

# Predicting the Markets: Chapter 10 Charts: Predicting Bonds

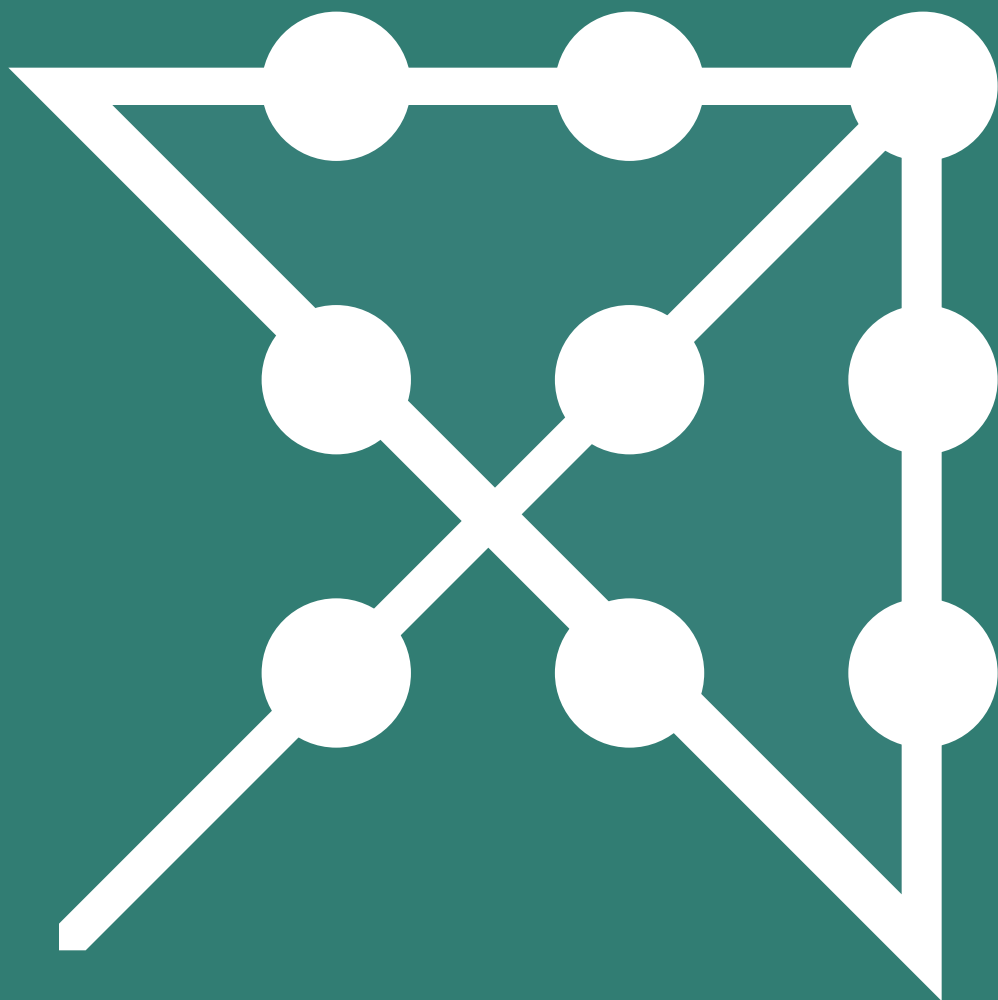
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*December 31, 2021*

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*thinking outside the box*

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# Predicting Bonds

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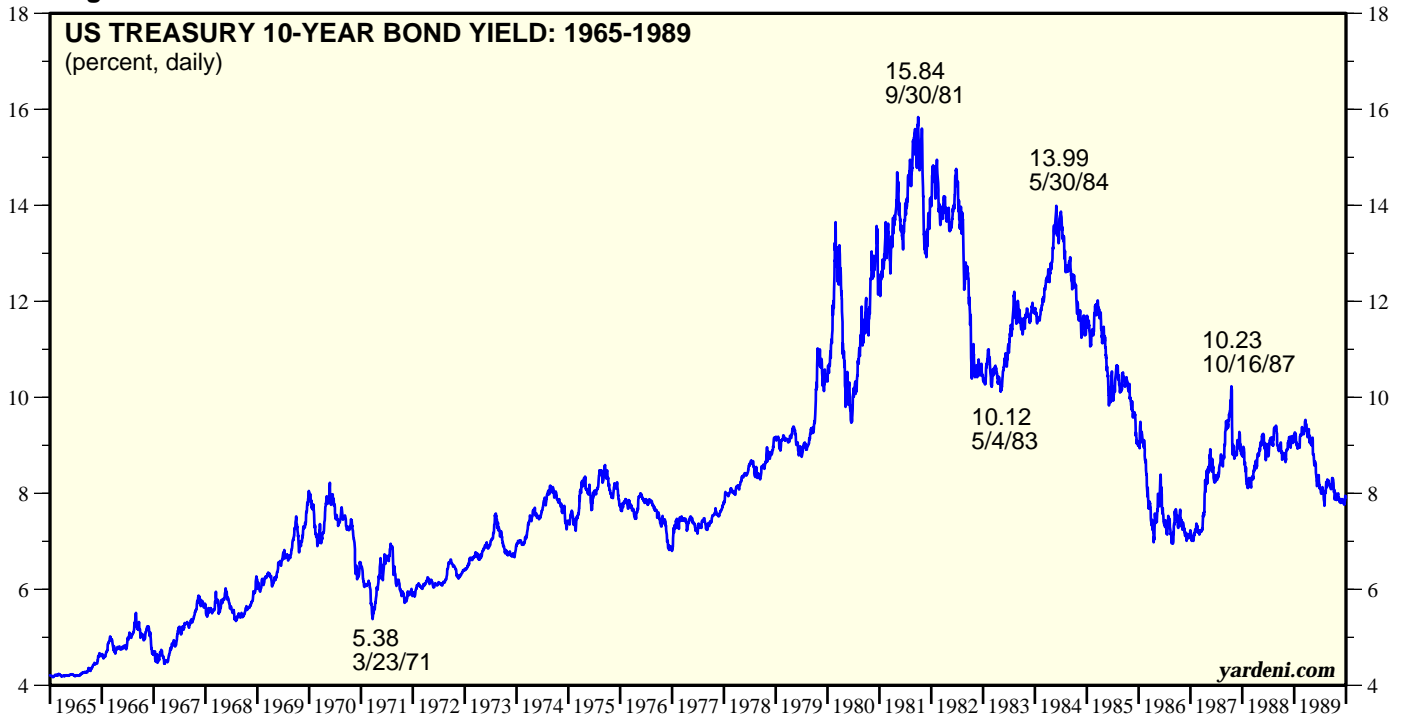
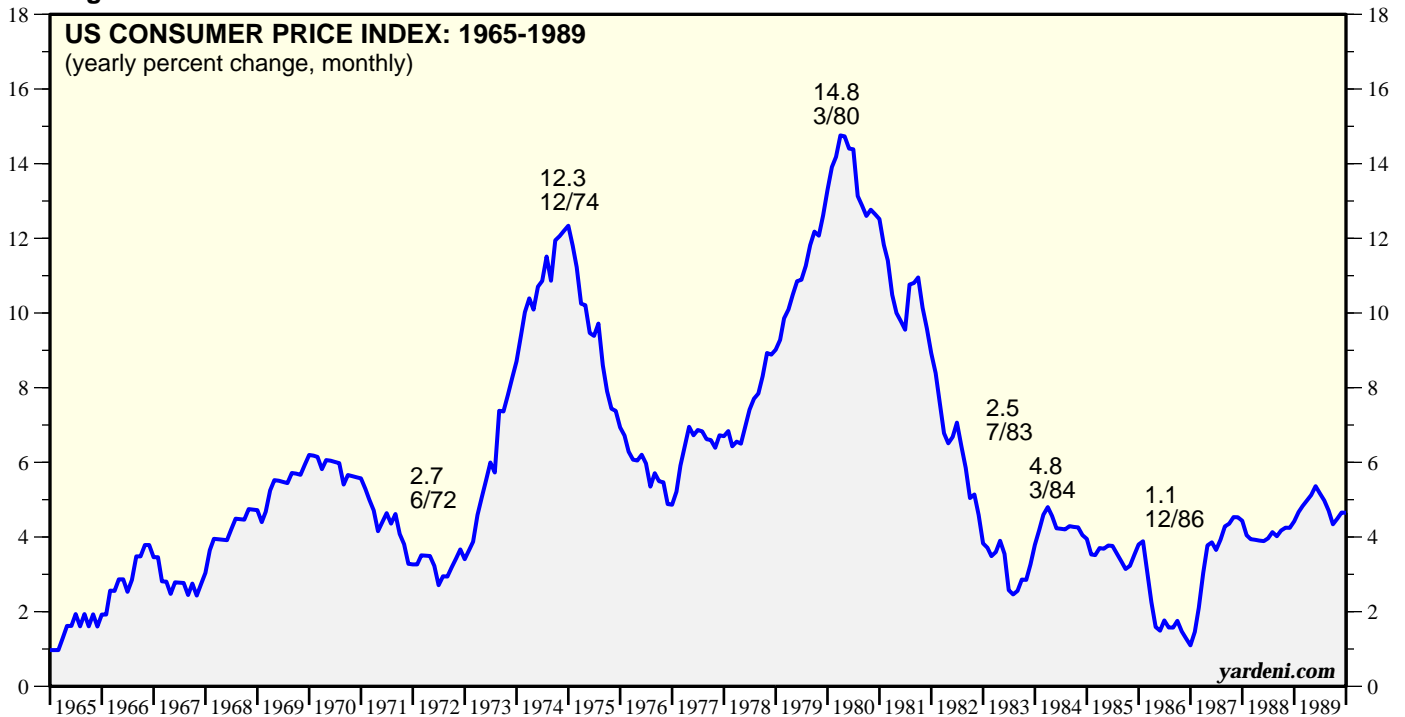
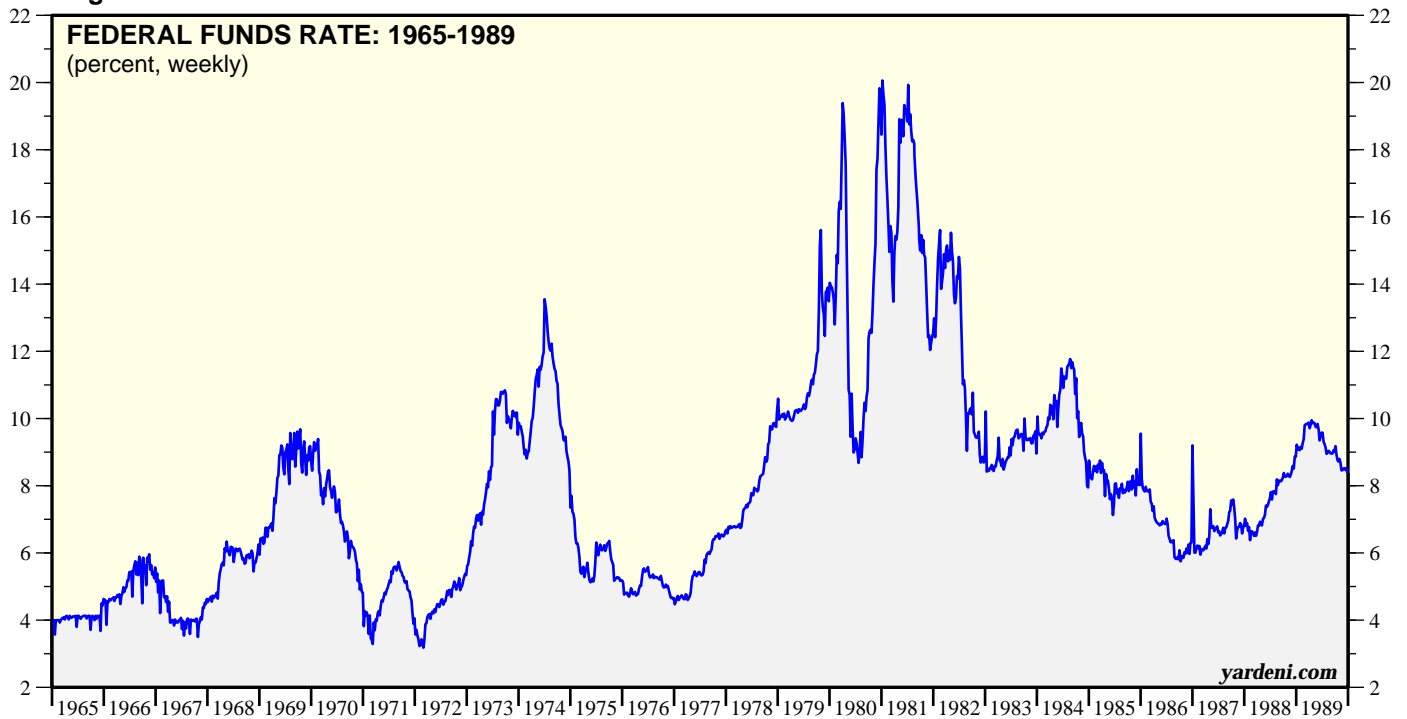


Figure 2.



