

# Predicting the Markets

## Chapter 14 Charts: Predicting Valuation

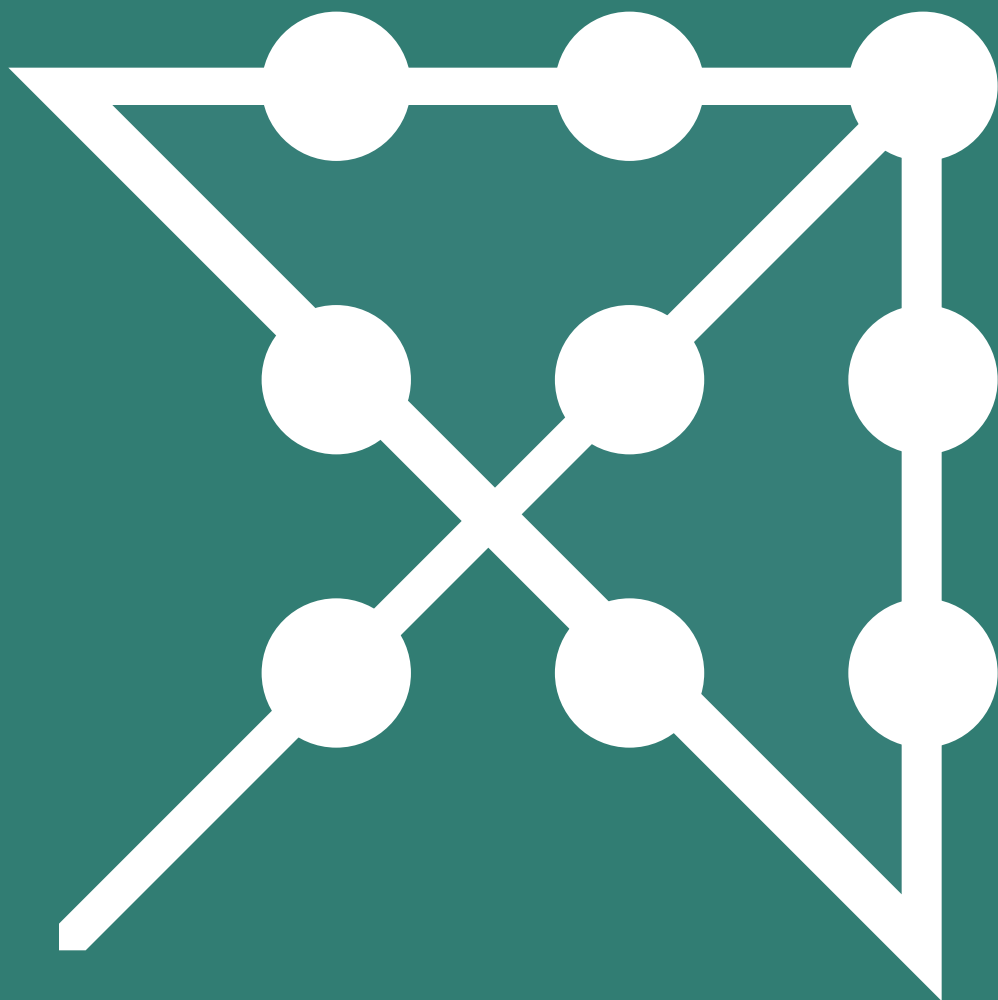
Yardeni Research, Inc.

*June 15, 2022*

**Dr. Edward Yardeni**  
Chief Investment Strategist

**Mali Quintana**  
Senior Economist  
info@yardenibook.com

Please visit our sites at  
[www.yardeni.com](http://www.yardeni.com)  
[blog.yardeni.com](http://blog.yardeni.com)



*thinking outside the box*

---

# *Table Of Contents*

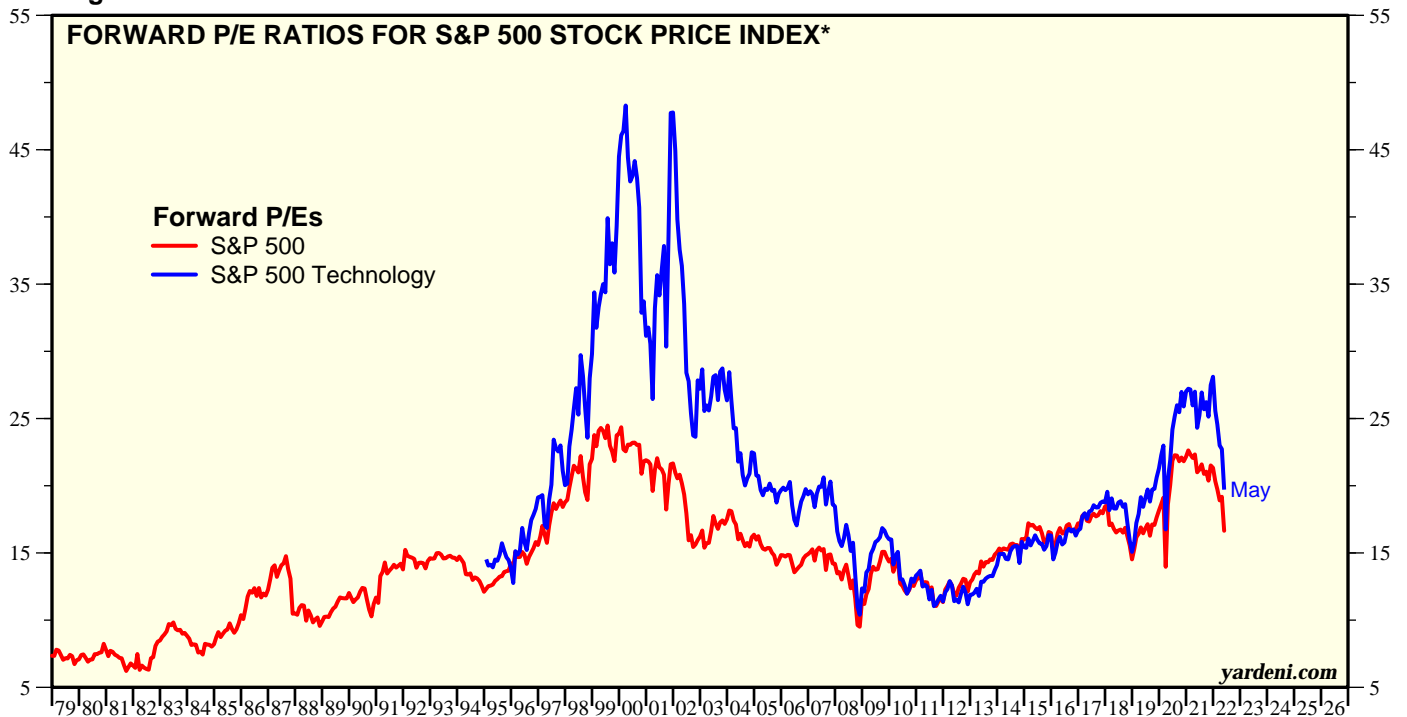
---

Predicting Valuation

1-21

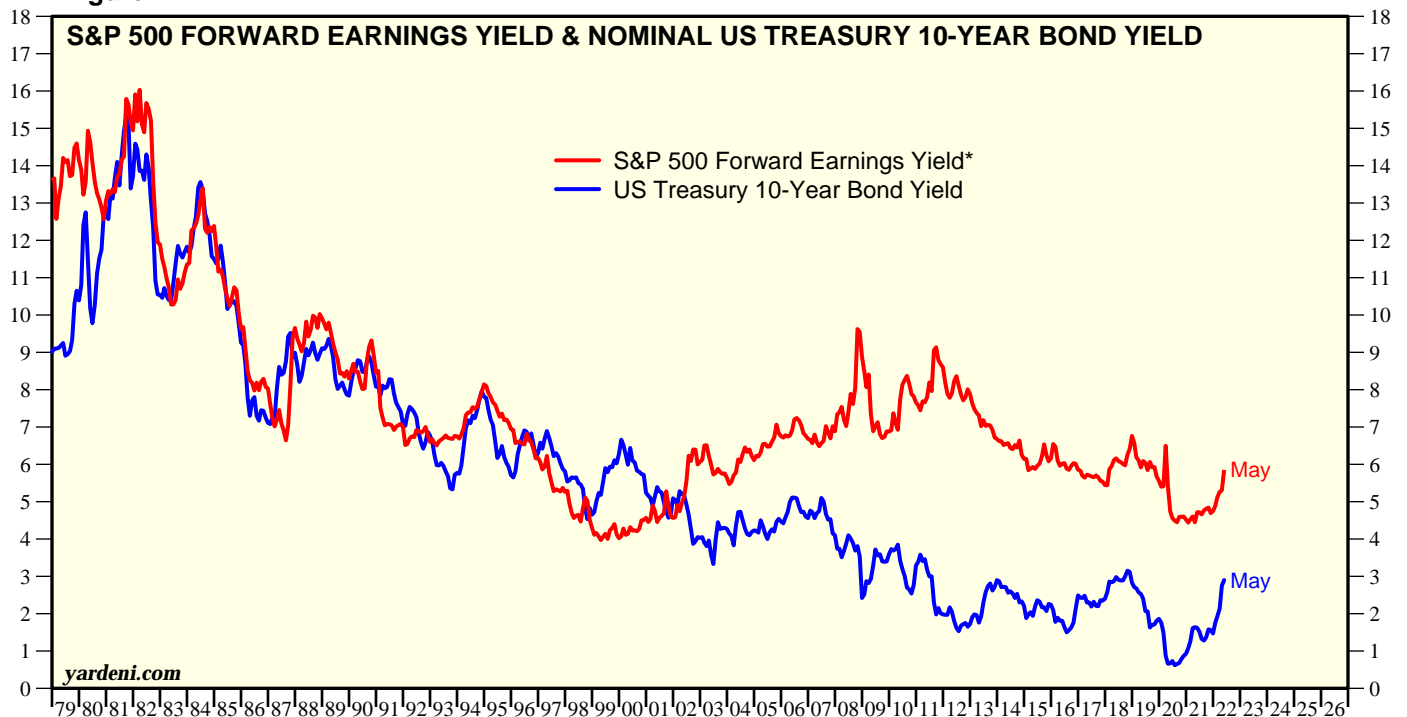
# Predicting Valuation

Figure 1.



\* 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.

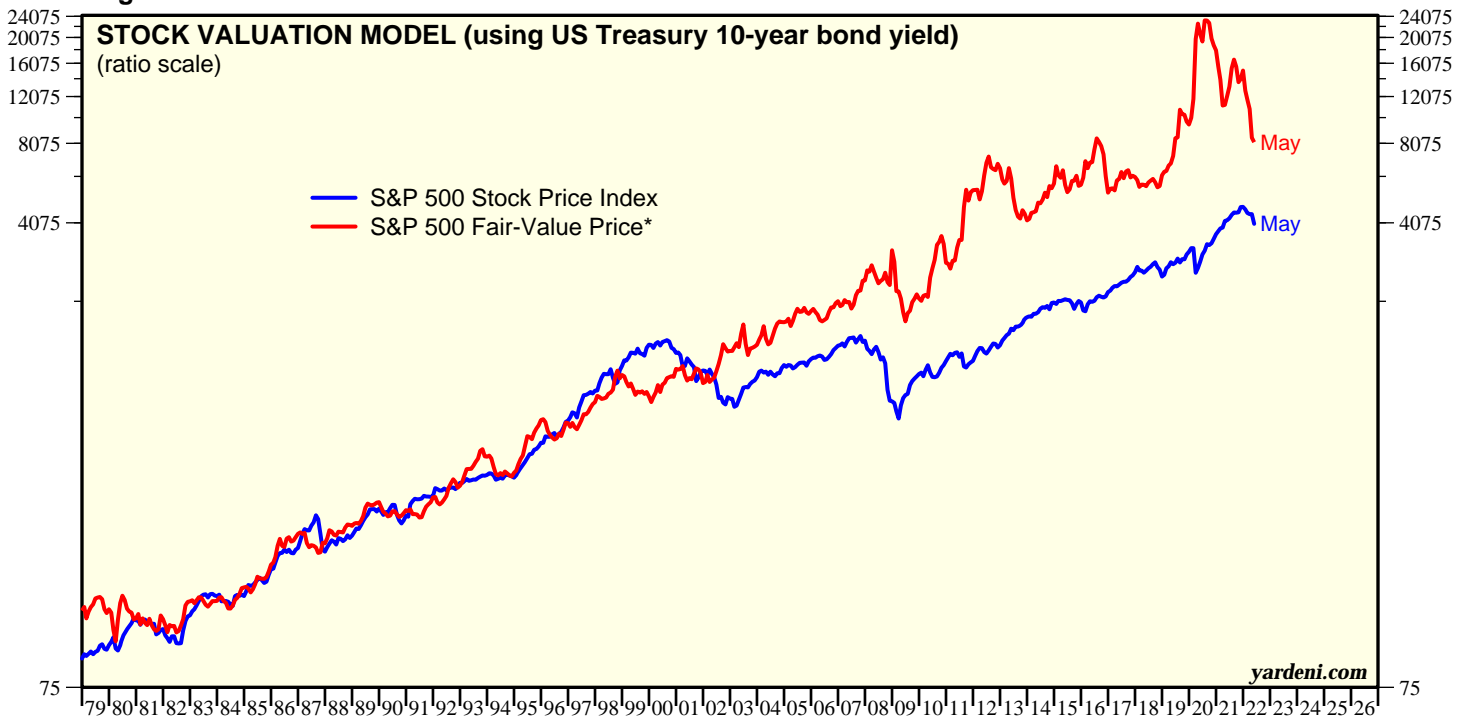
Figure 2.



\* 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.

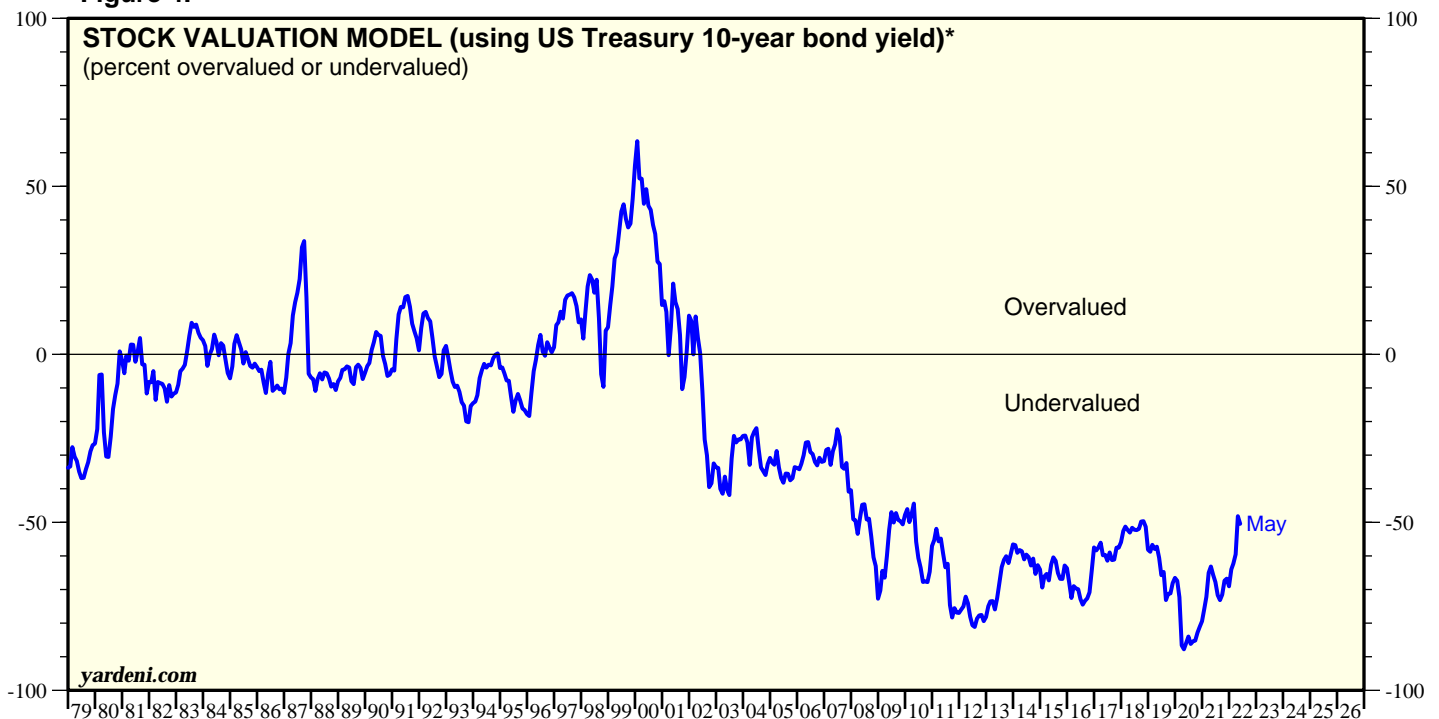
# Predicting Valuation

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.

