Predicting the Markets Chapter 14 Charts: Predicting Valuation

Yardeni Research, Inc.

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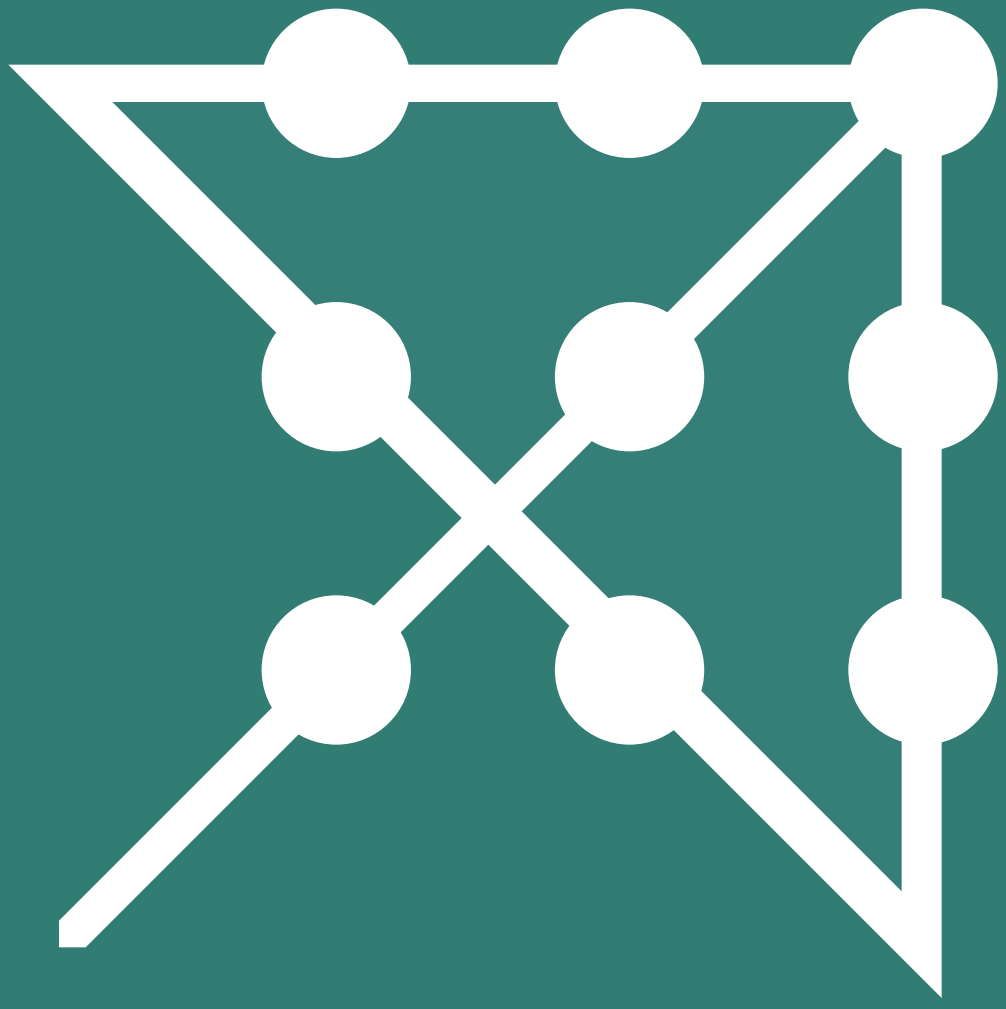

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thinking outside the box

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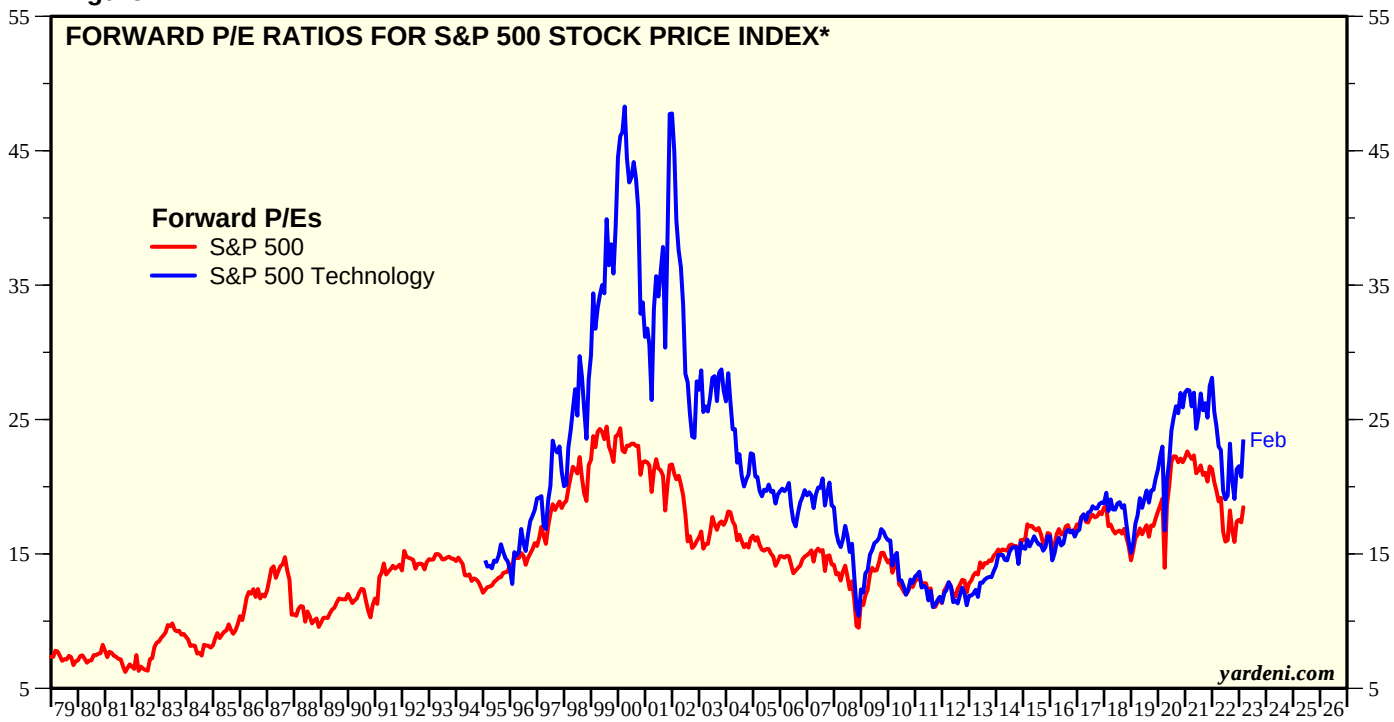
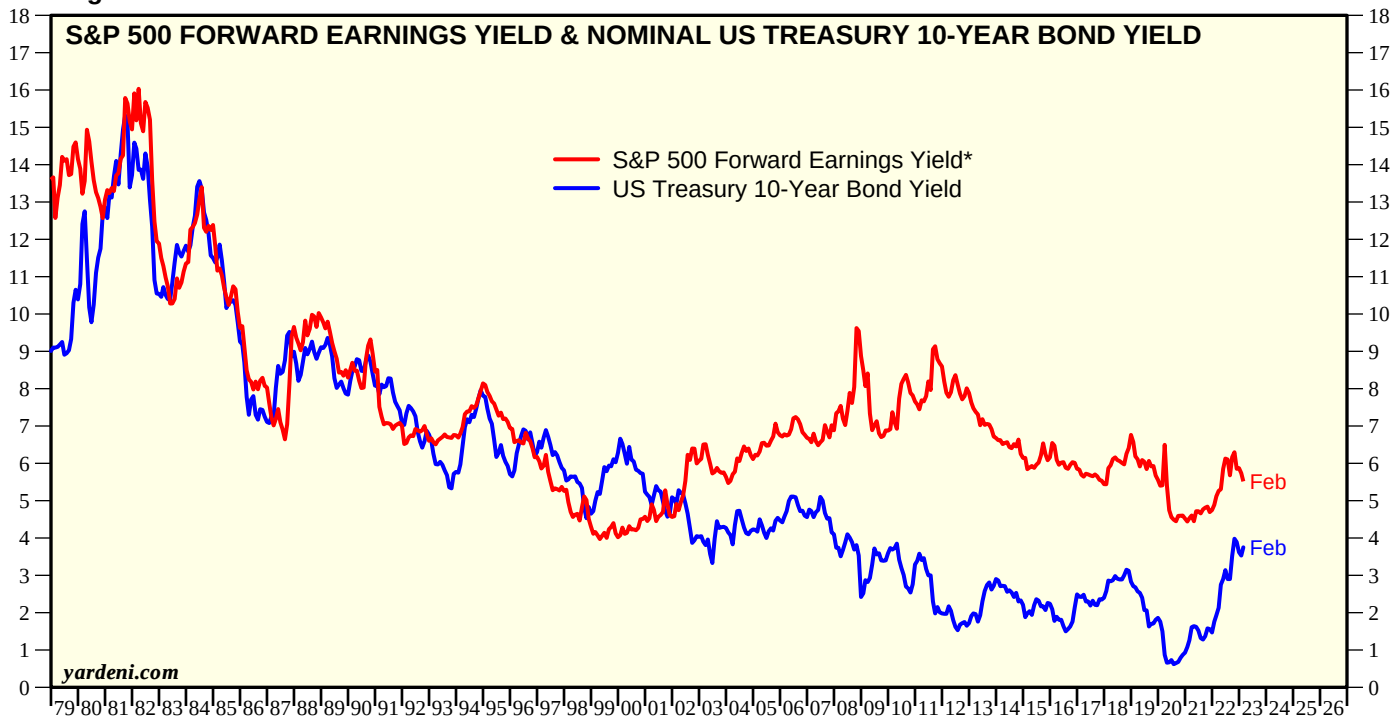


* S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings.
Source: I/B/E/S data by Refinitiv.

Figure 2.



* S&P 500 12-month forward consensus expected operating earnings divided by S&P 500 stock price index.
Source: I/B/E/S data by Refinitiv and Federal Reserve Board.

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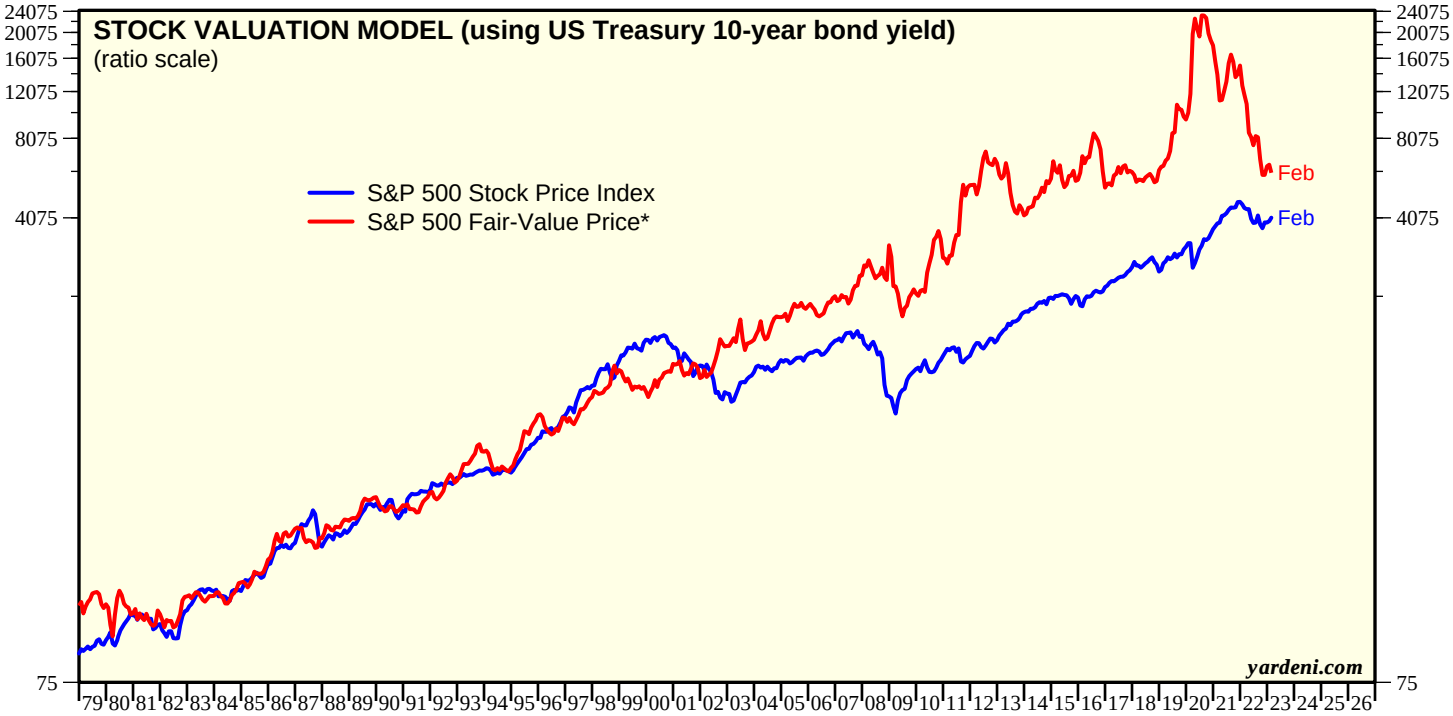
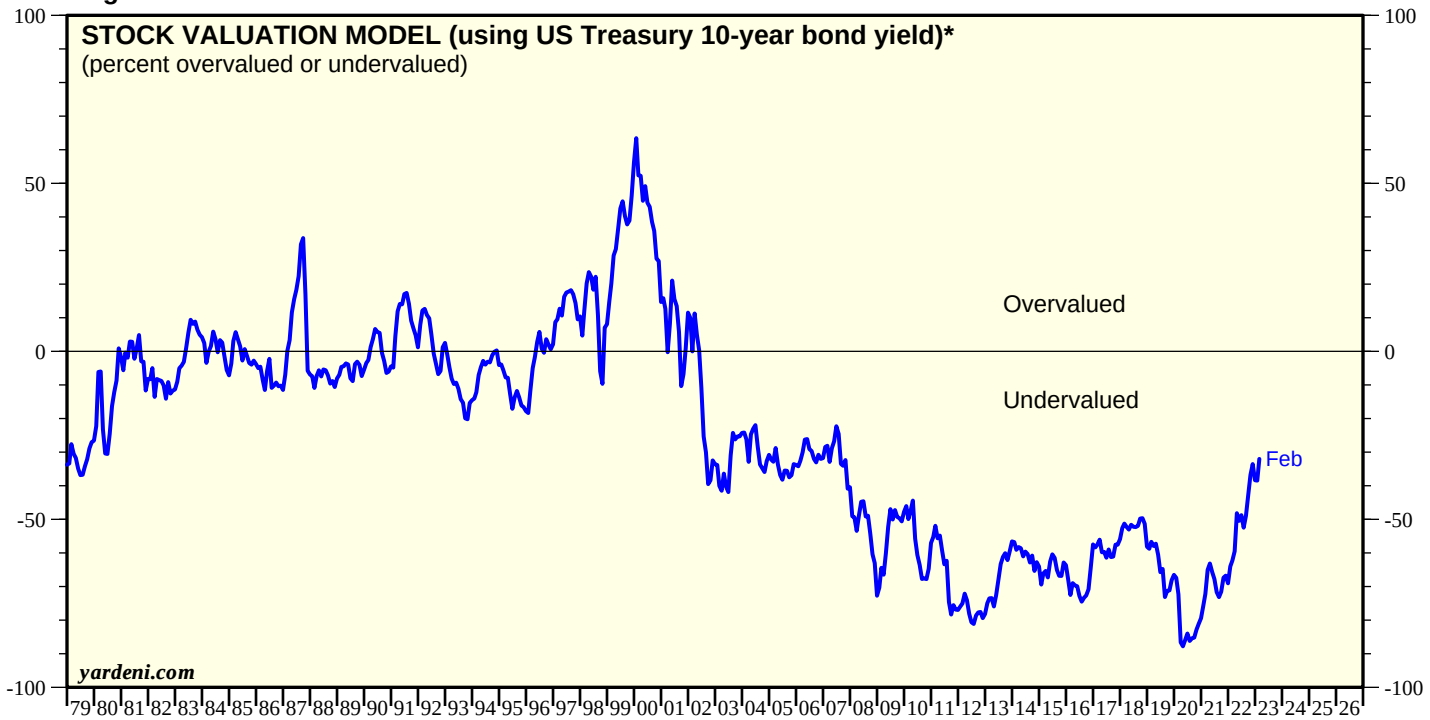
Figure 3.



* S&P 500 12-month forward consensus expected operating earnings divided by US Treasury 10-year bond yield.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, and Federal Reserve Board.

Figure 4.



* S&P 500 stock price index divided by S&P 500 fair-value price defined as S&P 500 12-month forward consensus expected operating earnings divided by 10-year US Treasury bond yield converted to percentage.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, and Federal Reserve Board.