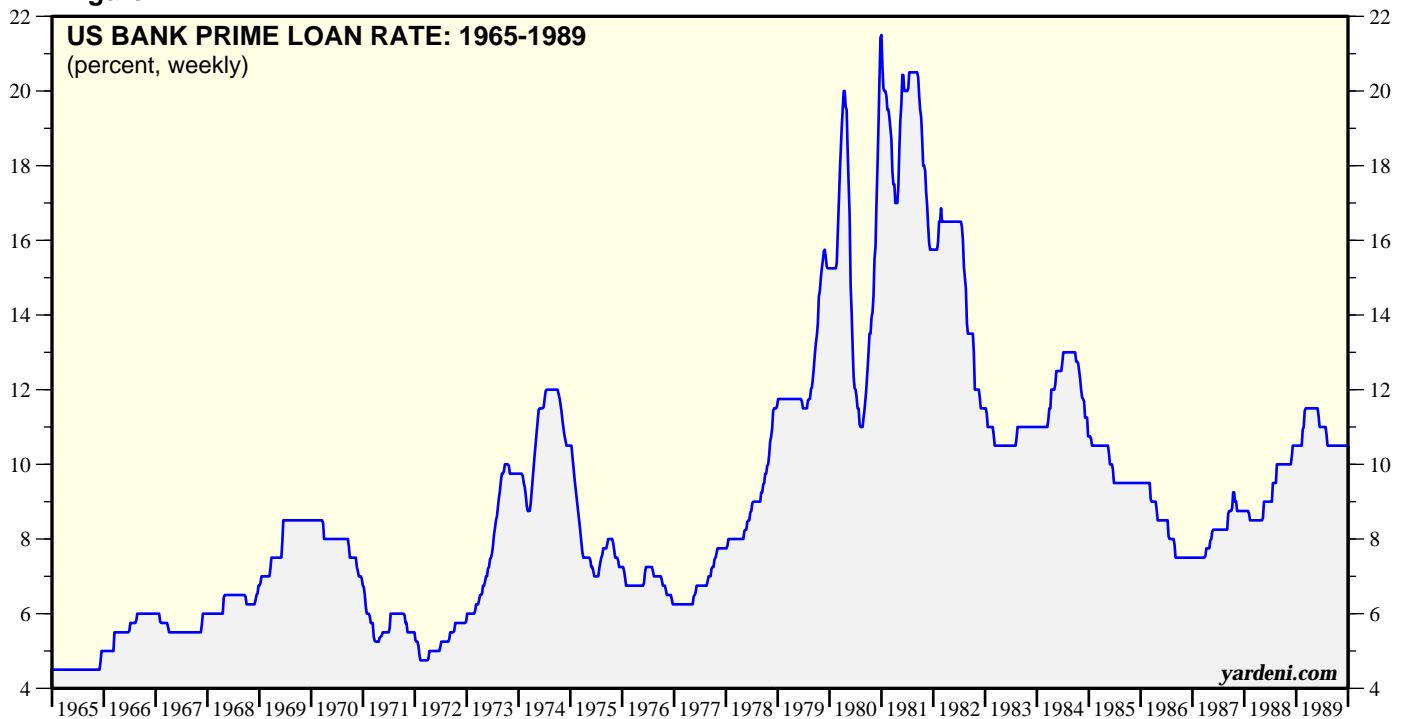
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Figure 3.



Source: Federal Reserve Board.

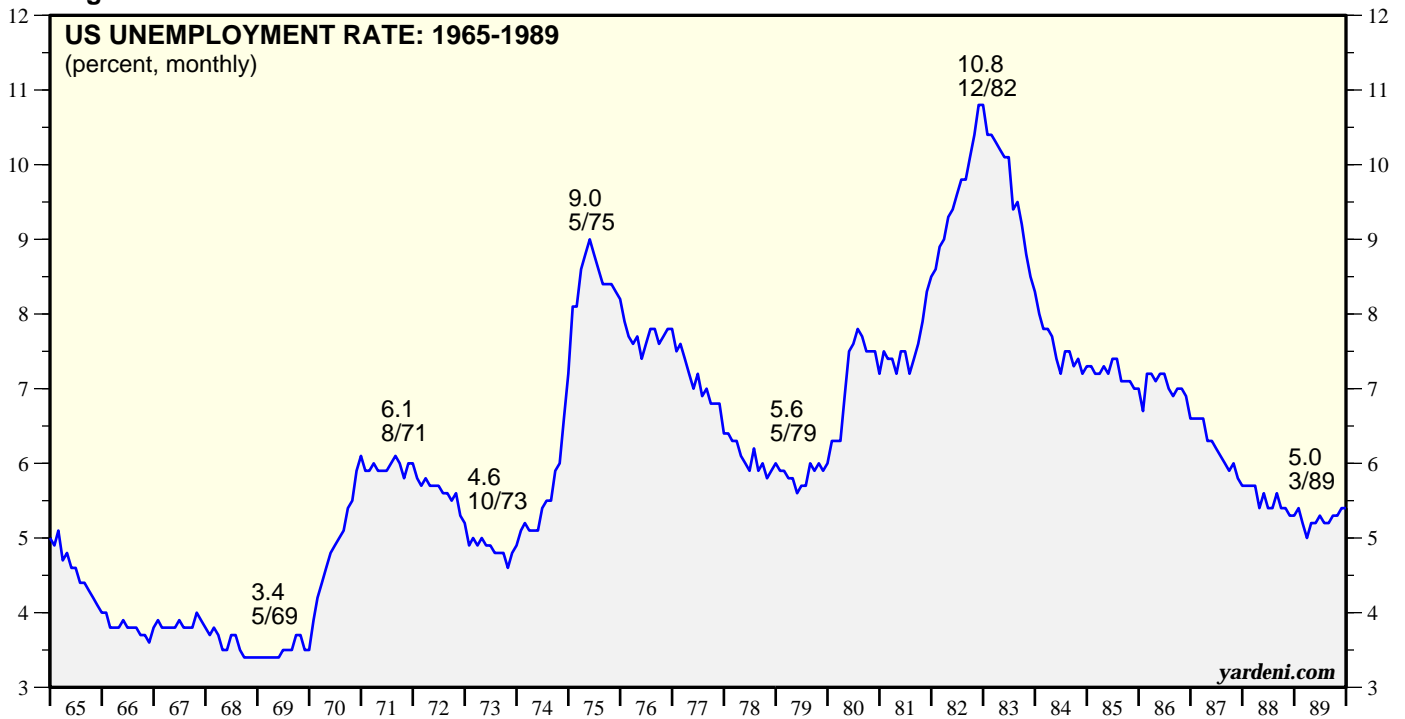
Figure 4.



Source: Federal Reserve Board.

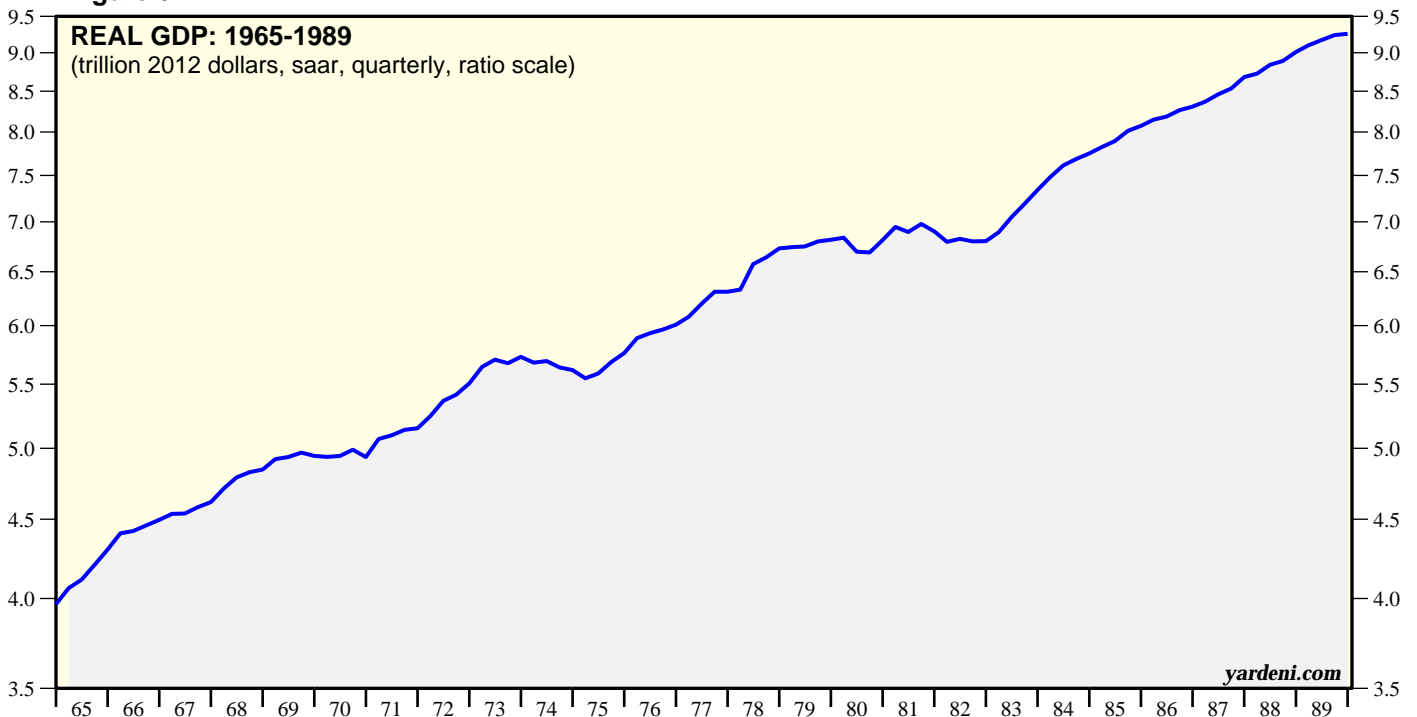
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Figure 5.



Source: Bureau of Labor Statistics.

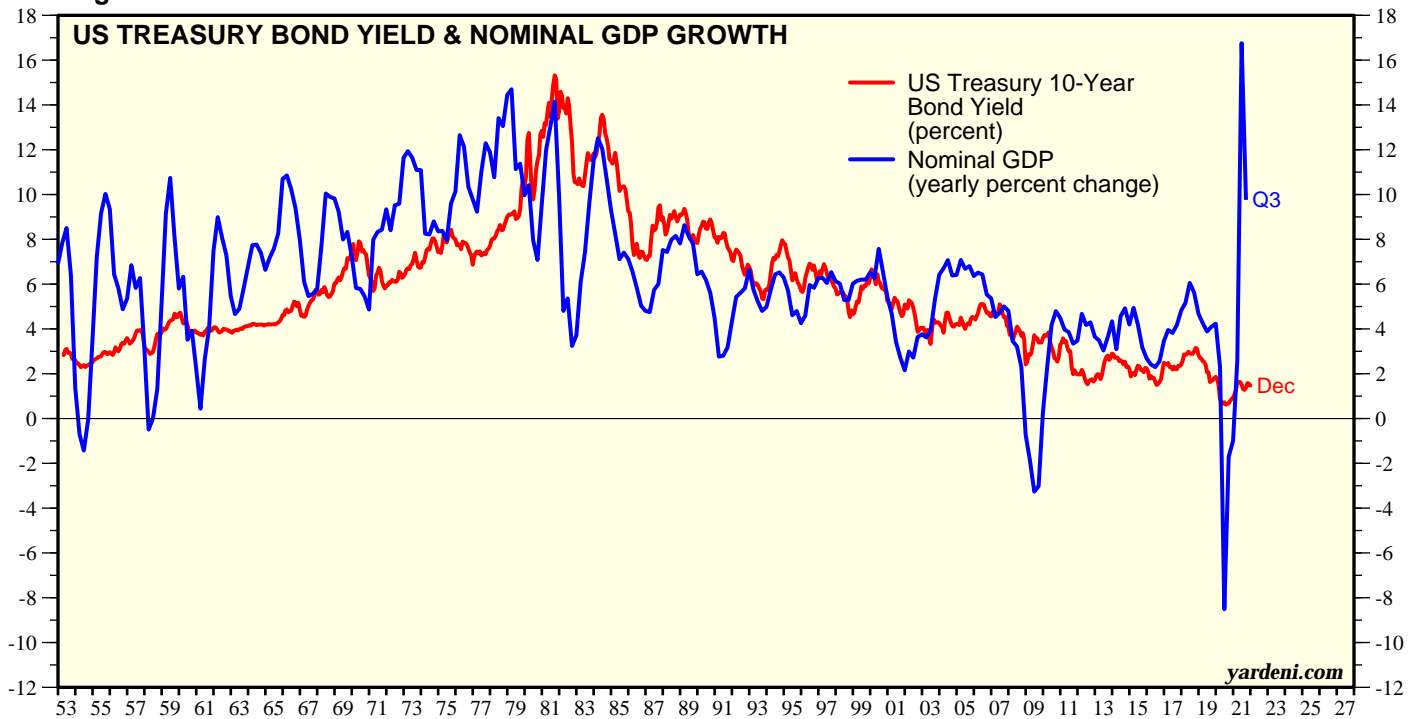
Figure 6.



Source: Bureau of Economic Analysis.

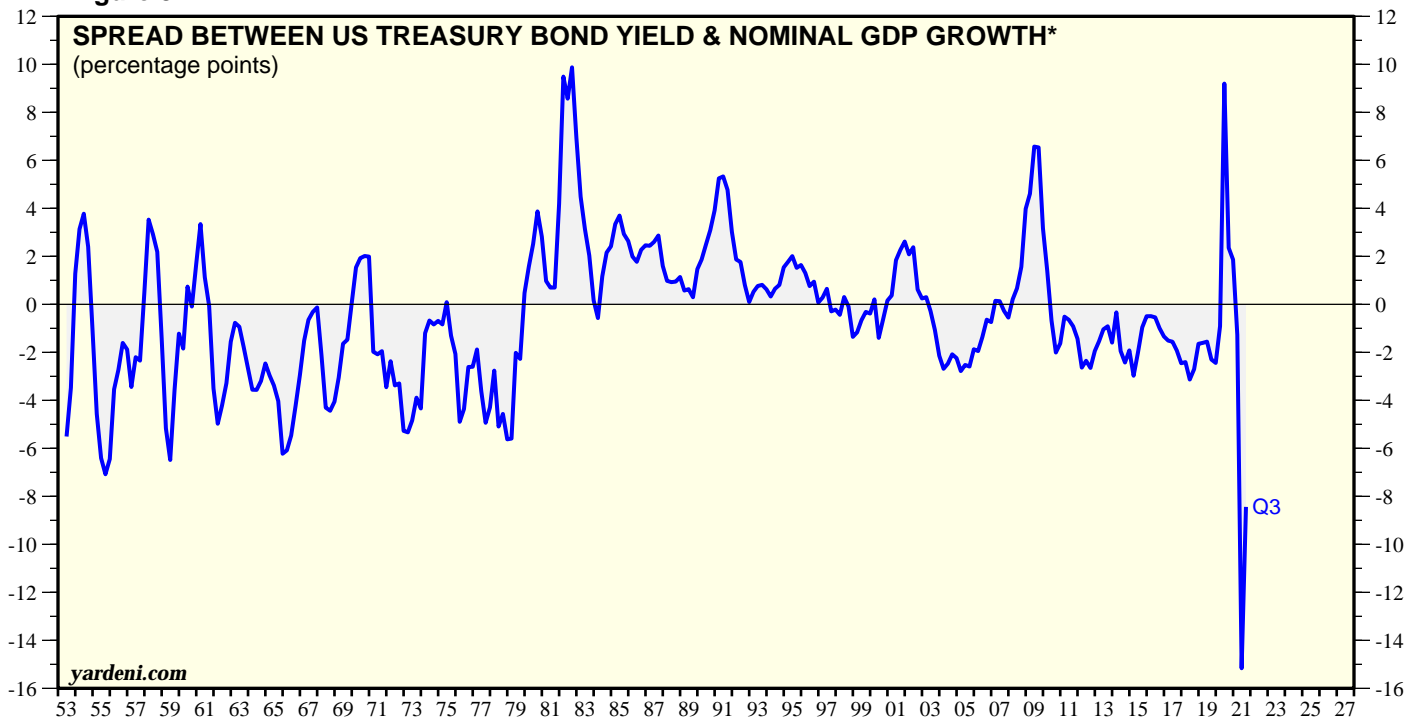
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Figure 7.