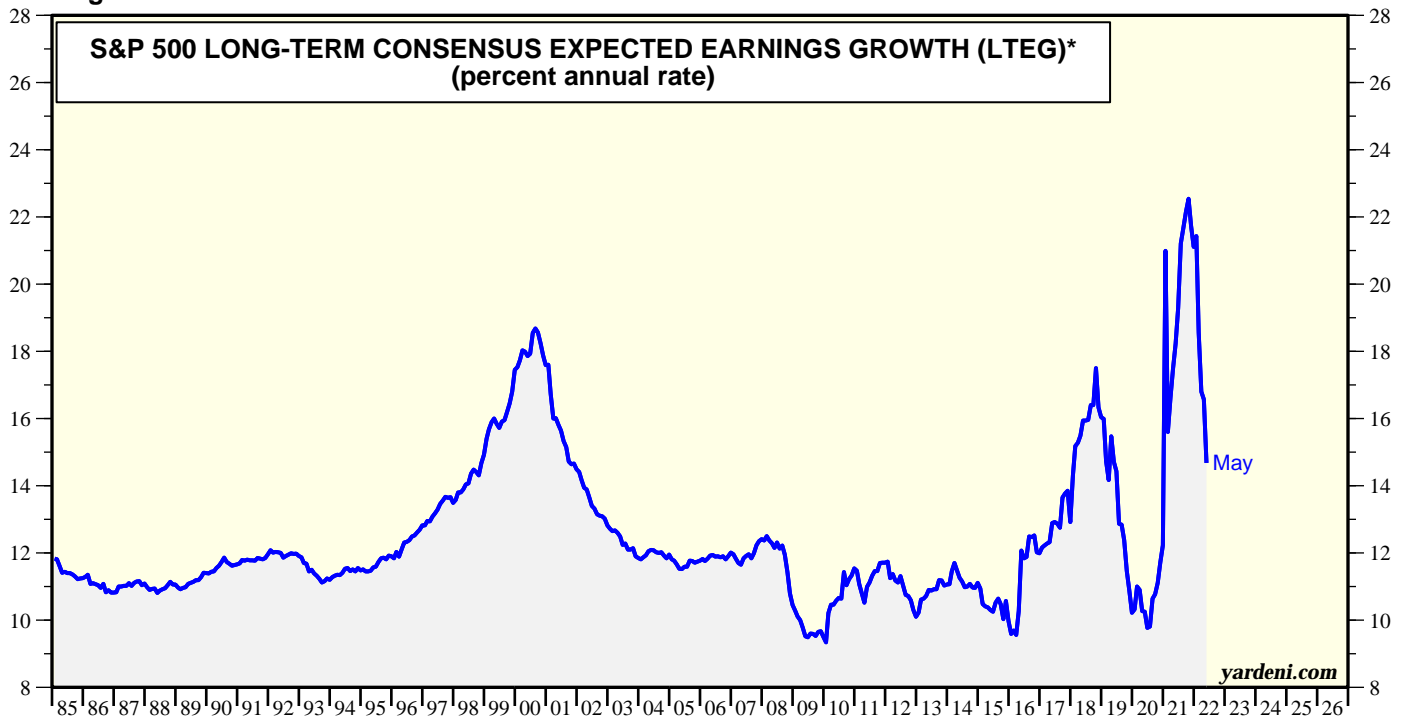
Figure 4.



\* 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.

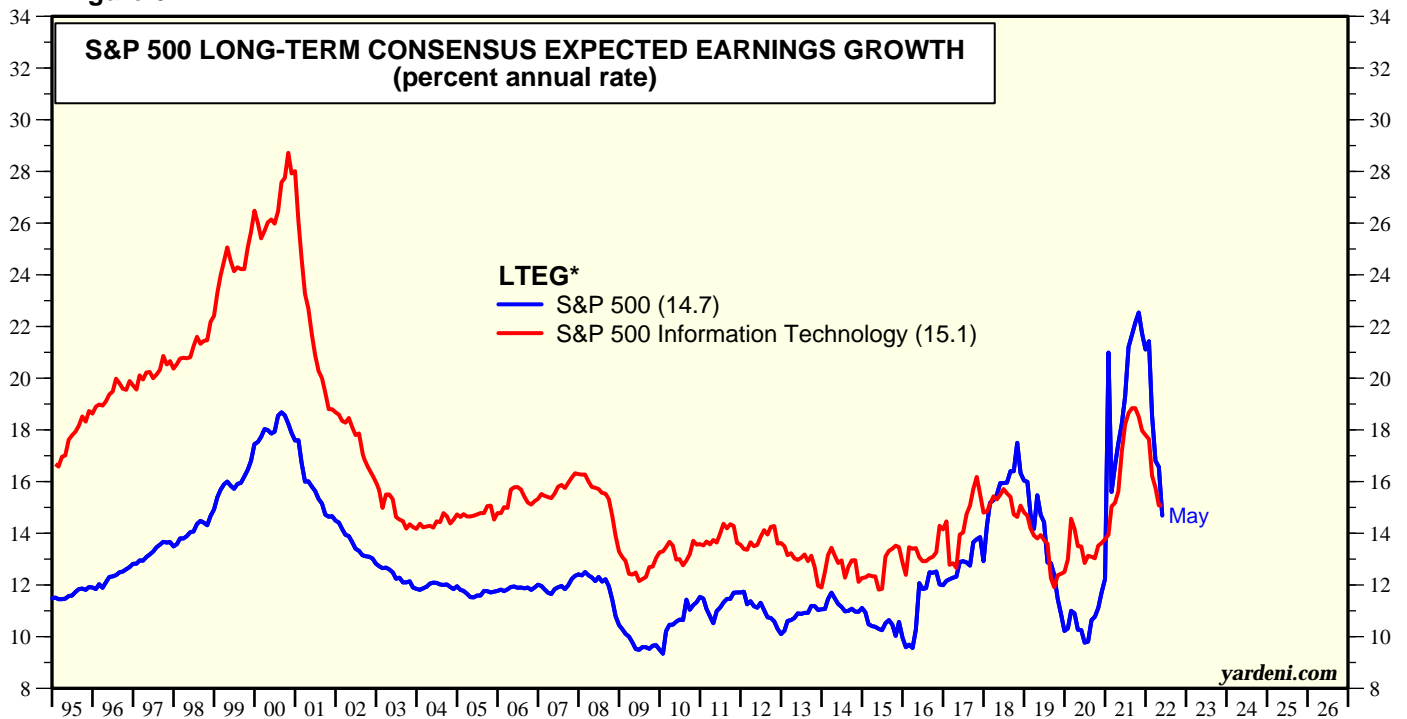
# Predicting Valuation

Figure 5.



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

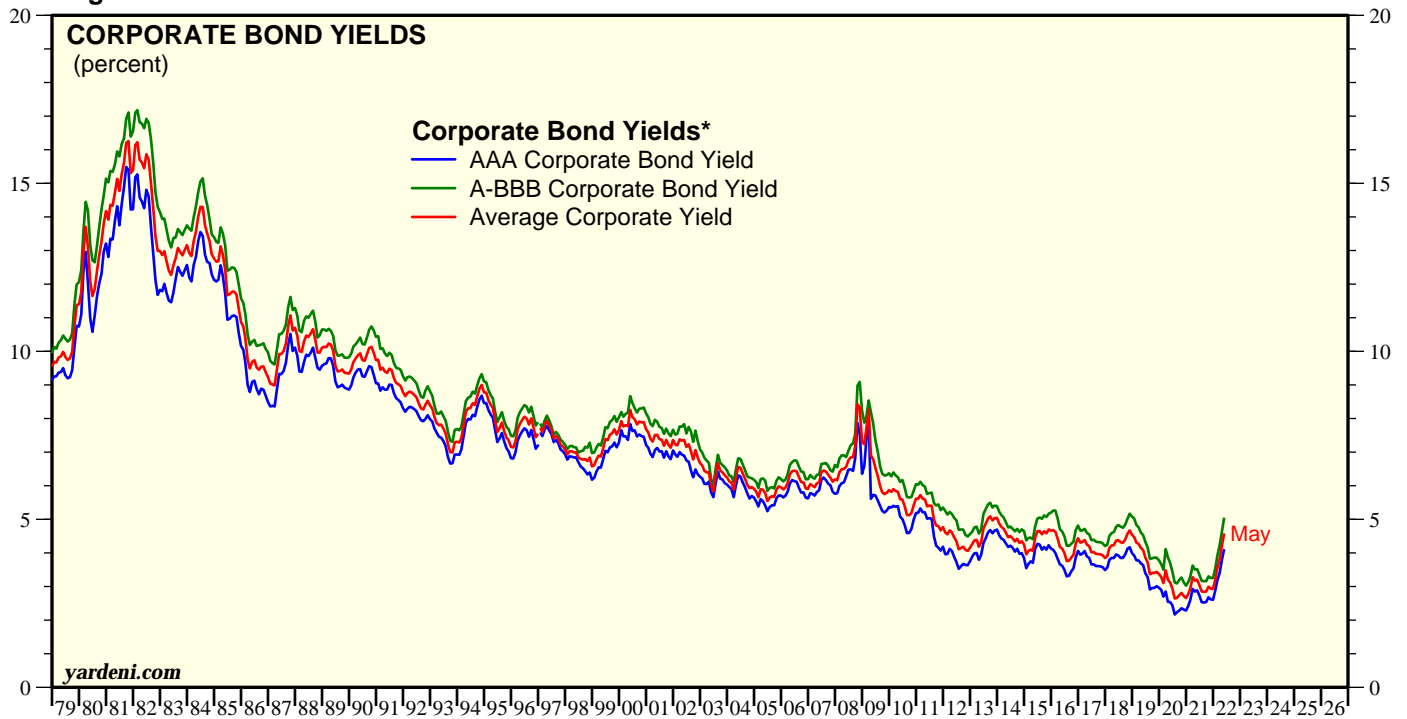
Figure 6.



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

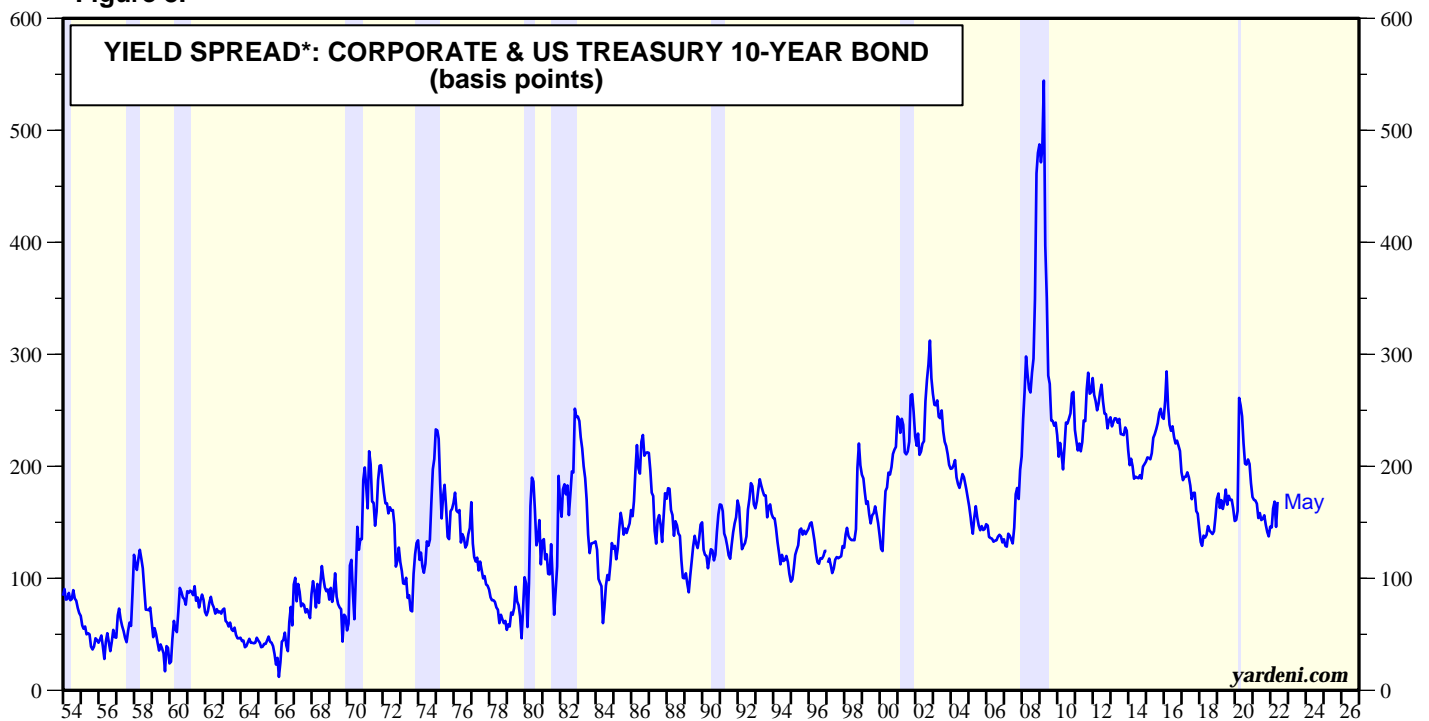
# Predicting Valuation

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.

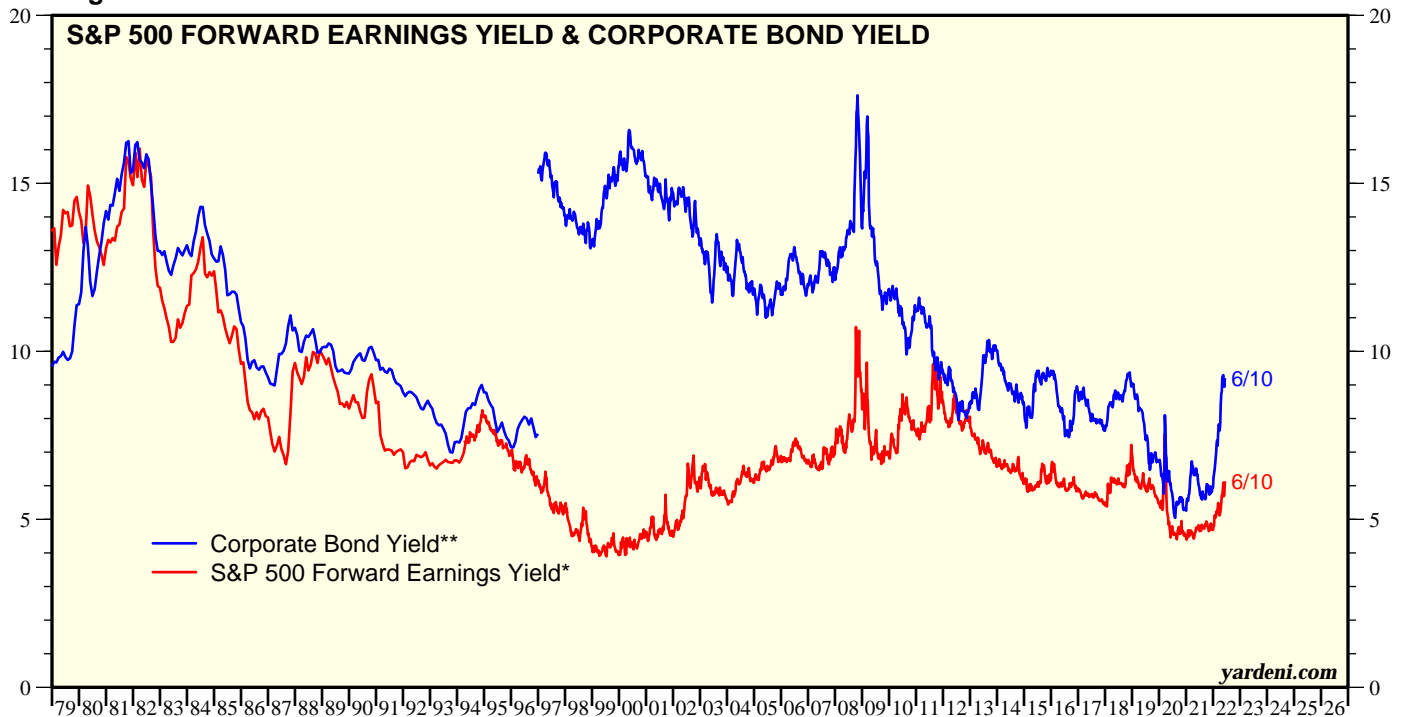
Figure 8.



\* 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.

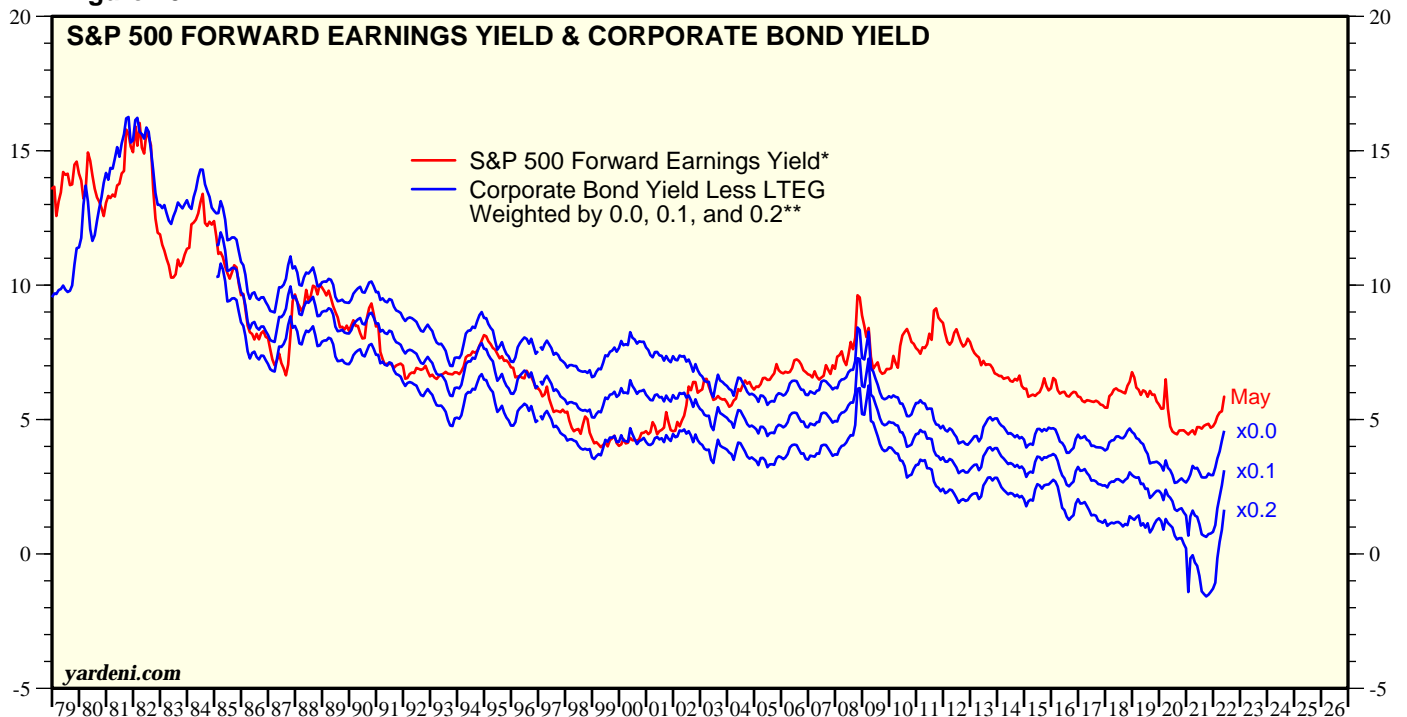
# Predicting Valuation

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 1996, 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.