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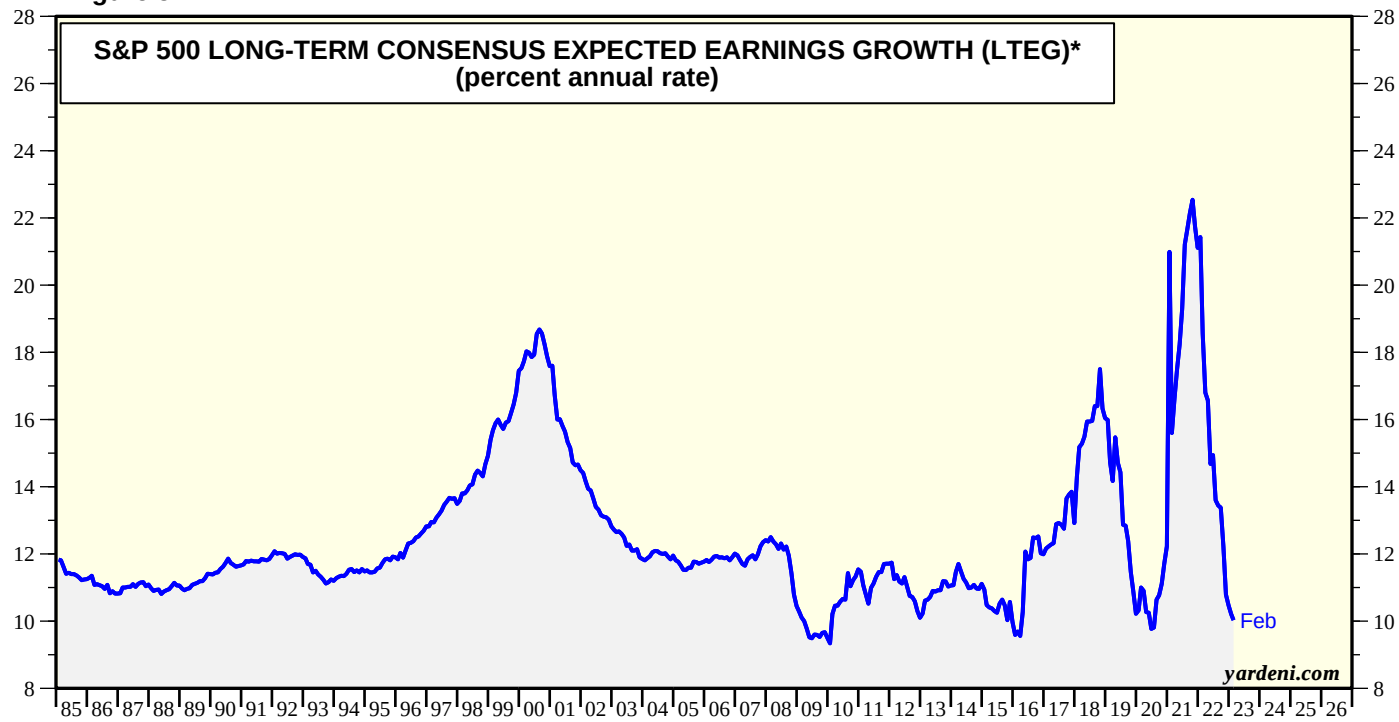
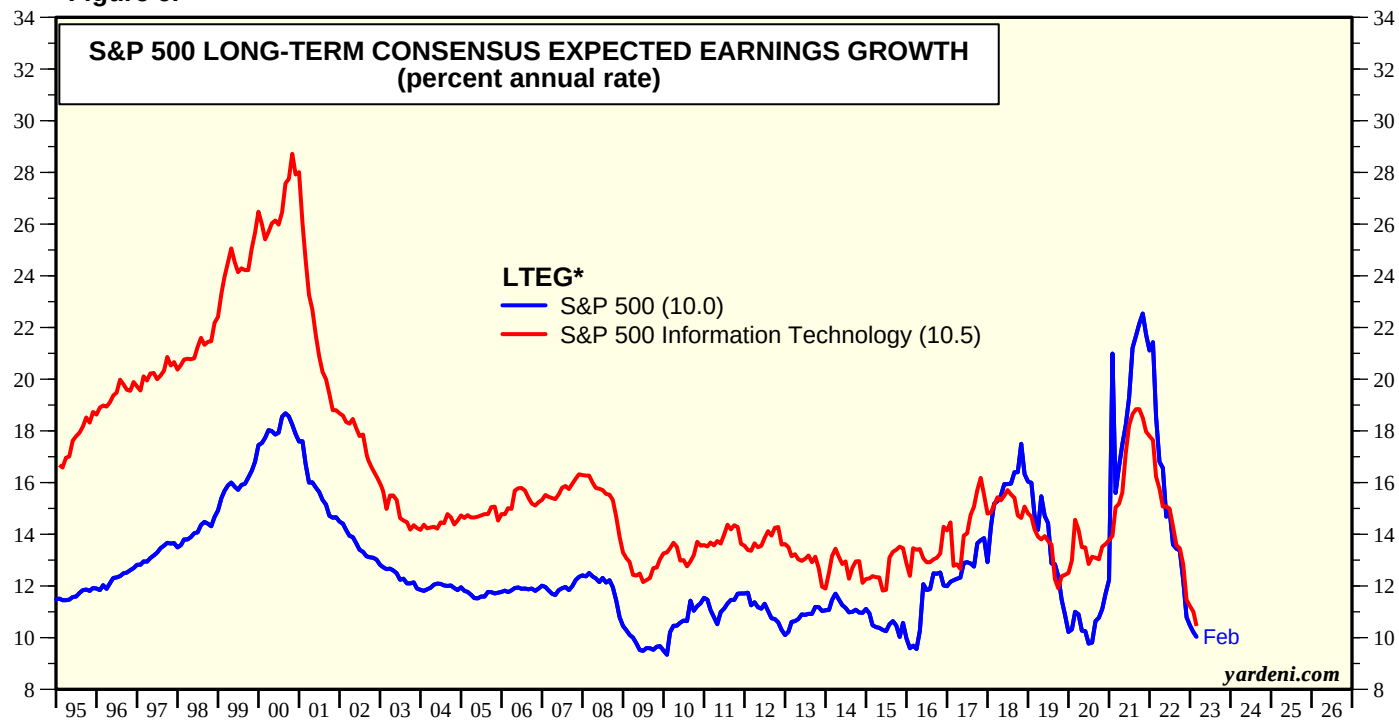
Figure 5.



* LTEG is 5-year forward consensus expected earnings growth.
Source: I/B/E/S data by Refinitiv.

Figure 6.



* LTEG is five-year forward consensus expected earnings growth.
Source: I/B/E/S data by Refinitiv.

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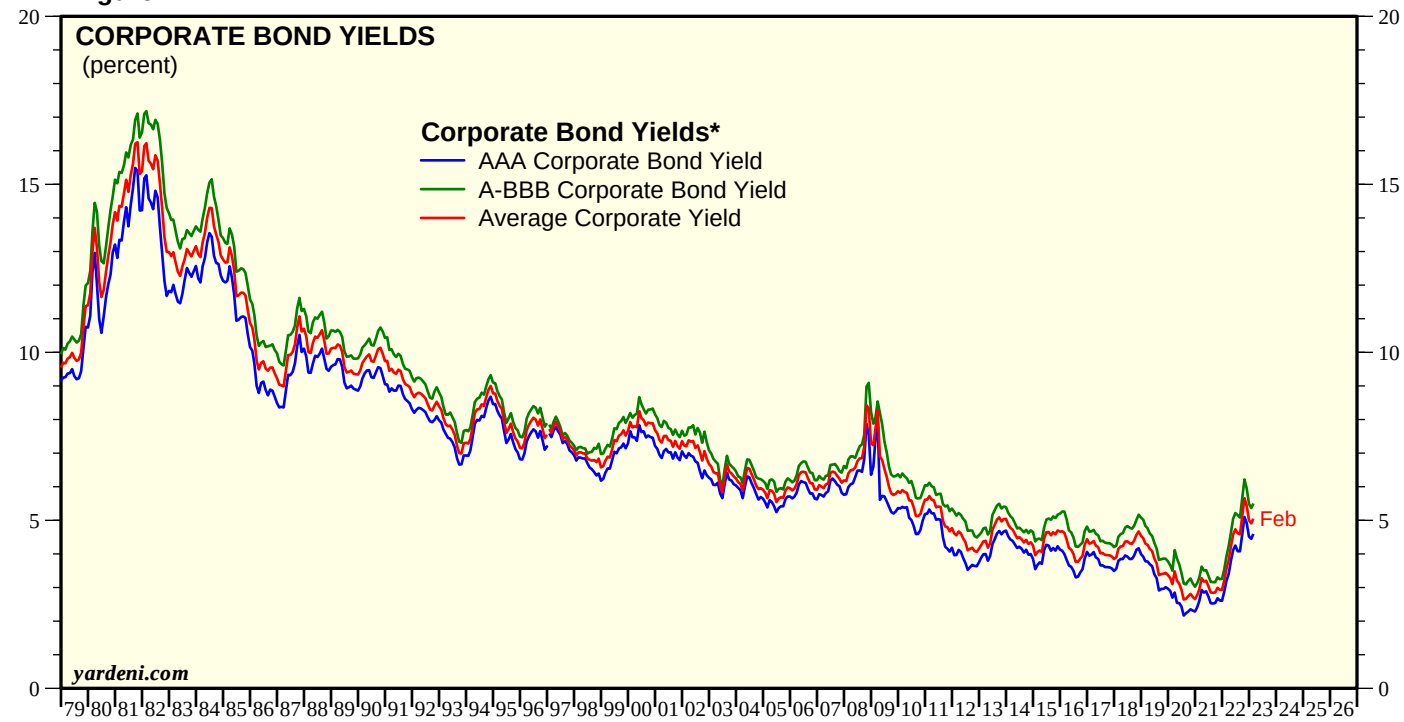
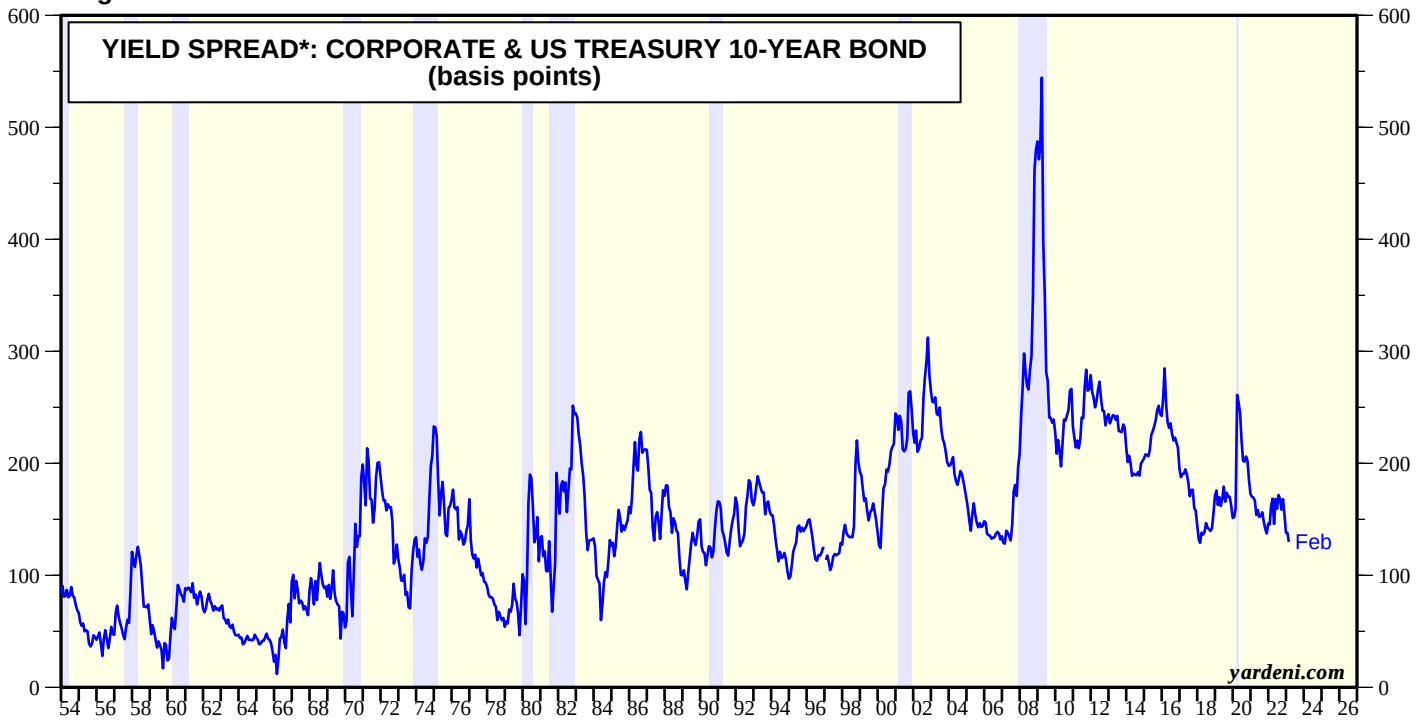
Figure 7.



* Moody's data for Aaa and Baa yields through 1996, then ICE Bofa Merrill Lynch data for AAA and BBB yields.
Source: Federal Reserve Board and Haver Analytics.

Figure 8.



* Corporate bond yield is average of Moody's Aaa and Baa yields through 1996, then average of ICE Bofa Merrill Lynch data for AAA and BBB yields.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board and Haver Analytics.

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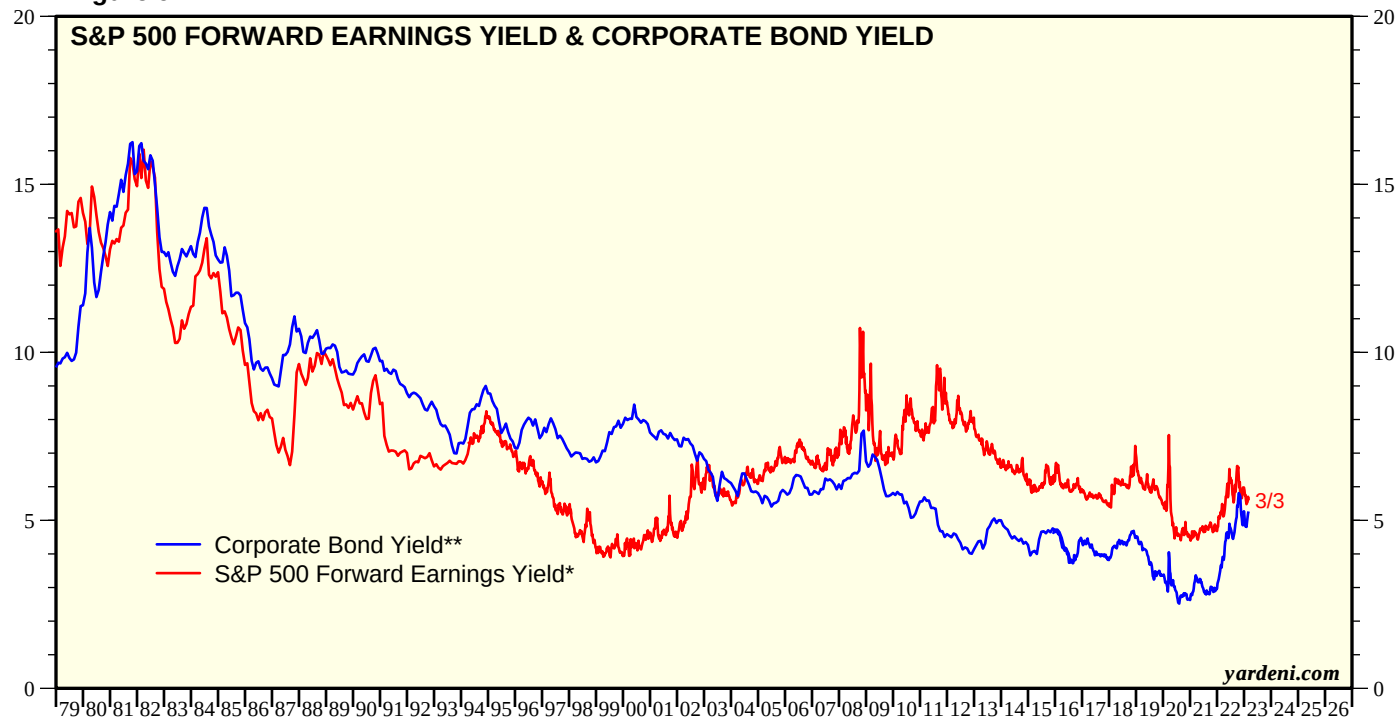
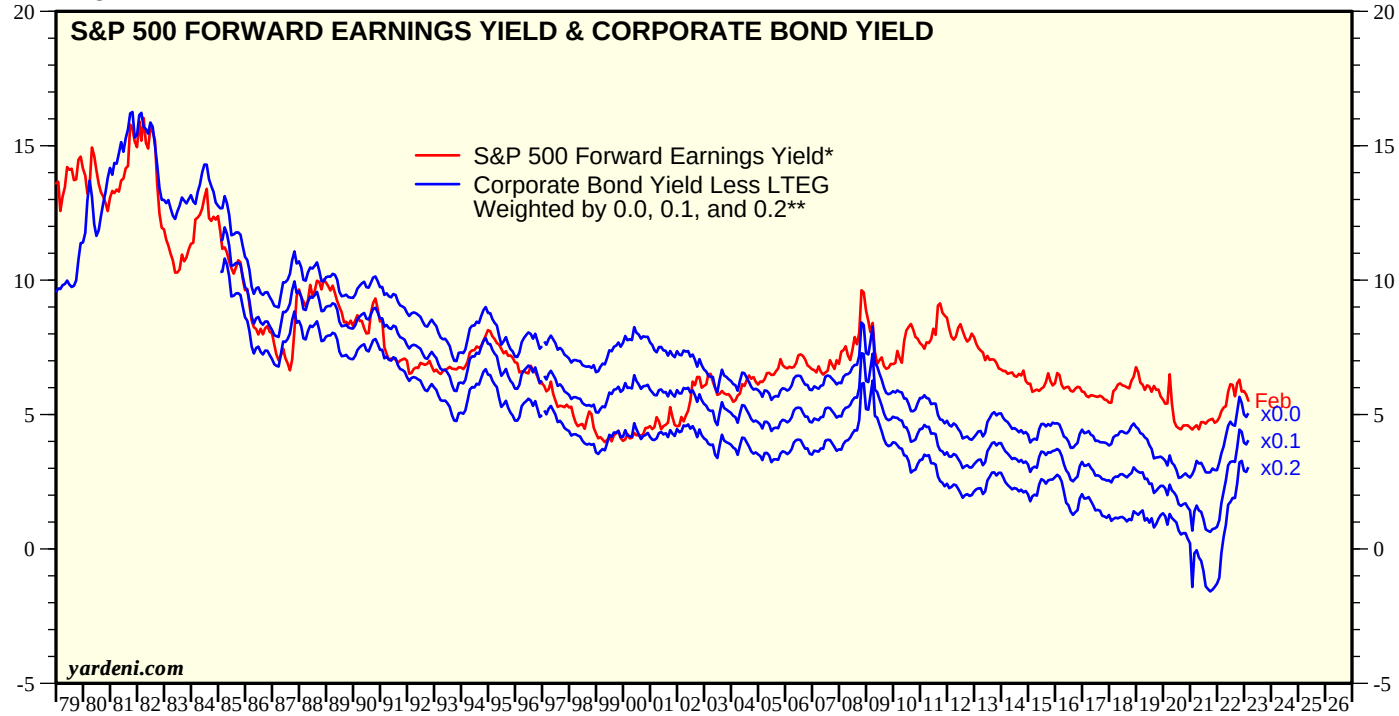
Figure 9.



