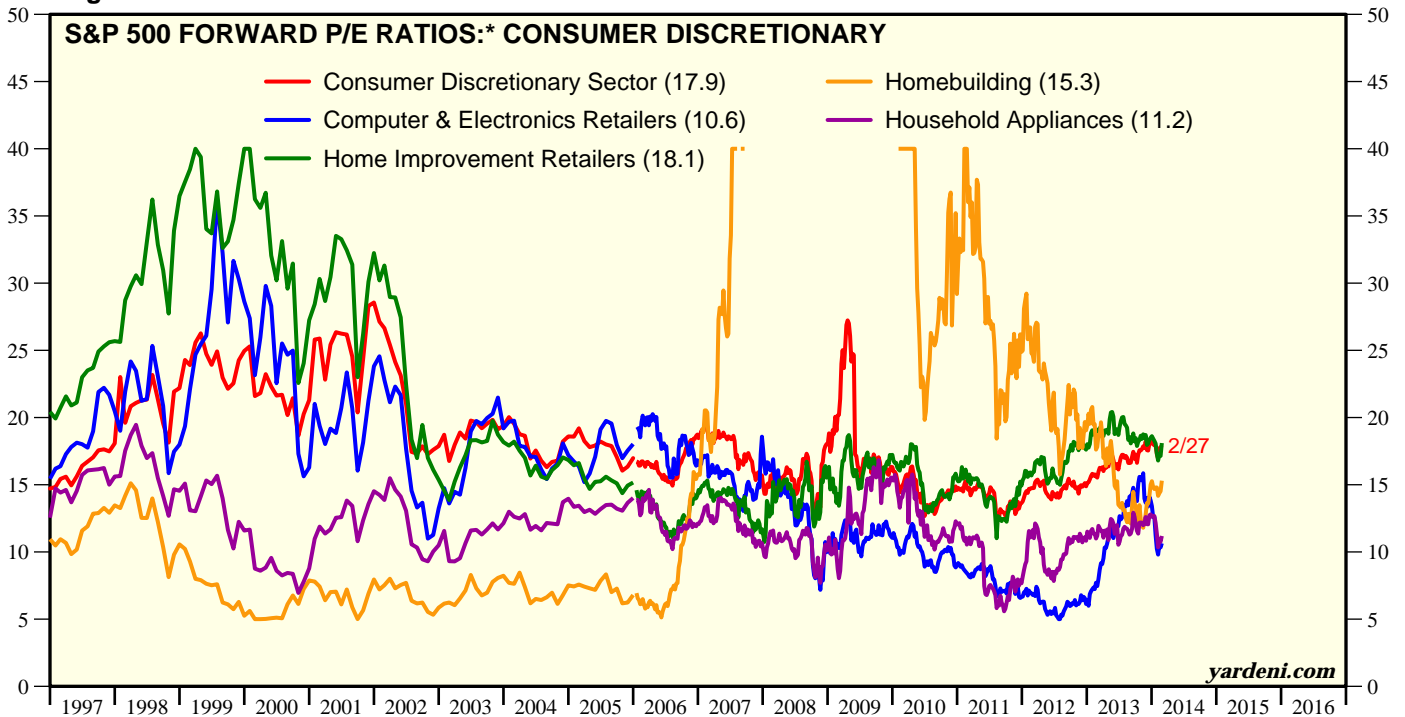
# Consumer Discretionary P/Es

Figure 29.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

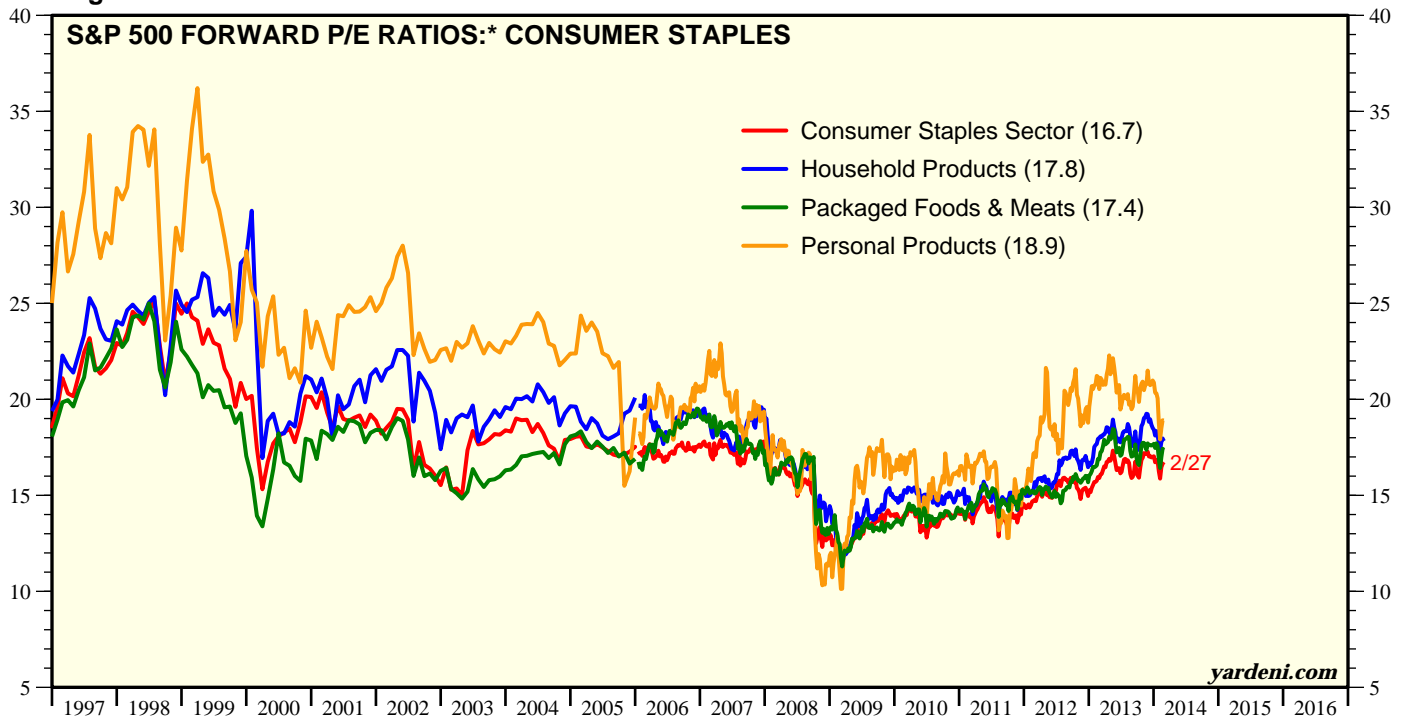
Figure 30.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 5 and 40 for all industries.  
Source: Thomson Reuters I/B/E/S.