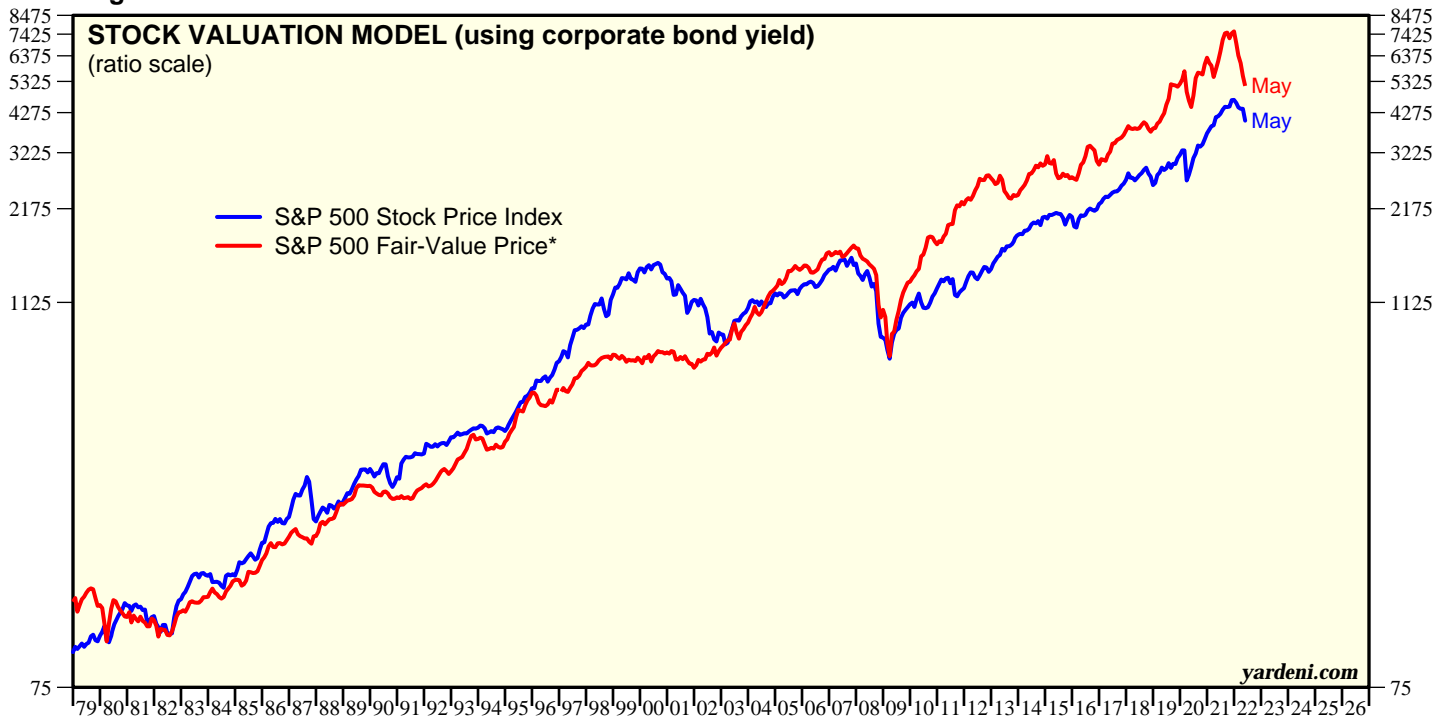
Figure 10.



\* 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.

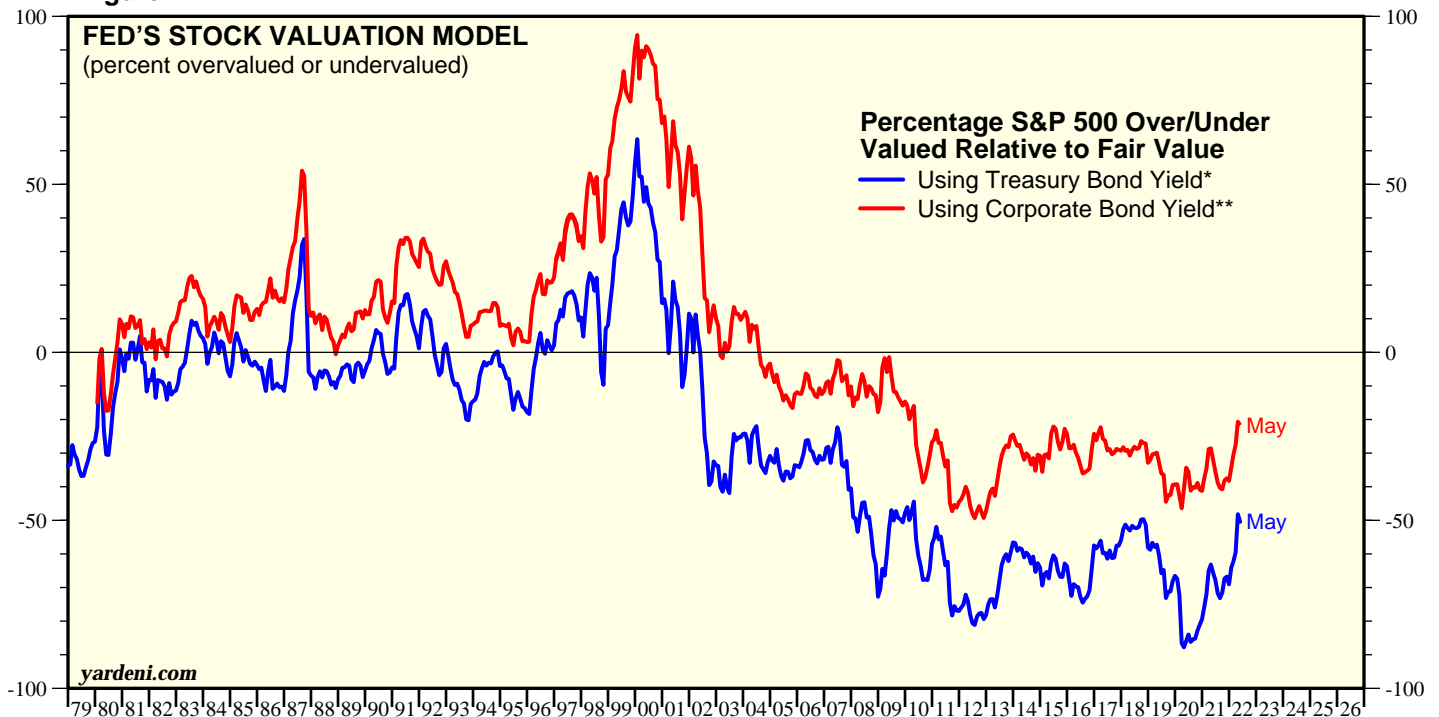
# Predicting Valuation

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.



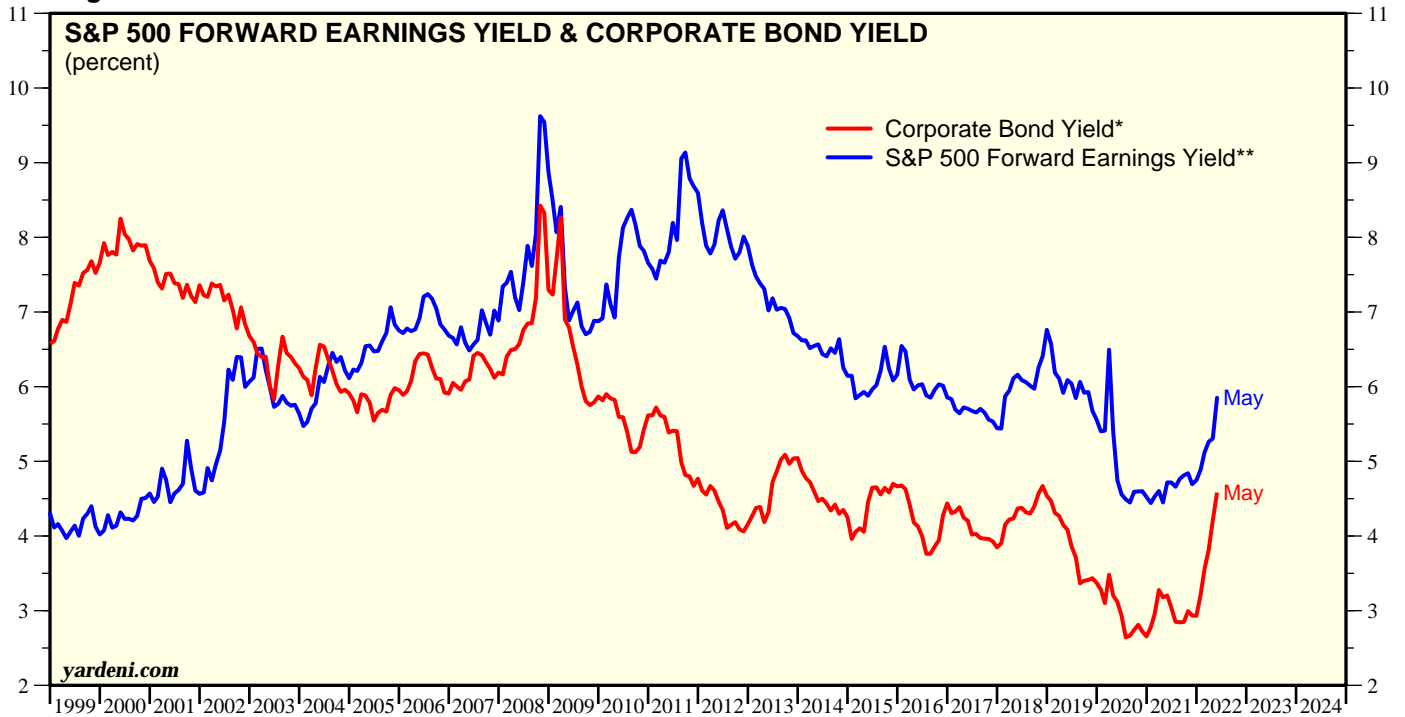
\* S&P 500 12-month forward consensus expected operating earnings divided by 10-year US Treasury bond yield converted to percentage.

\*\* 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.



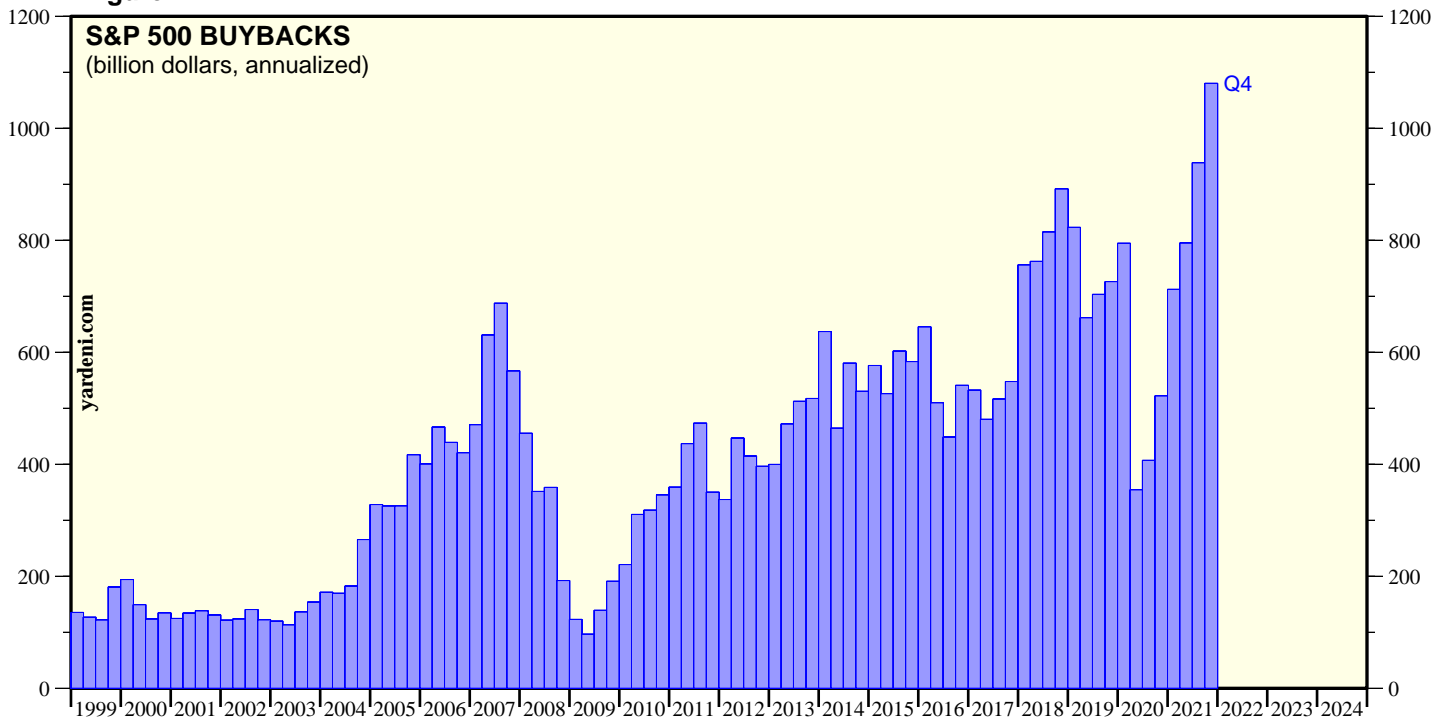
# Predicting Valuation

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.

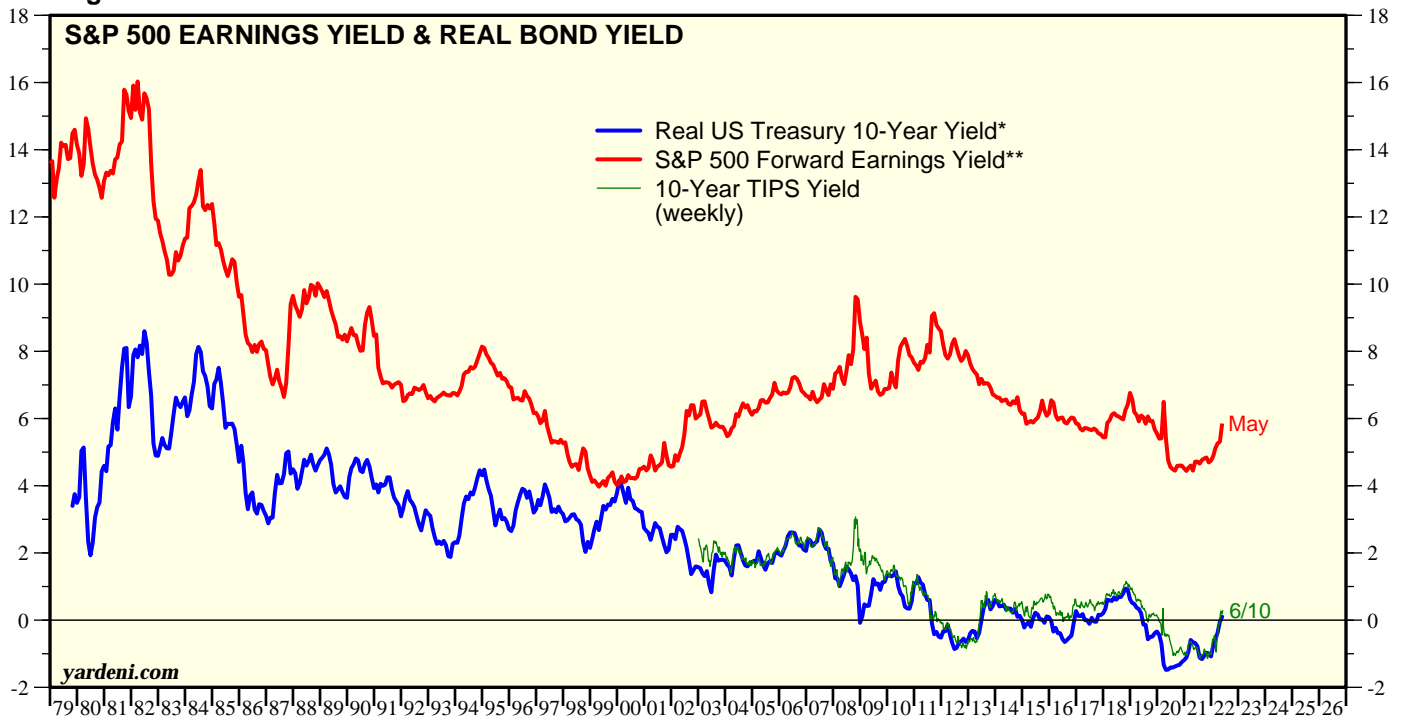
Figure 14.



Source: Standard & Poor's.