* S&P 500 12-month forward consensus expected operating earnings divided by S&P 500 stock price index.
** Corporate bond yield is average of Moody's Aaa and Baa yields through 2016, then ICE Bofa Merrill Lynch data for AAA and BBB yields.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, Federal Reserve Board, and Haver Analytics.

Figure 10.



* S&P 500 12-month forward consensus expected operating earnings divided by S&P 500 stock price index.
** Corporate bond yield (average of Moody's Aaa and Baa yields through 1996, then average of ICE Bofa Merrill Lynch data for AAA and BBB yields) less analysts' consensus of S&P 500 long-term earnings growth.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, Federal Reserve Board, and Haver Analytics.

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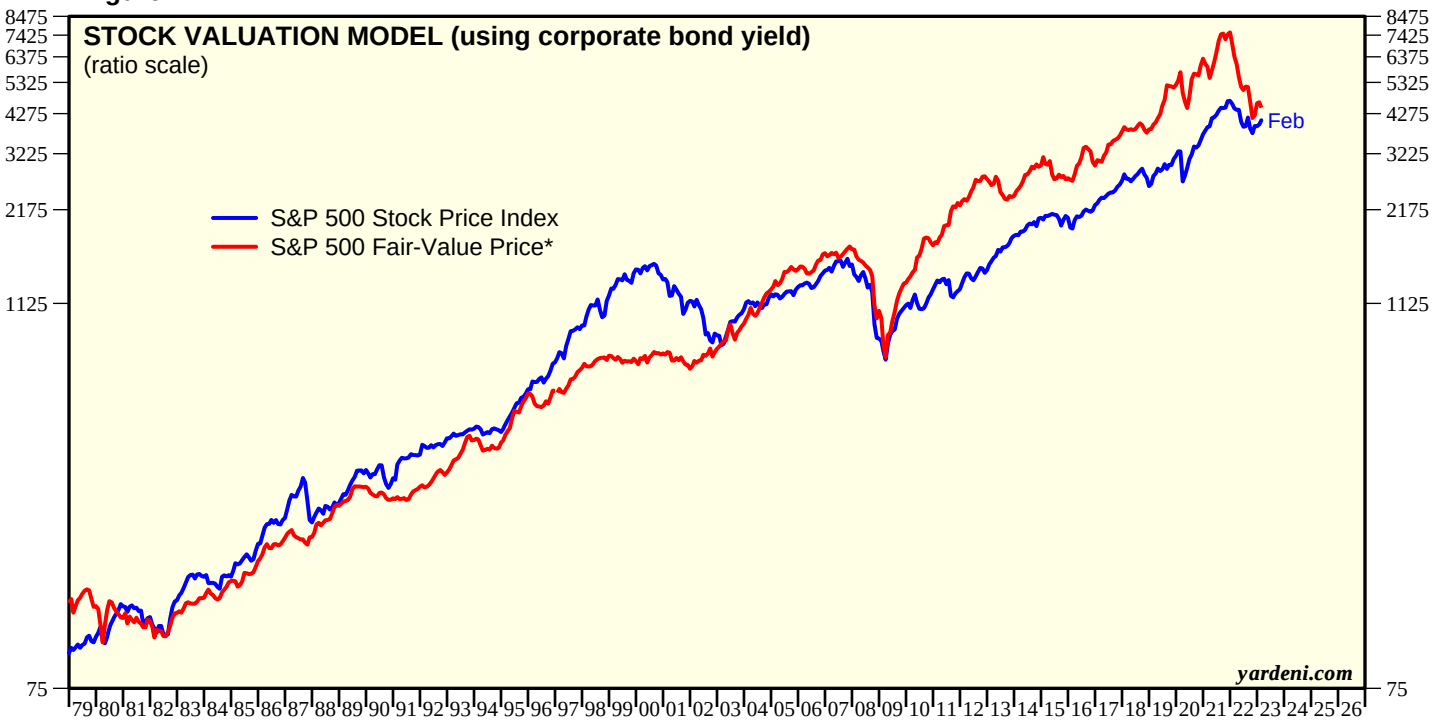
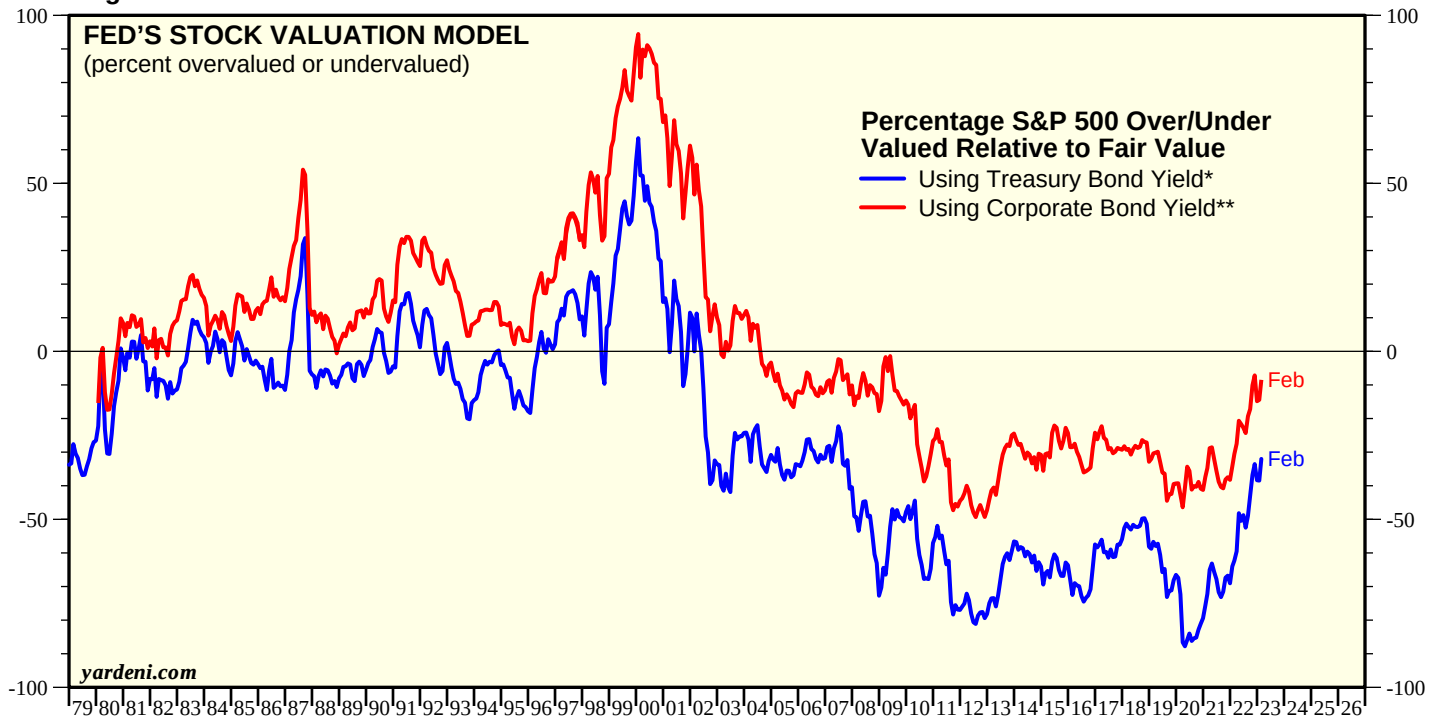
Figure 11.



* S&P 500 forward consensus expected operating earnings divided by corporate bond yield (average of Moody's Aaa and Baa yields through 1996, then average of ICE Bofa Merrill Lynch data for AAA and A-BBB yields).
Source: I/B/E/S data by Refinitiv, Standard & Poor's, Federal Reserve Board, and Haver Analytics.

Figure 12.



* S&P 500 12-month forward consensus expected operating earnings divided by 10-year US Treasury bond yield converted to percentage.
** S&P 500 12-month forward consensus expected operating earnings divided by corporate bond yield (using average of Moody's Aaa and Baa yields through 1996, then average of ICE Bofa Merrill Lynch data for AAA and A-BBB yields) converted to percentage.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, Federal Reserve Board, and Haver Analytics.

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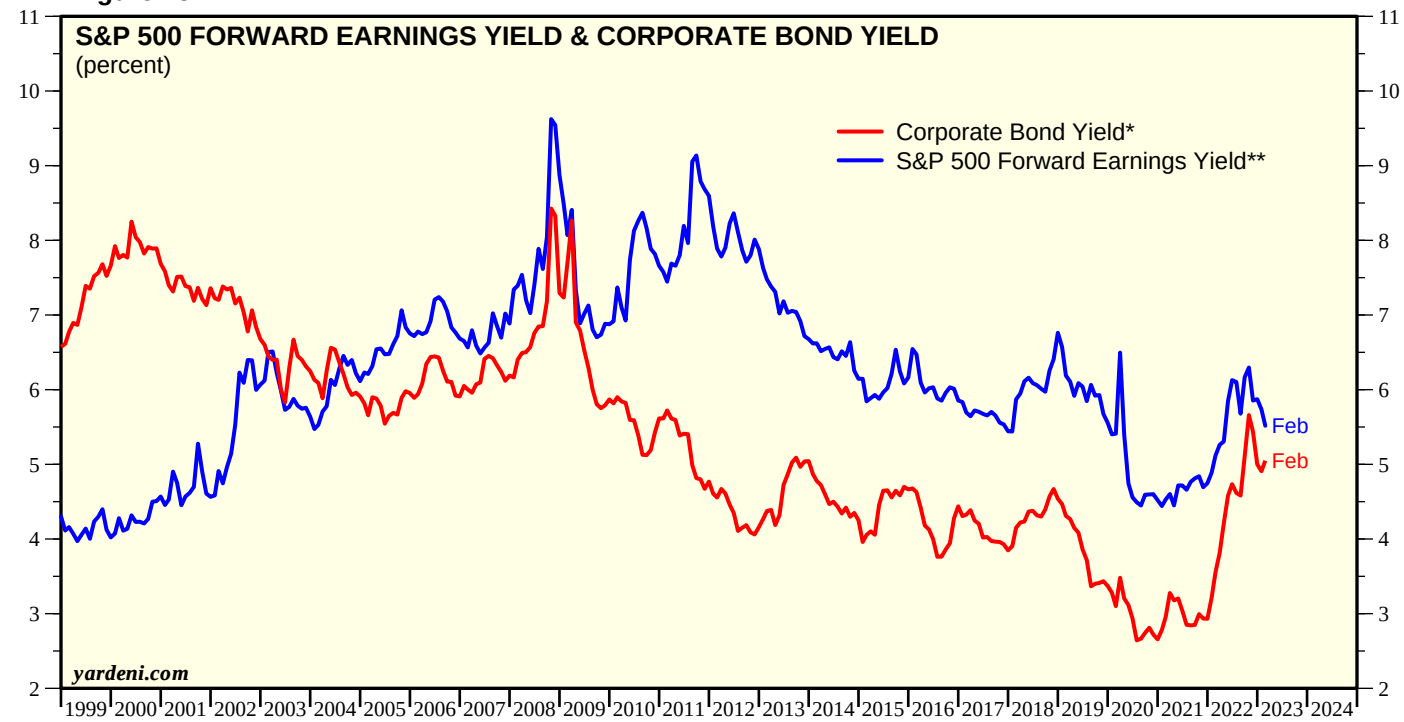
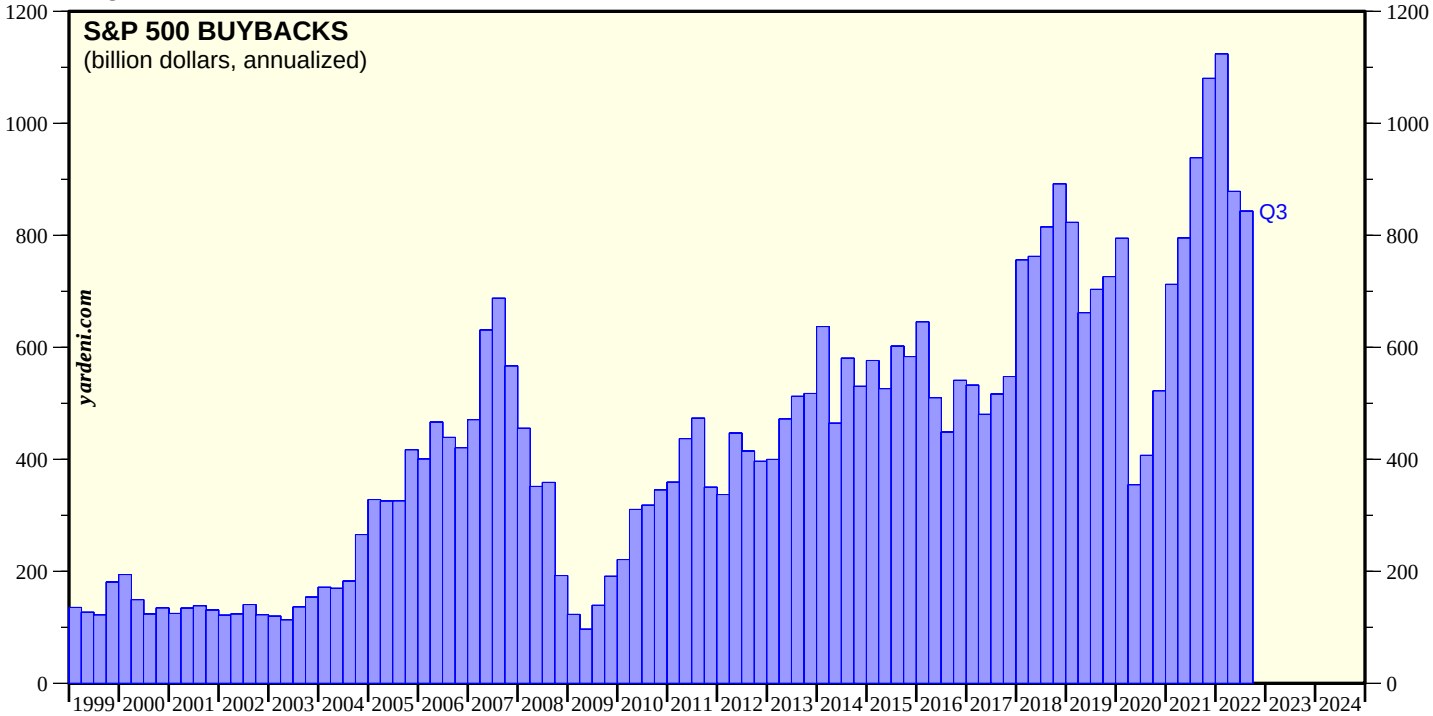
Figure 13.



* Corporate bond yield is average of Moody's Aaa and Baa yields through 1996, then average of ICE BoFA Merrill Lynch data for AAA and A-BBB yields.
** S&P 500 12-month forward consensus expected operating earnings divided by S&P 500 stock price index.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, Federal Reserve Board, and Haver Analytics.

Figure 14.



Source: Standard & Poor's.