Source: Bureau of Economic Analysis and Federal Reserve Board.

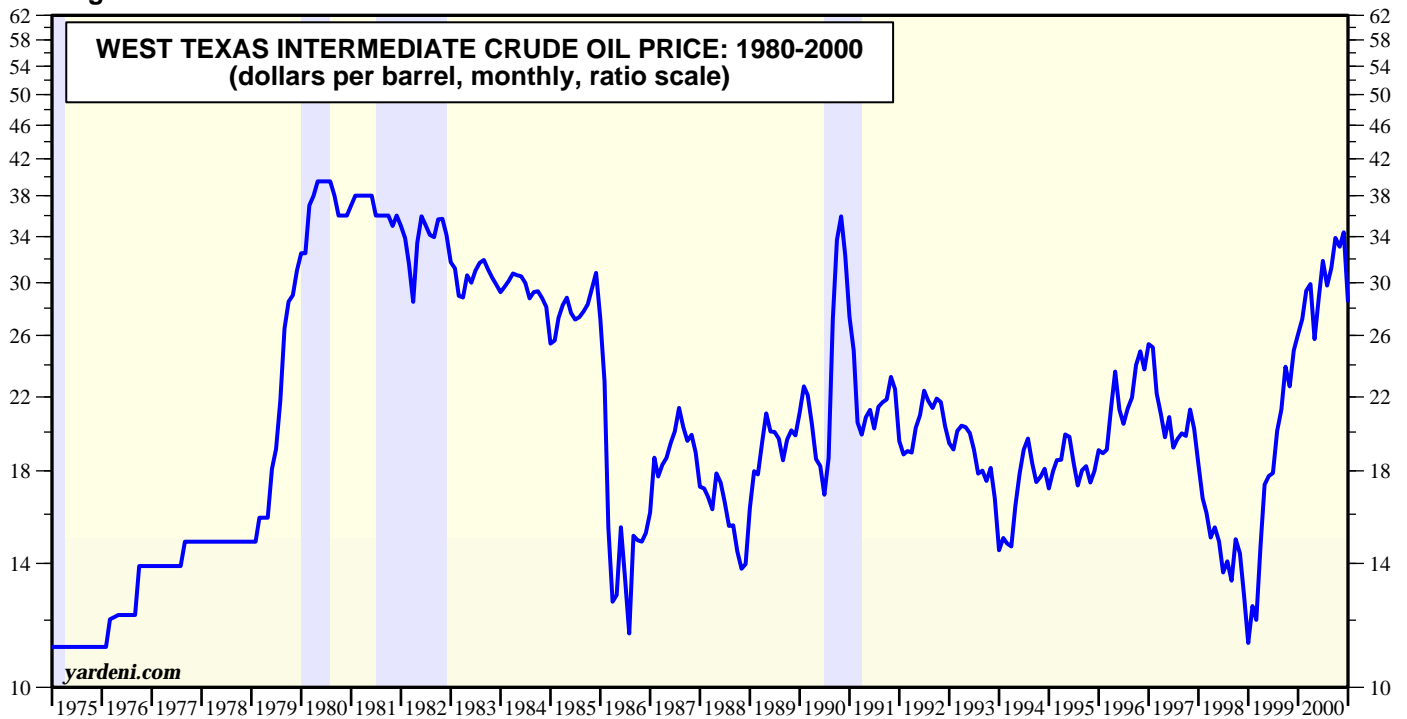
Figure 8.



\* US Treasury 10-year bond yield minus yearly percent change in nominal GDP.  
Source: Bureau of Economic Analysis and Federal Reserve Board.

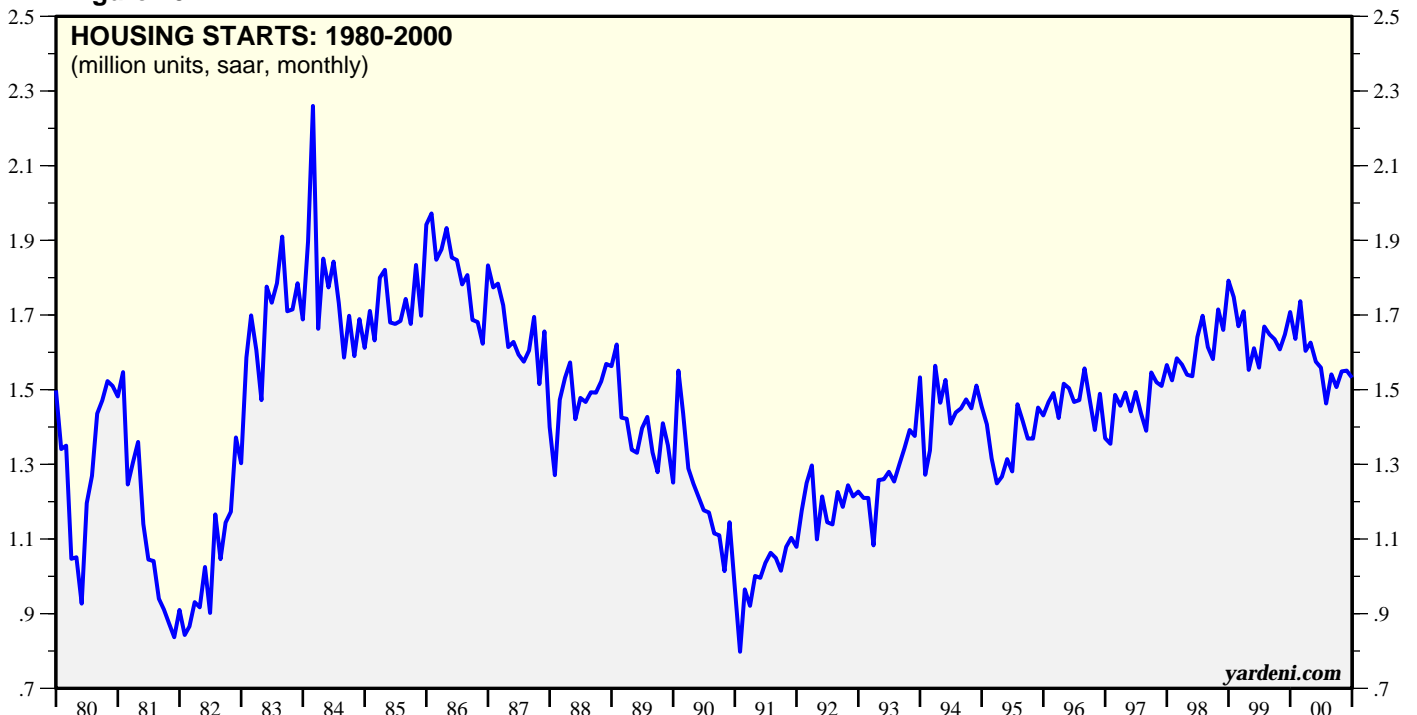
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Figure 9.



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

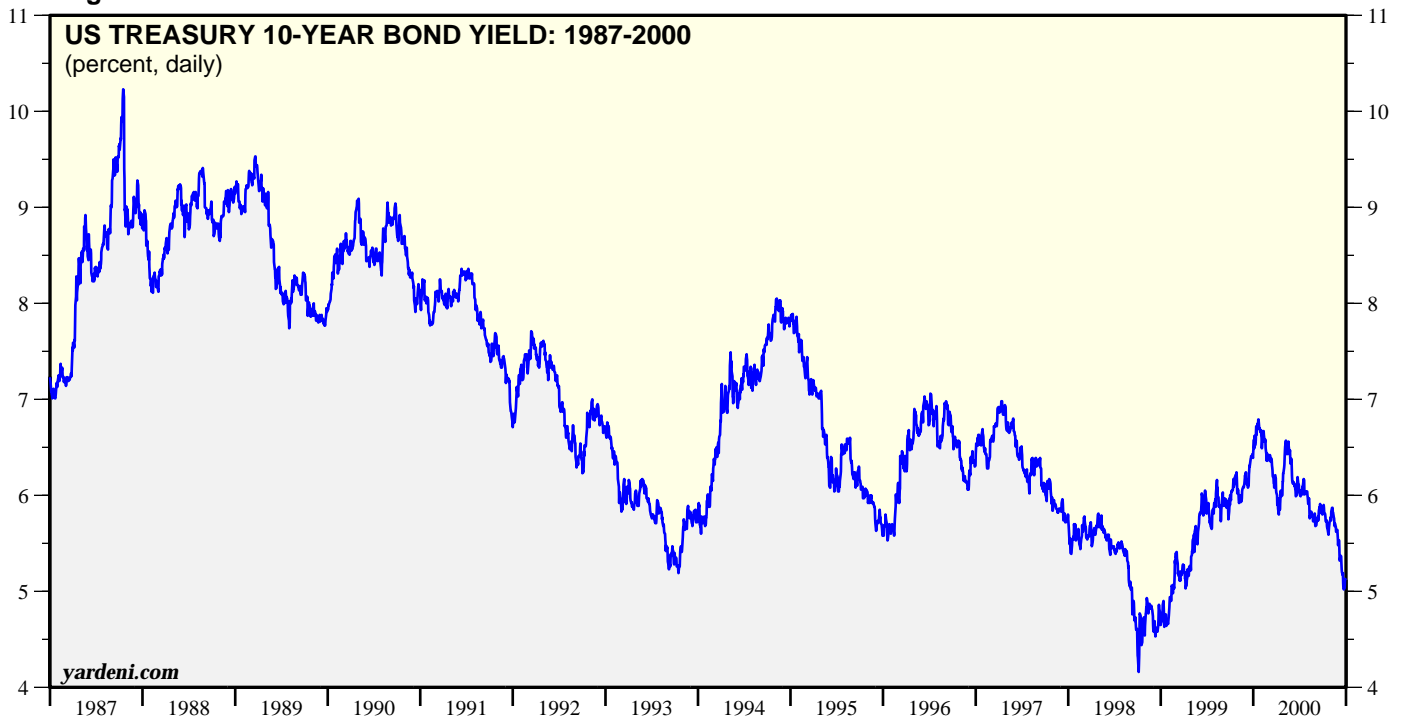
Figure 10.



Source: Census Bureau.

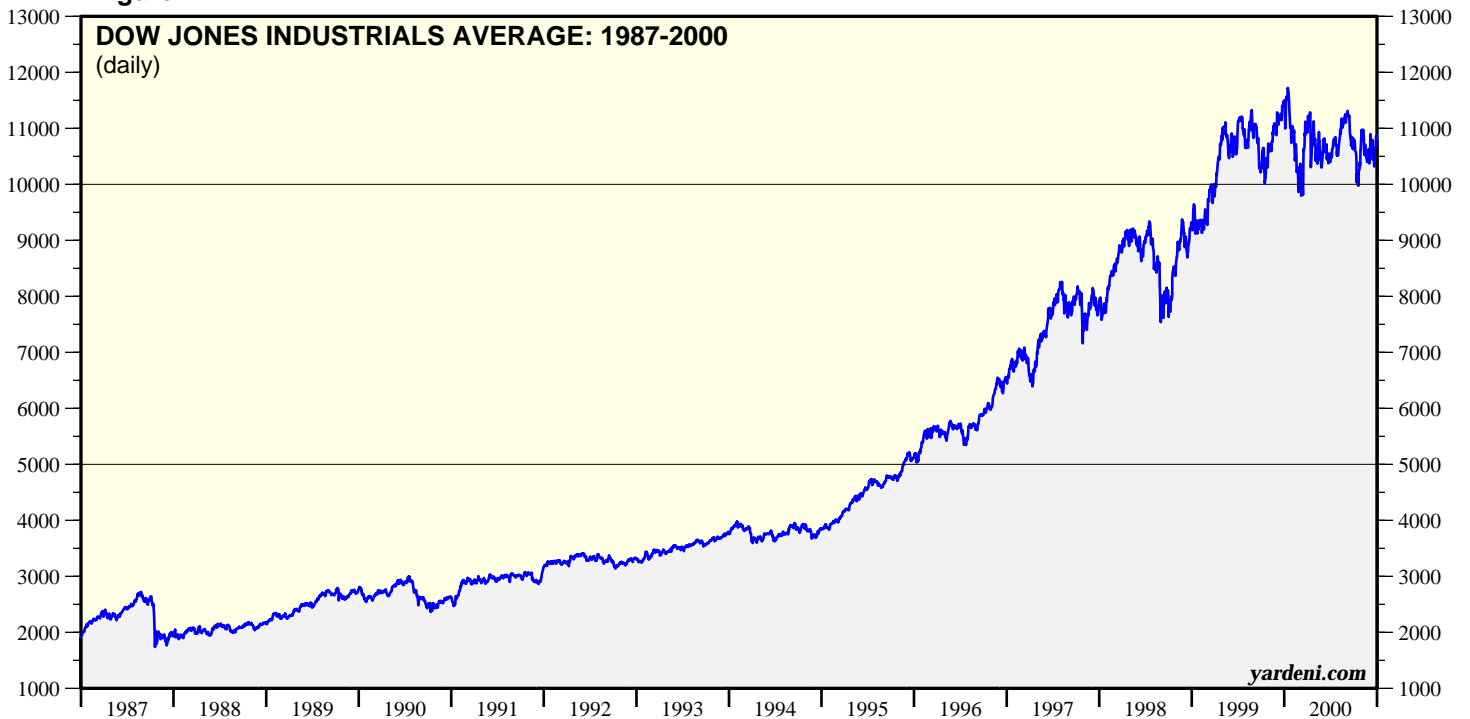
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Figure 11.



Source: Federal Reserve Board.

Figure 12.