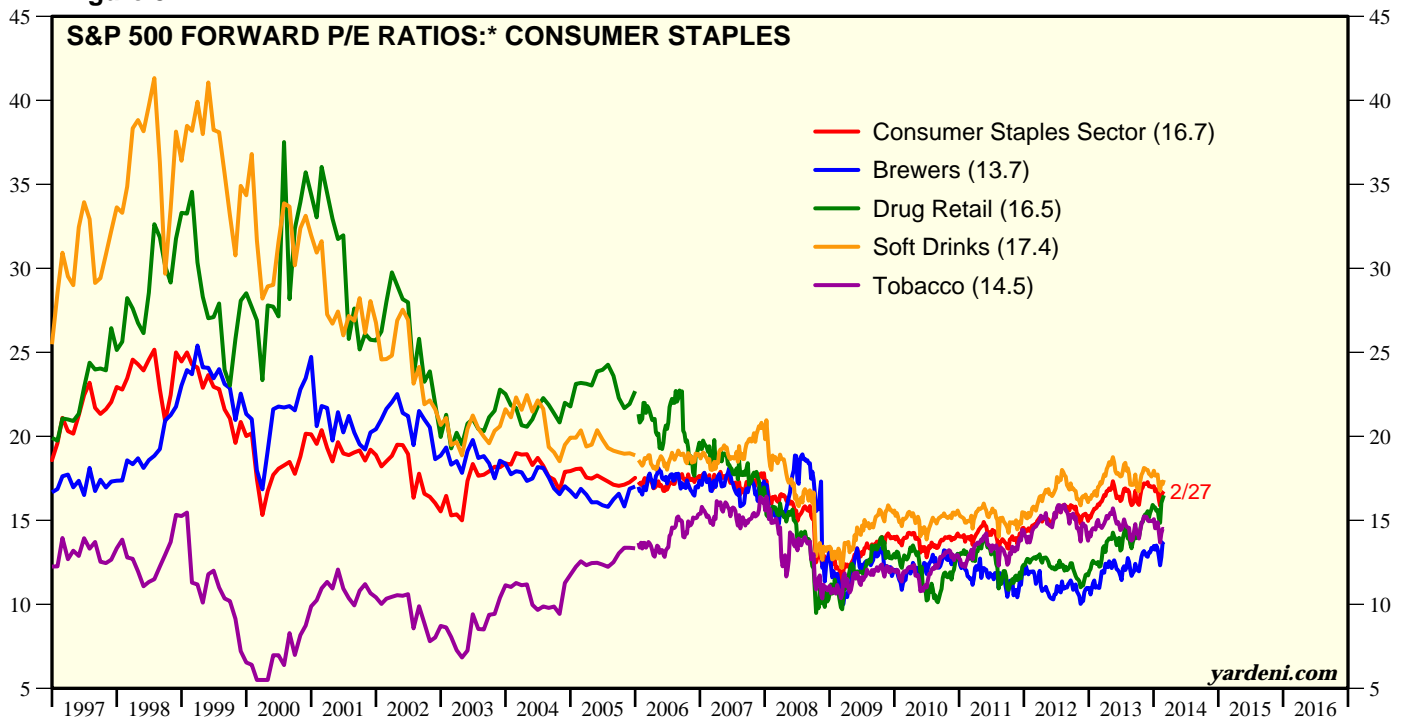
# Consumer Staples P/Es

Figure 31.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

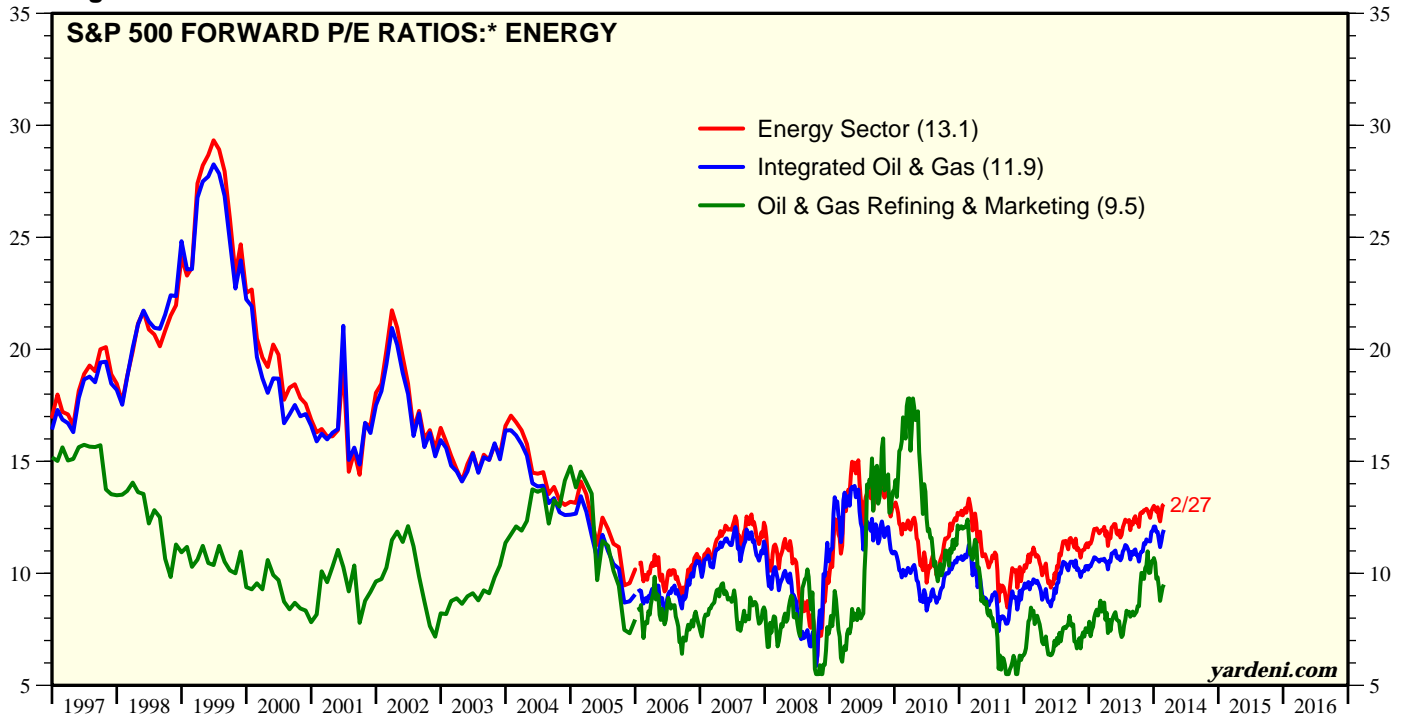
Figure 32.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