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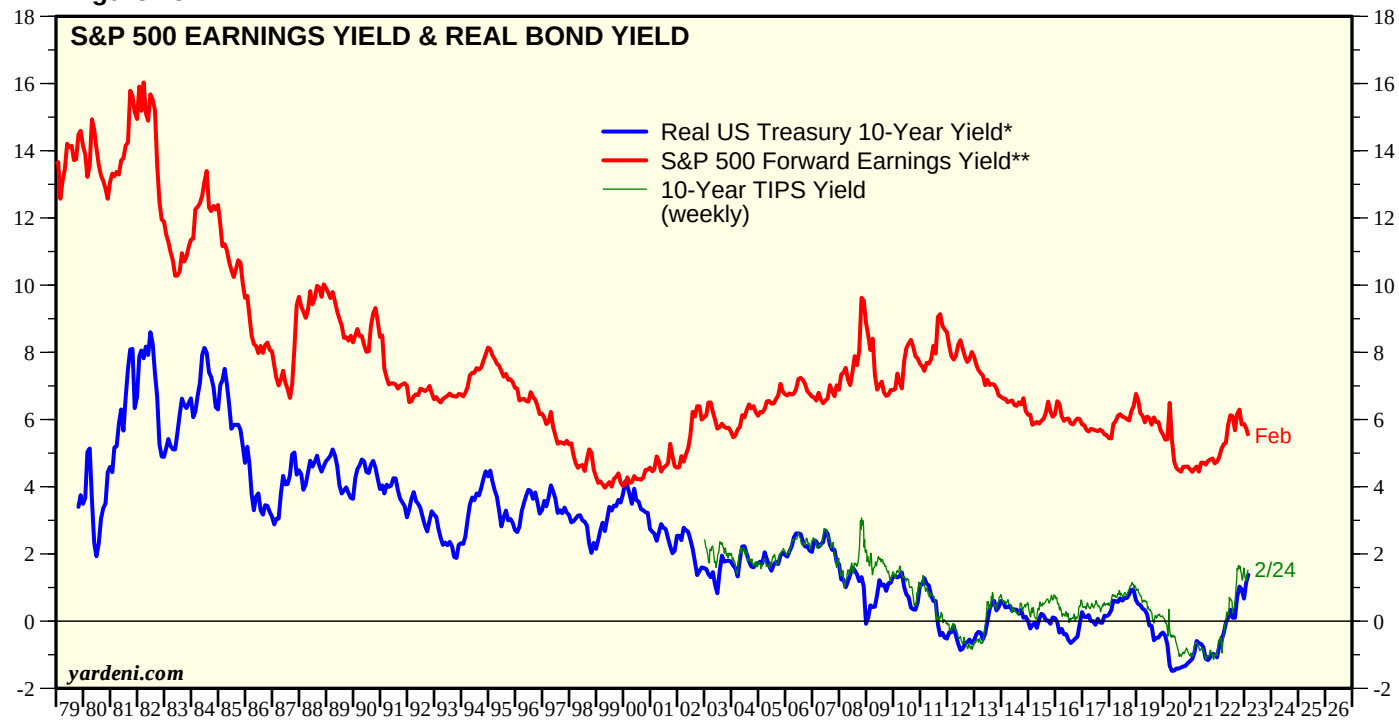
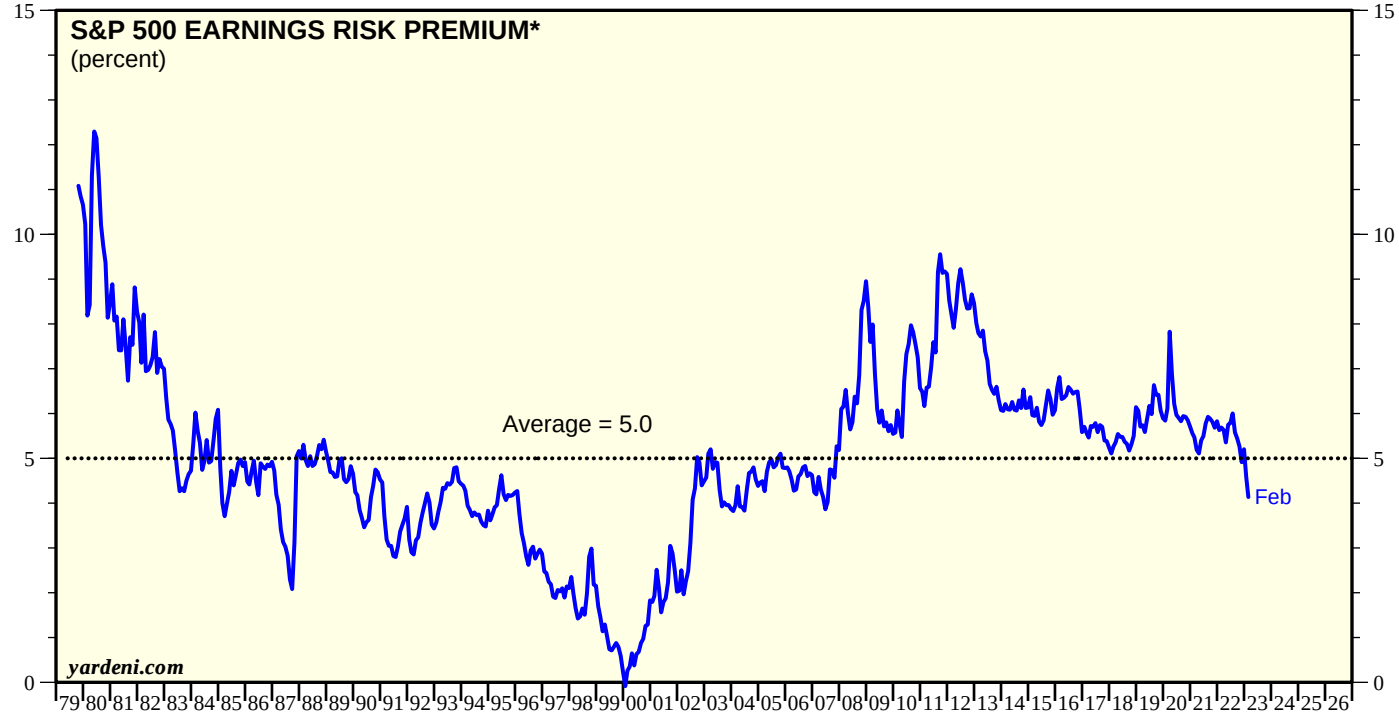
Figure 15.



* US Treasury 10-year bond yield minus median expected CPI inflation rate for next 10 Years using Philadelphia Fed Survey of Professional Forecasters data (monthly series interpolated from quarterly data starting as two quarters per year during Q4-1979 until Q4-1991 when the data continue with four quarters a year).
** S&P 500 12-month forward consensus operating earnings divided by S&P 500 stock price index.
Source: Federal Reserve Board, US Treasury, I/B/E/S data by Refinitiv, and Federal Reserve Bank of Philadelphia.

Figure 16.



* S&P 500 forward earnings yield minus the real interest rate defined as the nominal 10-year Treasury yield minus median expected CPI inflation rate for next 10 years using Philadelphia Fed Survey of Professional Forecasters data (monthly series interpolated from quarterly data starting as two quarters per year during Q4-1979 until Q4-1991 when the data continue with four quarters a year).
Source: Federal Reserve Board, US Treasury, I/B/E/S data by Refinitiv, Standard & Poor's, and Federal Reserve Bank of Philadelphia.

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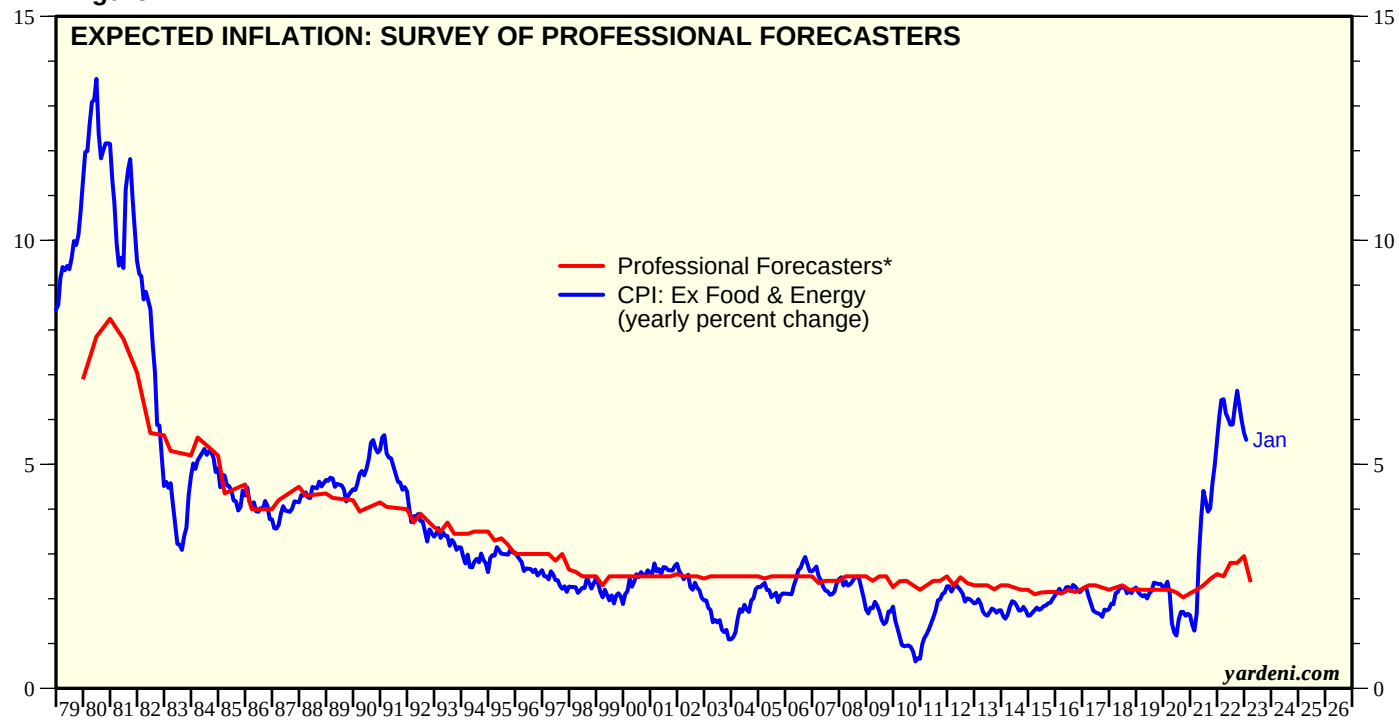
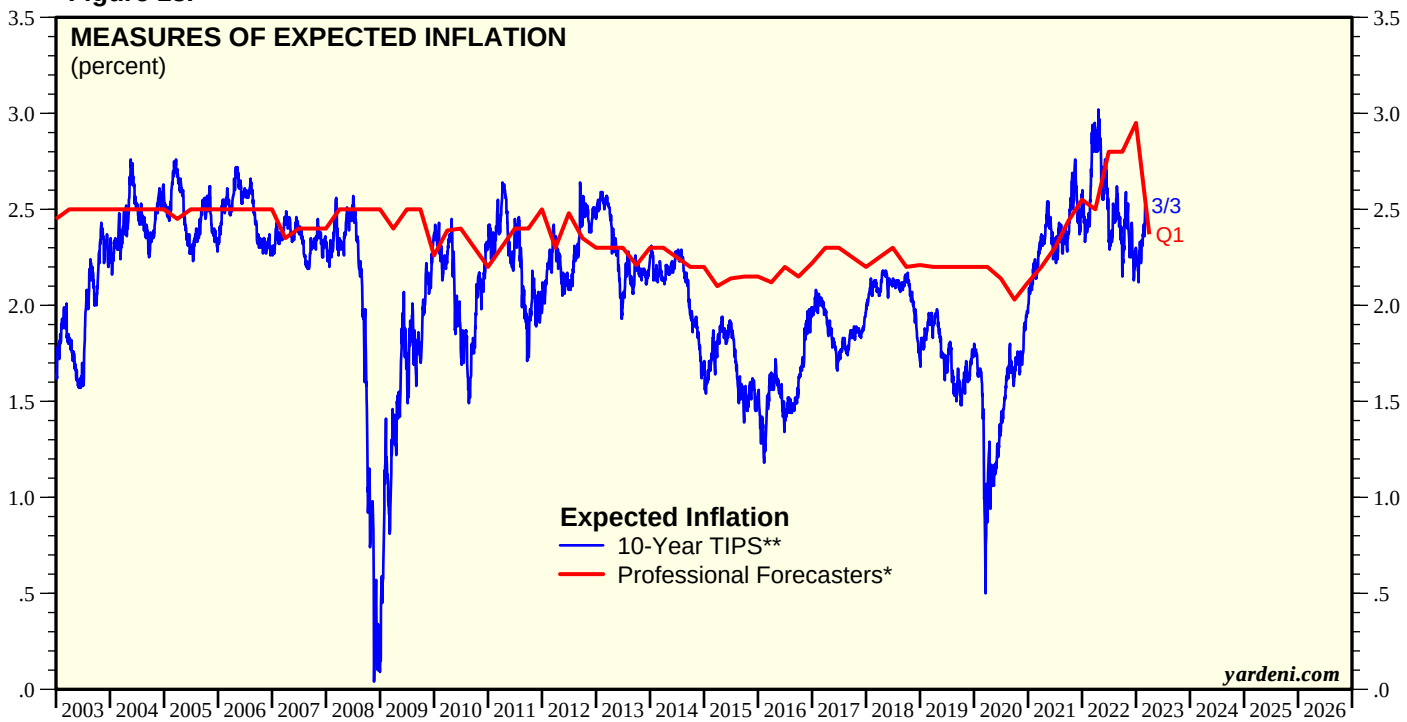
Figure 17.



* Median forecast of year-over-year CPI inflation rate over the next 10 years using Philadelphia Fed Survey of Professional Forecasters data.
Source: Bureau of Labor Statistics and Federal Reserve Bank of Philadelphia.

Figure 18.



* Median forecast of year-over-year CPI inflation rate over the next 10 years using Philadelphia Fed Survey of Professional Forecasters data.
** Nominal US Treasury 10-year minus 10-year TIPS yields.
Source: Federal Reserve Board and Federal Reserve Bank of Philadelphia.

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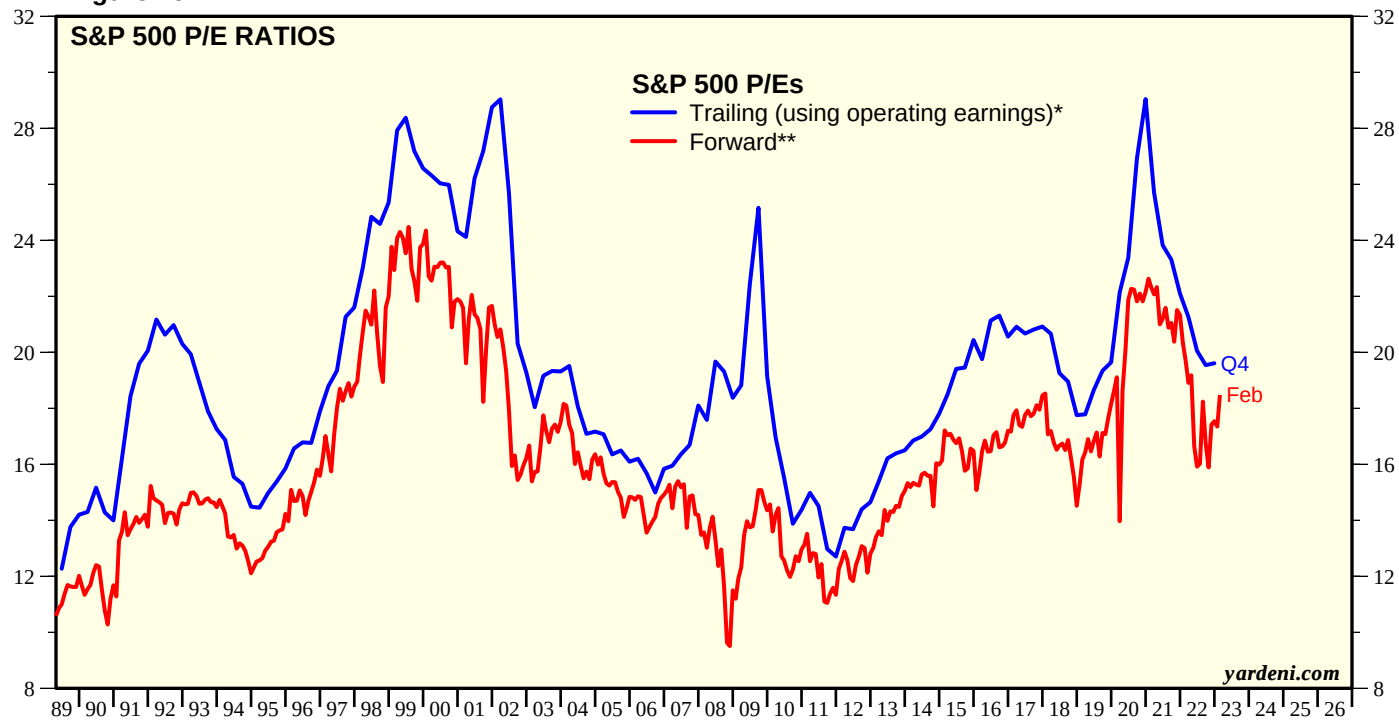
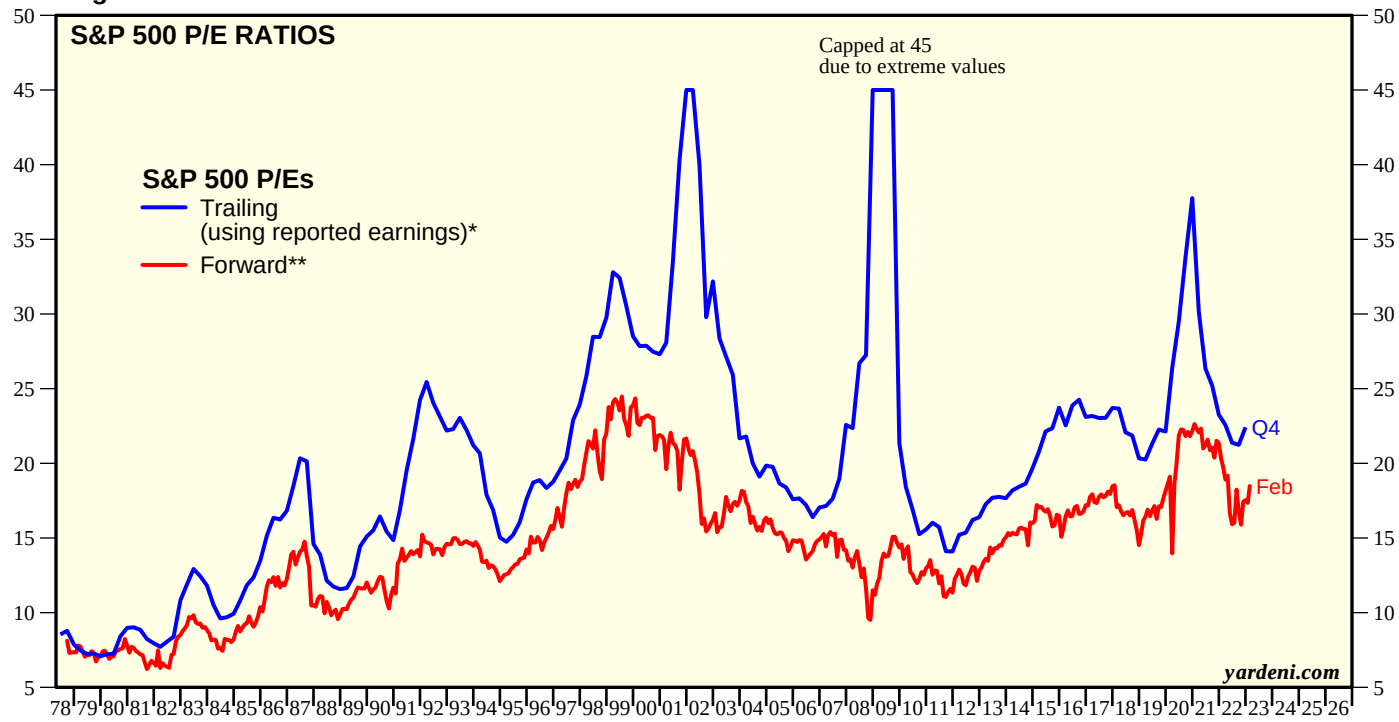
Figure 19.



* Using 4-quarter trailing operating earnings.
** S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

Figure 20.