# Predicting Valuation

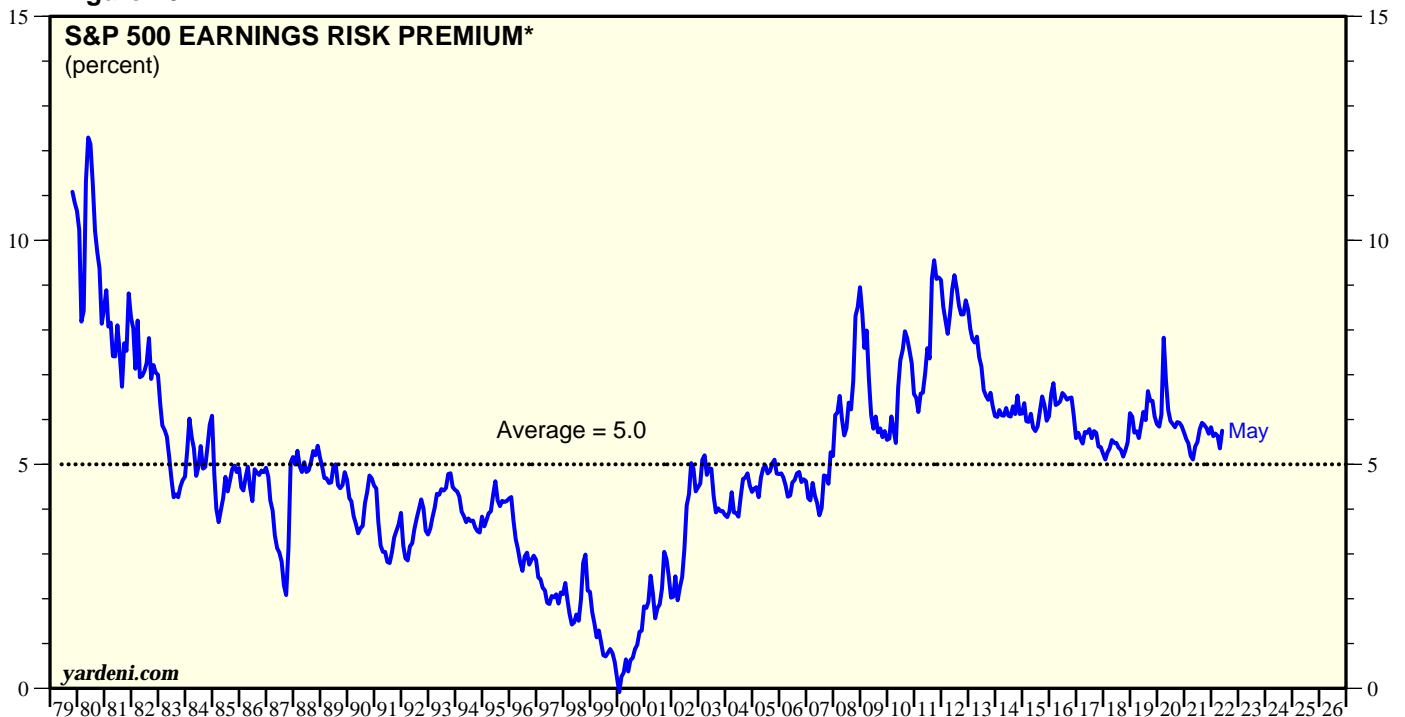
Figure 15.



\* 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.

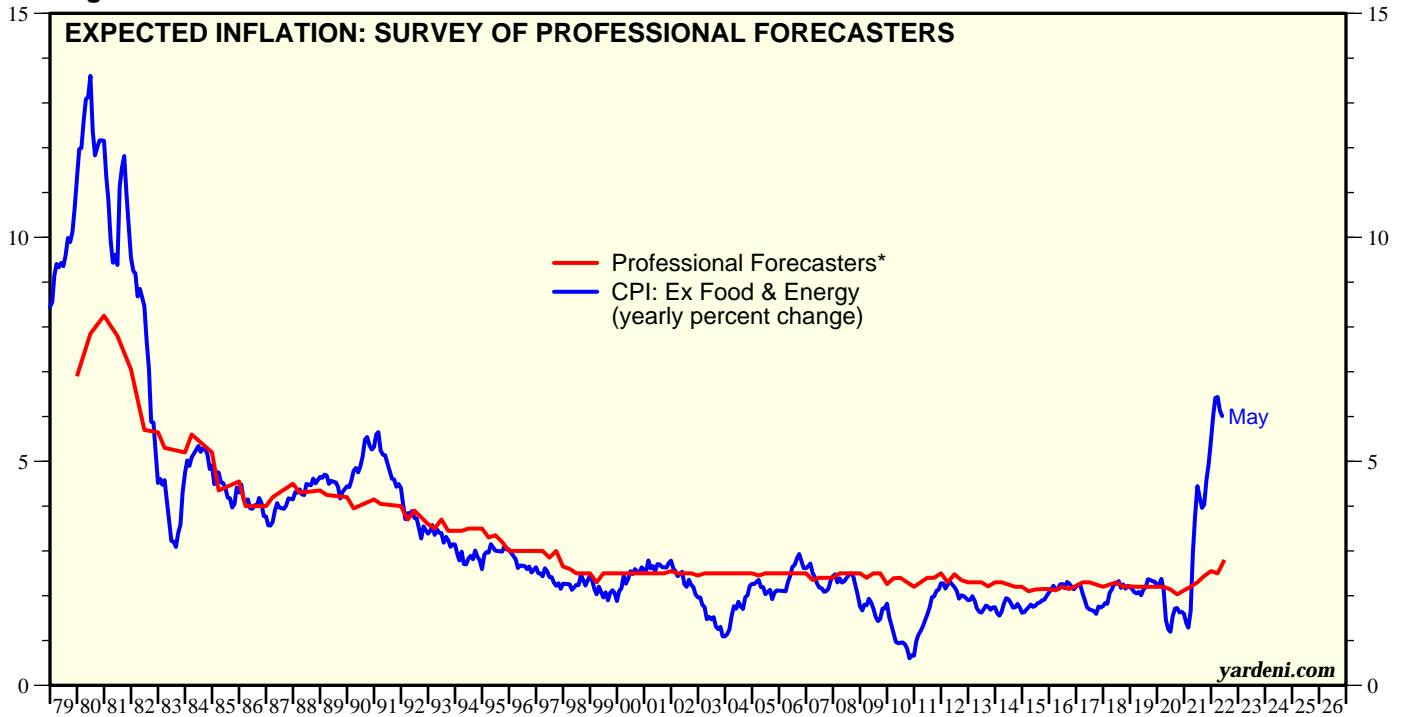
Figure 16.



\* 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.

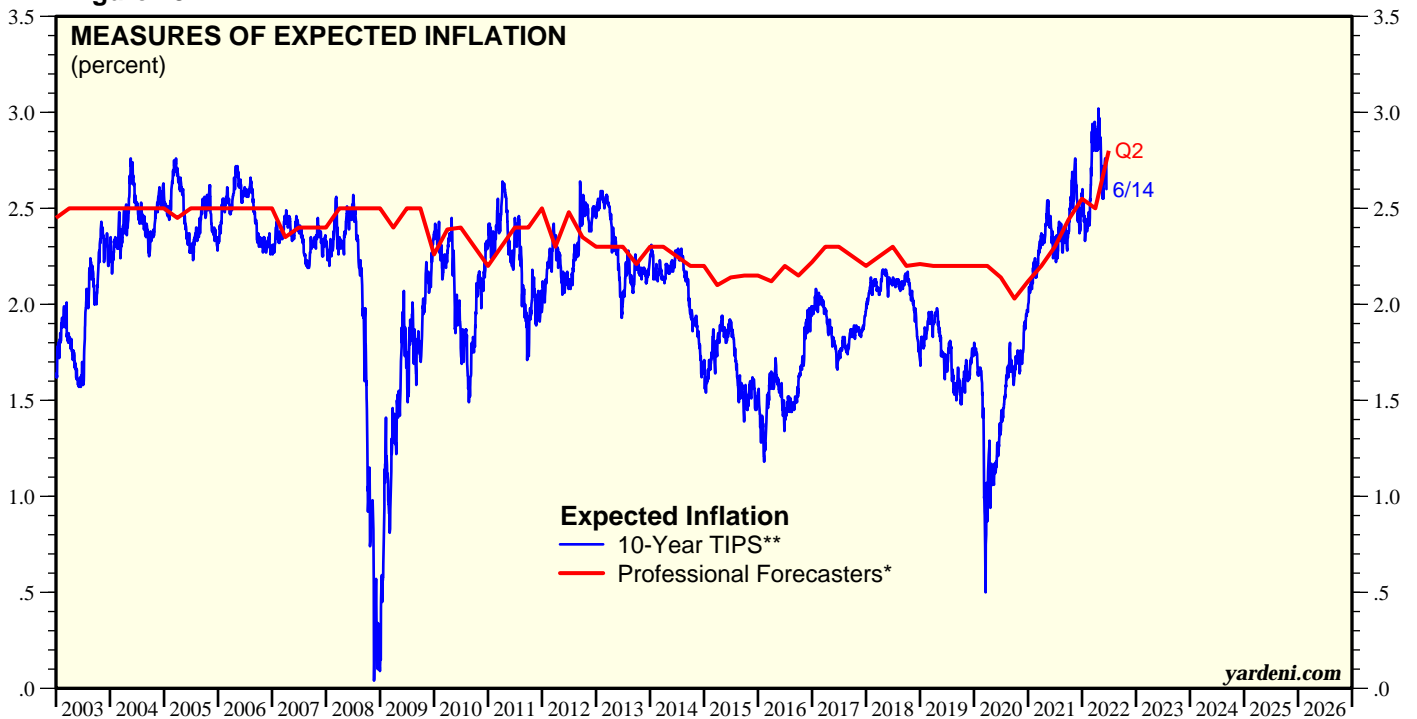
# Predicting Valuation

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.

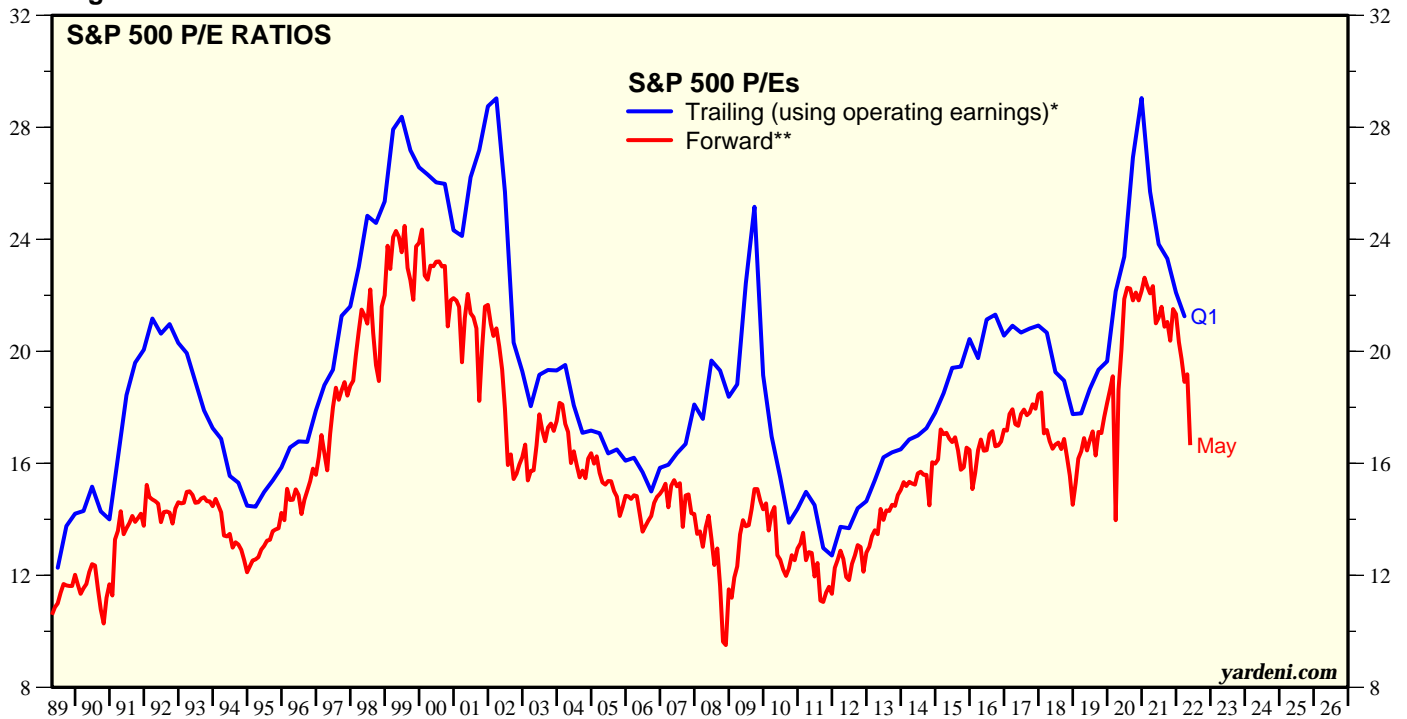


\* Median forecast of year-over-year CPI inflation rate over the next 10 years using Philadelphia Fed Survey of Professional Forecasters data.

\*\* Nominal US Treasury 10-year minus 10-year TIPS yields. Source: Federal Reserve Board and Federal Reserve Bank of Philadelphia.

# Predicting Valuation

Figure 19.

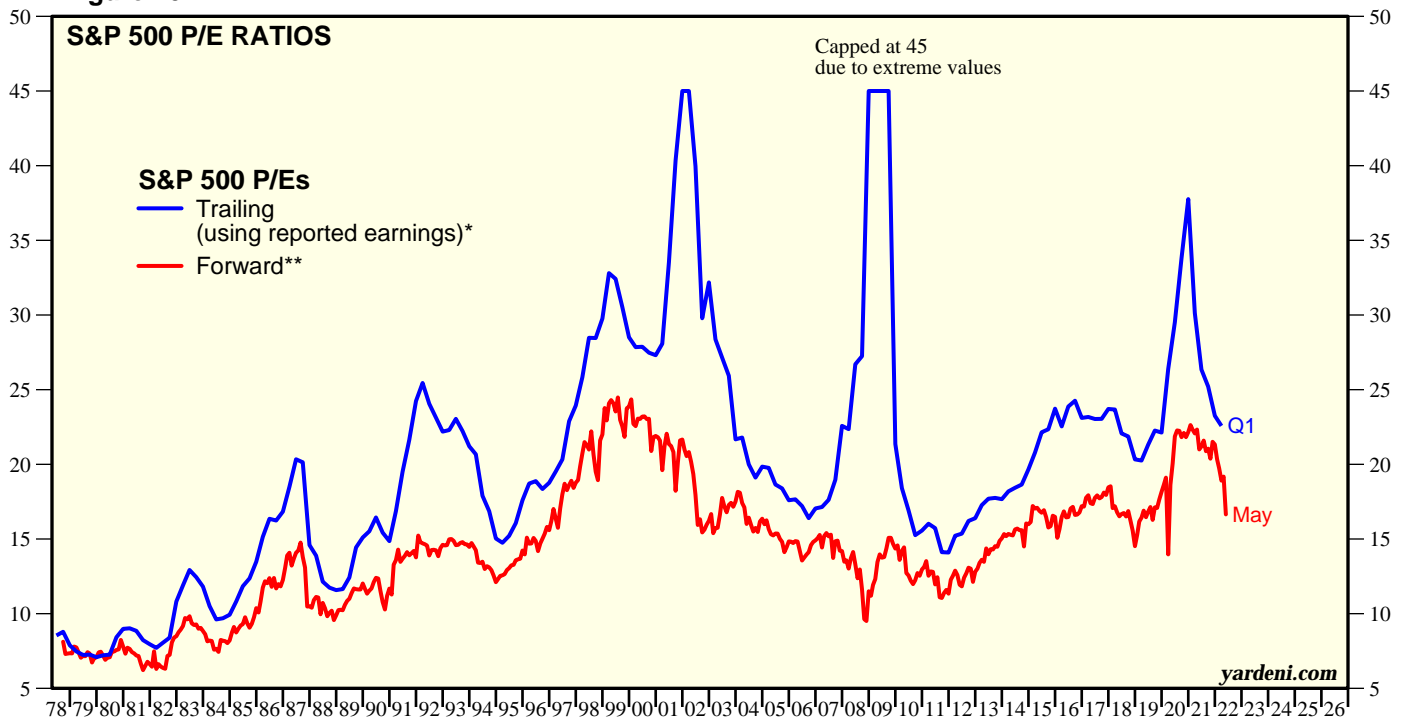


\* Using 4-quarter trailing operating earnings.

\*\* 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.



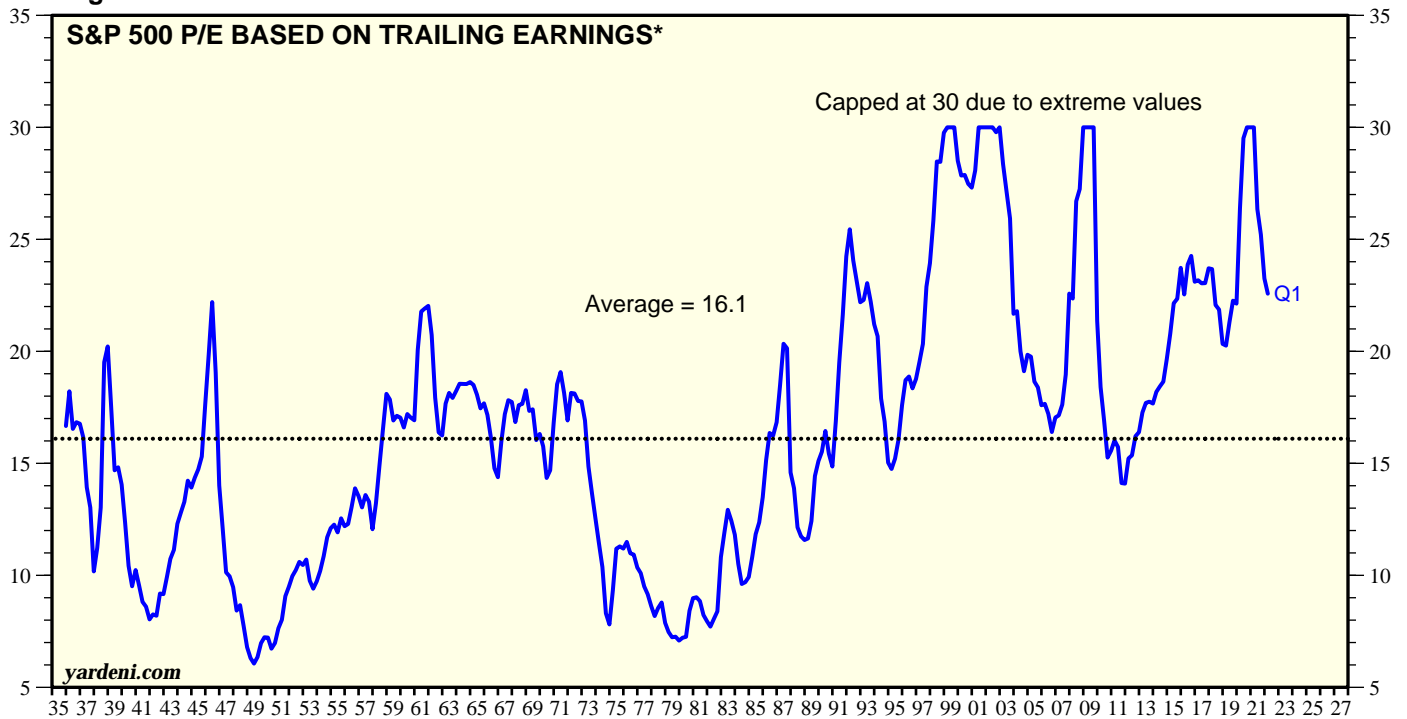
\* Using 4-quarter trailing reported earnings.