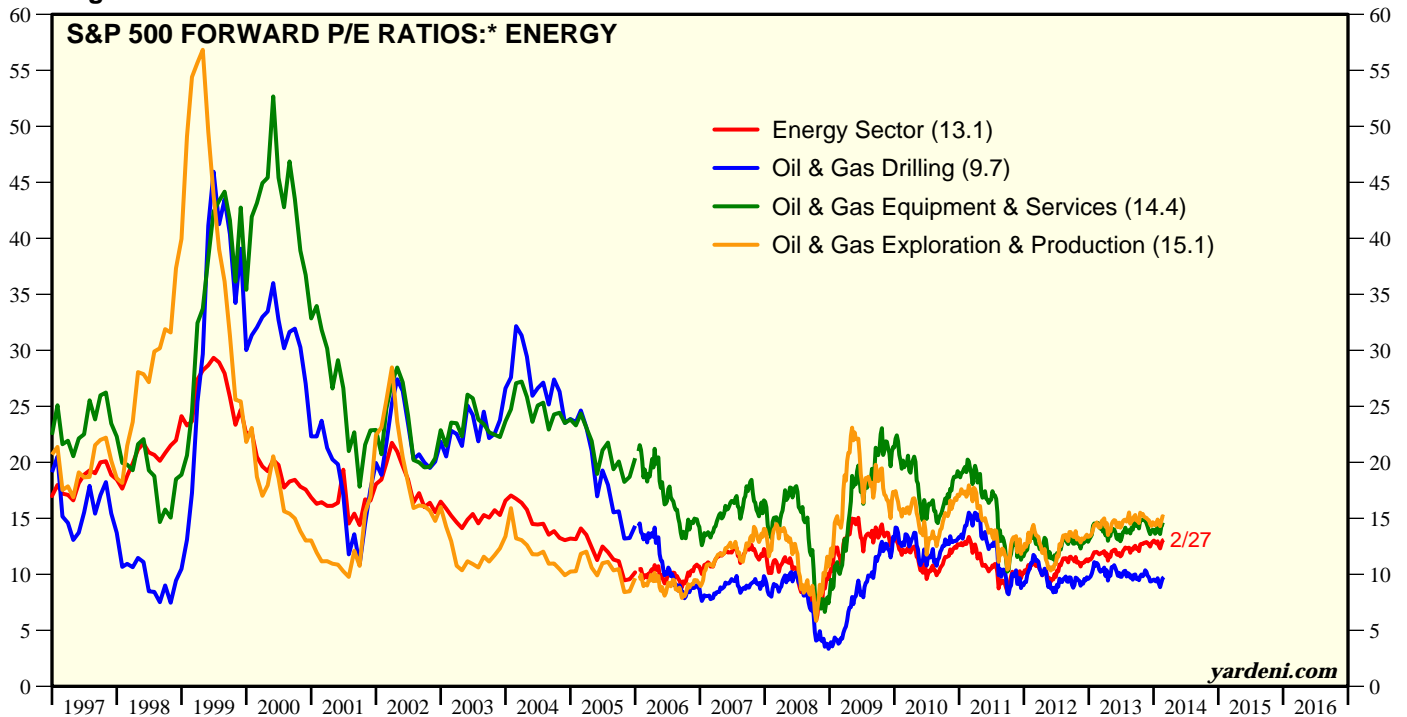
# Energy P/Es

Figure 33.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

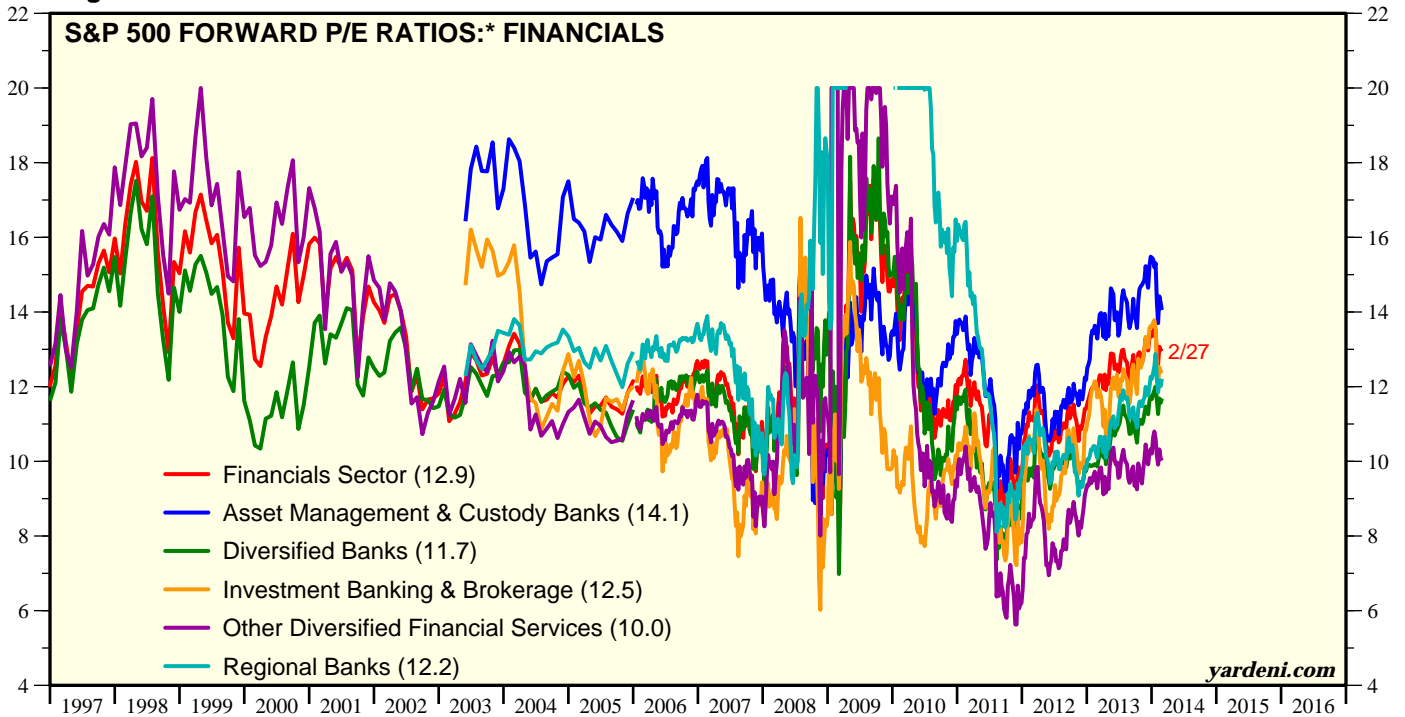
Figure 34.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