* Using 4-quarter trailing reported earnings.
** S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

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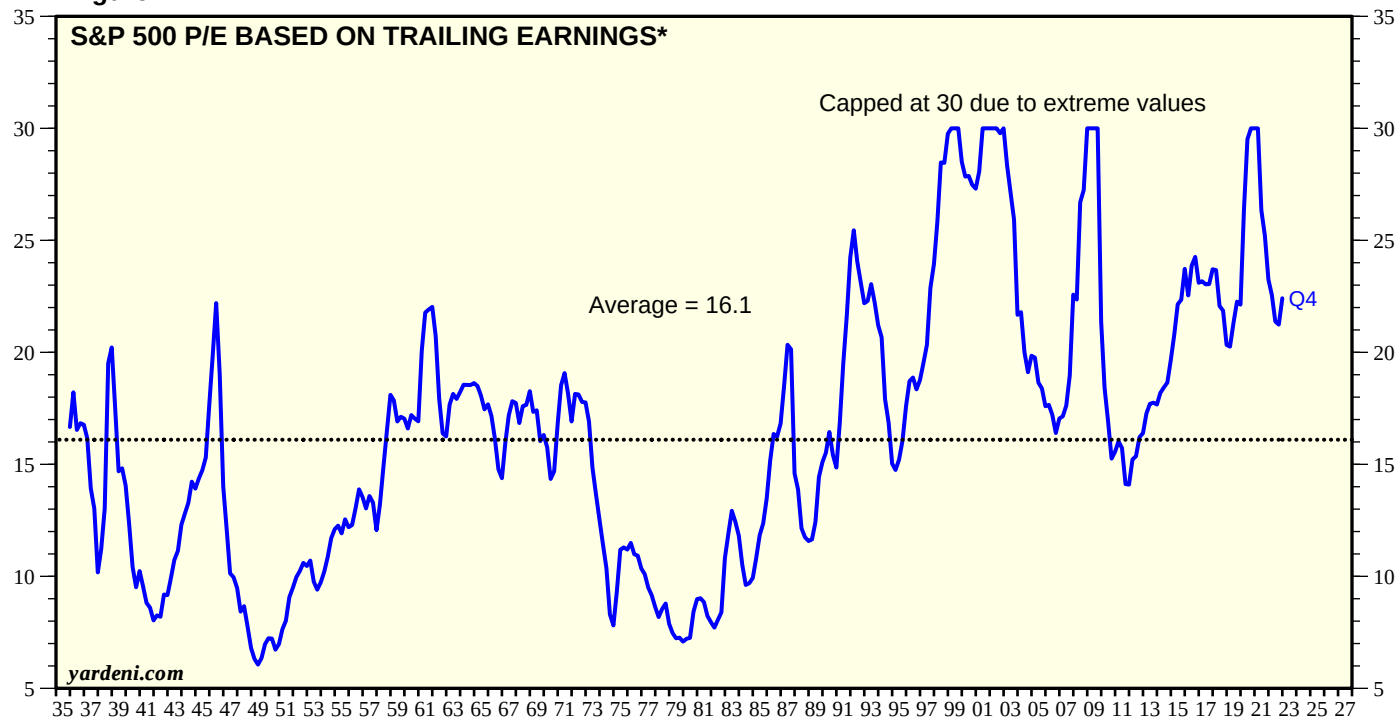
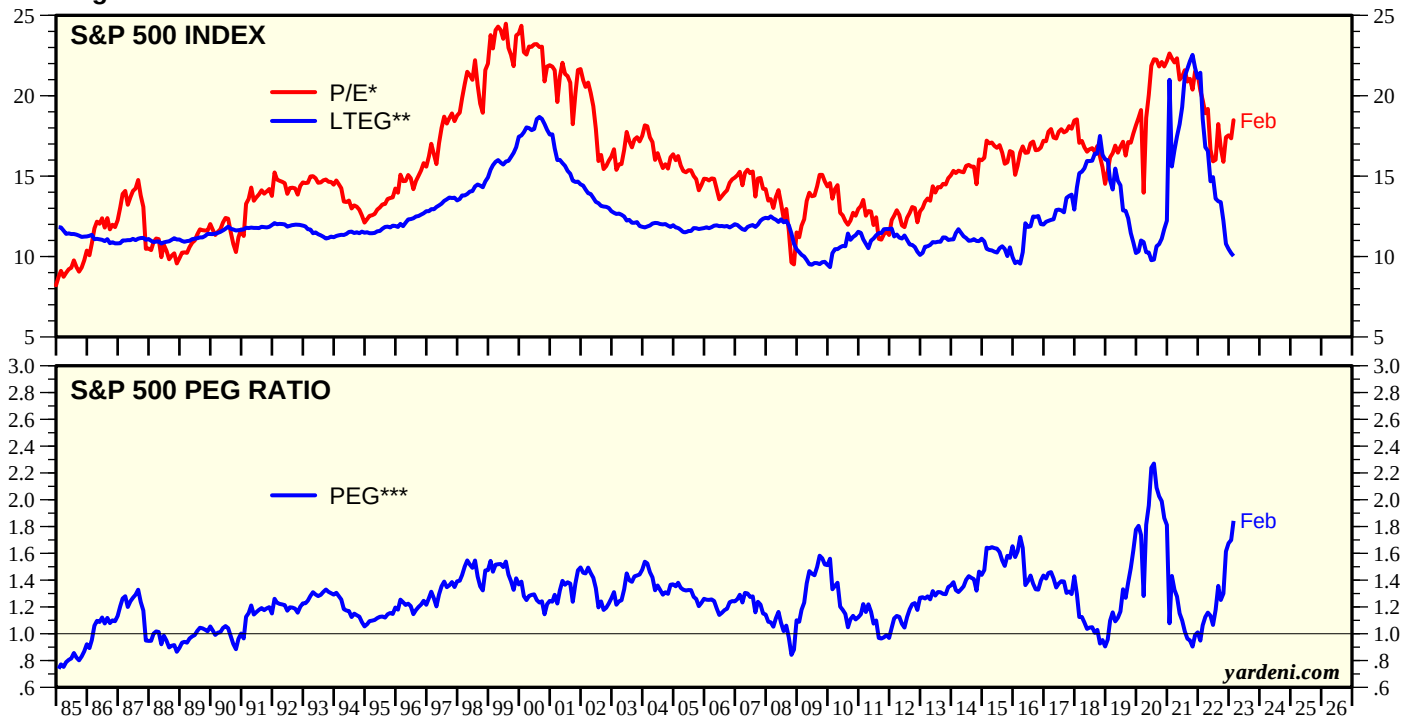
Figure 21.



* Using quarterly average of monthly data for S&P 500 price index and 4-quarter trailing reported earnings.
Source: Standard & Poor's.

Figure 22.



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

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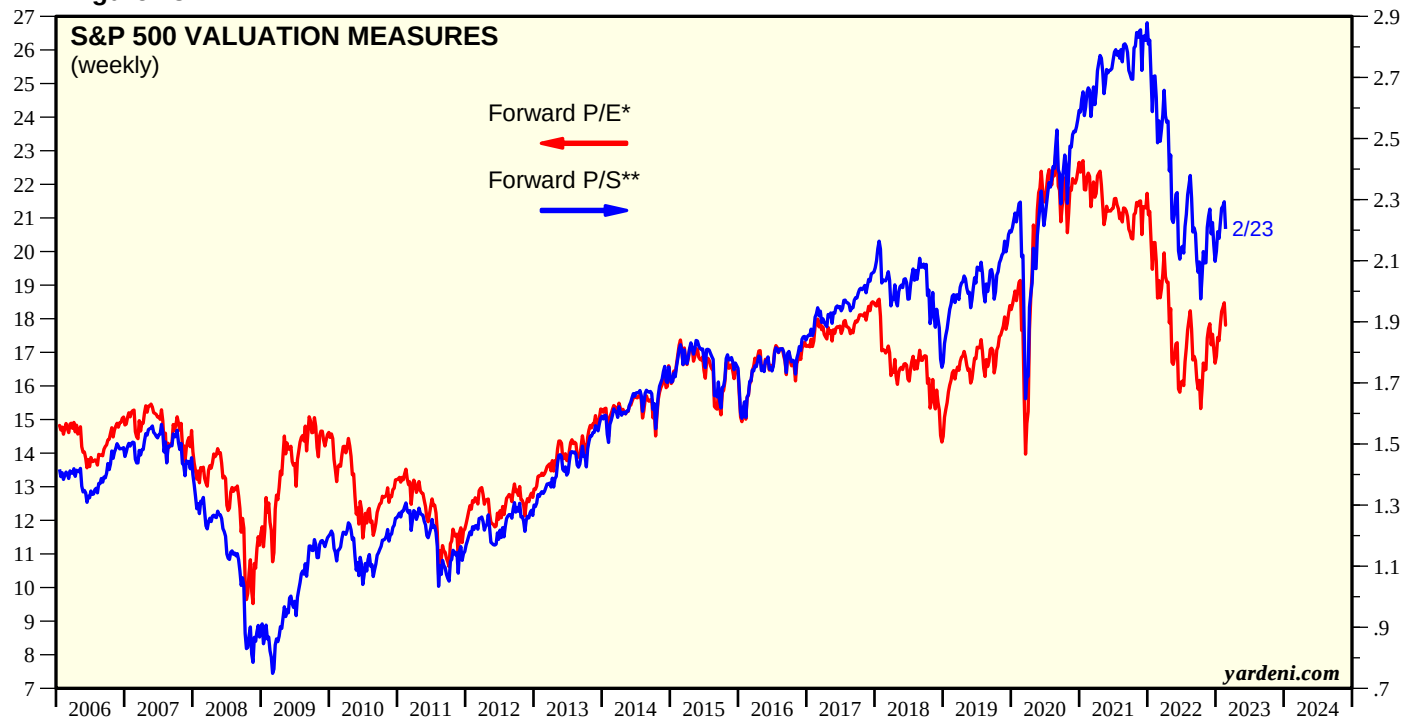
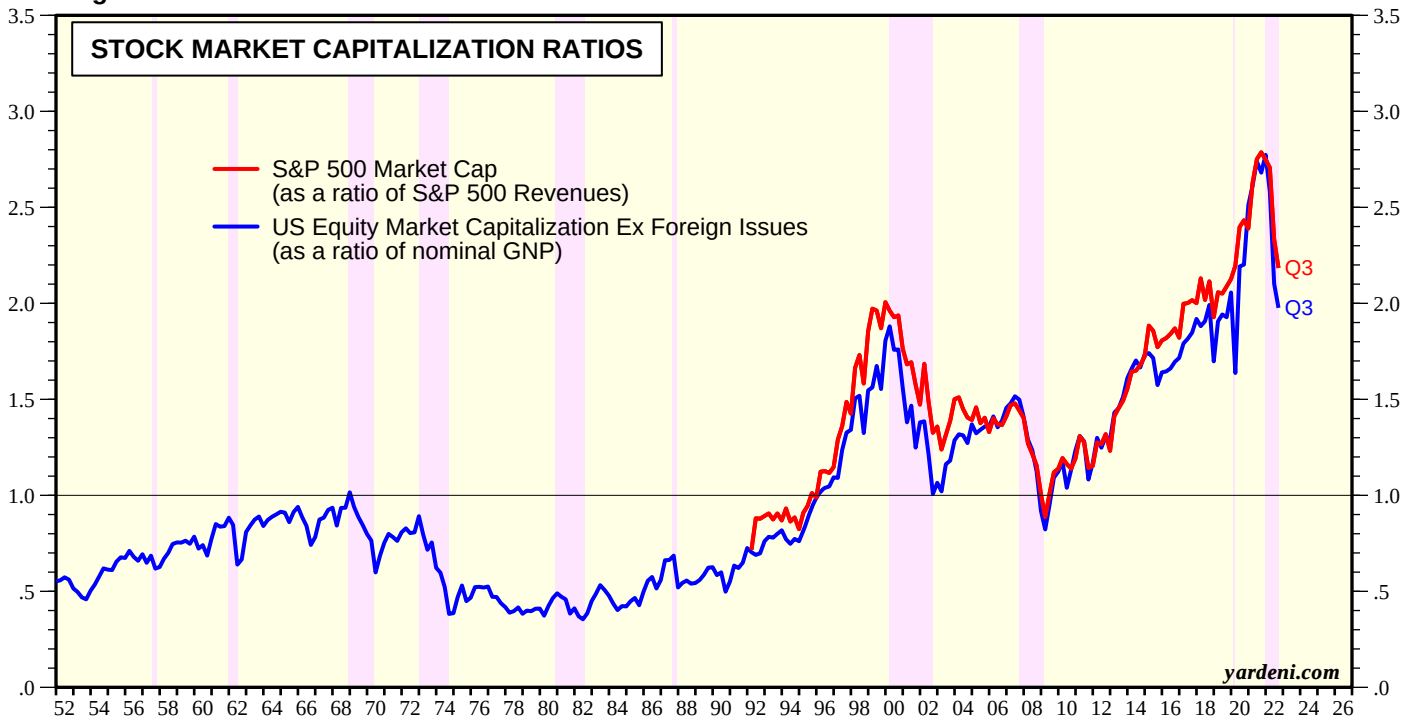
Figure 23.



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

Figure 24.



Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Federal Reserve Board, Financial Accounts of the United States, Bureau of Economic Analysis, and Standard & Poor's.

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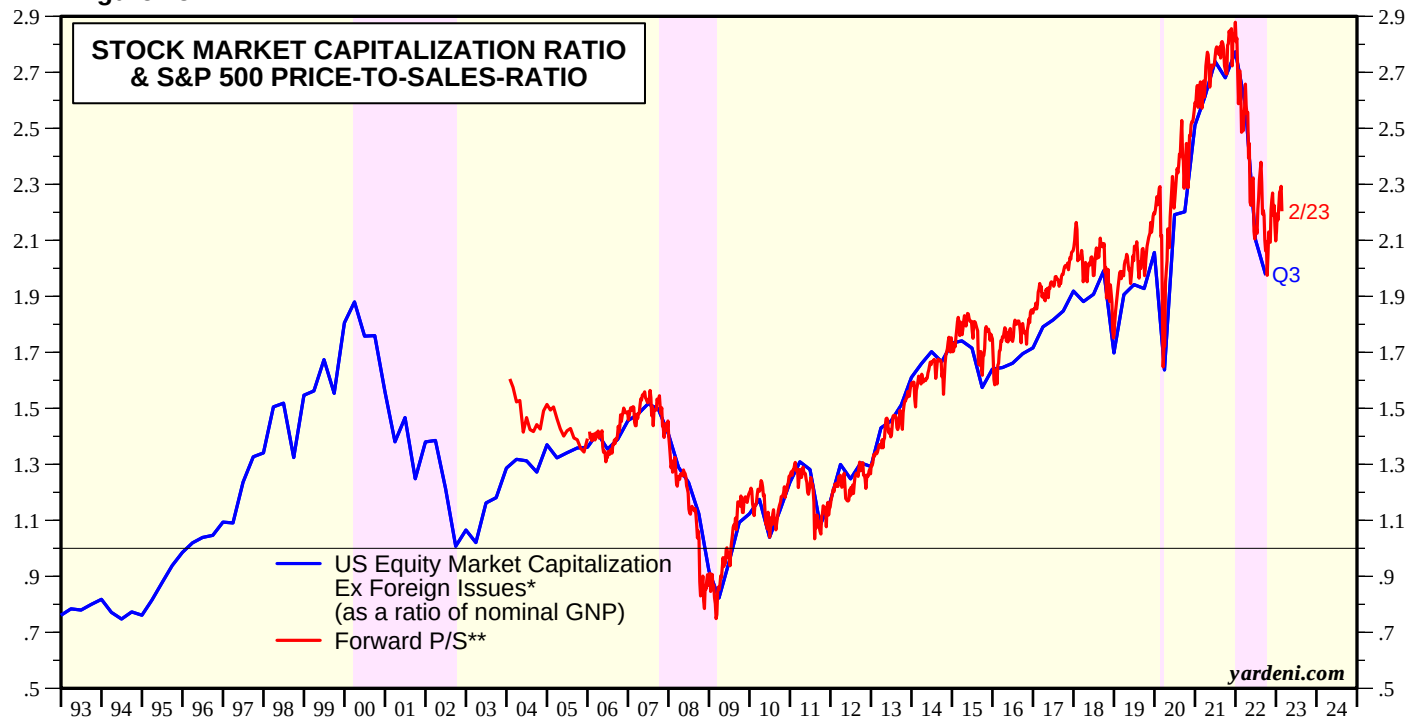
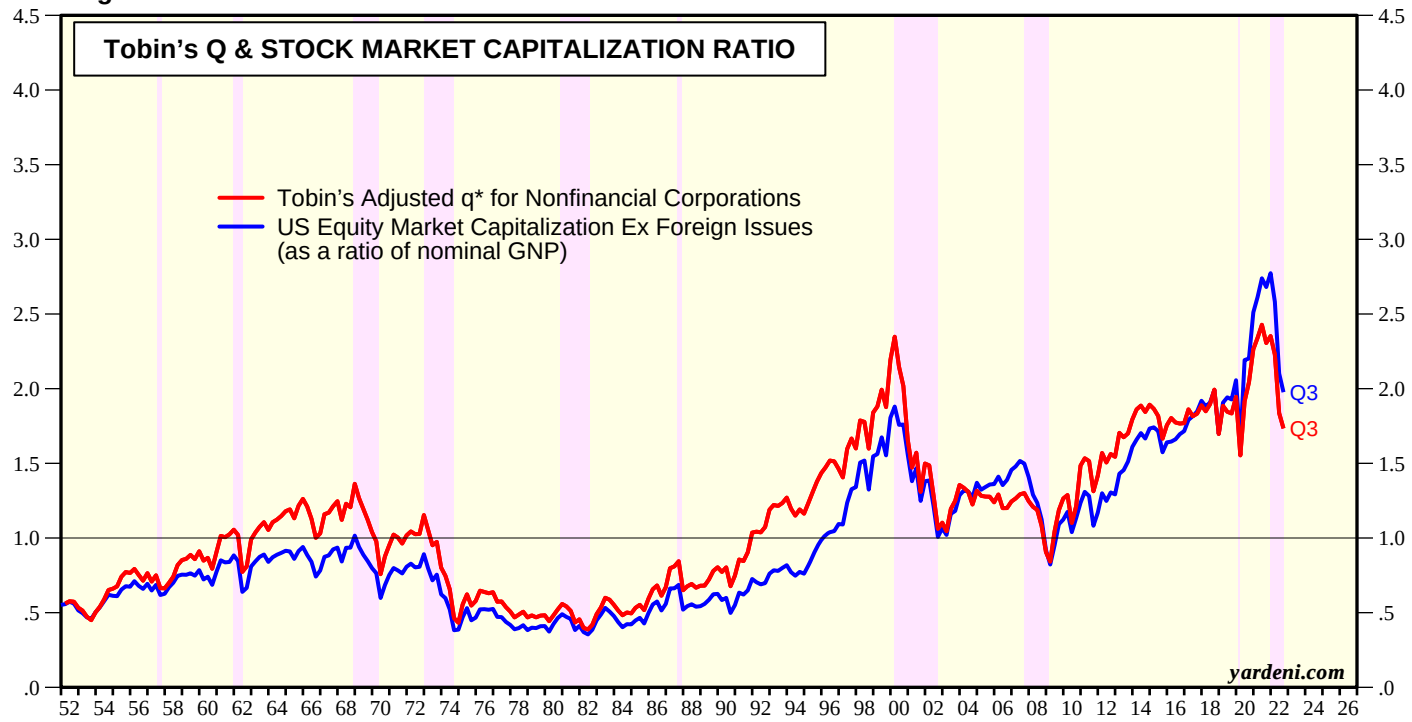
Figure 25.