\*\* 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.

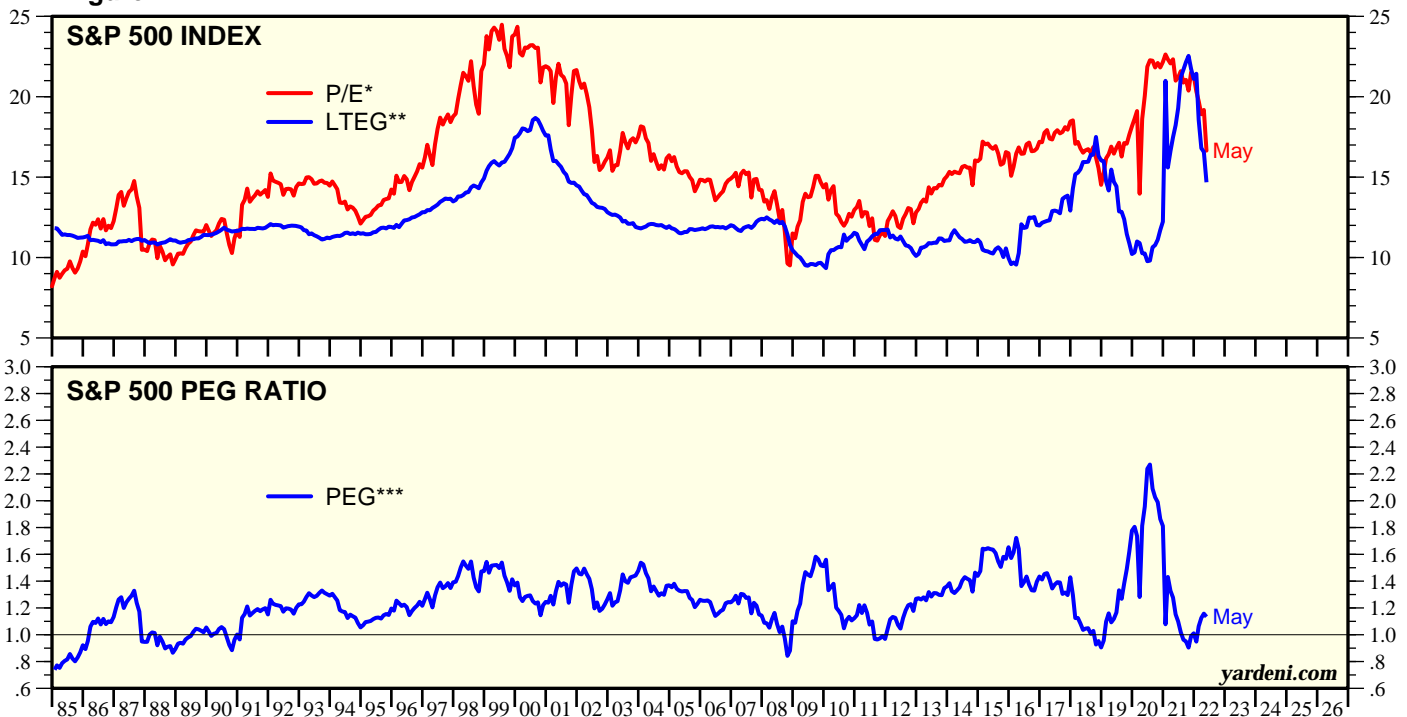
# Predicting Valuation

Figure 21.



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

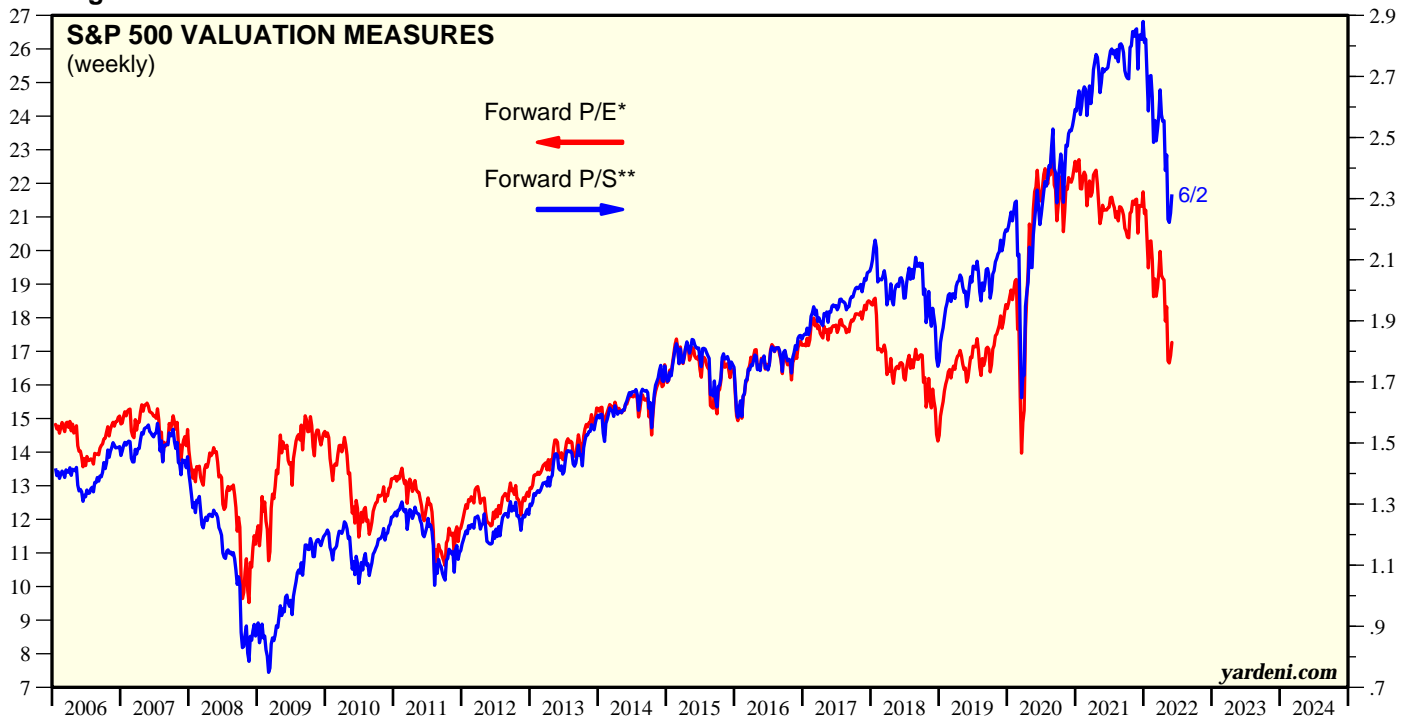
Figure 22.



\* 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.

# Predicting Valuation

Figure 23.

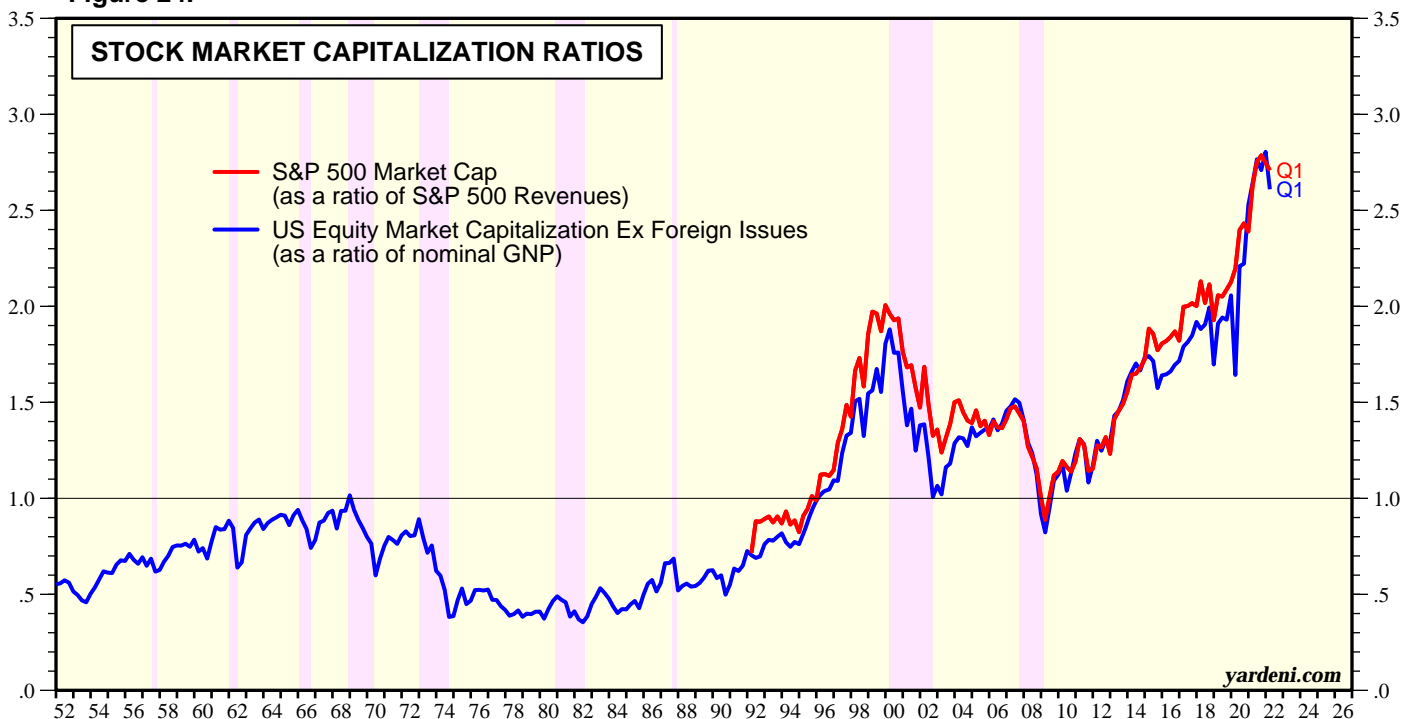


\* Price divided by forward consensus expected operating earnings per share.

\*\* Price divided by forward consensus expected sales per share.

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

Figure 24.

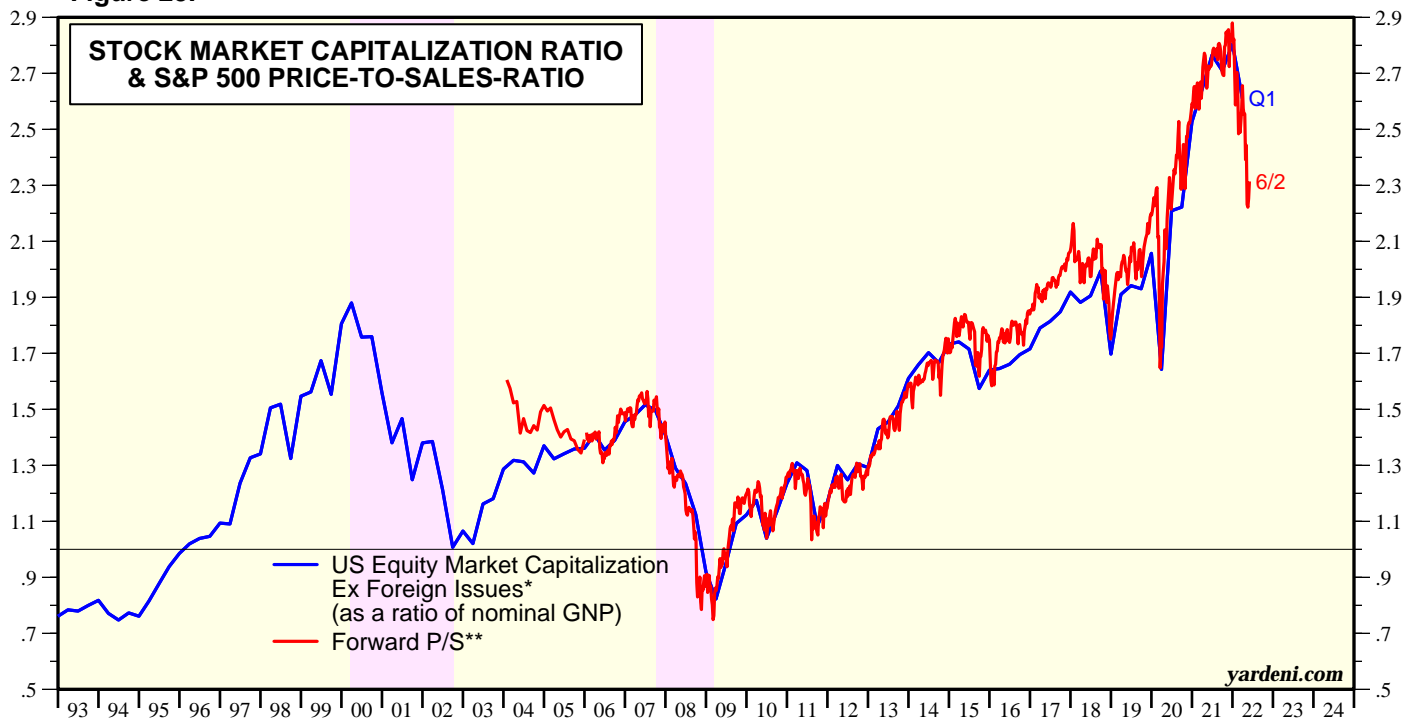


Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.

Source: Federal Reserve Board, Financial Accounts of the United States, Bureau of Economic Analysis, and Standard & Poor's.

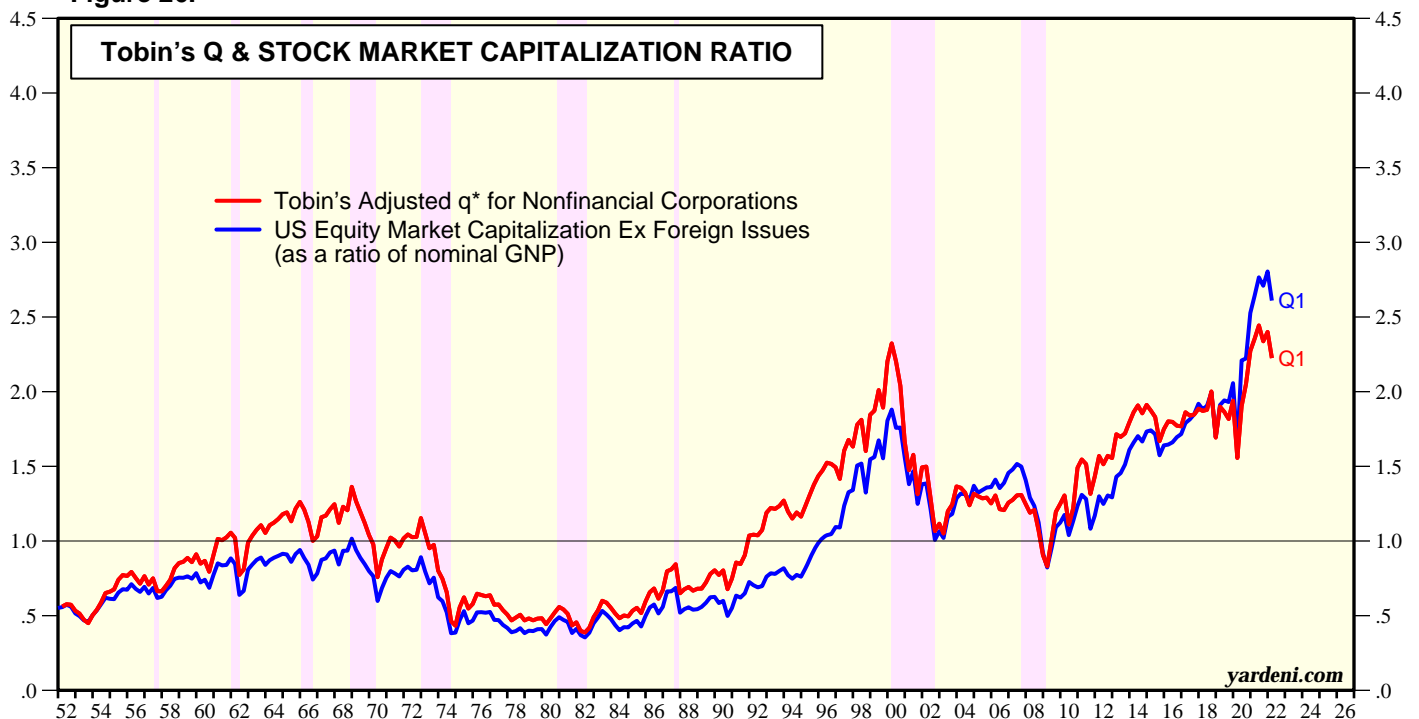
# Predicting Valuation

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.