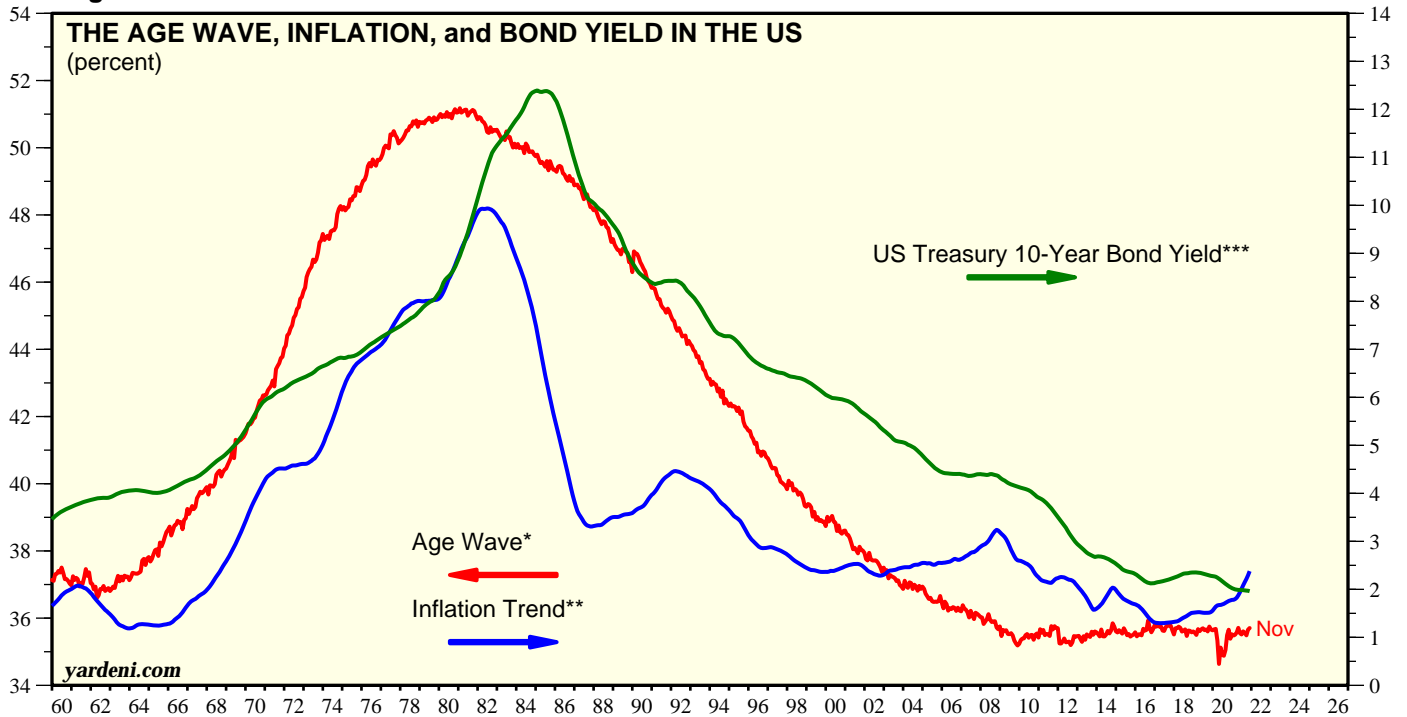


Source: Dow Jones Inc.



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Figure 13.



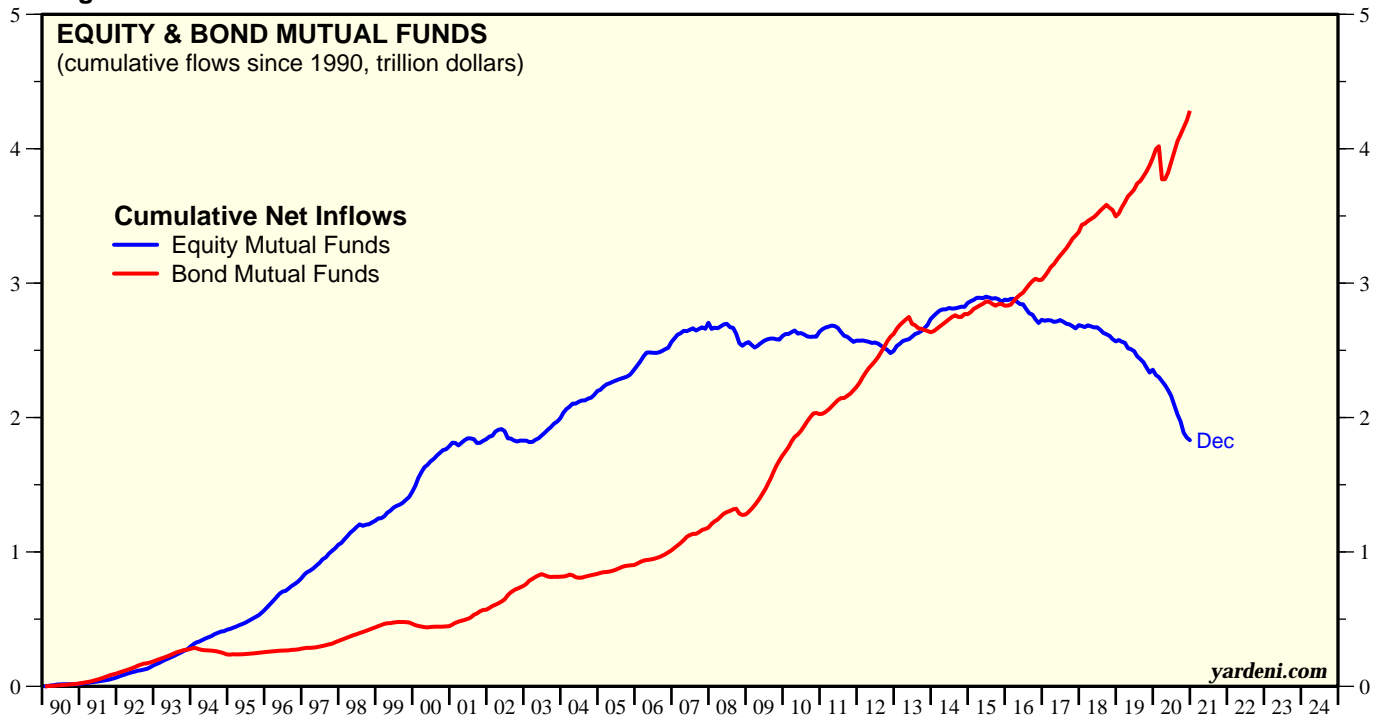
\* Percent of labor force 16-34 years old.

\*\* Five-year moving average of yearly percent change in CPI.

\*\*\* Five-year moving average of ten-year government bond yield.

Source: Bureau of Labor Statistics and Federal Reserve Board.

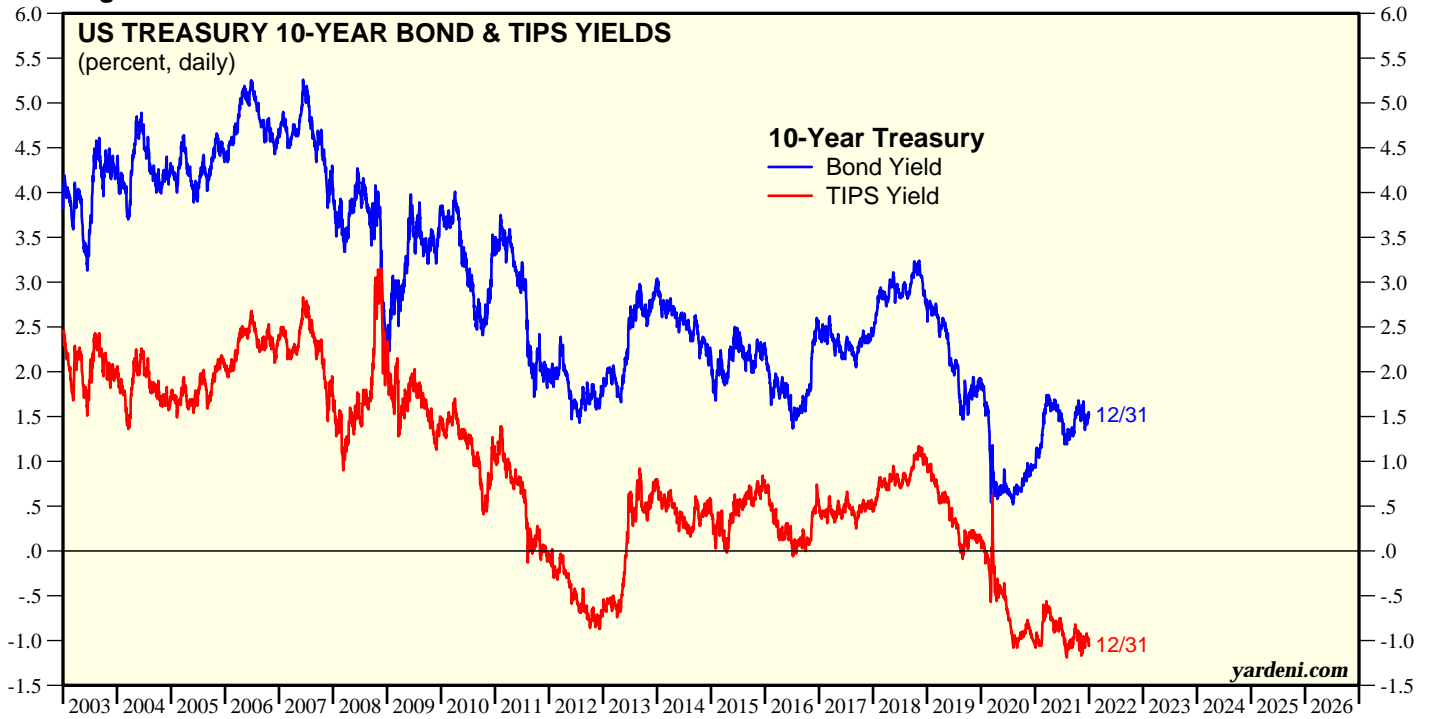
Figure 14.



Source: Investment Company Institute.

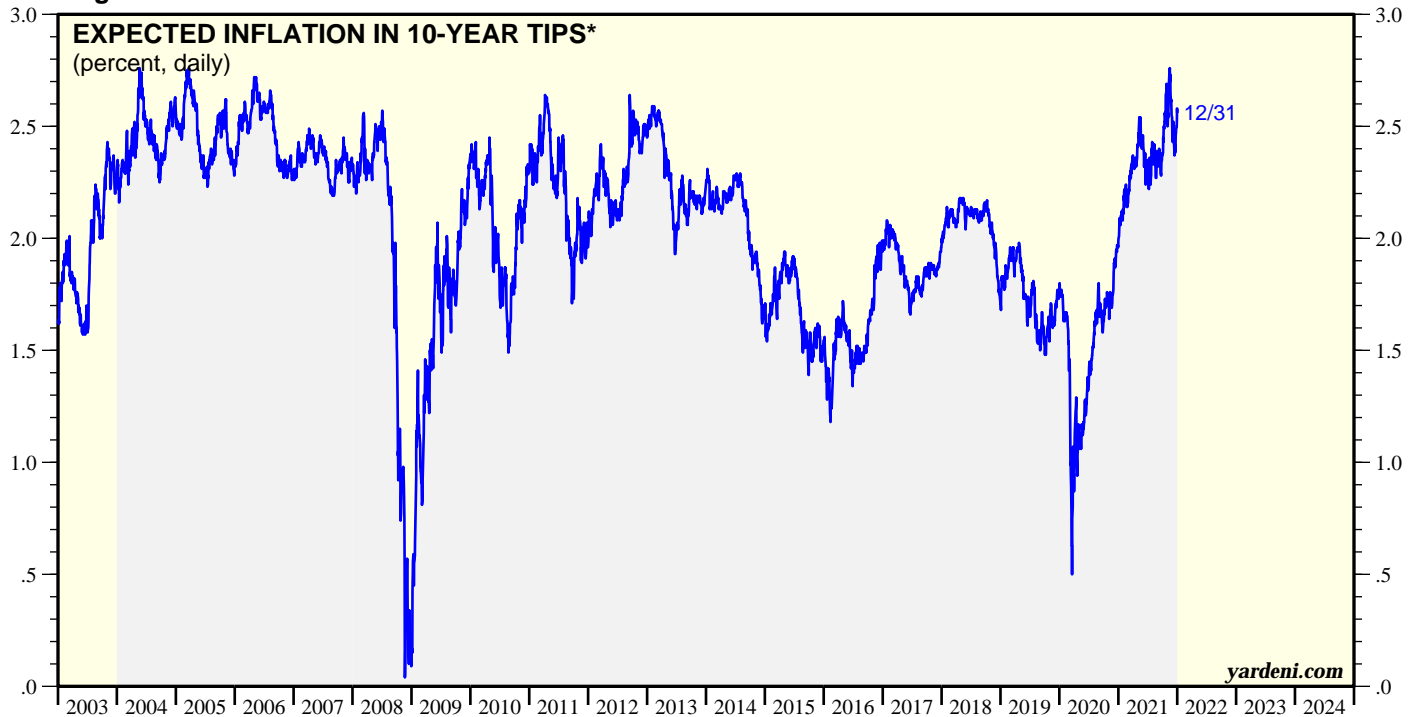
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Figure 15.



Source: Federal Reserve Board.