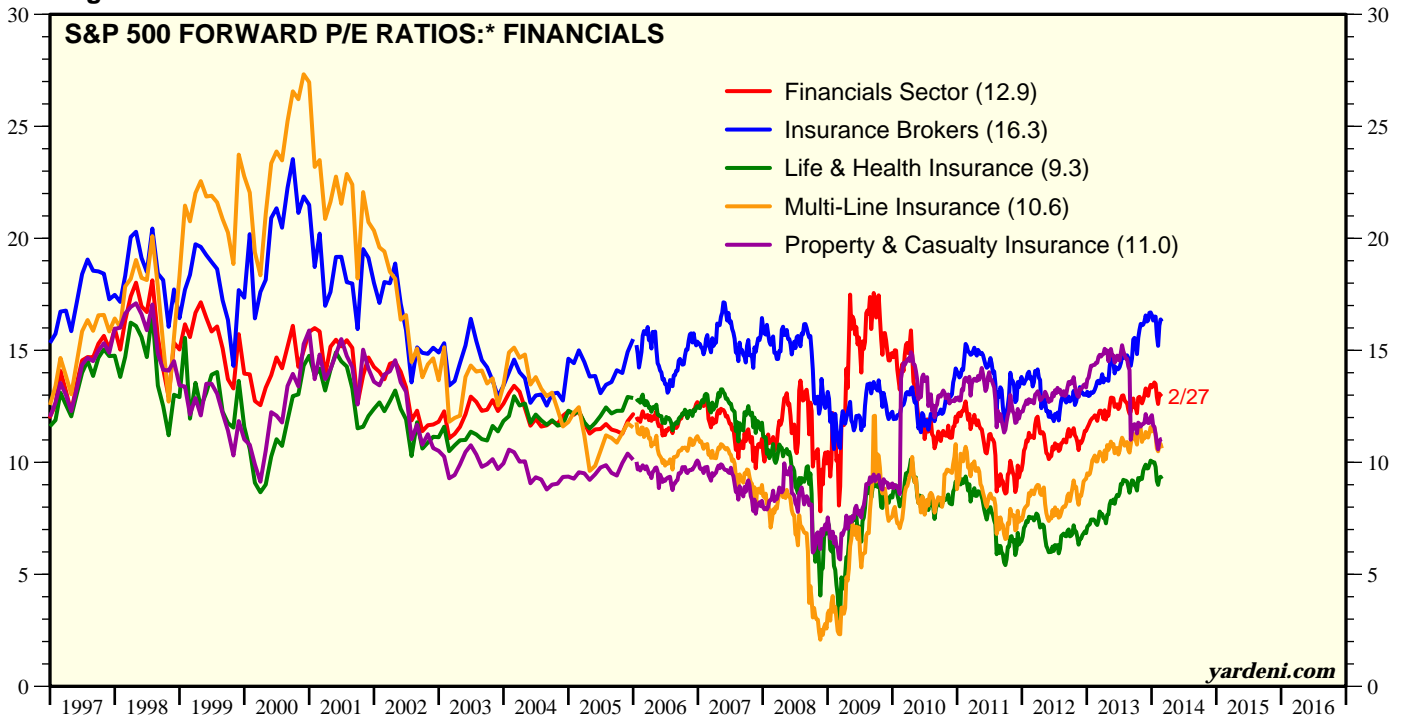
# Financials P/Es

Figure 35.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 20 for all industries.  
Source: Thomson Reuters I/B/E/S.

Figure 36.

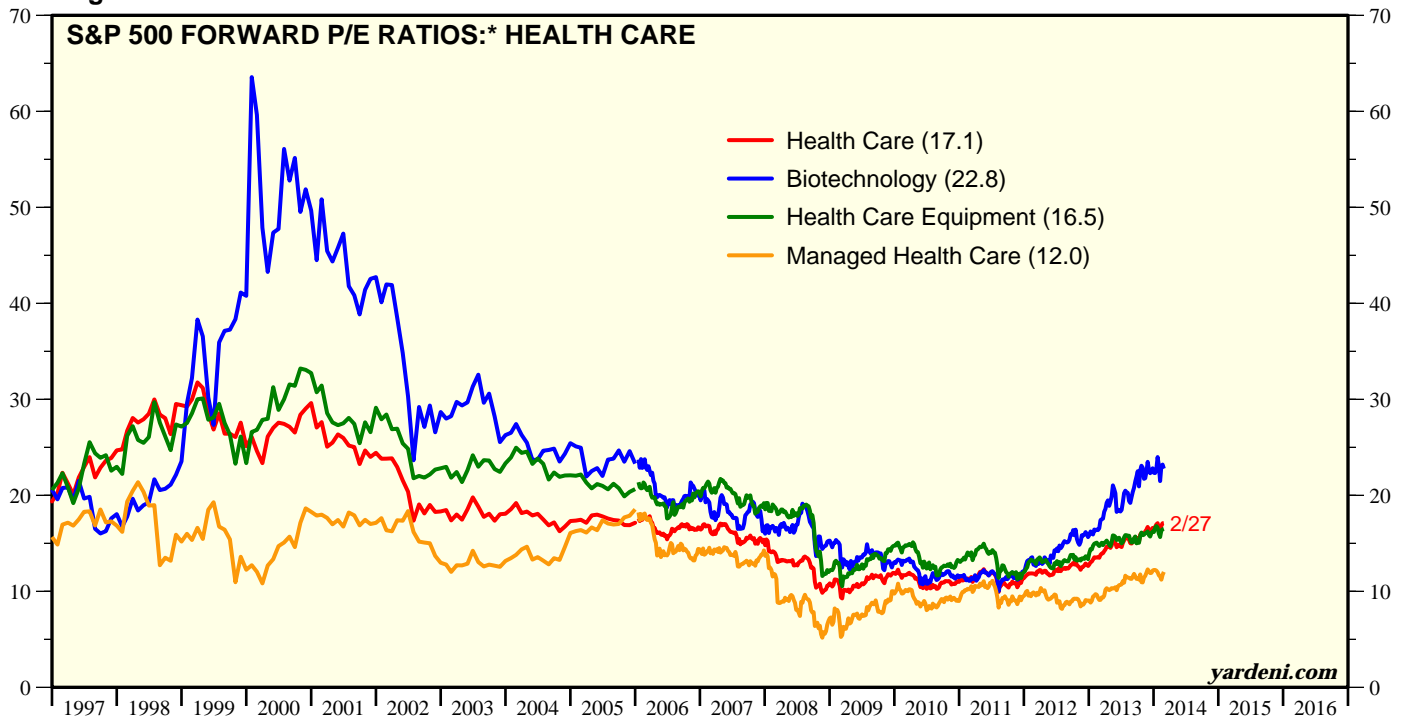


\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.