* 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 are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Federal Reserve Board, Financial Accounts of the United States, Bureau of Economic Analysis, and Standard & Poor's.

Figure 26.



* Actual divided by average since 1952.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Federal Reserve Board, Financial Accounts of the United States, Bureau of Economic Analysis, and Standard & Poor's.

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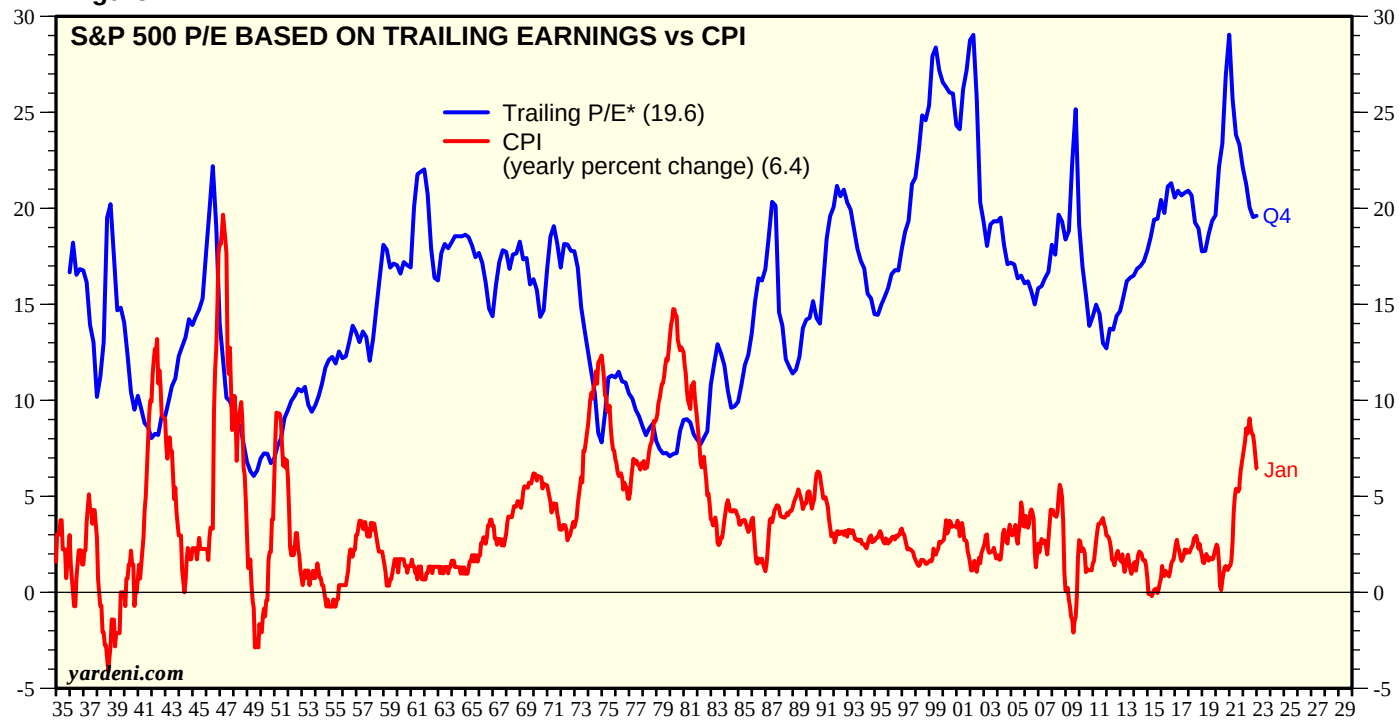
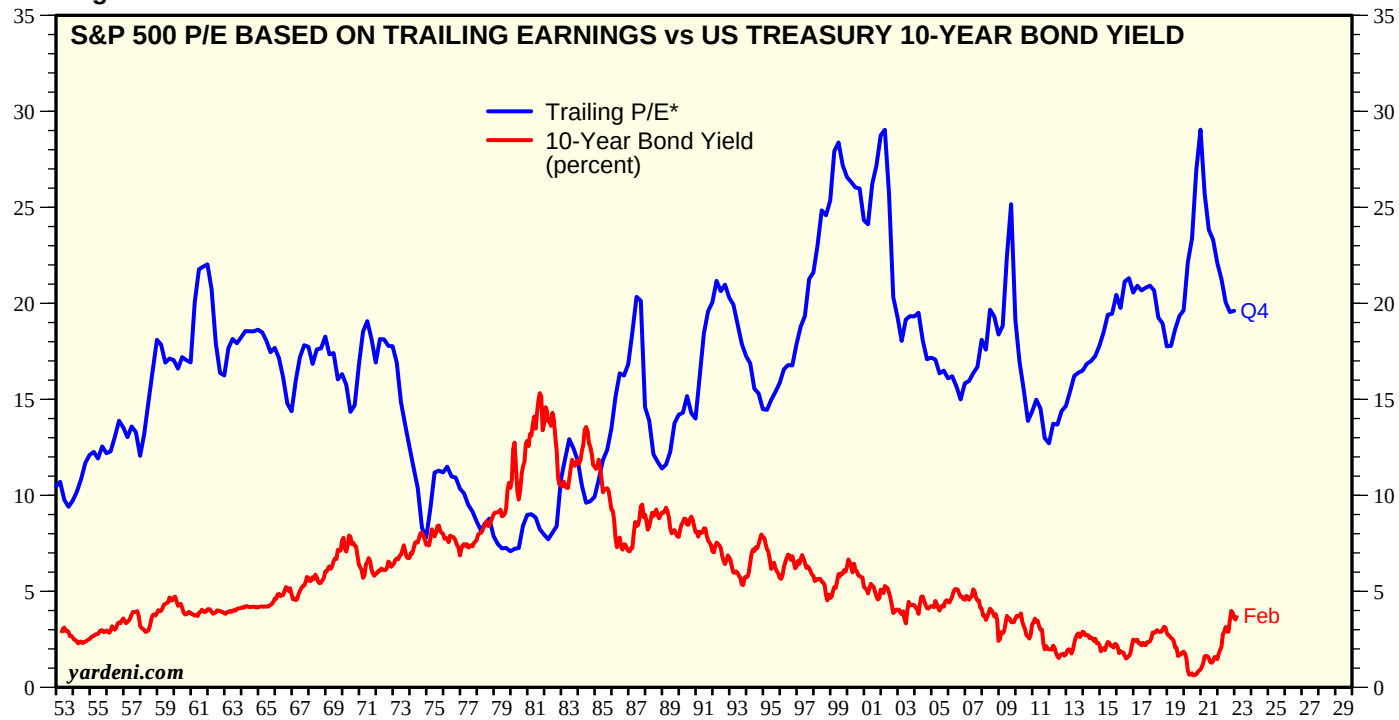
Figure 27.



* Using quarterly average of daily data for S&P 500 price index, and 4-quarter trailing reported earnings through Q3-1988, then operating earnings.
Source: Standard & Poor's and Bureau of Labor Statistics.

Figure 28.



* Using quarterly average of daily data for S&P 500 price index, and 4-quarter trailing reported earnings through Q3-1988, then operating earnings.
Source: Standard & Poor's and Federal Reserve Board.

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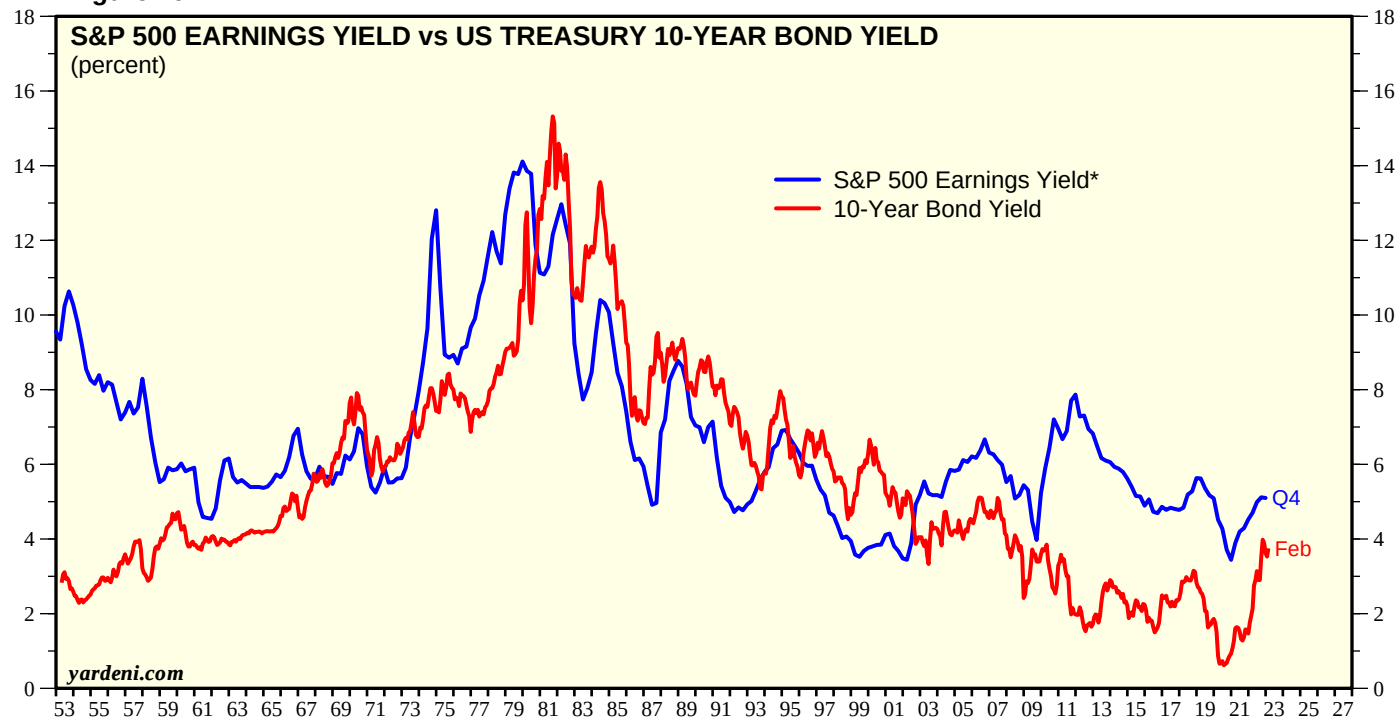
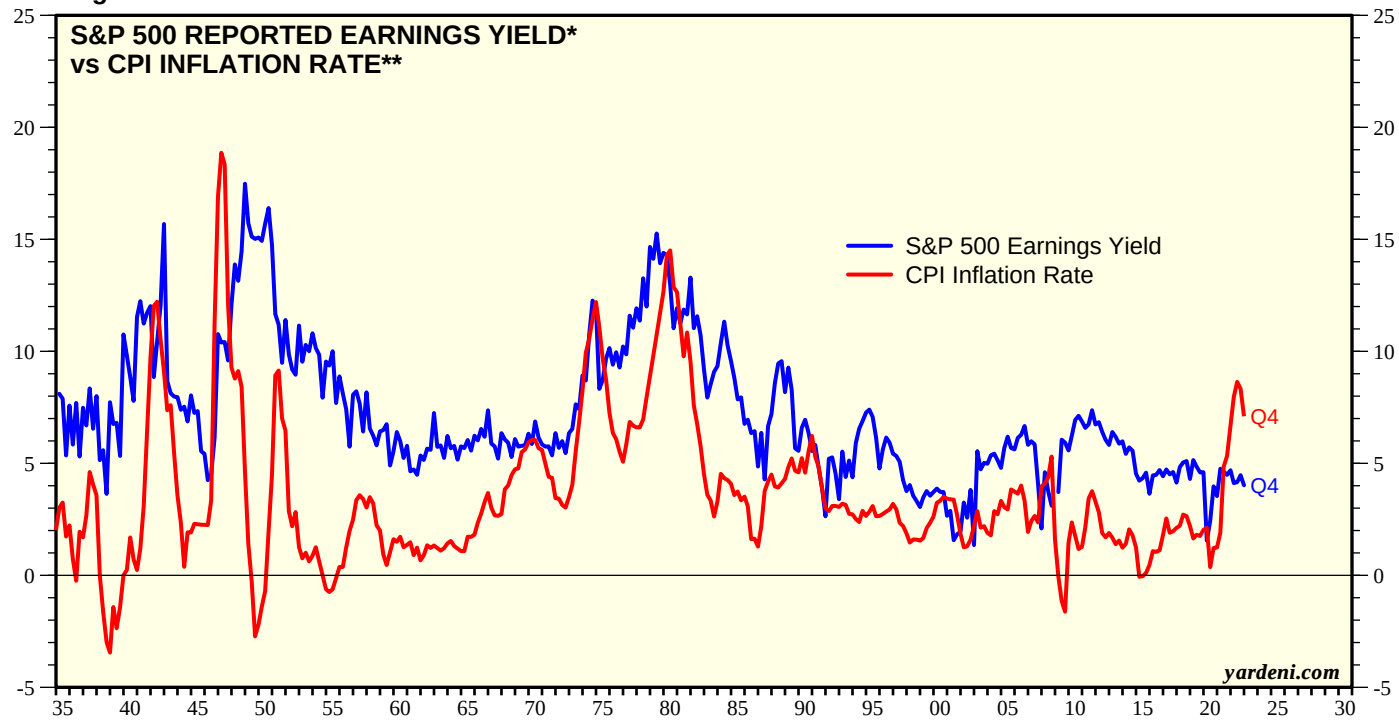
Figure 29.



* Using quarterly average of daily data for S&P 500 price index, and 4-quarter trailing reported earnings through Q3-1988, then operating earnings.
Source: Standard & Poor's and Federal Reserve Board.

Figure 30.



* 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.
Source: Standard & Poor's and Bureau of Labor Statistics.

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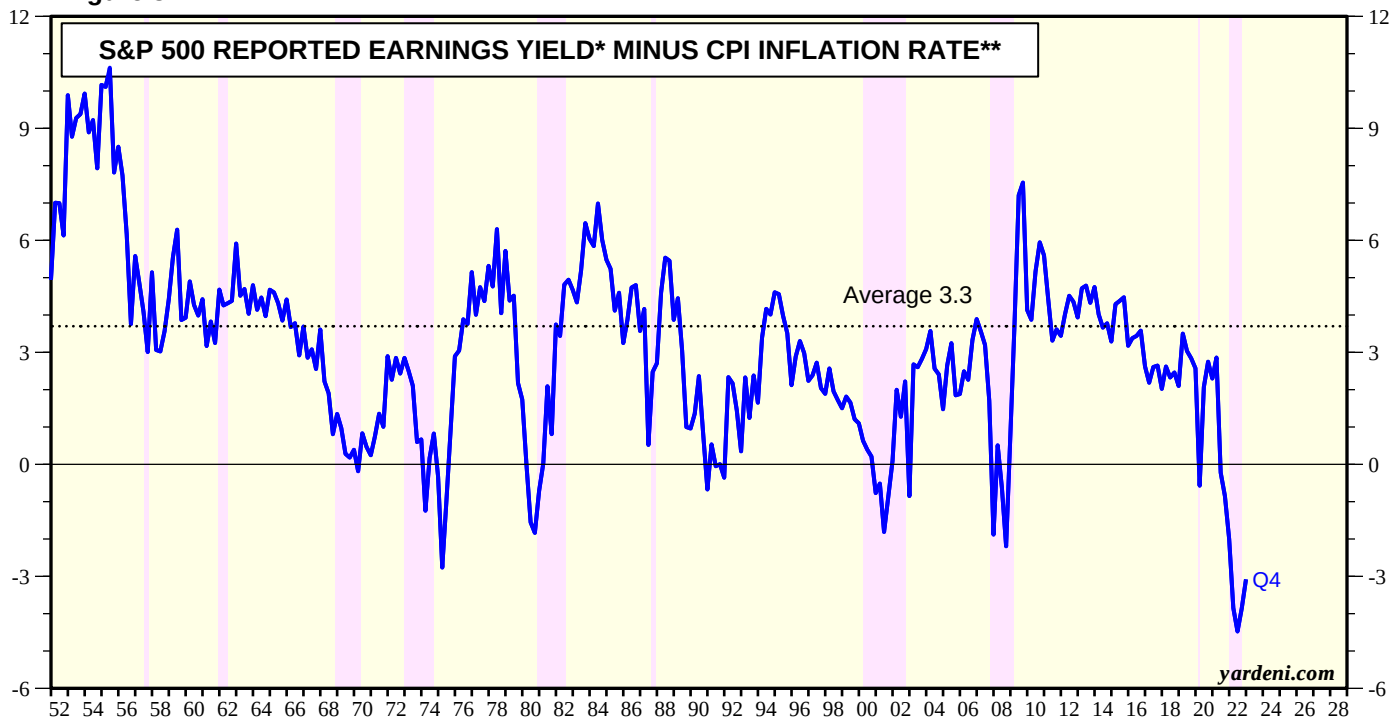
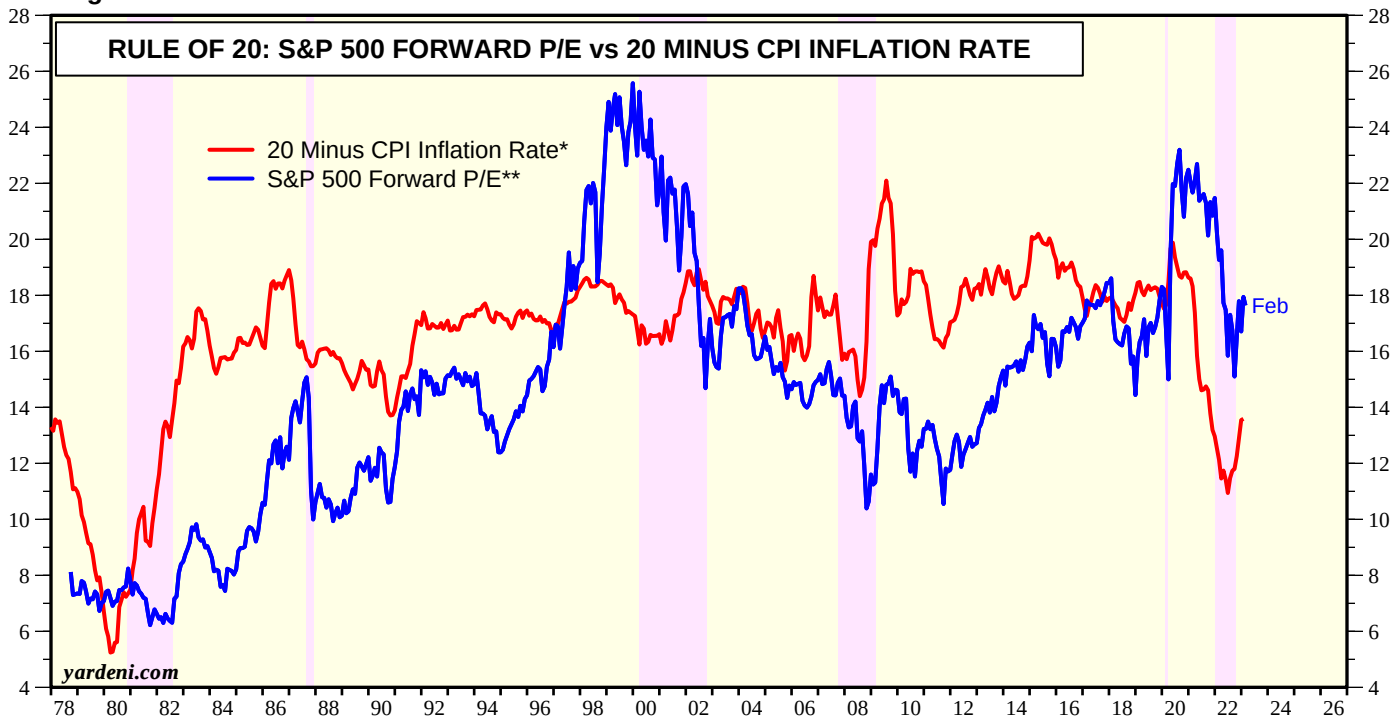
Figure 31.