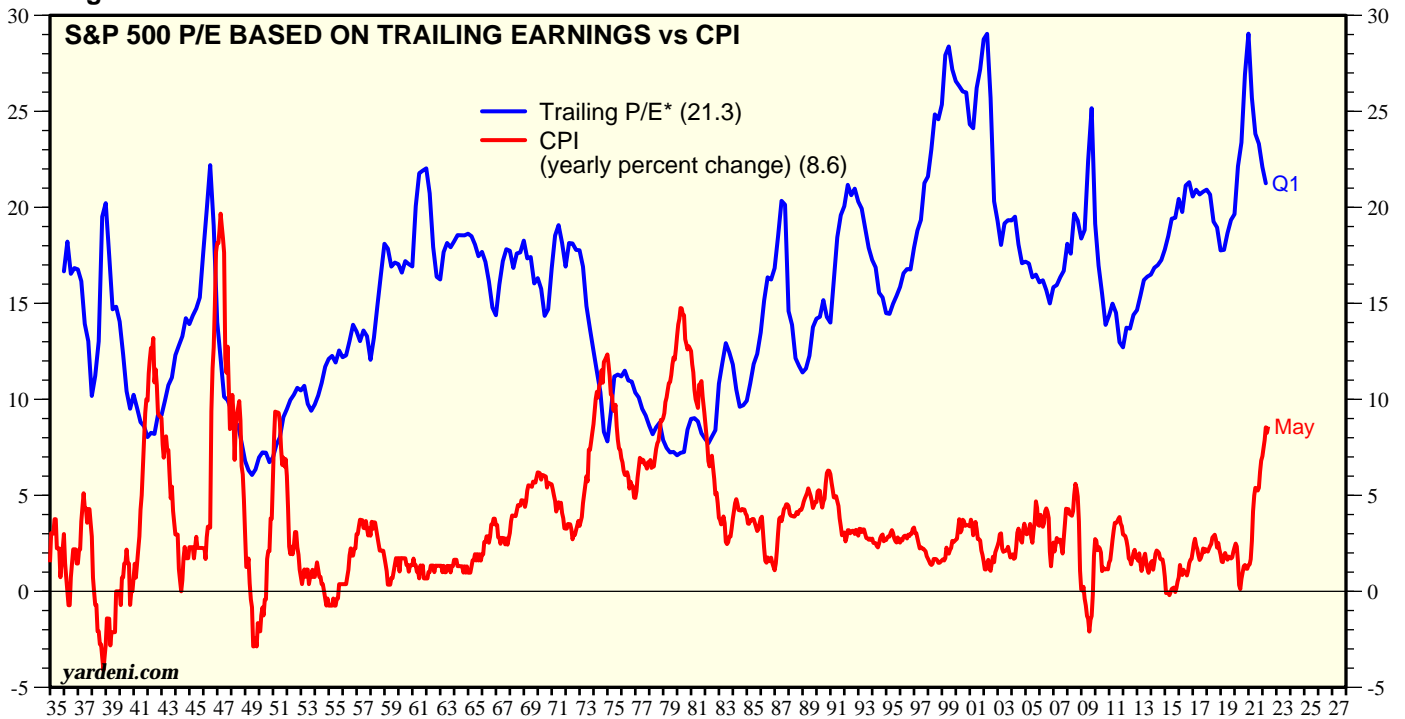
Figure 26.



\* 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.

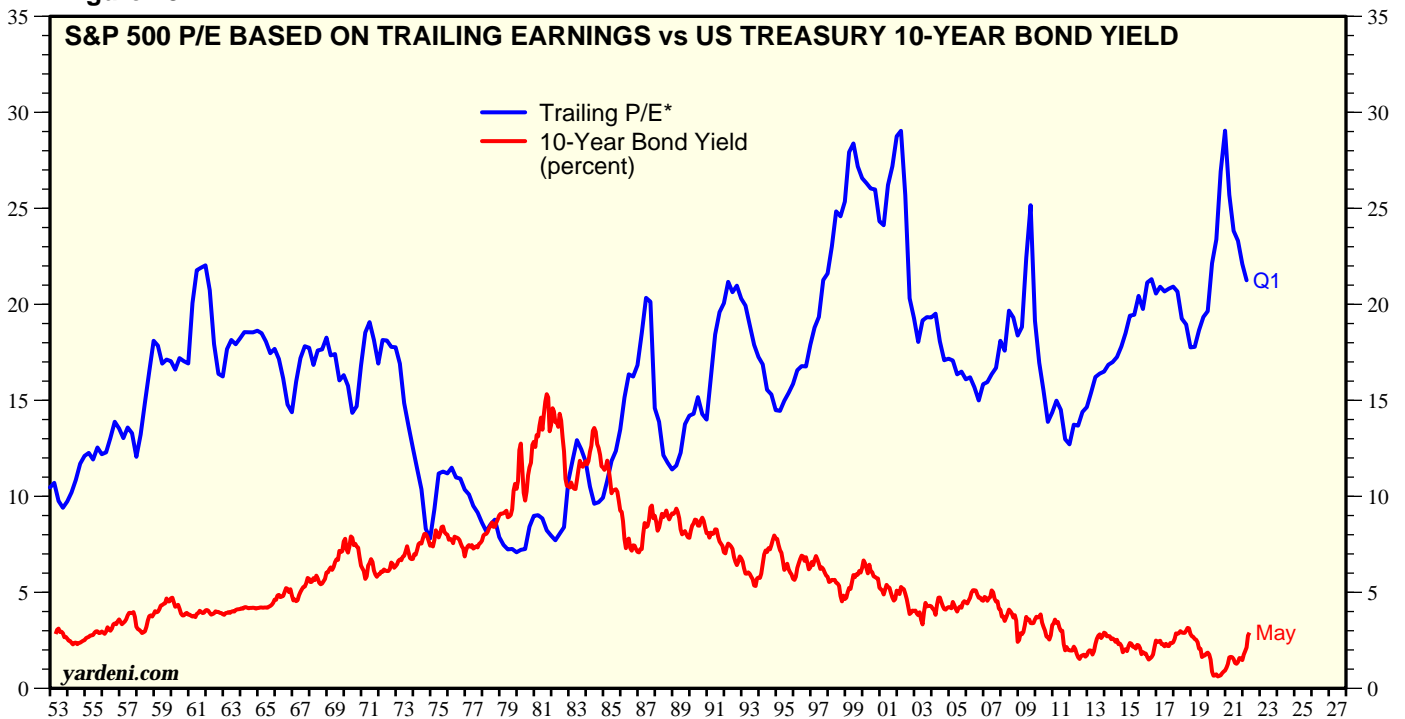
# Predicting Valuation

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.

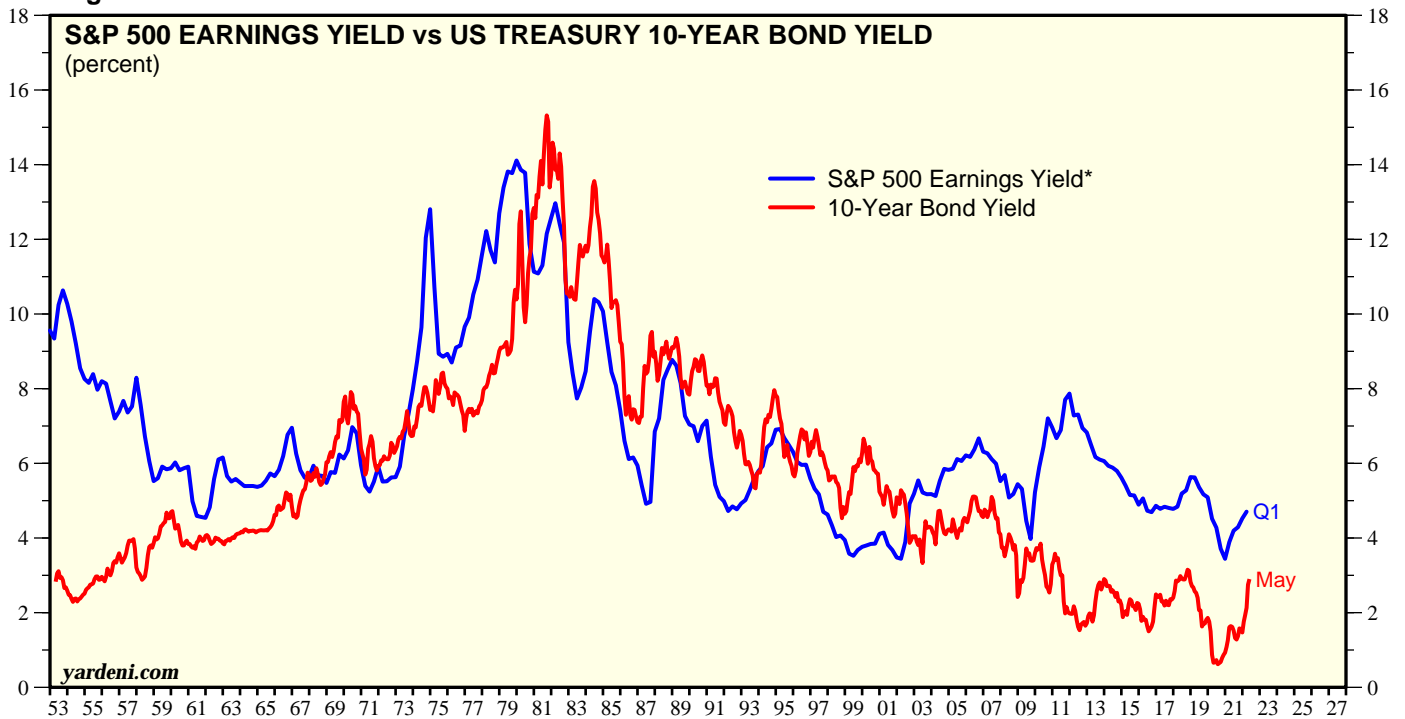


\* Using quarterly average of daily data for S&P 500 price index, and 4-quarter trailing reported earnings through Q3-1988, then operating earnings. Source: Standard & Poor's and Federal Reserve Board.



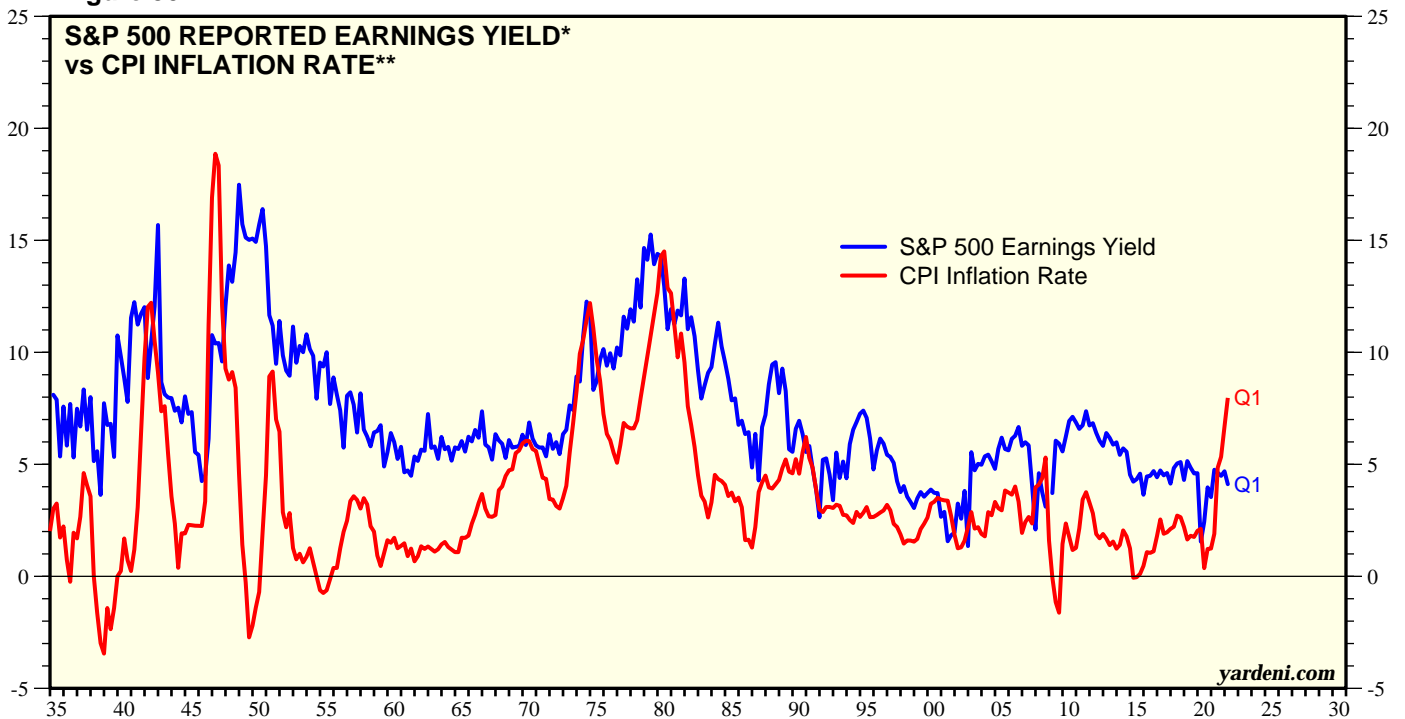
# Predicting Valuation

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.



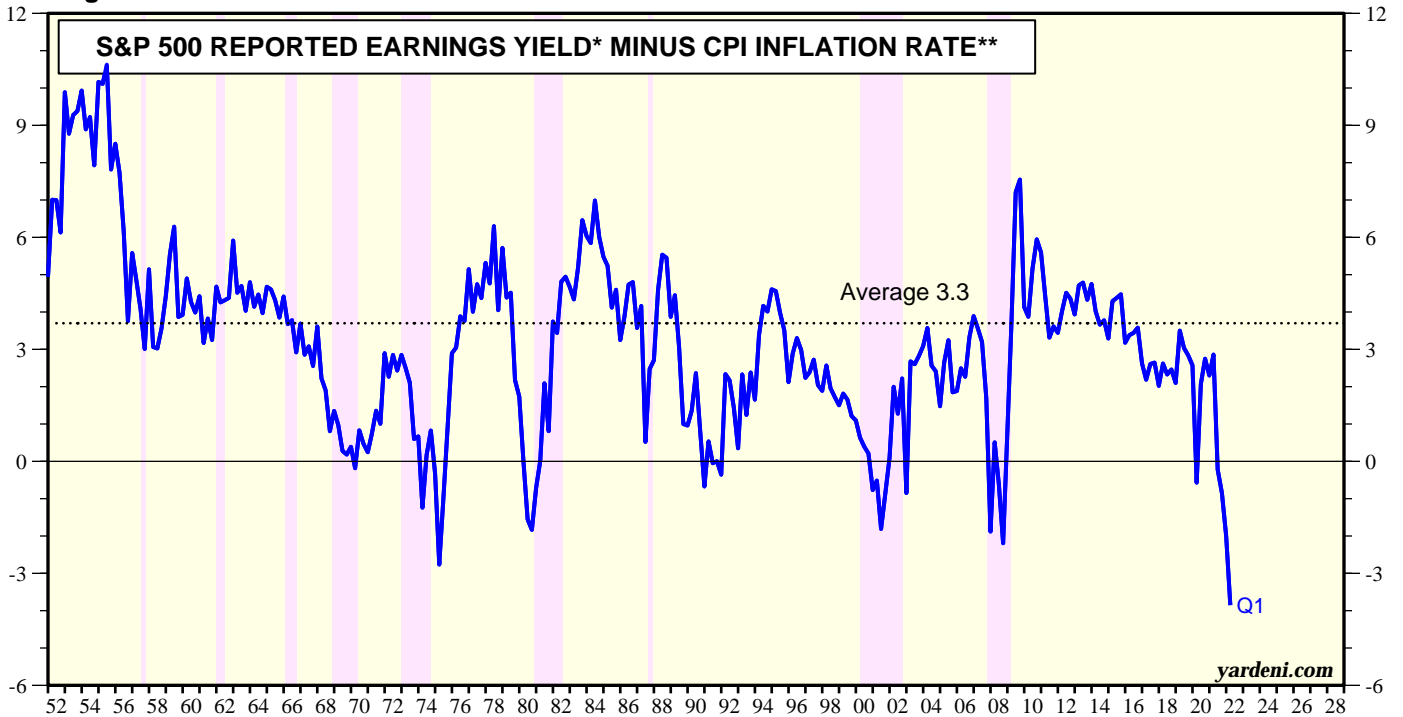
\* S&P 500 reported earnings as a percent of quarterly average S&P 500 index. Q4-2008 dropped because of negative value.

\*\* Year-over-year percent change in three-month average of each quarter.

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

# Predicting Valuation

Figure 31.



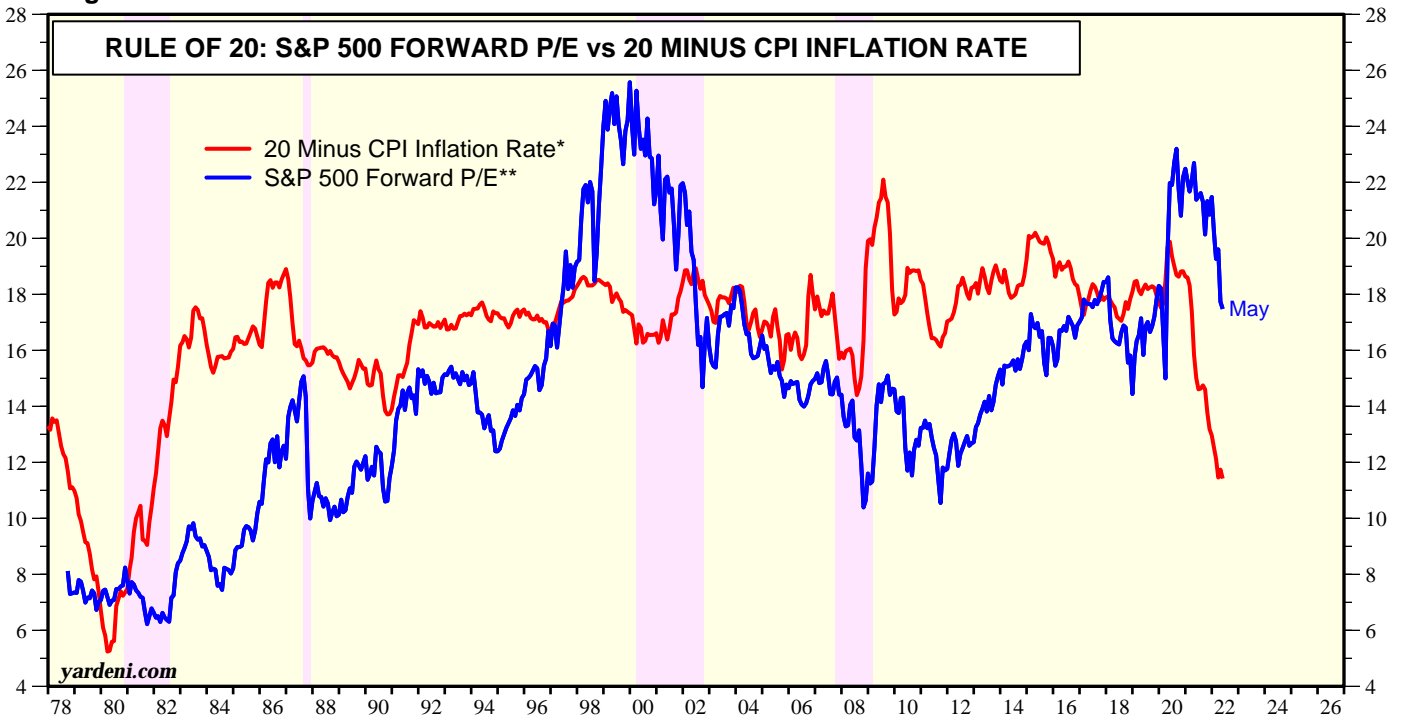
\* S&P 500 reported earnings as a percent of quarterly average S&P 500 index. Q4-2008 dropped because of negative value.