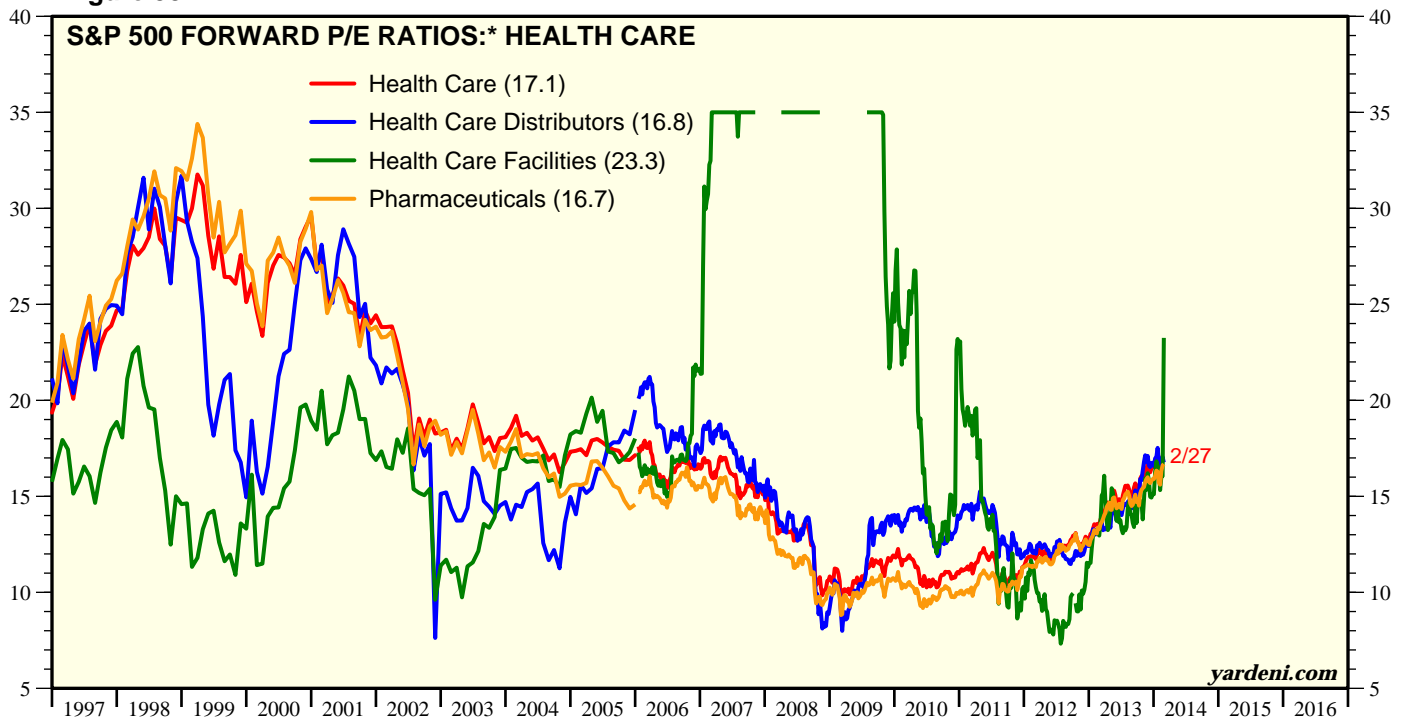
# Health Care P/Es

Figure 37.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

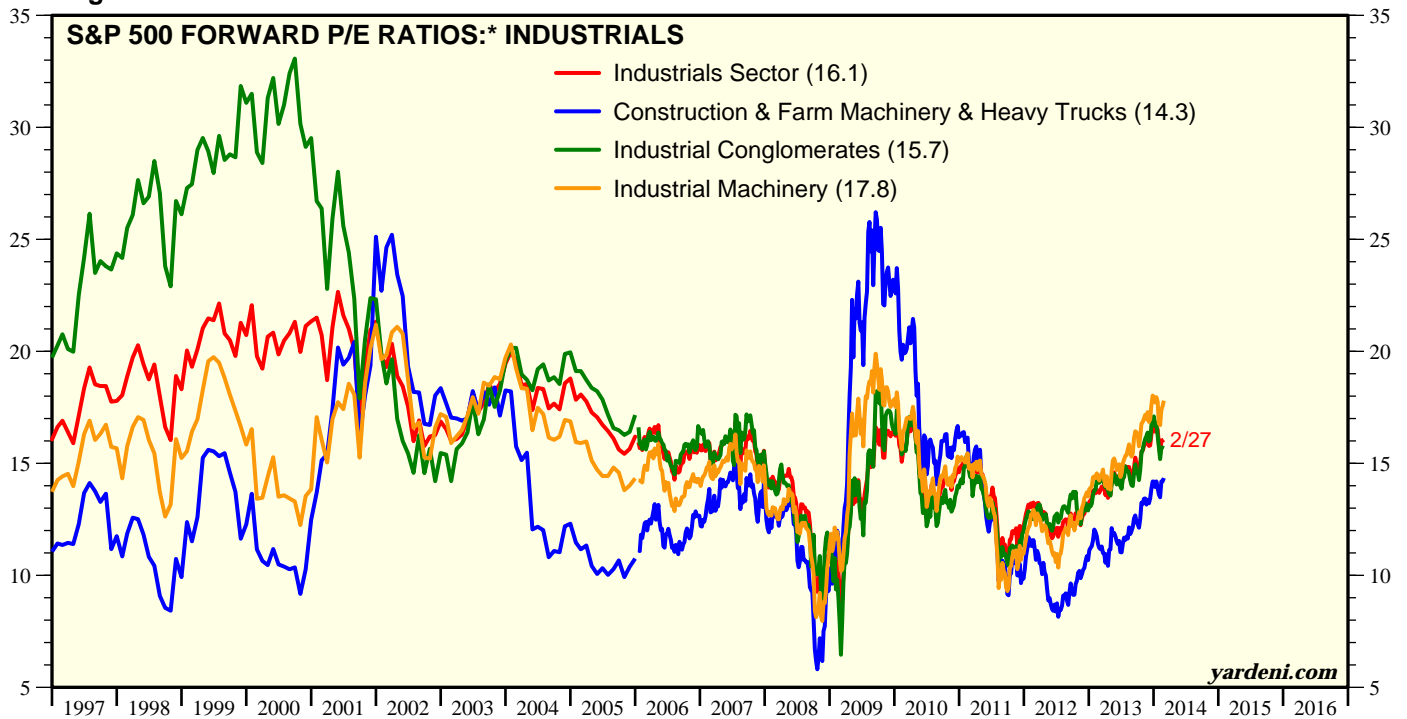
Figure 38.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 7 and 35 for all industries.  
Source: Thomson Reuters I/B/E/S.