* 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 are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Standard & Poor's and Bureau of Labor Statistics.

Figure 32.



* Yearly percent change.
** Average monthly S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings per share.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Bureau of Labor Statistics, Standard & Poor's, and I/B/E/S data by Refinitiv.

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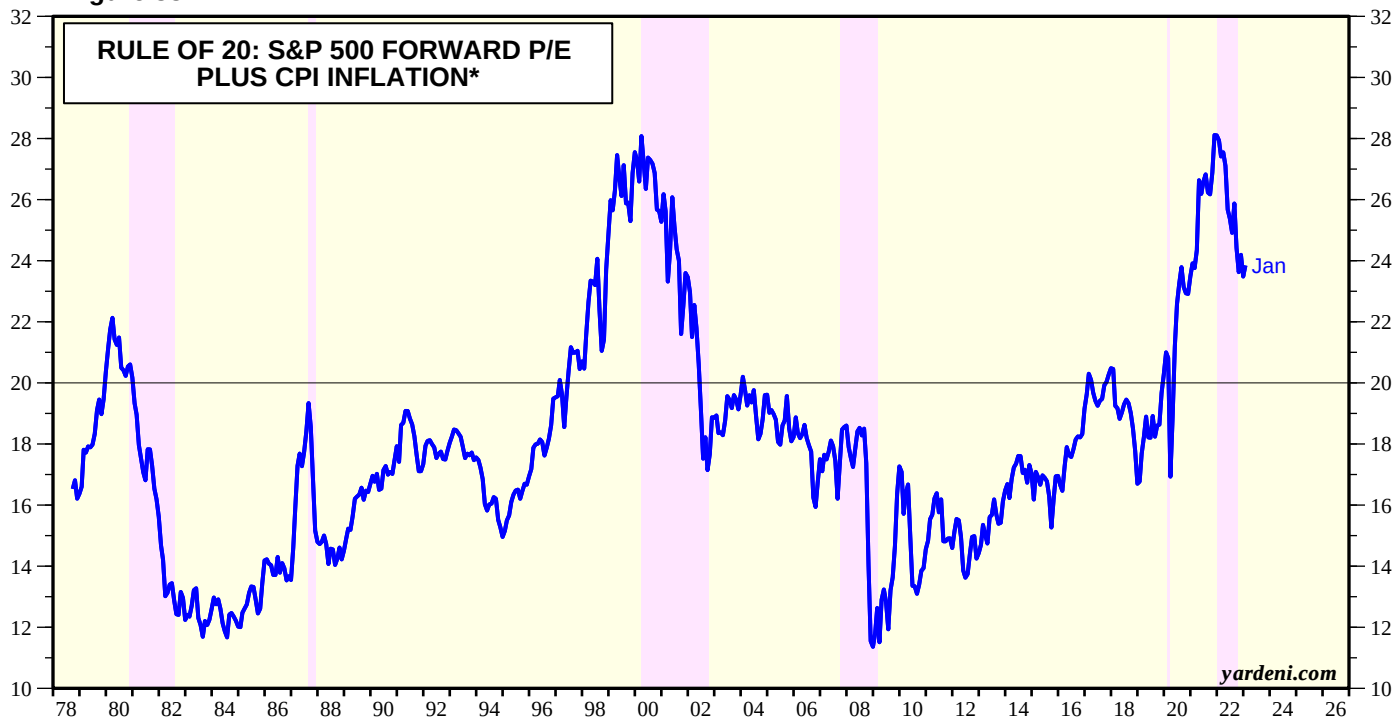
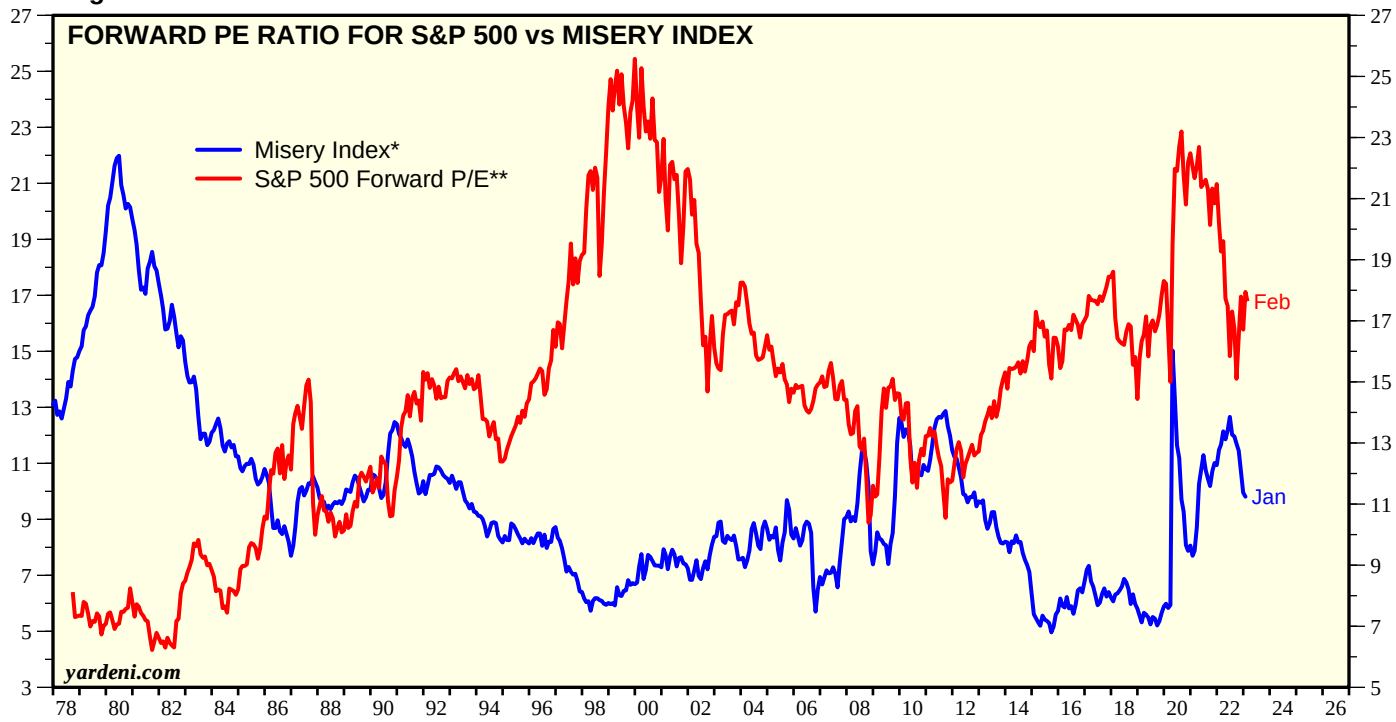
Figure 33.



* Using forward P/E monthly and yearly percent change in CPI.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, and Bureau of Labor Statistics.

Figure 34.



* Unemployment rate plus yearly percent change in consumer price index.
** Price divided by 12-month forward consensus expected operating earnings per share.
Source: I/B/E/S data by Refinitiv, Standard & Poor's, and Bureau of Labor Statistics.

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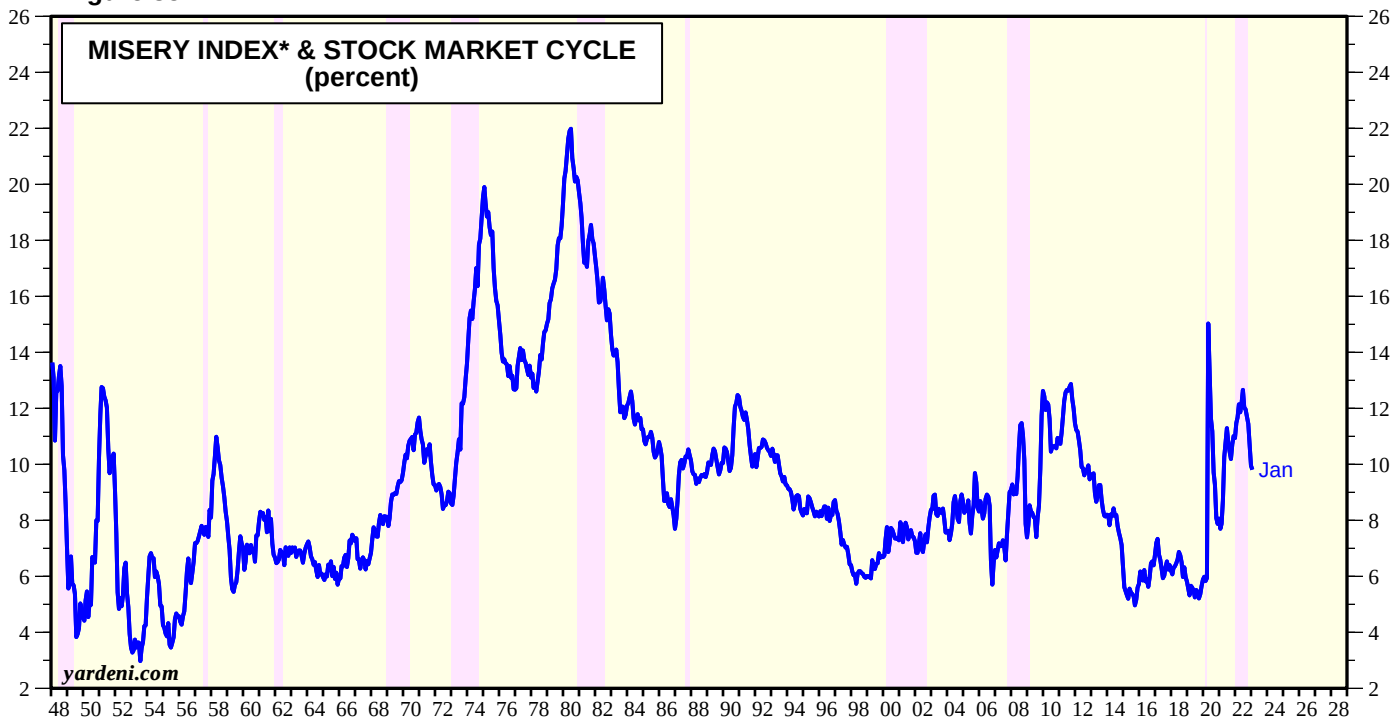
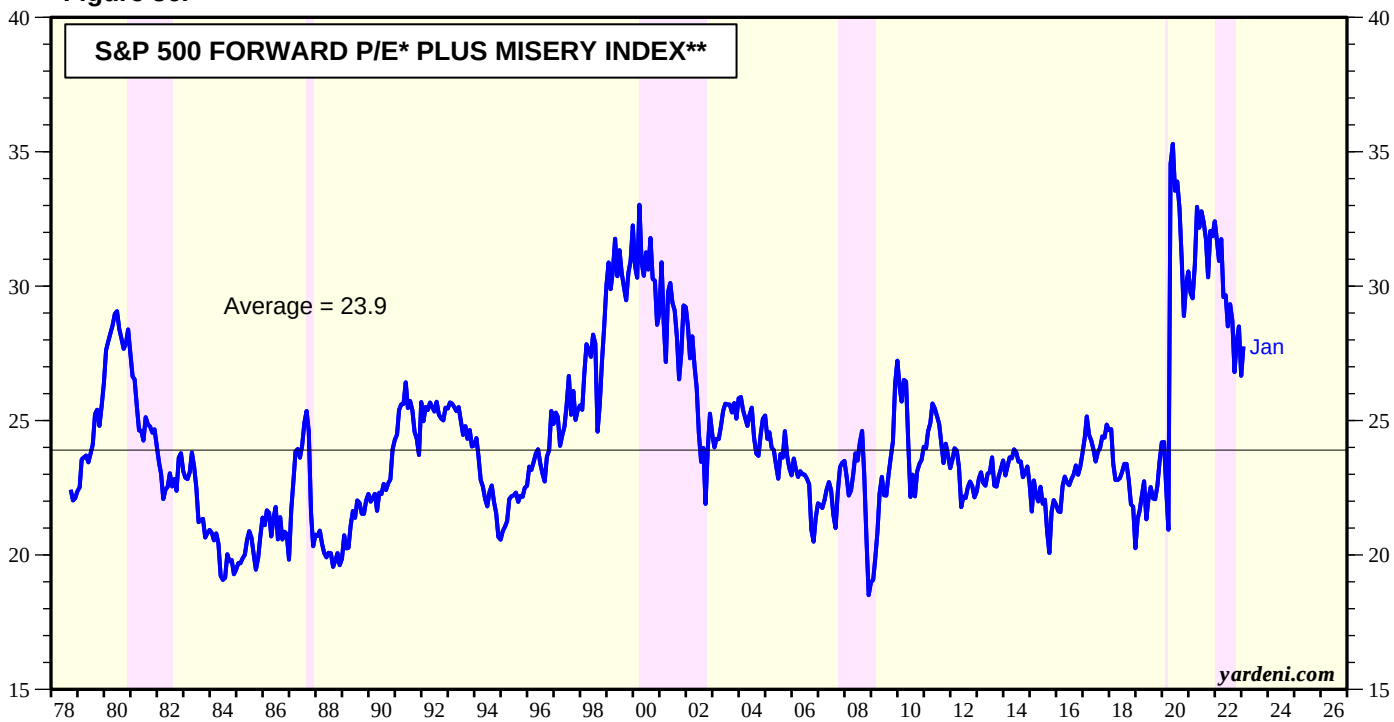
Figure 35.



* Unemployment rate plus yearly percent change in consumer price index.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Bureau of Labor Statistics.

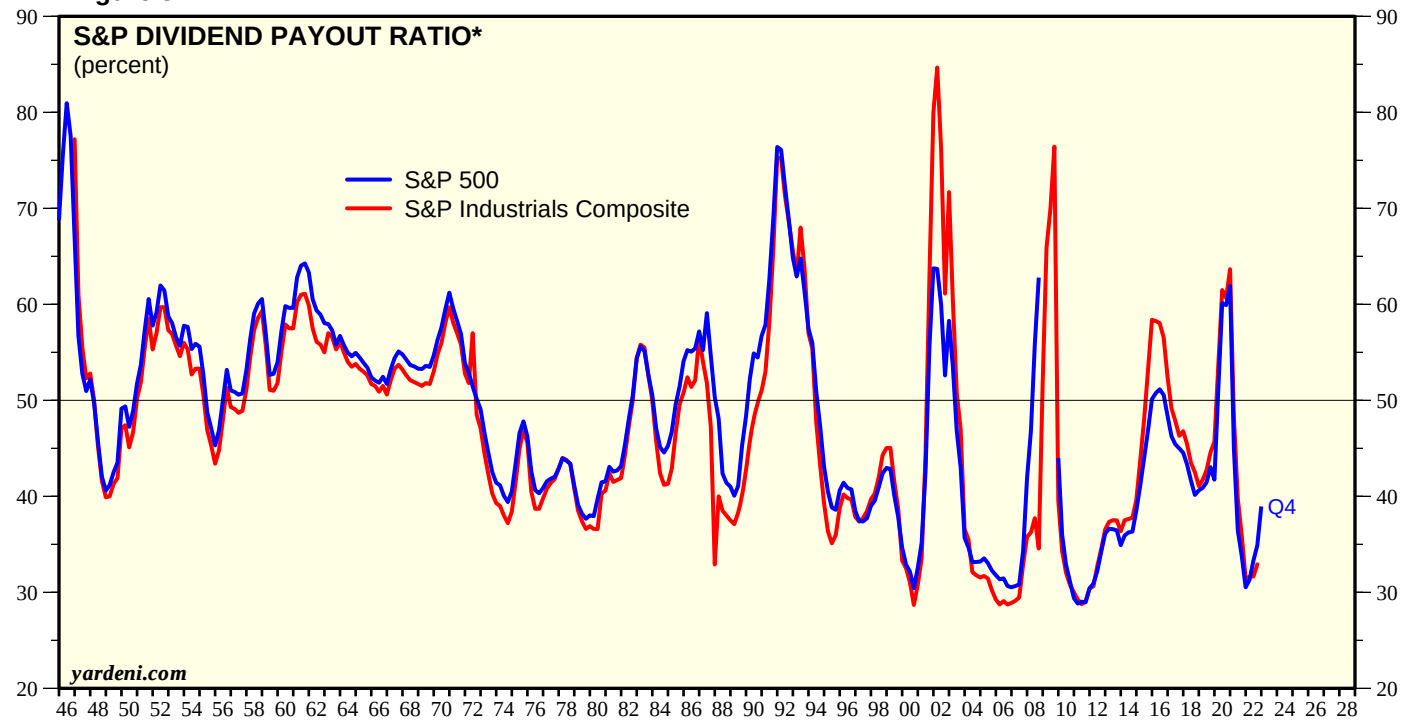
Figure 36.