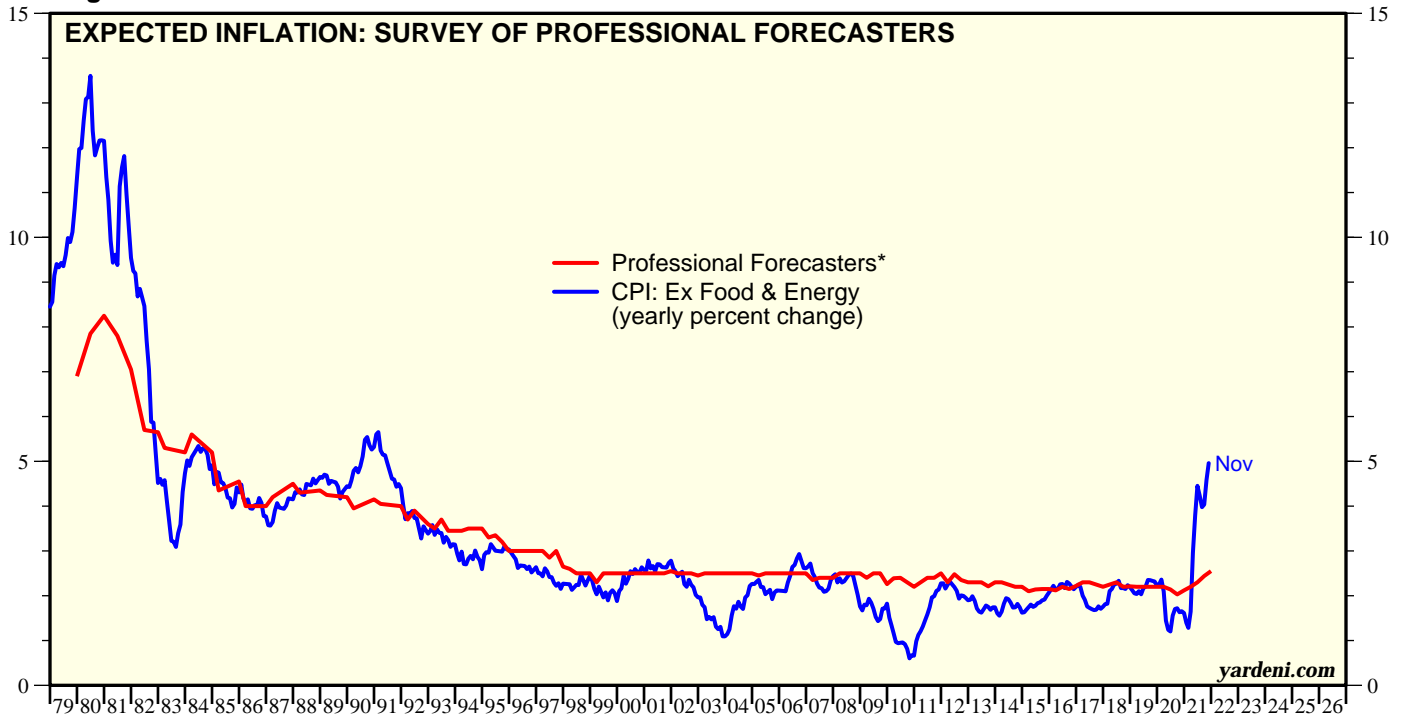
Figure 16.



\* Nominal minus TIPS yield.  
Source: Federal Reserve Board.

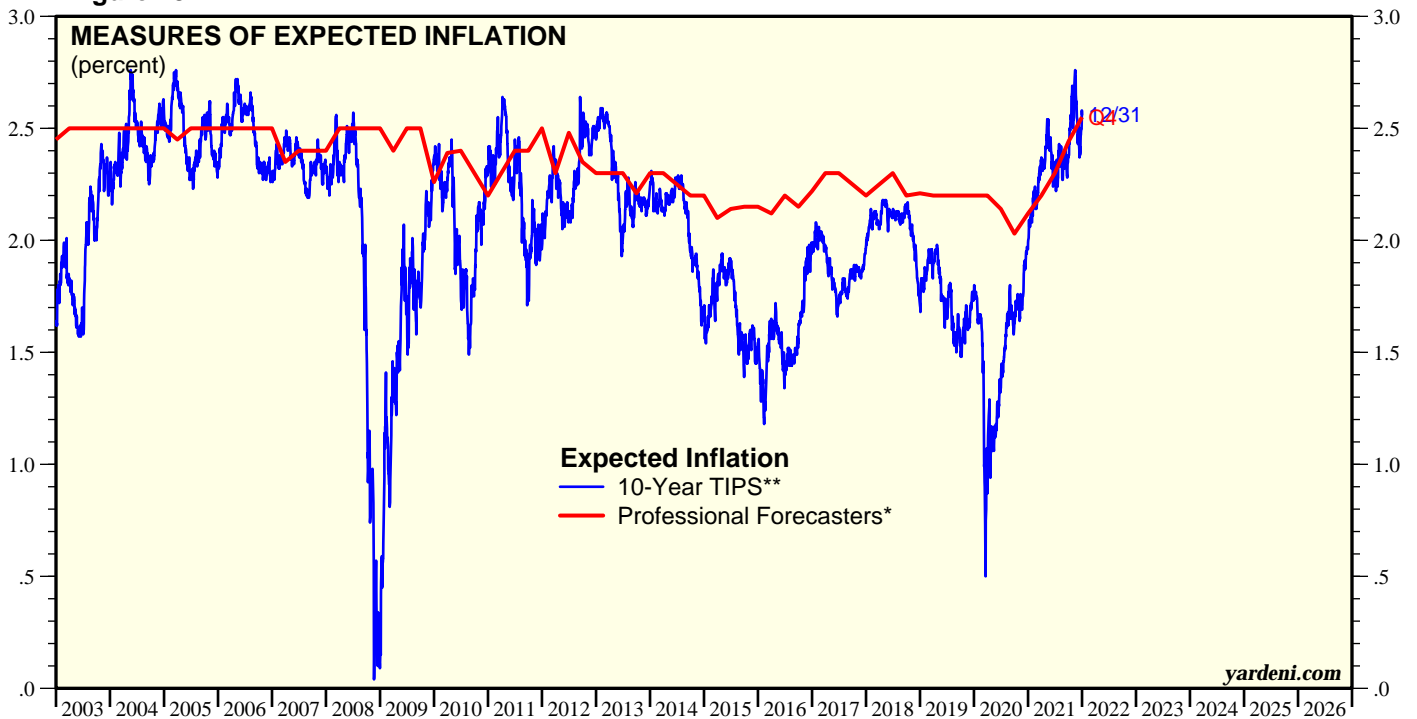
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Figure 17.



\* 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.

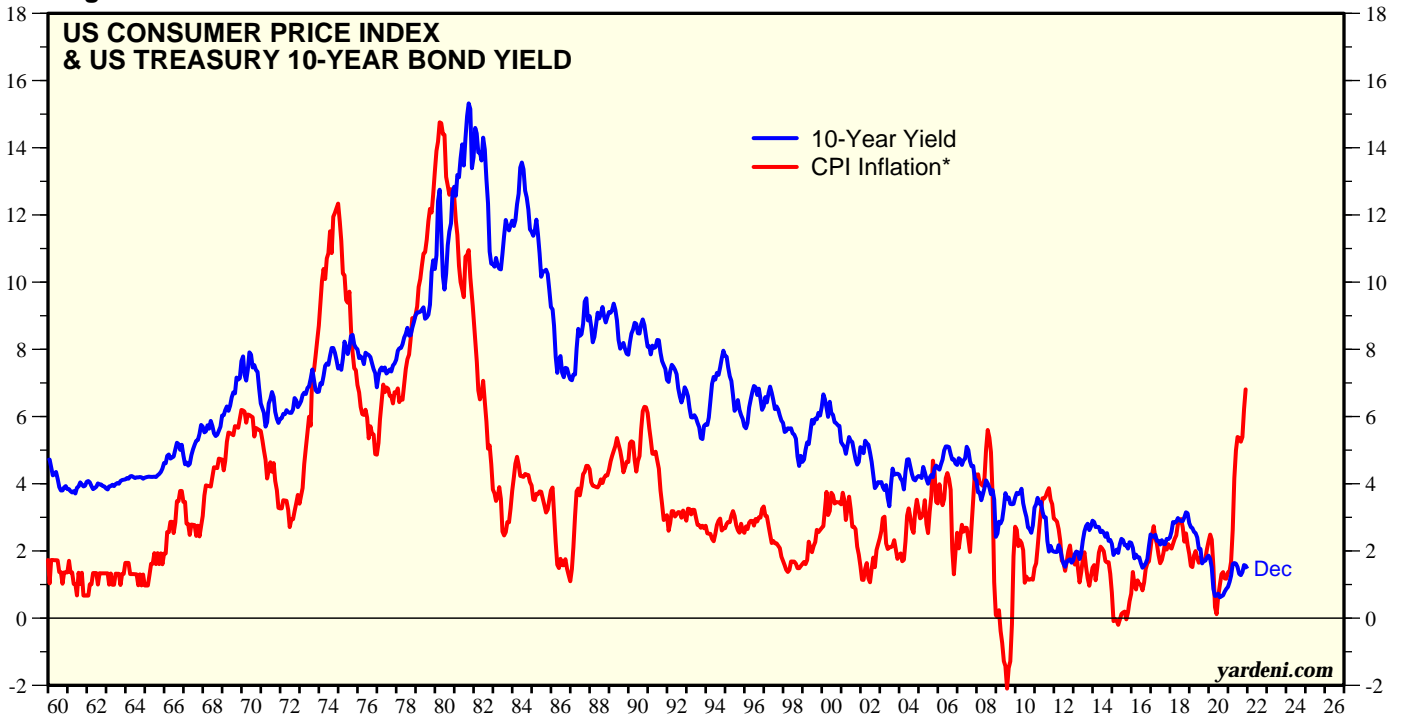


\* Median forecast of year-over-year CPI inflation rate over the next 10 years using Philadelphia Fed Survey of Professional Forecasters data.

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

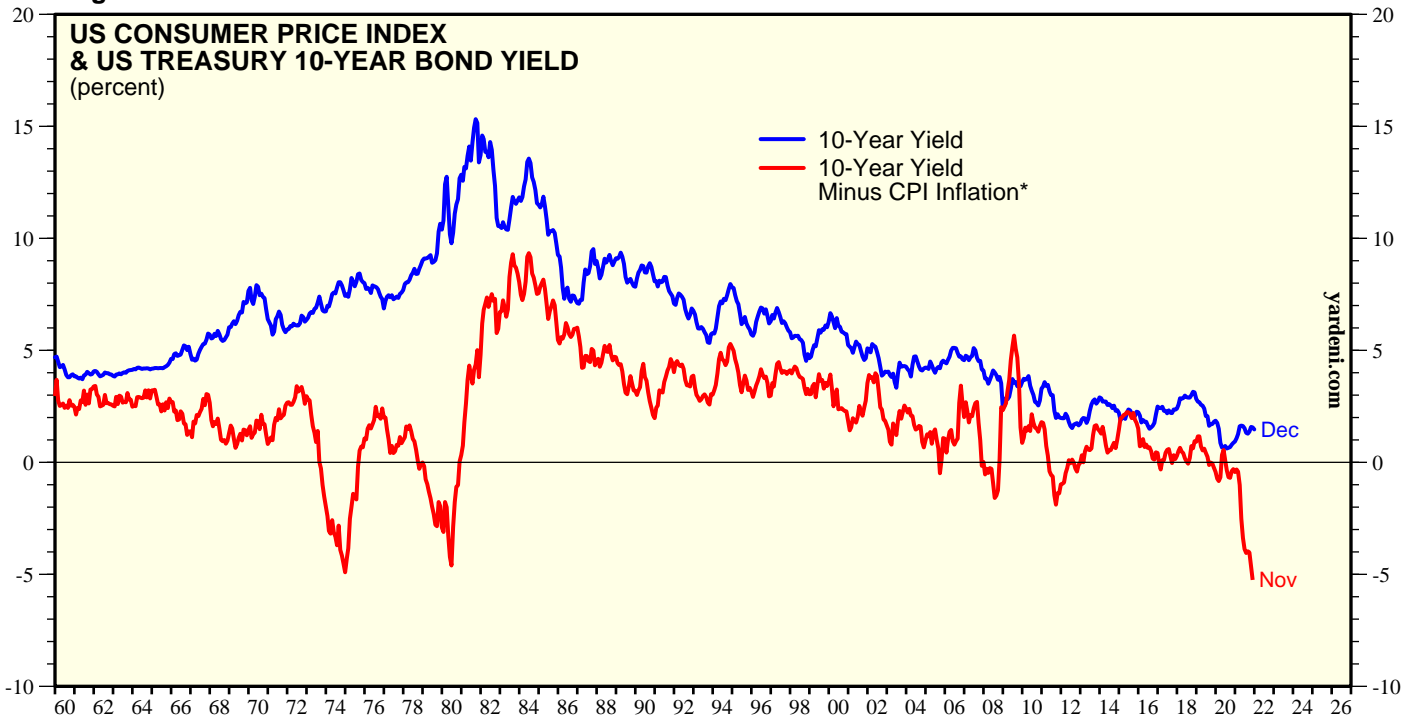
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Figure 19.



\* Yearly percent change.  
 Source: Federal Reserve Board and Bureau of Labor Statistics.

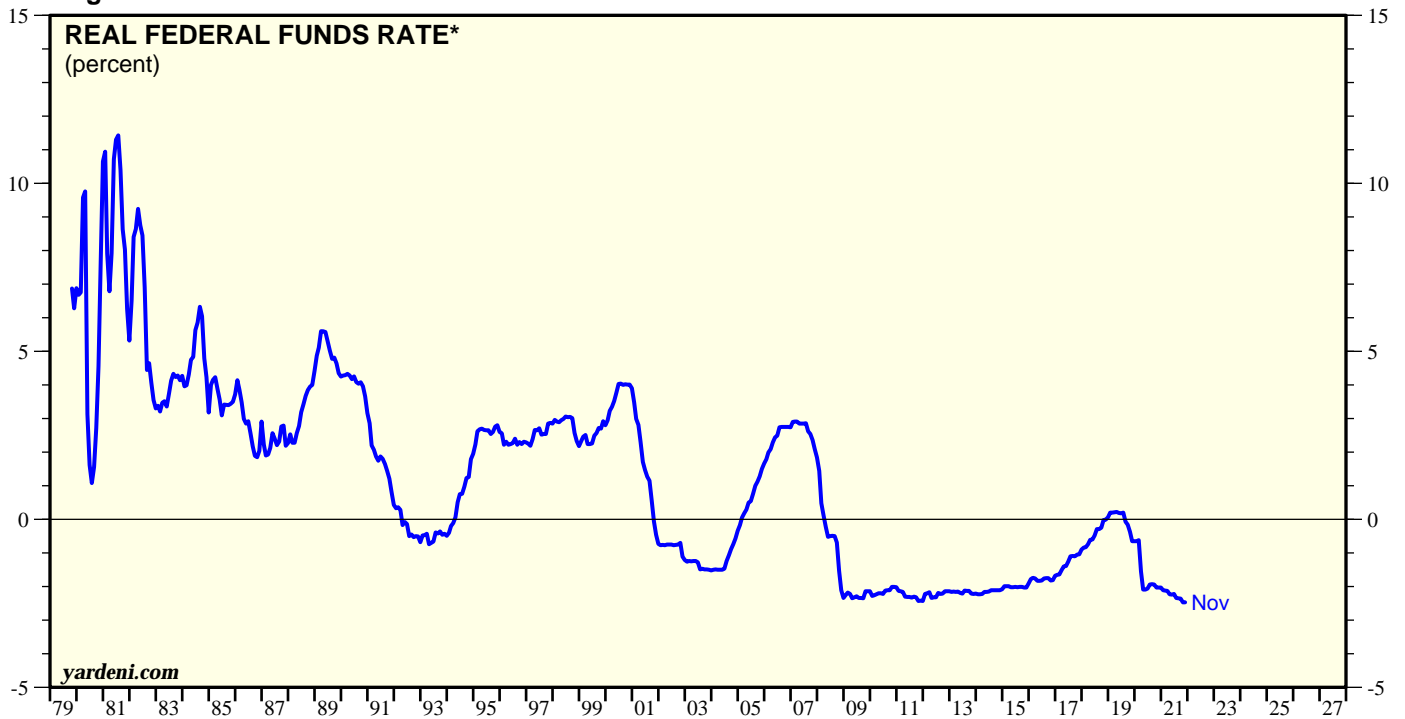
Figure 20.