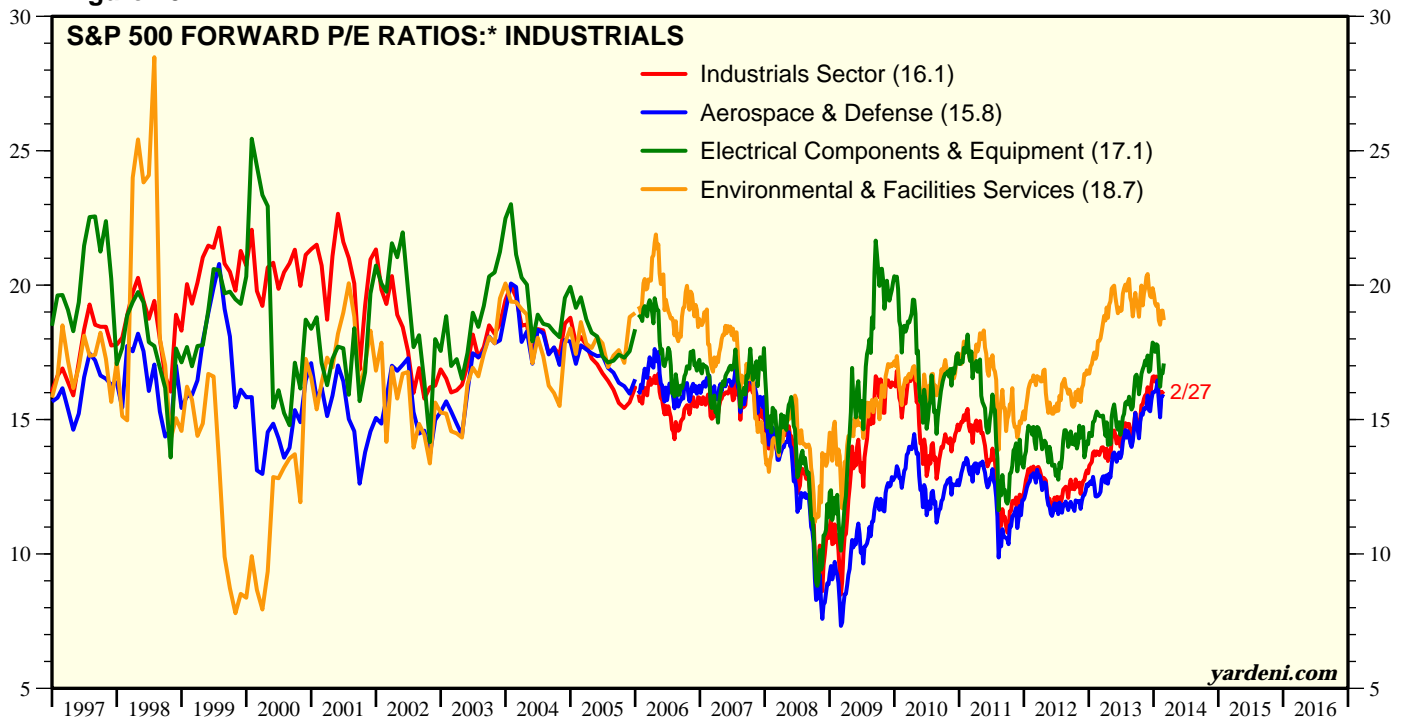
# Industrials P/Es

Figure 39.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

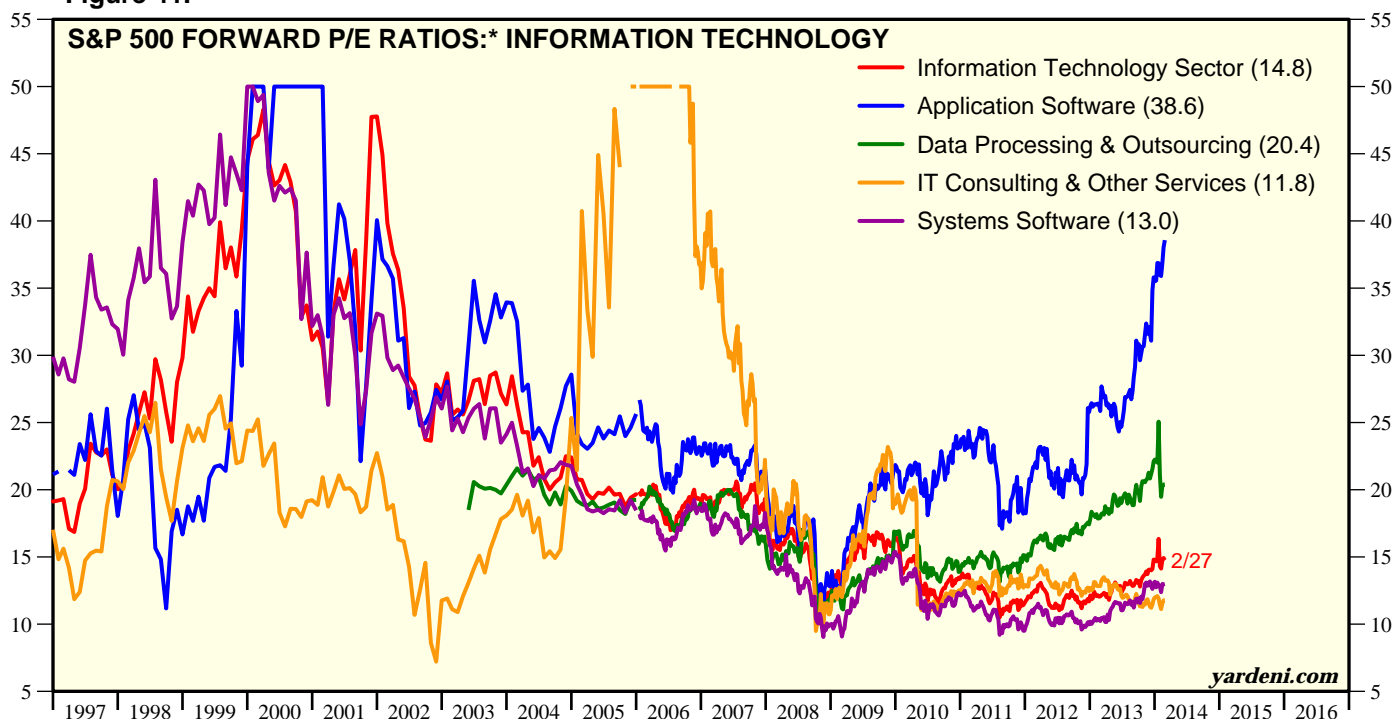
Figure 40.



\* Price divided by 12-month forward consensus expected operating earnings per share using mid-month data.  
Source: Thomson Reuters I/B/E/S.

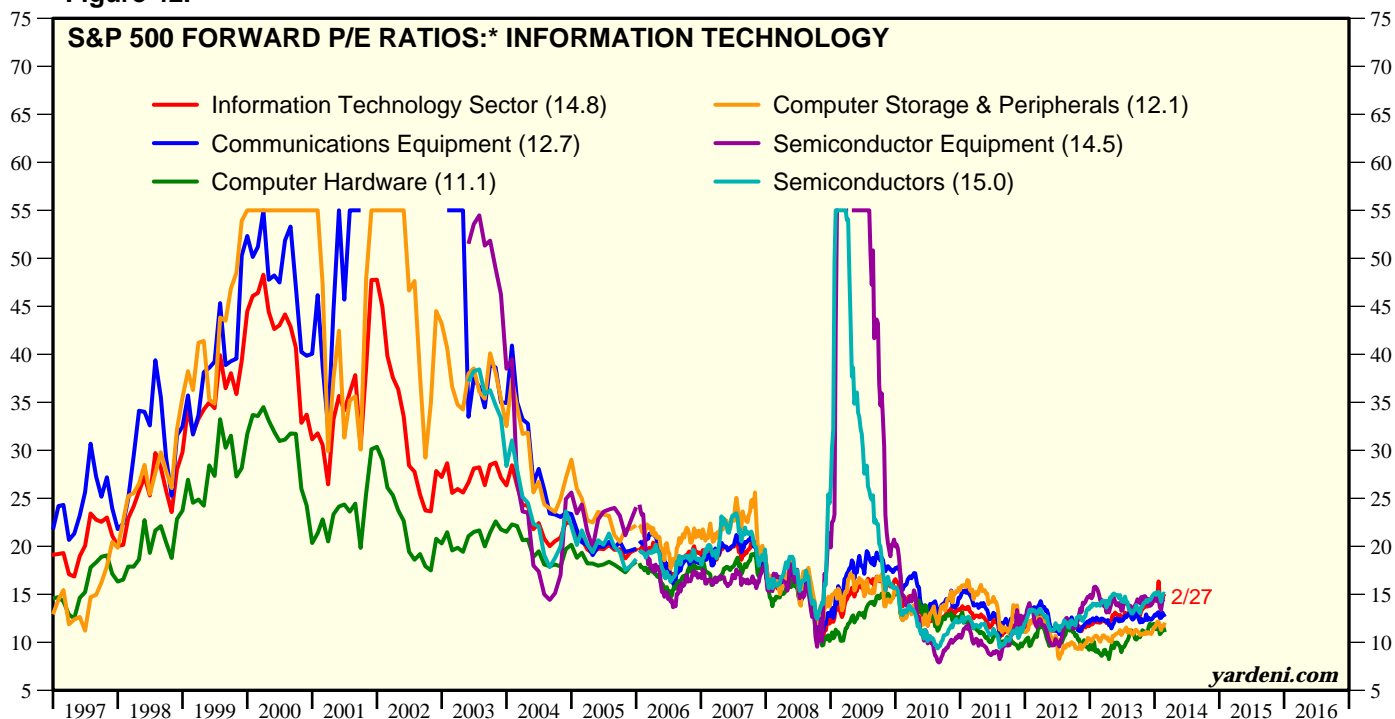
# Information Technology P/Es

Figure 41.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 7 and 50 for all industries.  
Source: Thomson Reuters I/B/E/S.