* Average monthly S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings per share.
** Unemployment rate plus yearly percent change in consumer price index.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Bureau of Labor Statistics, Standard & Poor's, and I/B/E/S data by Refinitiv.

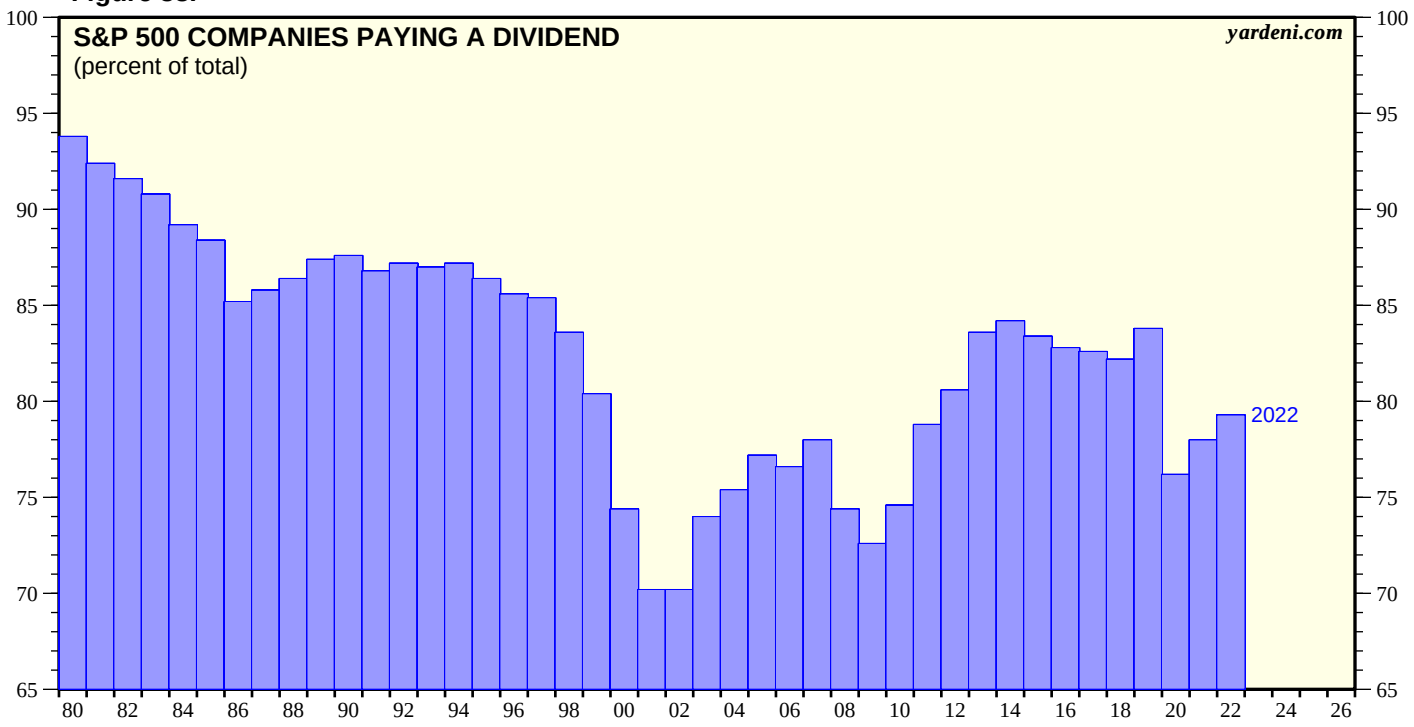
Predicting Valuation

Figure 37.



* Four-quarter trailing dividends per share divided by four-quarter trailing reported earnings.
S&P 500 dividend payout not available from Q4-2008 to Q3-2009 because dividends exceeded earnings.
Source: Standard & Poor's.

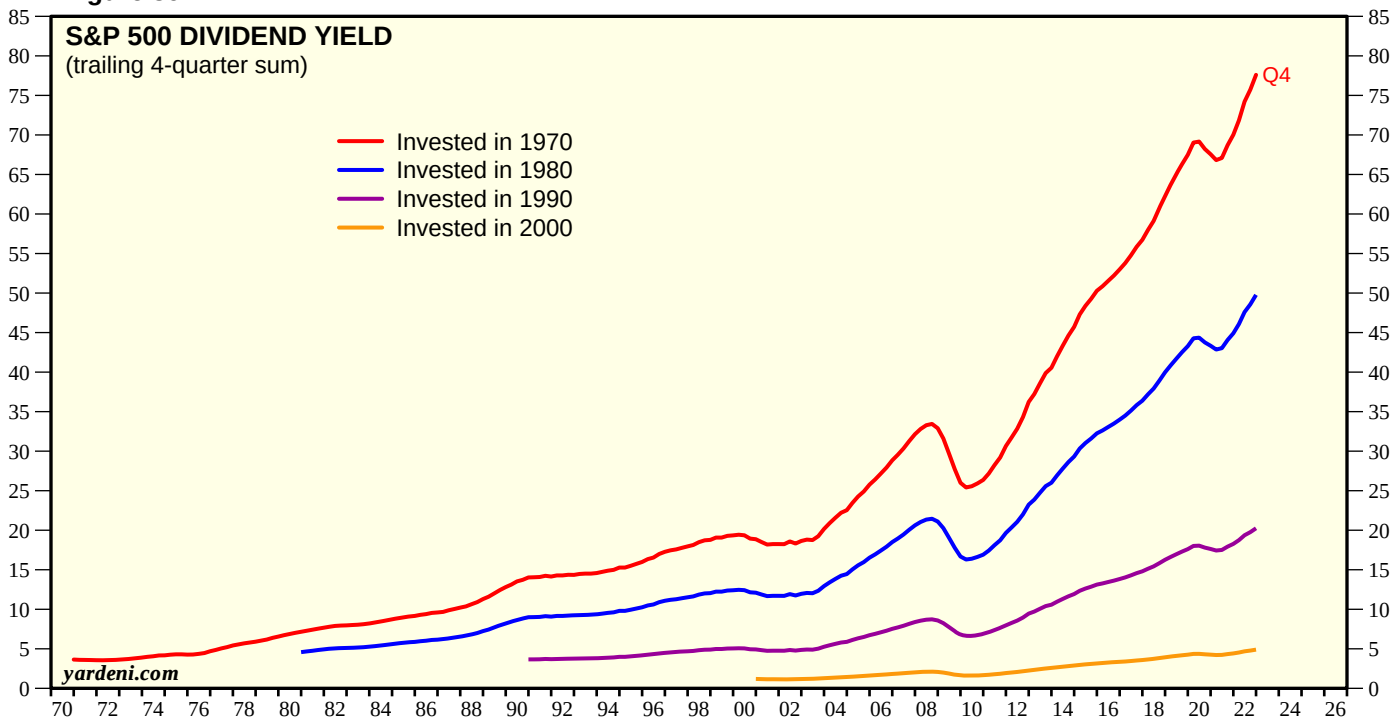
Figure 38.



Source: Standard & Poor's.

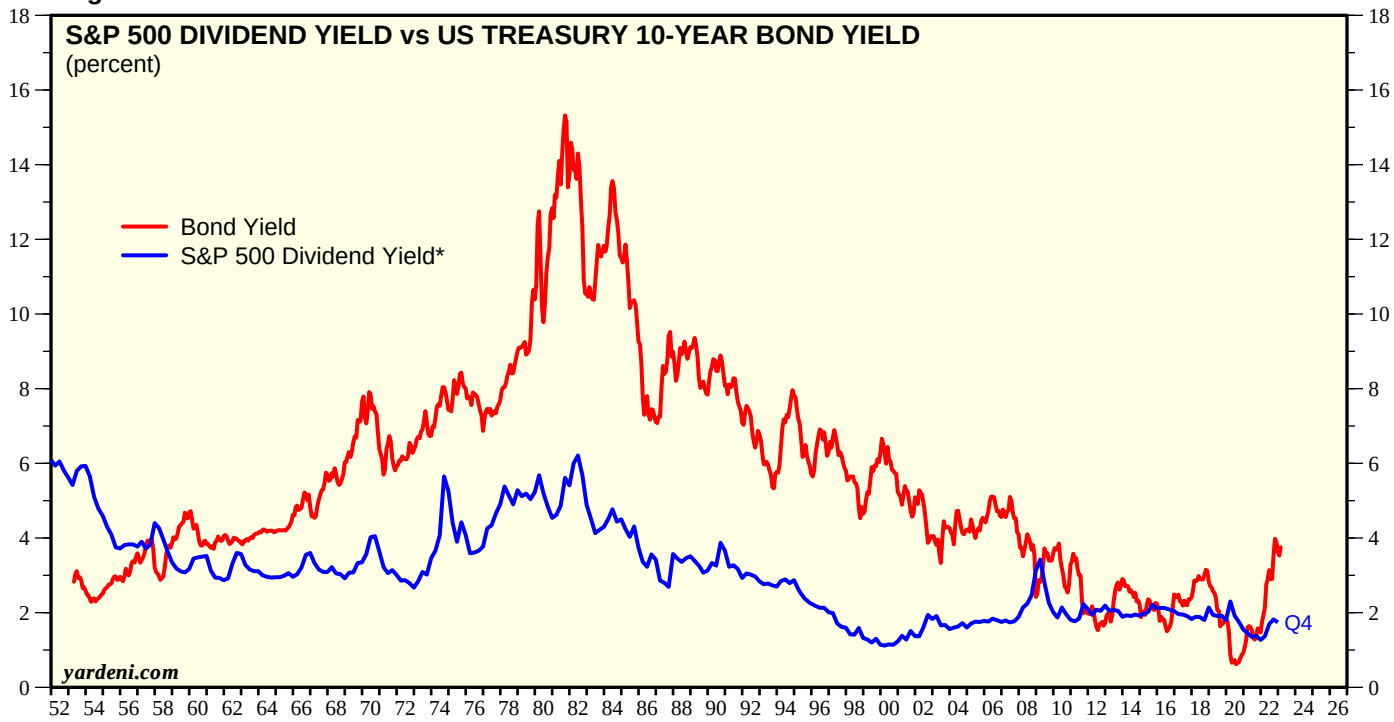
Predicting Valuation

Figure 39.



Source: Standard & Poor's.

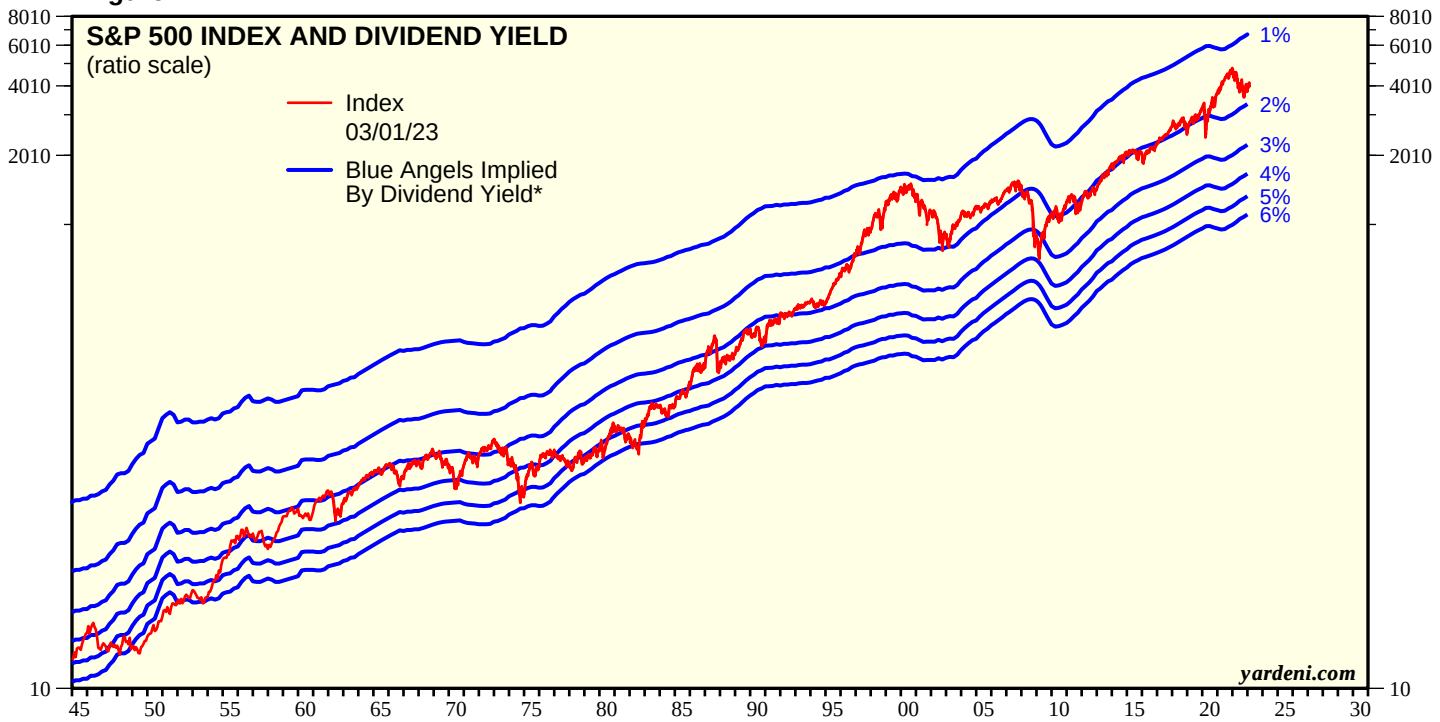
Figure 40.



* S&P 500 four-quarter trailing dividends per share divided by quarterly closing value of the S&P 500 index.
Source: Standard & Poor's and Federal Reserve Board.

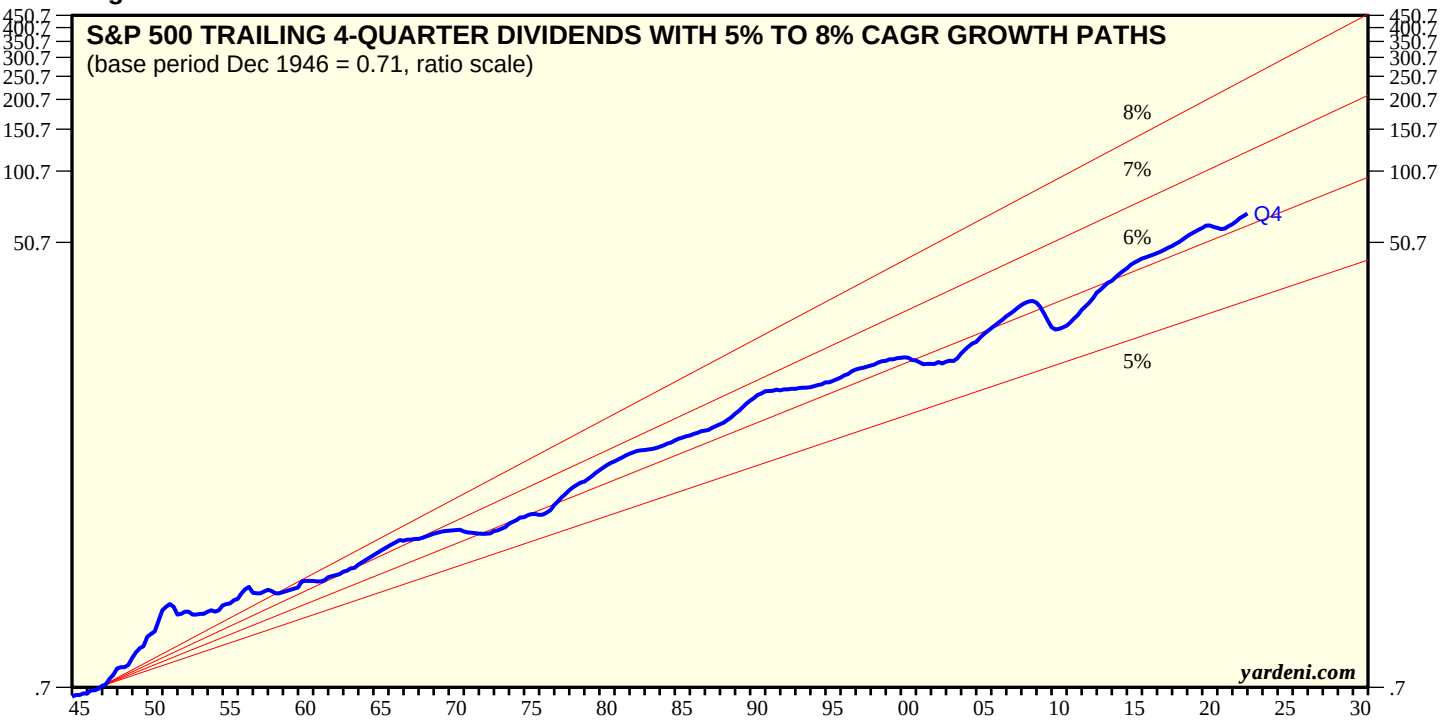
Predicting Valuation

Figure 41.



* Blue lines show hypothetical values of S&P 500 stock price index using actual S&P 500 dividend (4-quarter trailing sum) divided by dividend yields from 1.0% to 6.0%
Source: Standard & Poor's.

Figure 42.



Source: Standard & Poor's.

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