\* Yearly percent change.  
 Source: Federal Reserve Board and Bureau of Labor Statistics.

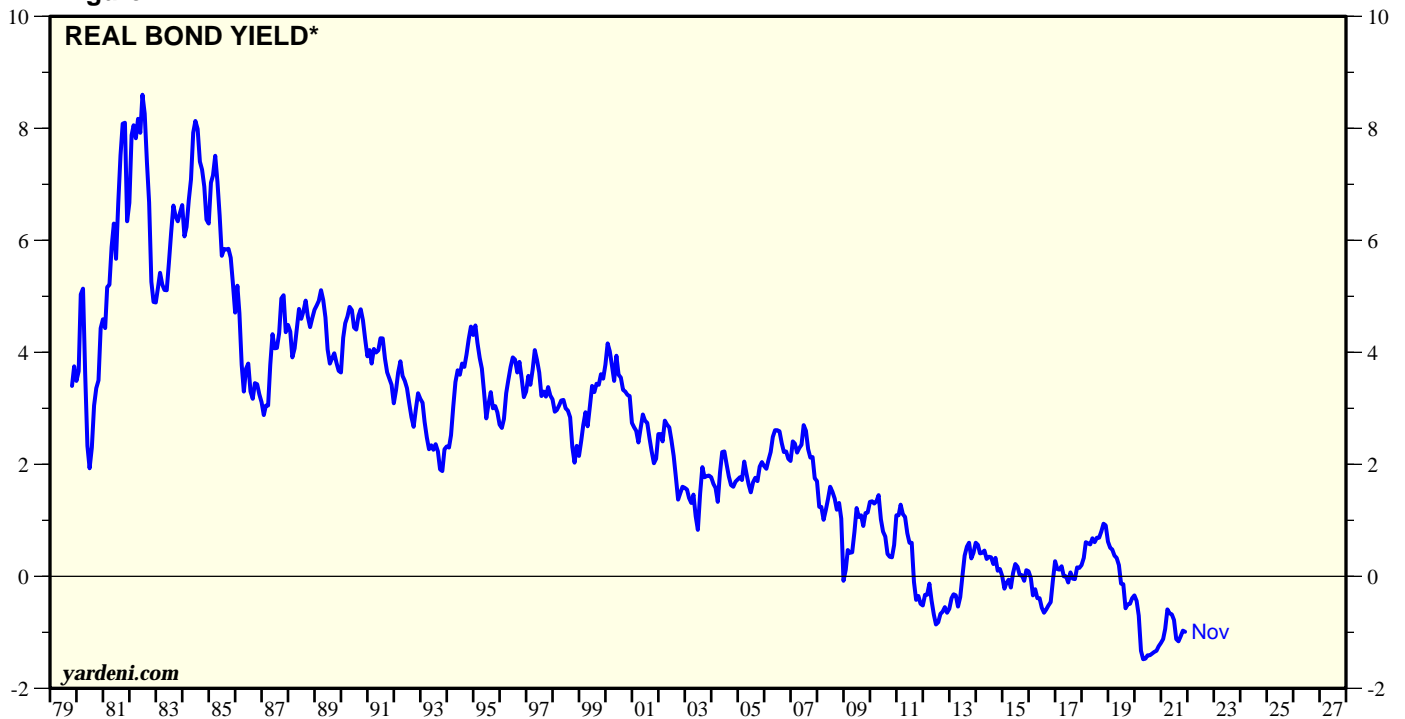
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Figure 21.



\* Federal funds rate minus median forecast of year-over-year CPI inflation rate over the 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, and Federal Reserve Bank of Philadelphia.

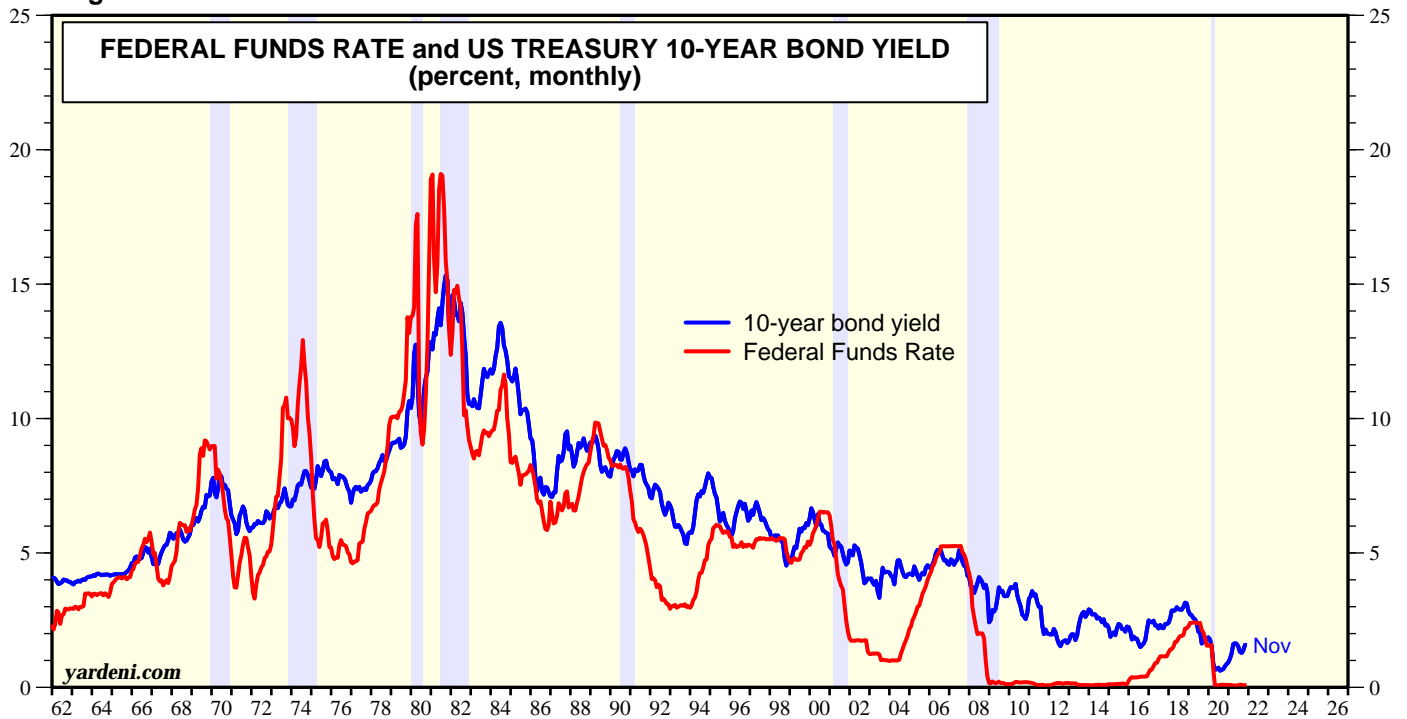
Figure 22.



\* US Treasury 10-year bond yield minus median forecast of year-over-year CPI inflation rate over the 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, and Federal Reserve Bank of Philadelphia.

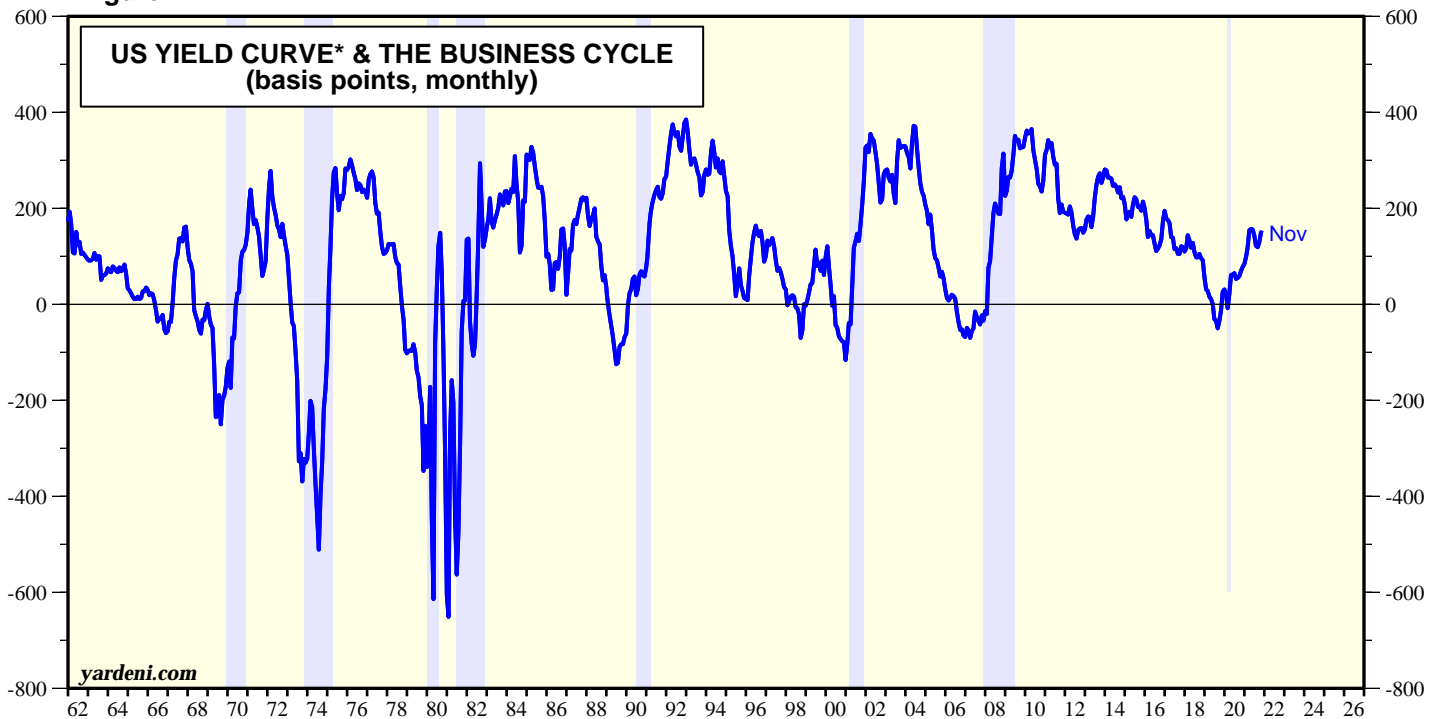
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Figure 23.



Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Federal Reserve Board.

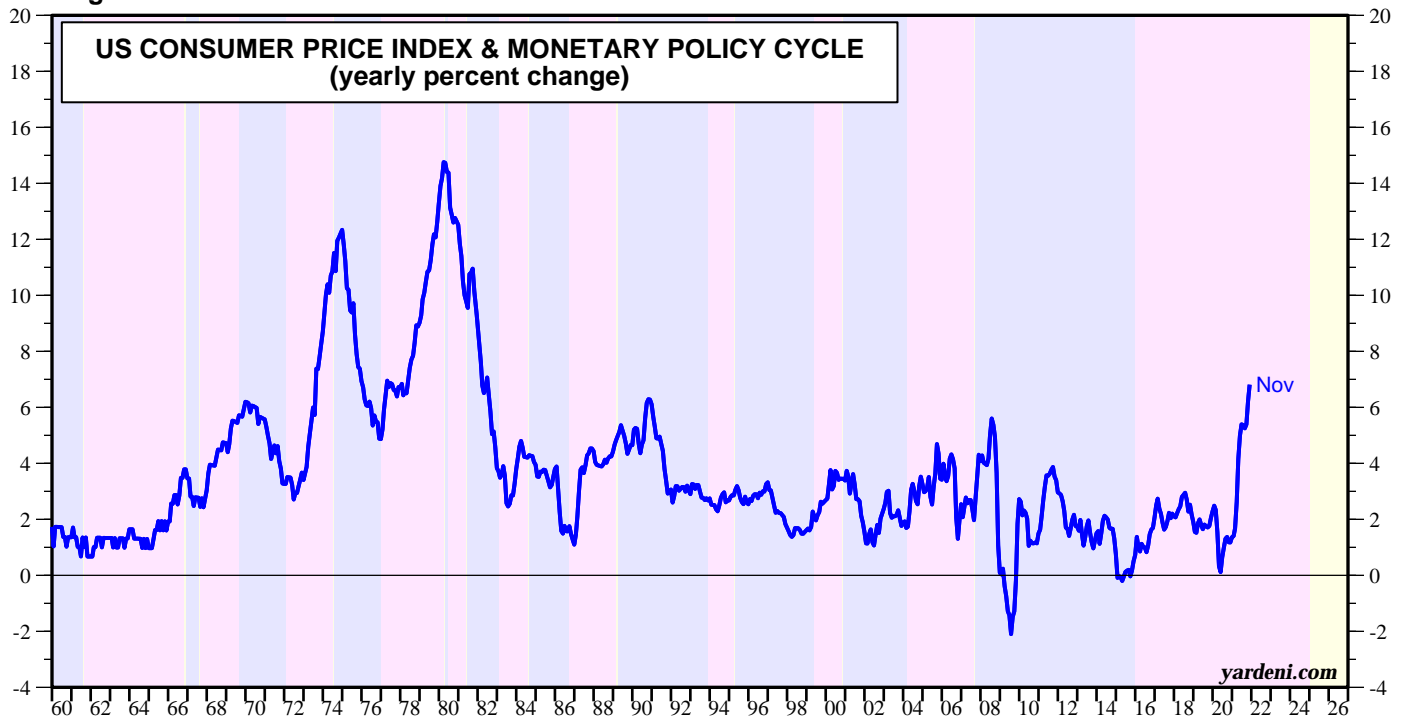
Figure 24.



\* 10-year US Treasury bond yield minus federal funds rate.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Federal Reserve Board.