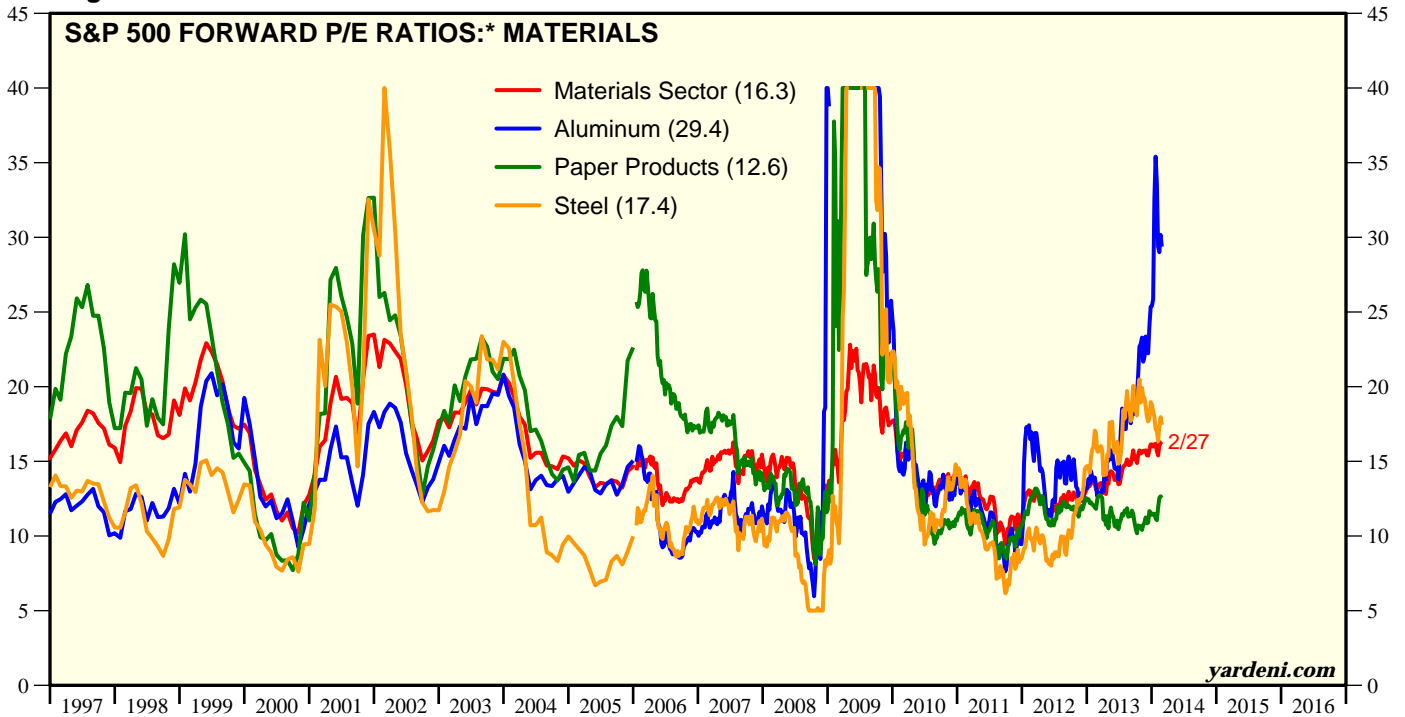
Figure 42.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 7 and 55 for all industries.  
Source: Thomson Reuters I/B/E/S.

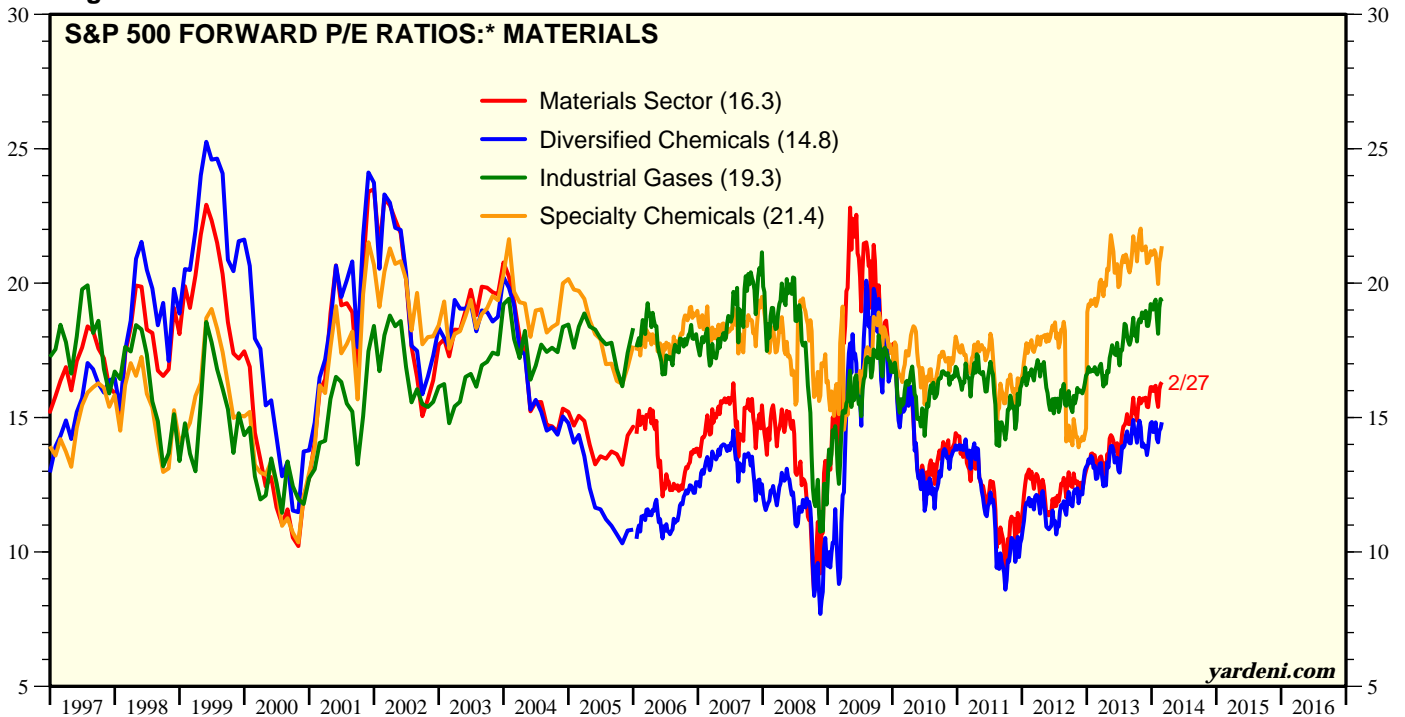
# Materials P/Es

Figure 43.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
P/E capped at 5 and 40 for all industries.  
Source: Thomson Reuters I/B/E/S.