\*\* 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.

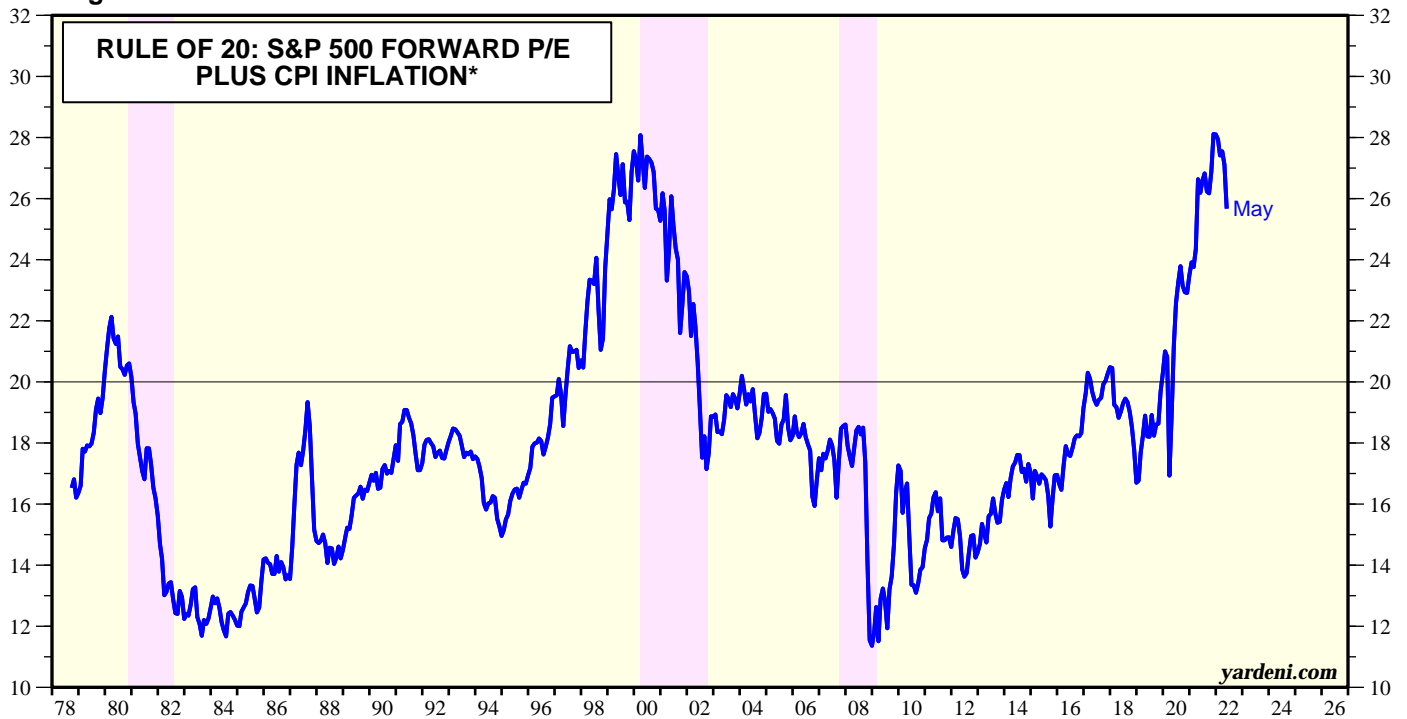
\*\* Average monthly S&P 500 stock price index divided by S&P 500 12-month forward consensus expected operating earnings per share.

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.

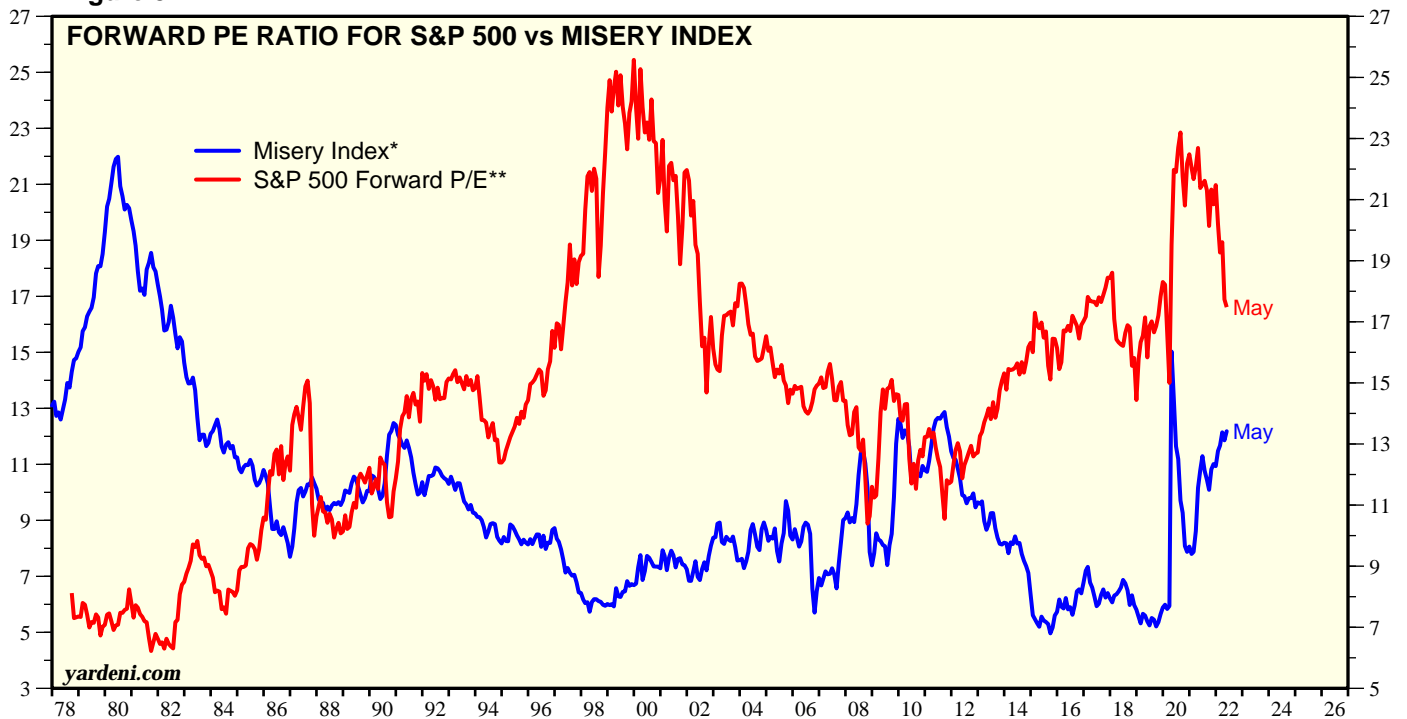
# Predicting Valuation

Figure 33.



\* Using forward P/E monthly and yearly percent change in CPI.  
 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.

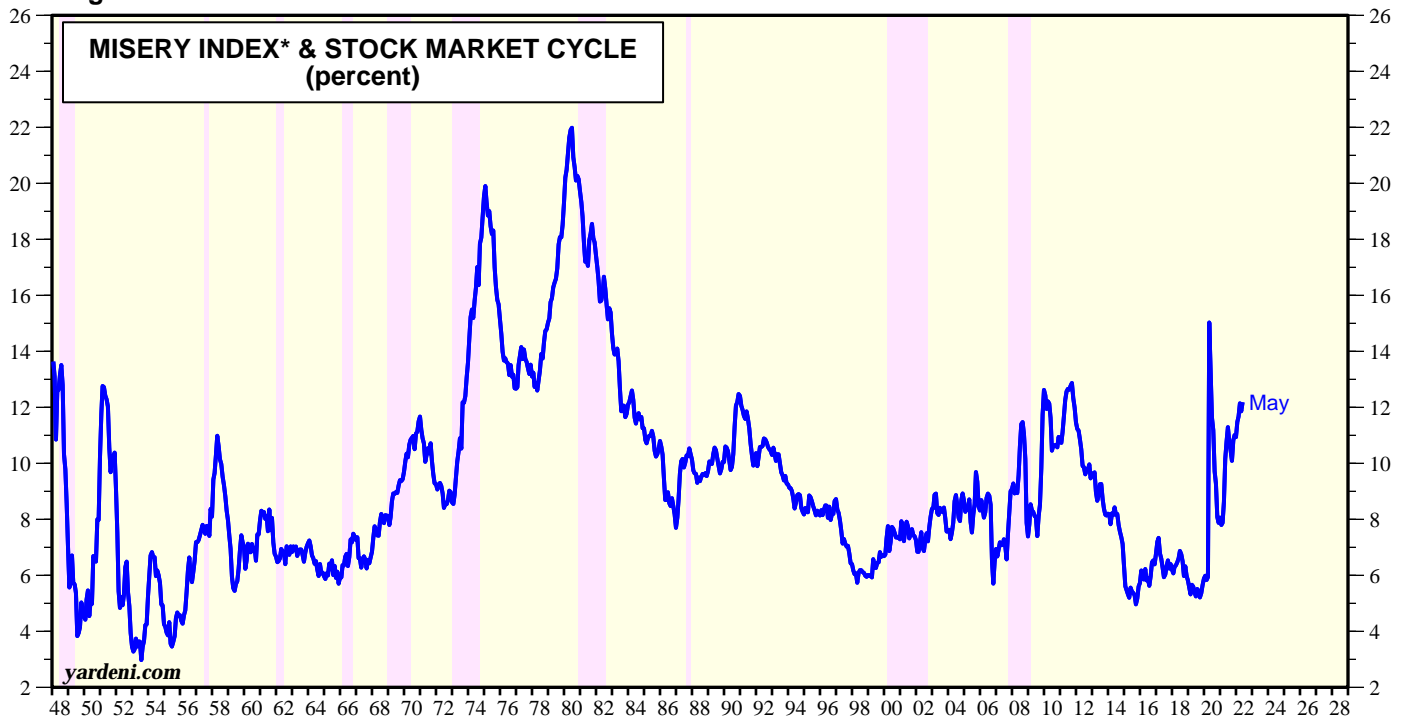
Figure 34.



\* 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.

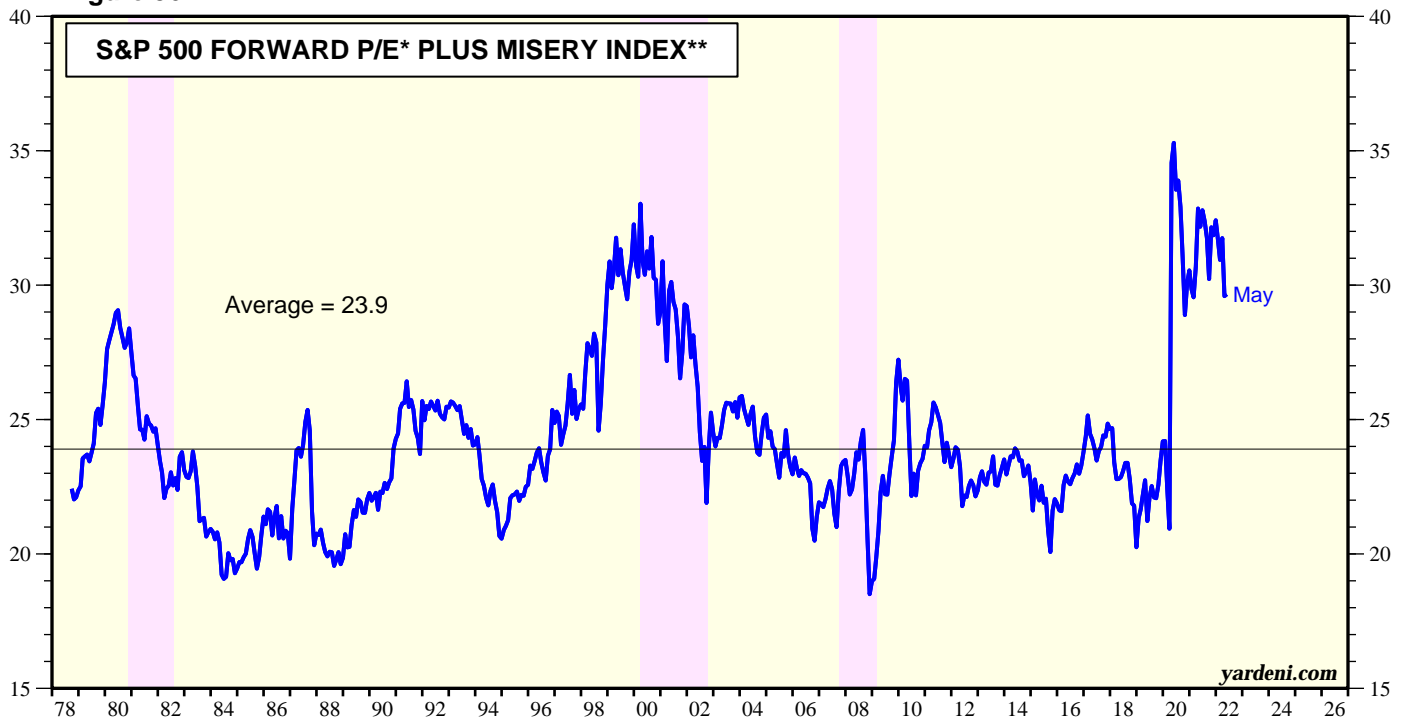
# Predicting Valuation

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.

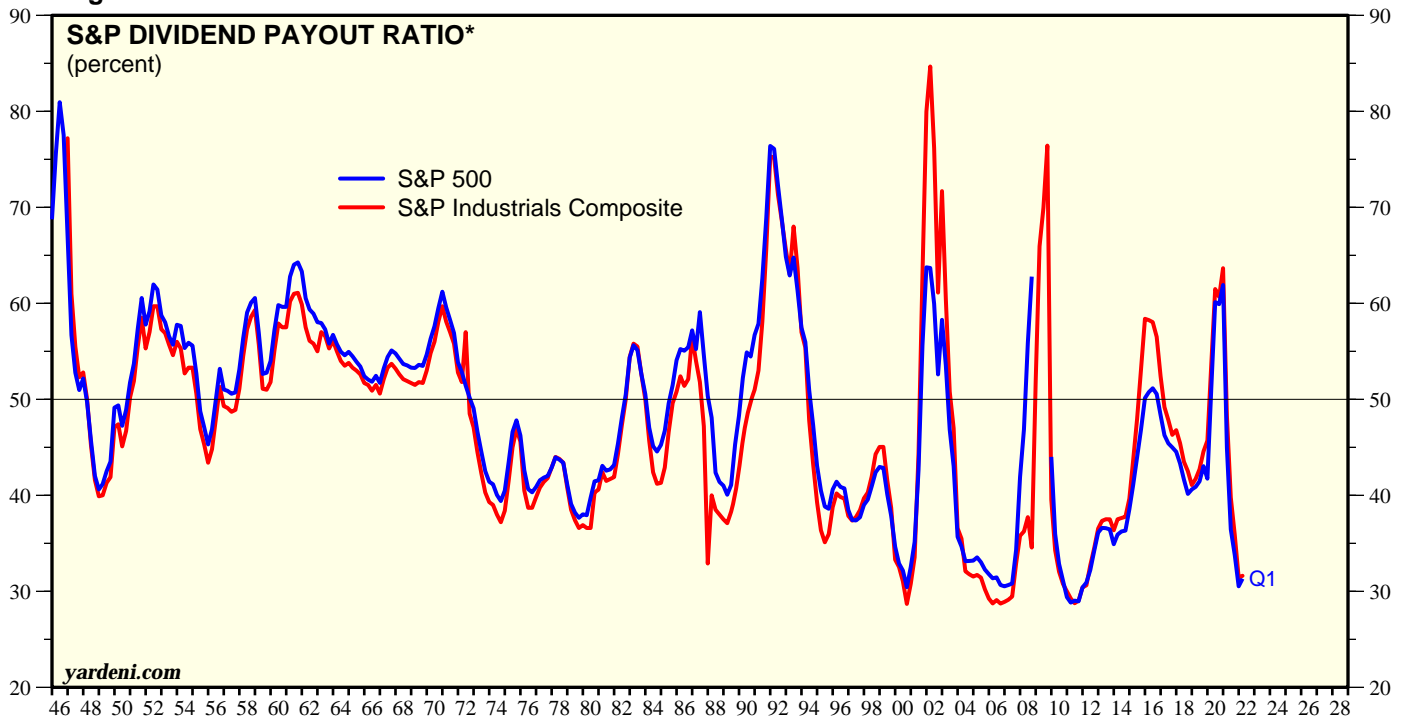
Figure 36.



\* 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: Bear markets are declines of 20% or more (in red shades).  
 Source: Bureau of Labor Statistics, Standard & Poor's, and I/B/E/S data by Refinitiv.