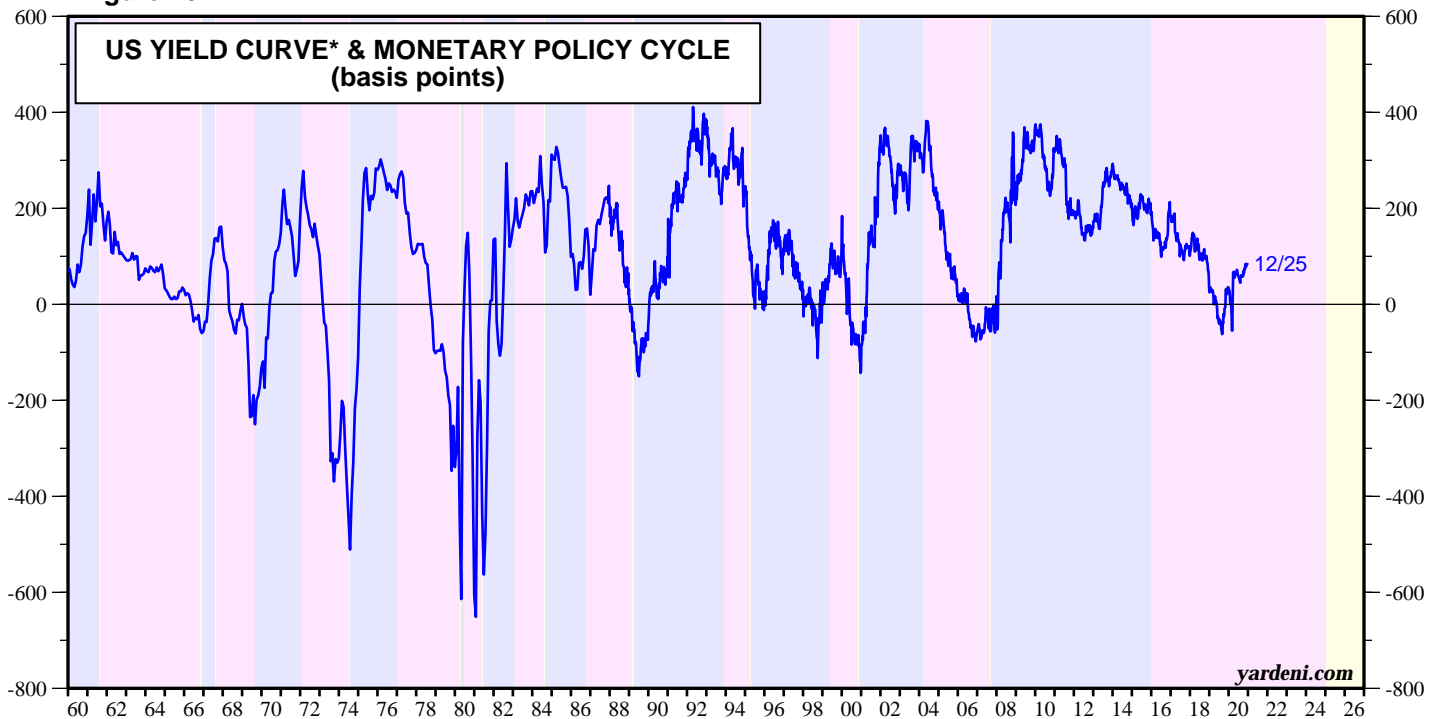
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Figure 25.



Note: Blue shaded areas denote periods of monetary easing between cyclical peaks and troughs in the federal funds rate. Red shaded areas denote monetary tightening periods.  
Source: Bureau of Labor Statistics.

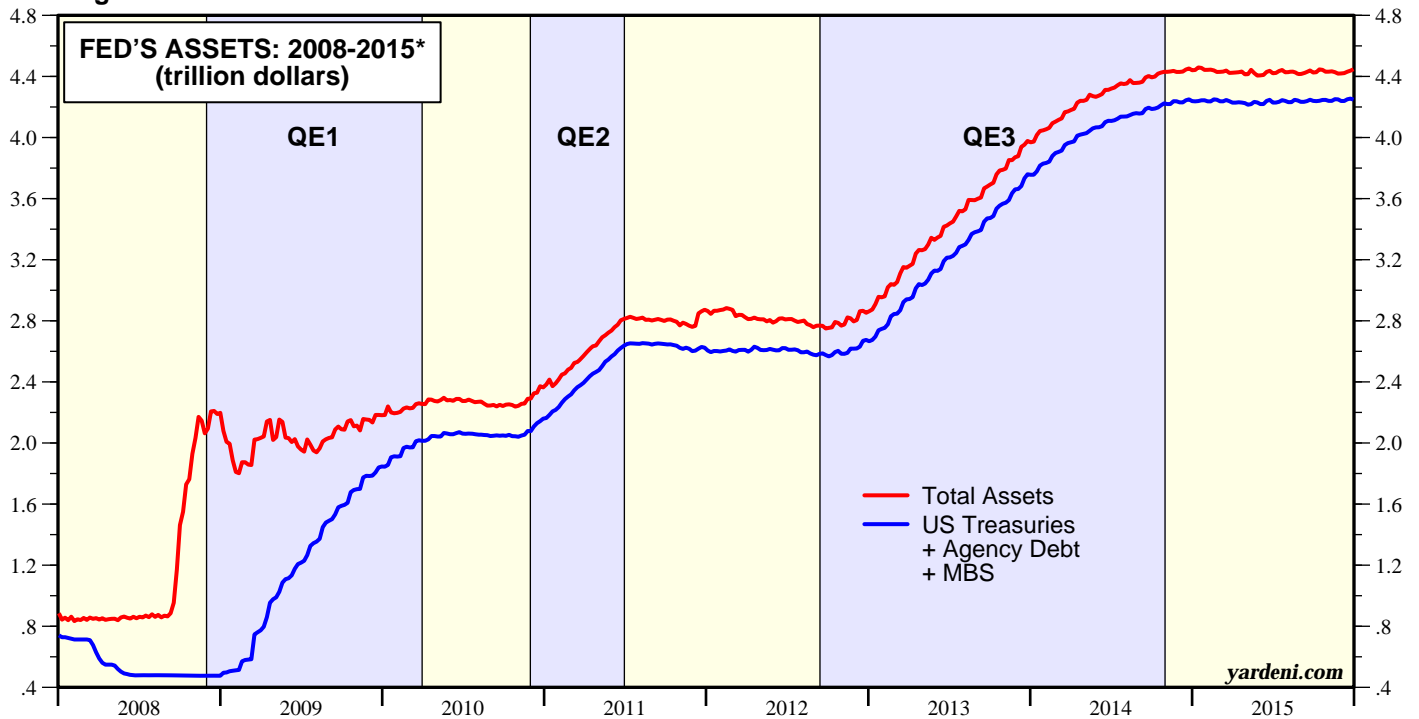
Figure 26.



\* US Treasury 10-year bond yield less federal funds rate. Monthly through 1987, then weekly.  
Note: Blue shaded areas denote periods of monetary easing between cyclical peaks and troughs in the federal funds rate. Red shaded areas denote monetary tightening periods.  
Source: Federal Reserve Board.

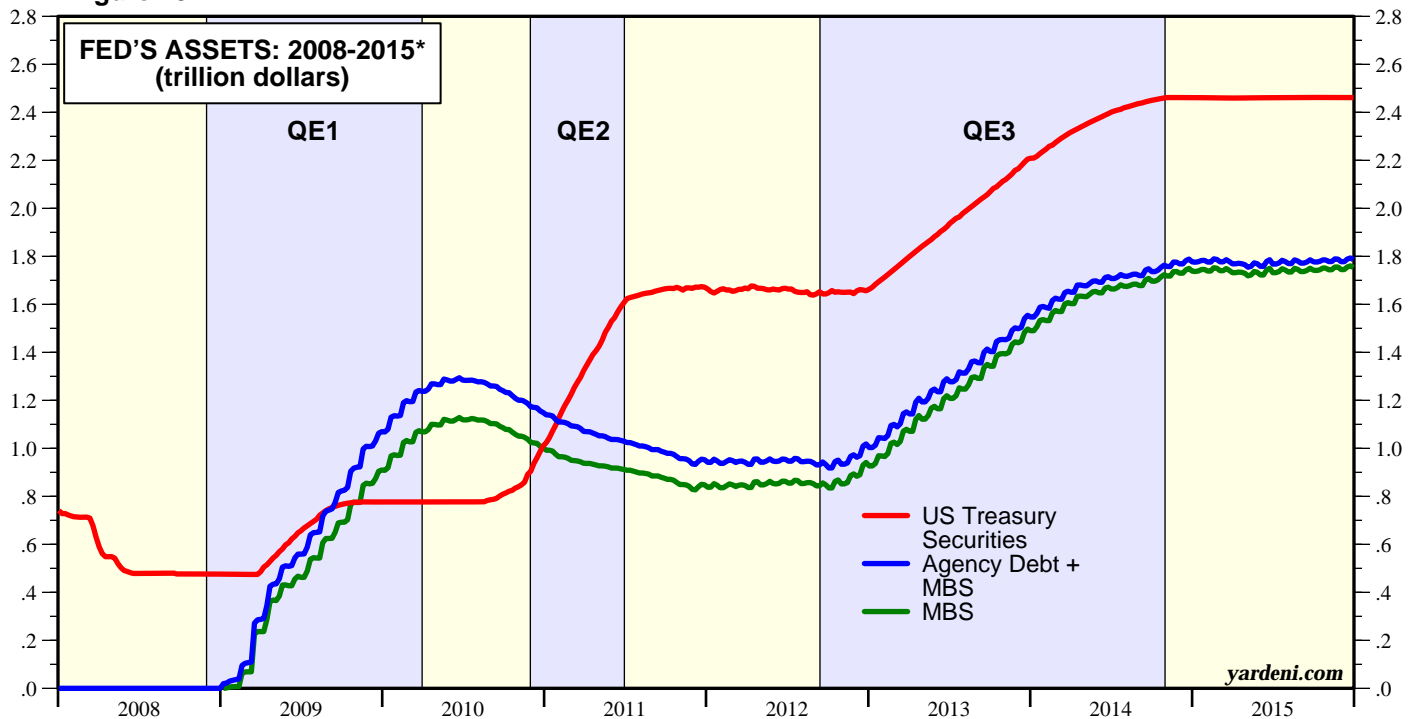
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Figure 27.



\* Average of daily figures for weeks ending Wednesday.  
 Note: QE1 (11/25/08) = Fed starts buying \$1.24tn in mortgage securities. QE1 expanded (3/16/2009) = Fed starts buying \$300bn in Treasuries.  
 QE2 (11/3/10) = Fed starts buying \$600bn in Treasuries. QE3 (9/13/12) = Fed starts buying \$40bn/month in mortgage securities (open ended).  
 QE3 expanded (12/12/12) = Fed starts buying \$45bn/month in Treasuries.  
 Source: Federal Reserve Board.

Figure 28.

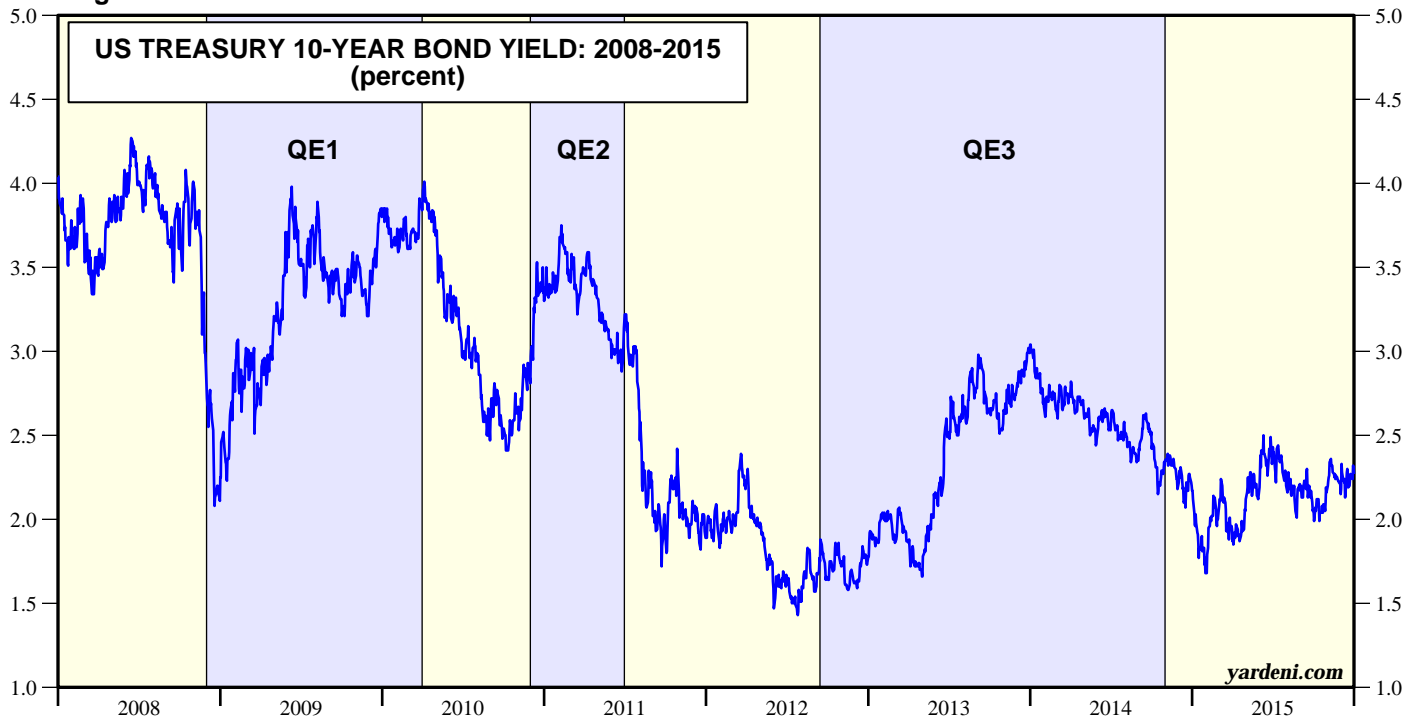


\* Average of daily figures for weeks ending Wednesday.  
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 Source: Federal Reserve Board.



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Figure 29.



Note: QE1 (11/25/08) = Fed starts buying \$1.24tn in mortgage securities. QE1 expanded (3/16/2009) = Fed starts buying \$300bn in Treasuries. QE2 (11/3/10) = Fed starts buying \$600bn in Treasuries. QE3 (9/13/12) = Fed starts buying \$40bn/month in mortgage securities (open ended). QE3 expanded (12/12/12) = Fed starts buying \$45bn/month in Treasuries.  
Source: Federal Reserve Board.