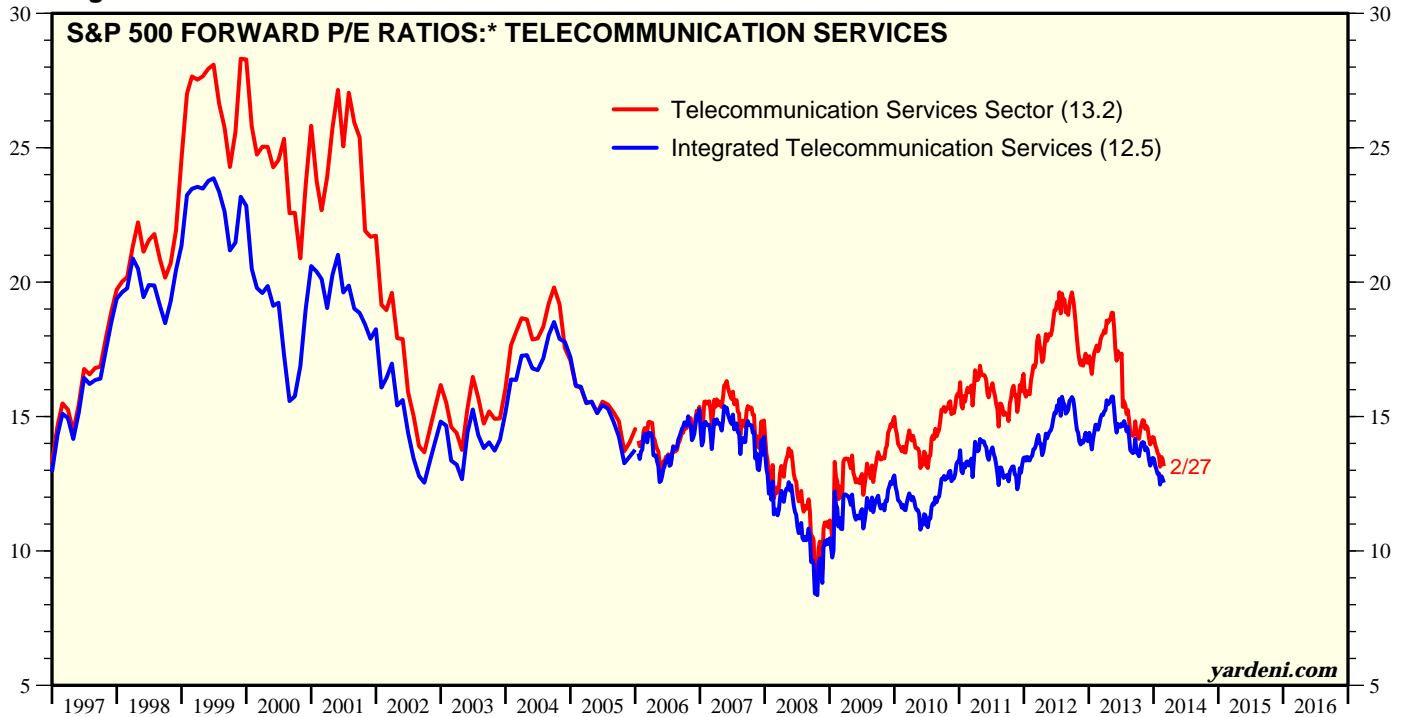
Figure 44.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

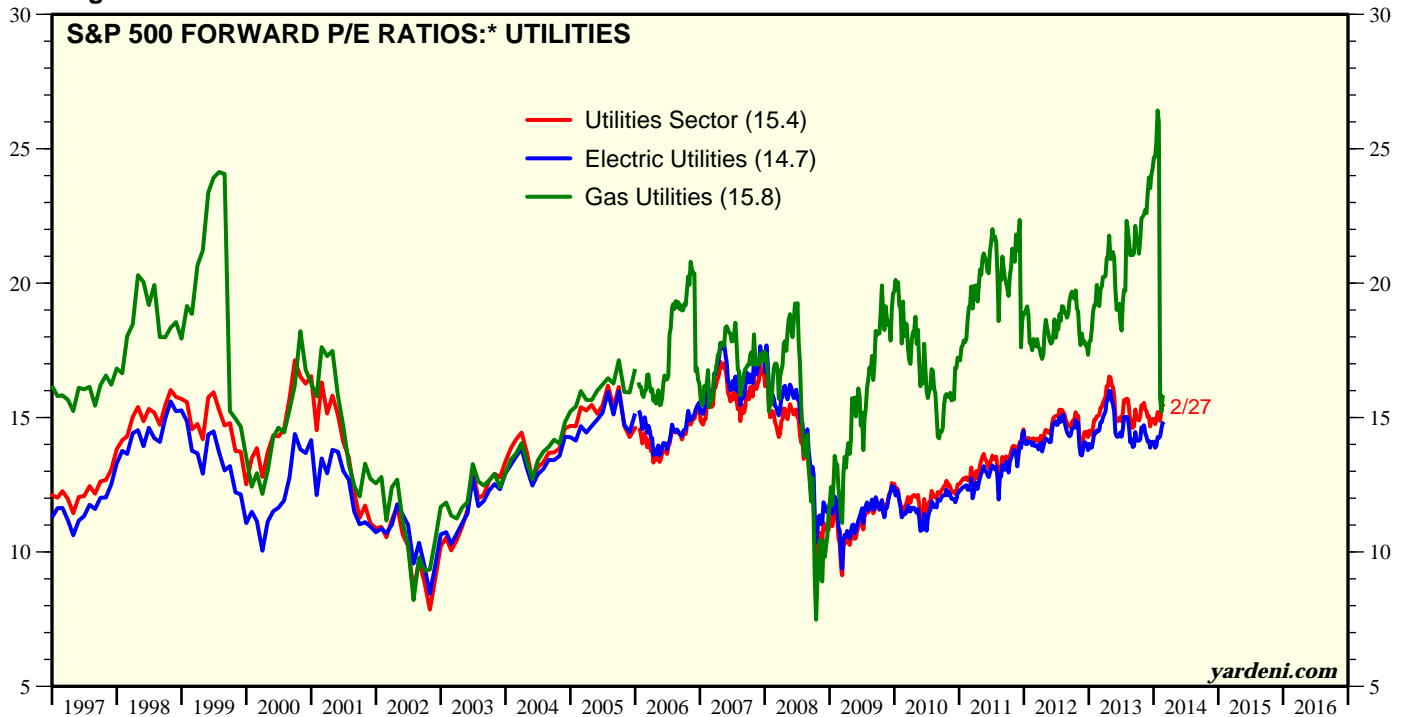
# Telecommunication Services & Utilities P/Es

Figure 45.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

Figure 46.



\* Price divided by 12-month forward consensus expected operating earnings per share.  
Source: Thomson Reuters I/B/E/S.

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