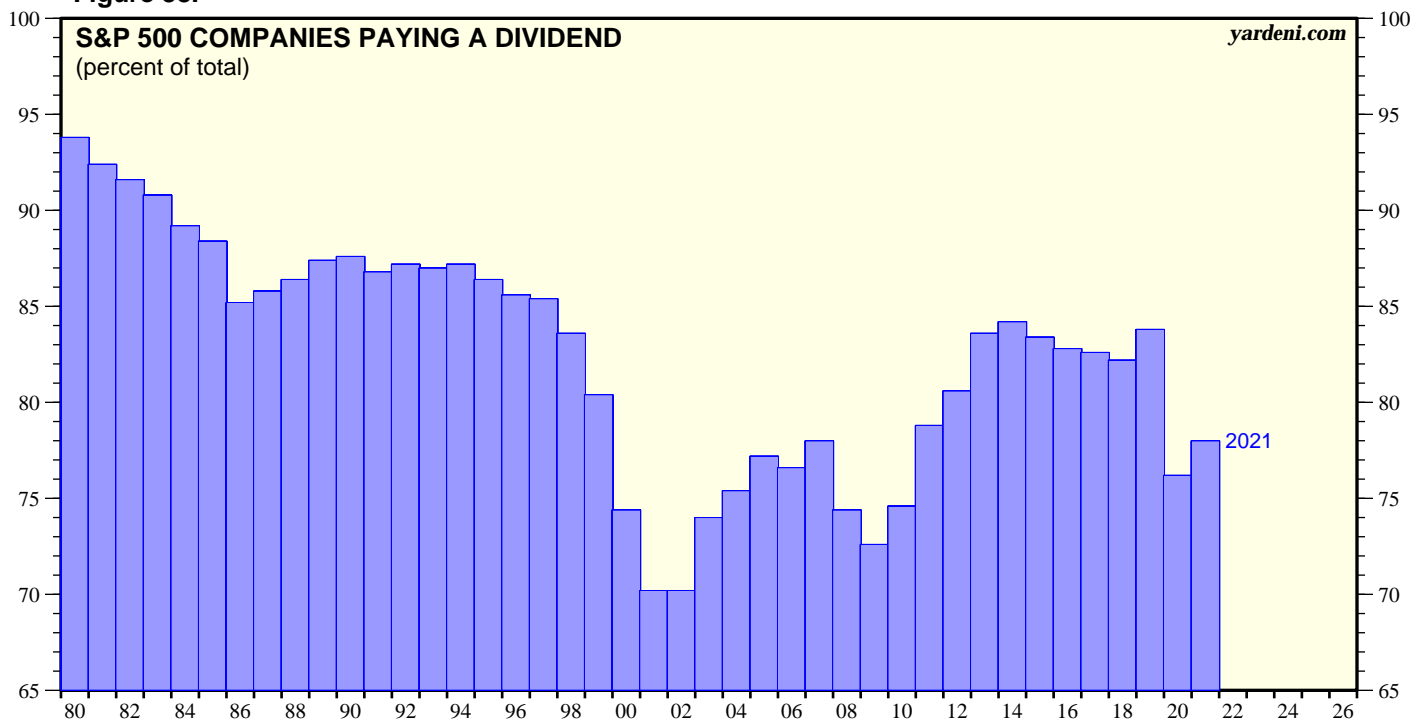
# Predicting Valuation

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.

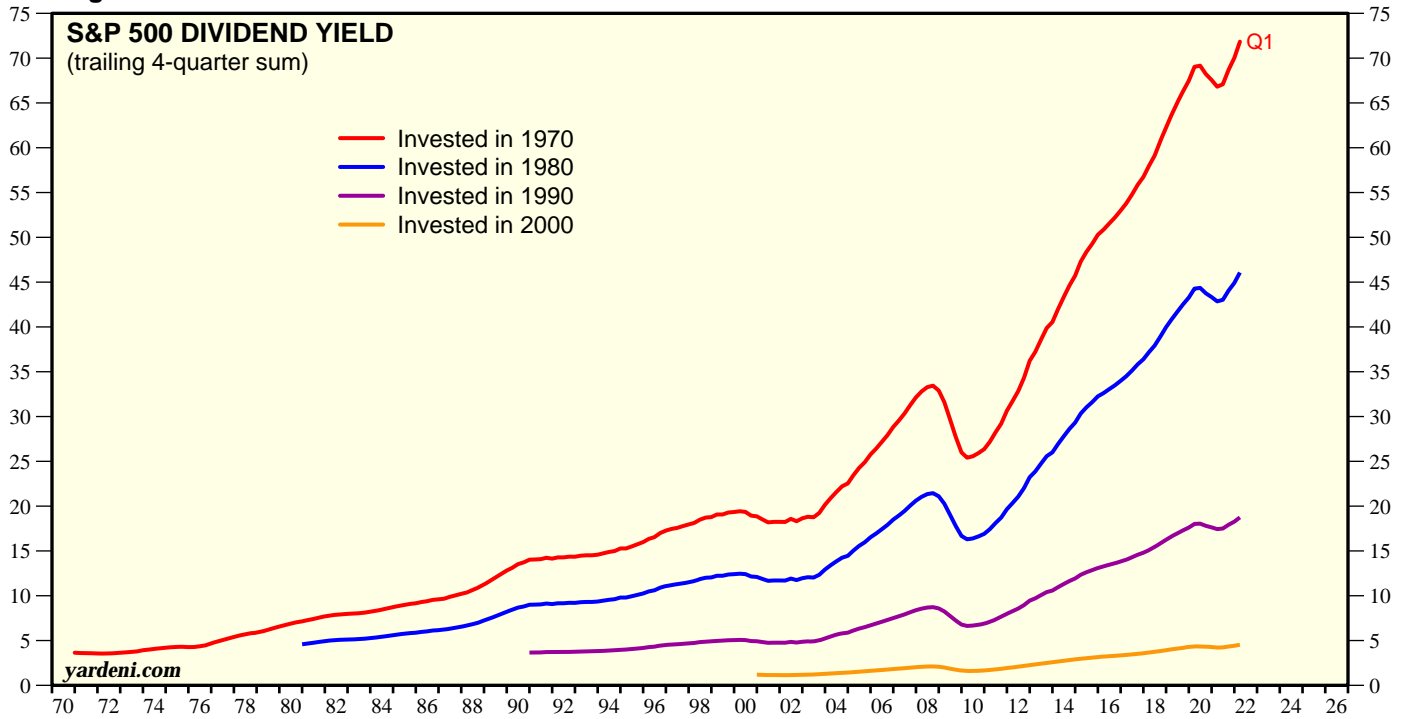
Figure 38.



Source: Standard & Poor's.

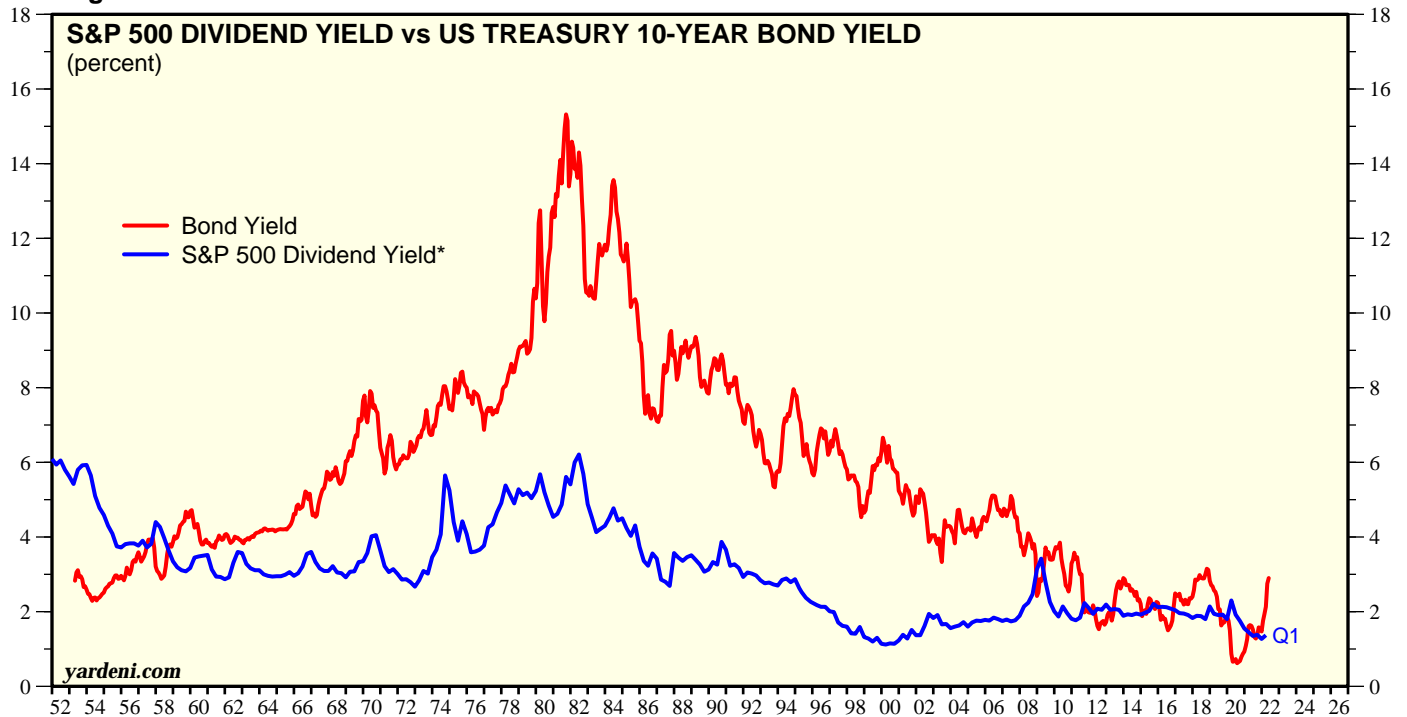
# Predicting Valuation

Figure 39.



Source: Standard & Poor's.

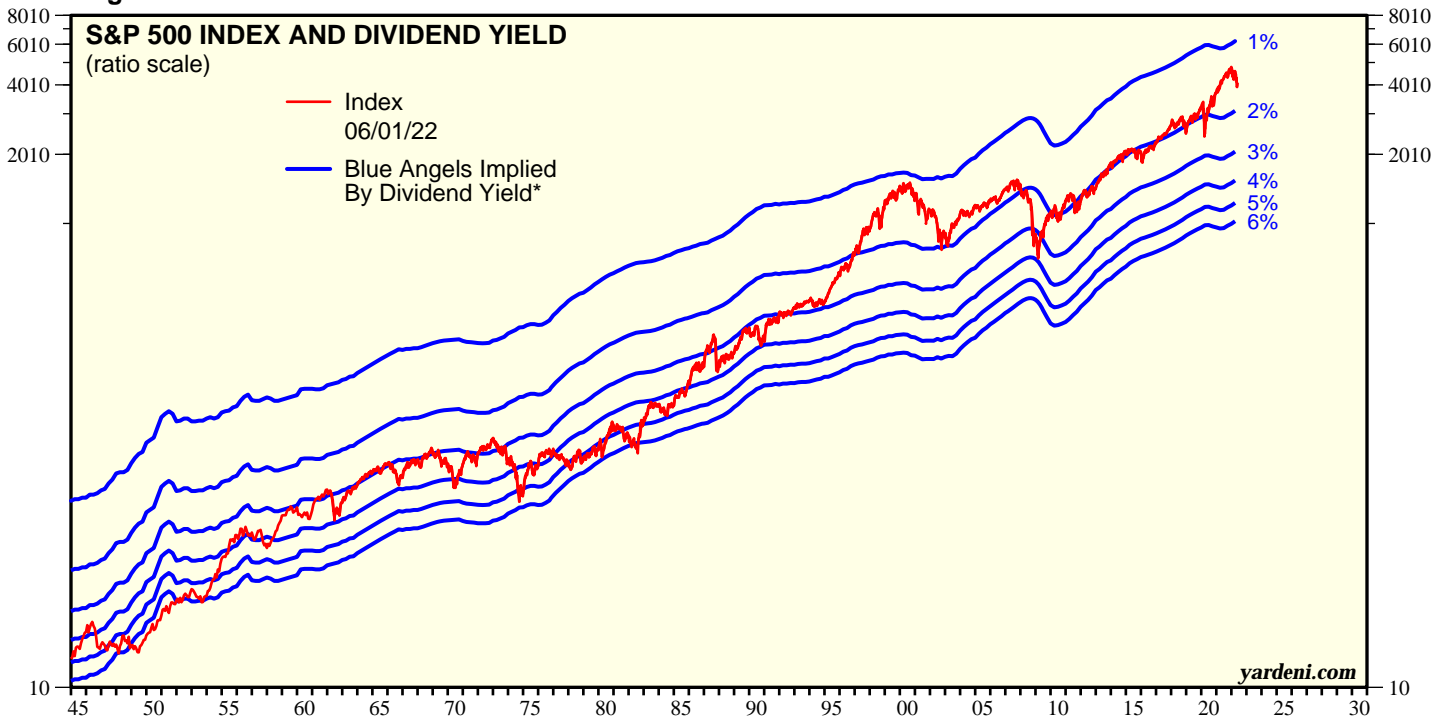
Figure 40.



\* 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.

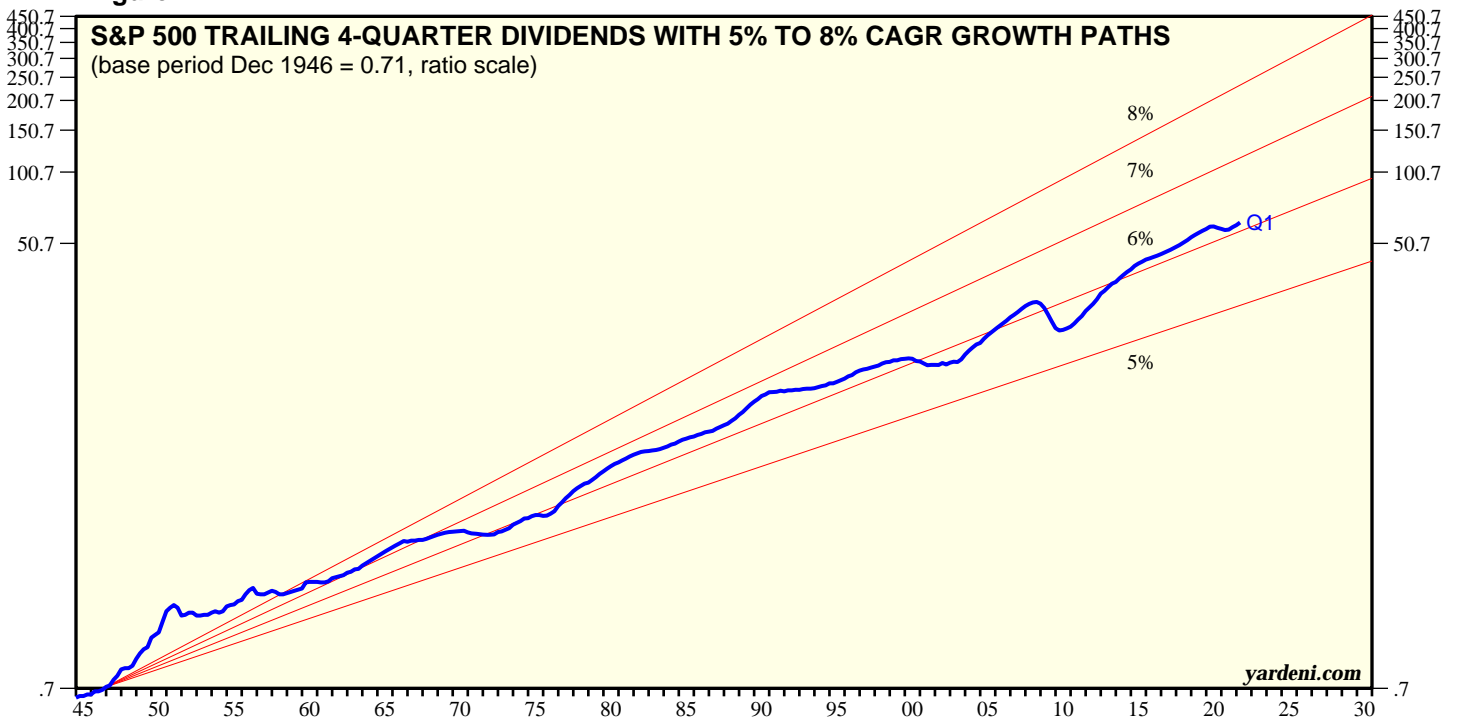
# Predicting Valuation

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.

**Copyright (c) Yardeni Research, Inc. 2022.** All rights reserved. The information contained herein has been obtained from sources believed to be reliable, but is not necessarily complete and its accuracy cannot be guaranteed. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness, or correctness of the information and opinions contained herein. The views and the other information provided are subject to change without notice. All reports and podcasts posted on [www.yardeni.com](http://www.yardeni.com), [blog.yardeni.com](http://blog.yardeni.com), and YRI's Apps are issued without regard to the specific investment objectives, financial situation, or particular needs of any specific recipient and are not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. Past performance is not necessarily a guide to future results. Company fundamentals and earnings may be mentioned occasionally, but should not be construed as a recommendation to buy, sell, or hold the company's stock. Predictions, forecasts, and estimates for any and all markets should not be construed as recommendations to buy, sell, or hold any security--including mutual funds, futures contracts, and exchange traded funds, or any similar instruments.

The text, images, and other materials contained or displayed on any Yardeni Research, Inc. product, service, report, email or website are proprietary to Yardeni Research, Inc. and constitute valuable intellectual property. No material from any part of [www.yardeni.com](http://www.yardeni.com), [blog.yardeni.com](http://blog.yardeni.com), and YRI's Apps may be downloaded, transmitted, broadcast, transferred, assigned, reproduced or in any other way used or otherwise disseminated in any form to any person or entity, without the explicit written consent of Yardeni Research, Inc. All unauthorized reproduction or other use of material from Yardeni Research, Inc. shall be deemed willful infringement(s) of this copyright and other proprietary and intellectual property rights, including but not limited to, rights of privacy. Yardeni Research, Inc. expressly reserves all rights in connection with its intellectual property, including without limitation the right to block the transfer of its products and services and/or to track usage thereof, through electronic tracking technology, and all other lawful means, now known or hereafter devised. Yardeni Research, Inc. reserves the right, without further notice, to pursue to the fullest extent allowed by the law any and all criminal and civil remedies for the violation of its rights.

The recipient should check any email and any attachments for the presence of viruses. Yardeni Research, Inc. accepts no liability for any damage caused by any virus transmitted by this company's emails, website, blog and Apps. Additional information available on [request](#).