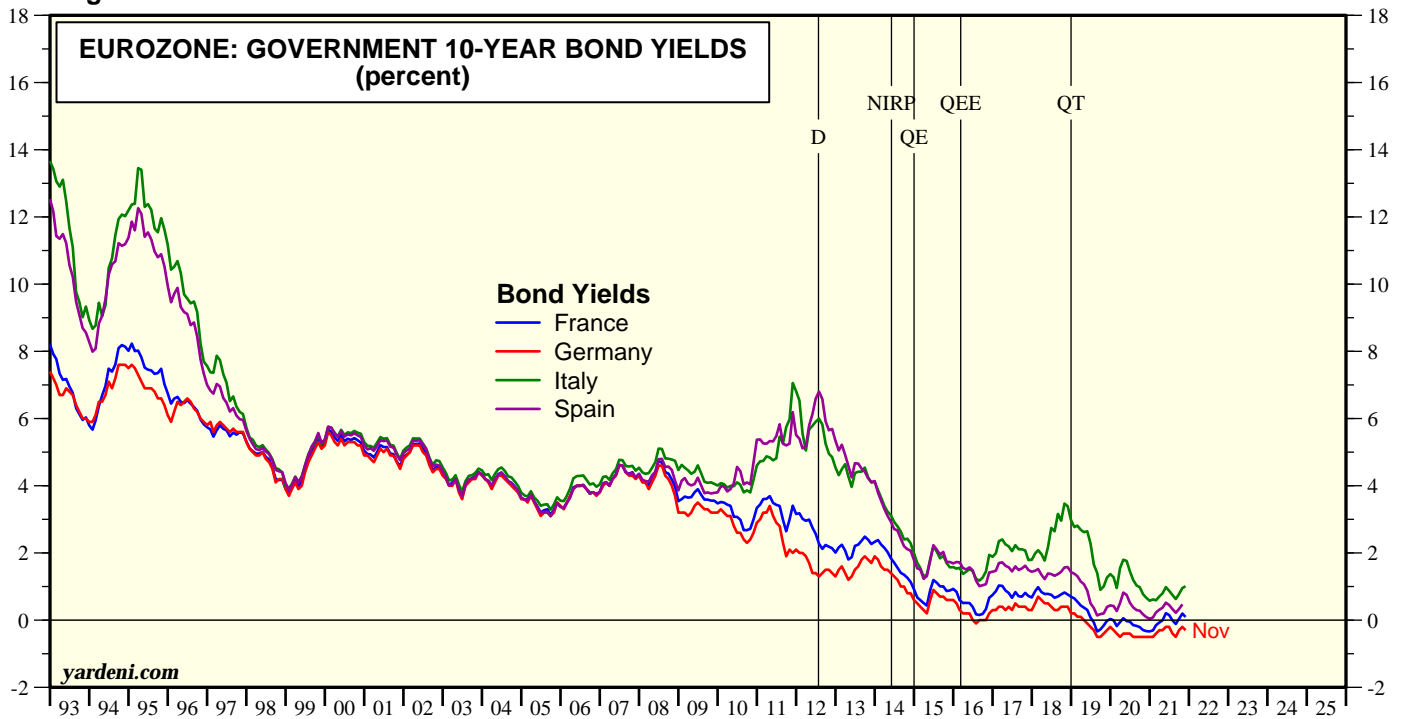
Figure 30.



Note: QE1 (11/25/08) = Fed starts buying \$1.24tn in mortgage securities. QE1 expanded (3/16/2009) = Fed starts buying \$300bn in Treasuries. QE2 (11/3/10) = Fed starts buying \$600bn in Treasuries. QE3 (9/13/12) = Fed starts buying \$40bn/month in mortgage securities (open ended). QE3 expanded (12/12/12) = Fed starts buying \$45bn/month in Treasuries.  
Source: Standard & Poor's.

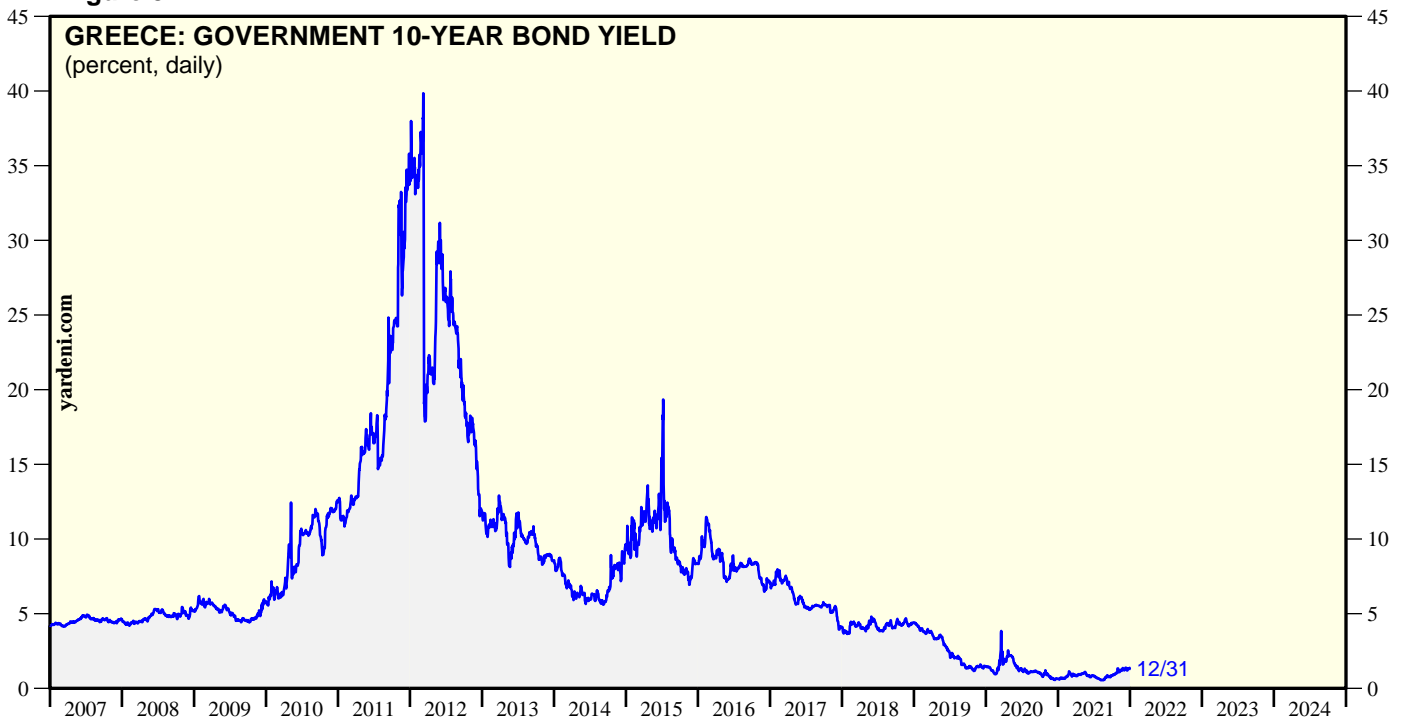
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Figure 31.



Note: D (7/26/12) = ECB President Mario Draghi pledged to do "whatever it takes" to defend the euro. NIRP (6/5/2014) = negative interest-rate policy. QE (1/22/15) = quantitative easing. QEE (3/10/16) = expansion and extension of QE with corporate bond purchases started 6/1/16. QT (12/31/2018). Source: Financial Times.

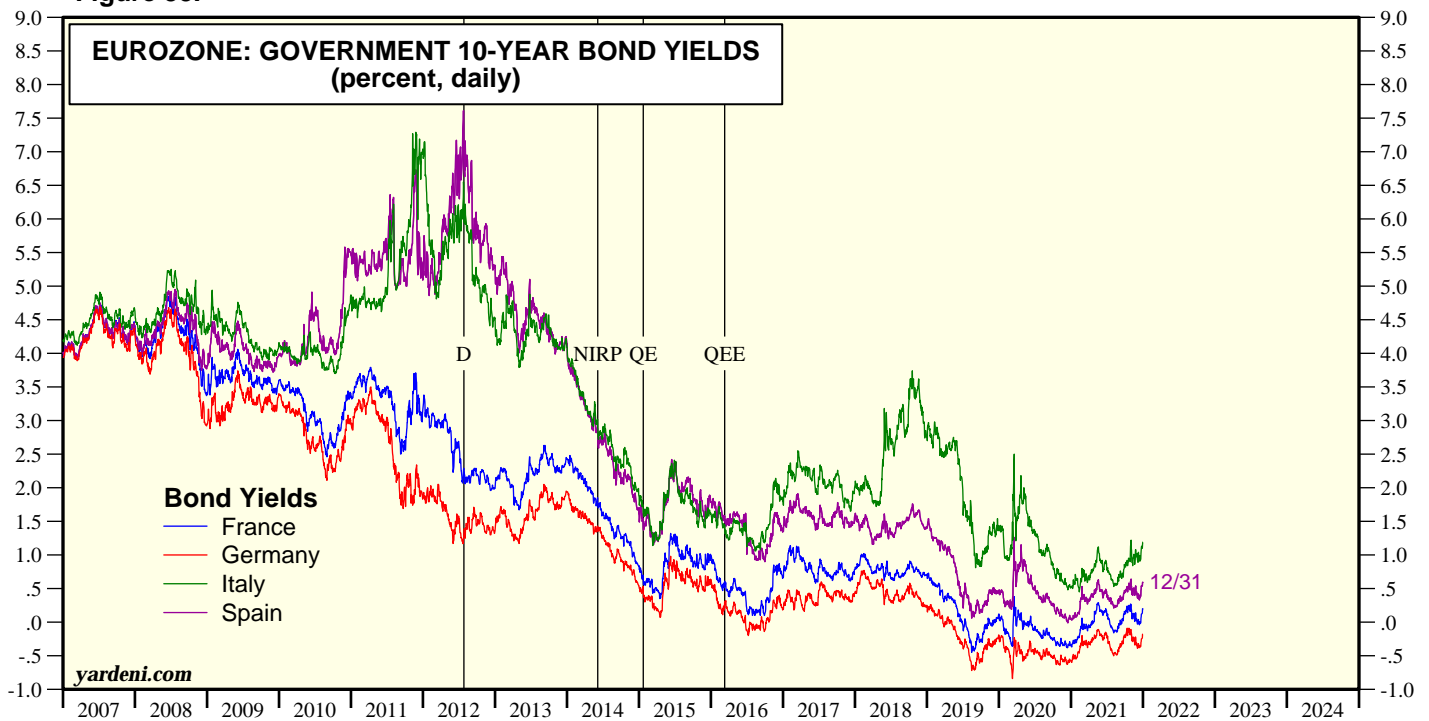
Figure 32.



Source: Financial Times.

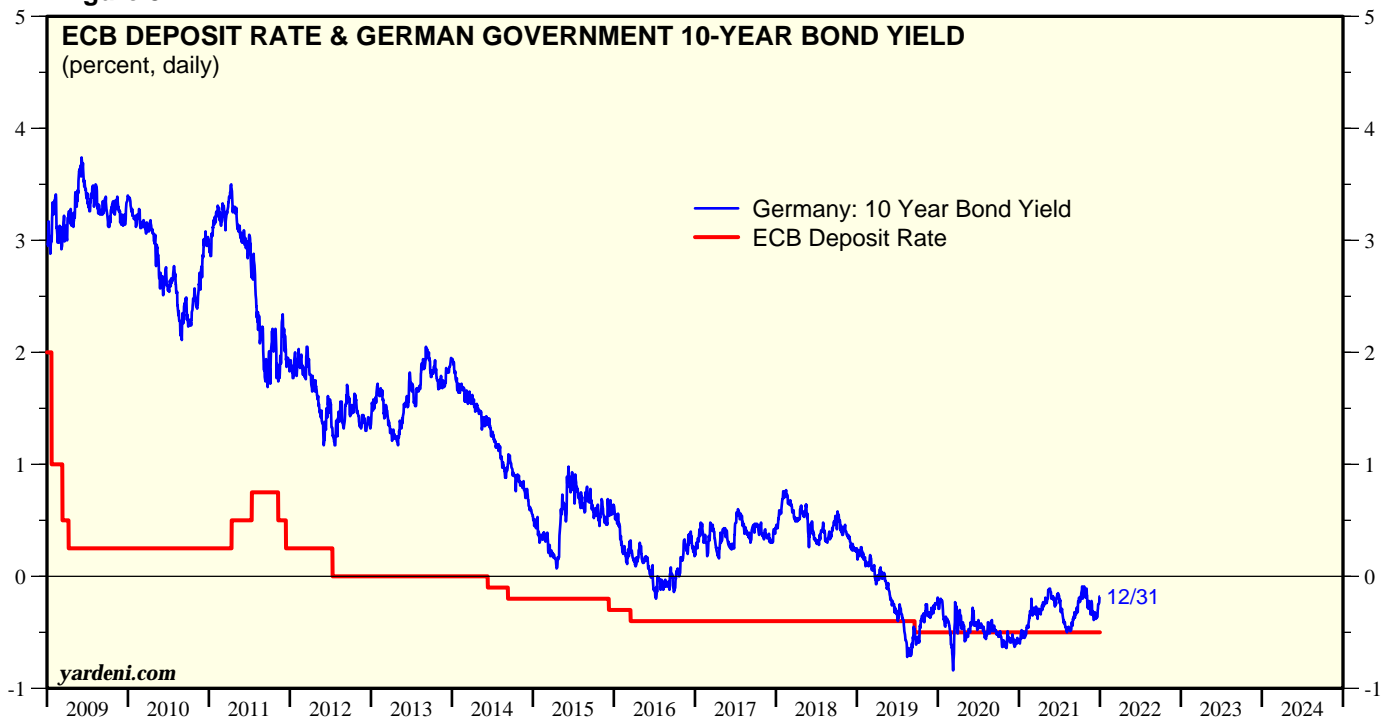
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Figure 33.



Note: D (7/26/12) = ECB President Mario Draghi pledged to do "whatever it takes" to defend the euro. NIRP (6/5/2014) = negative interest-rate policy. QE (1/22/15) = quantitative easing. QEE (3/10/16) = expansion and extension of QE with corporate bond purchases started 6/1/16.  
Source: Financial Times.

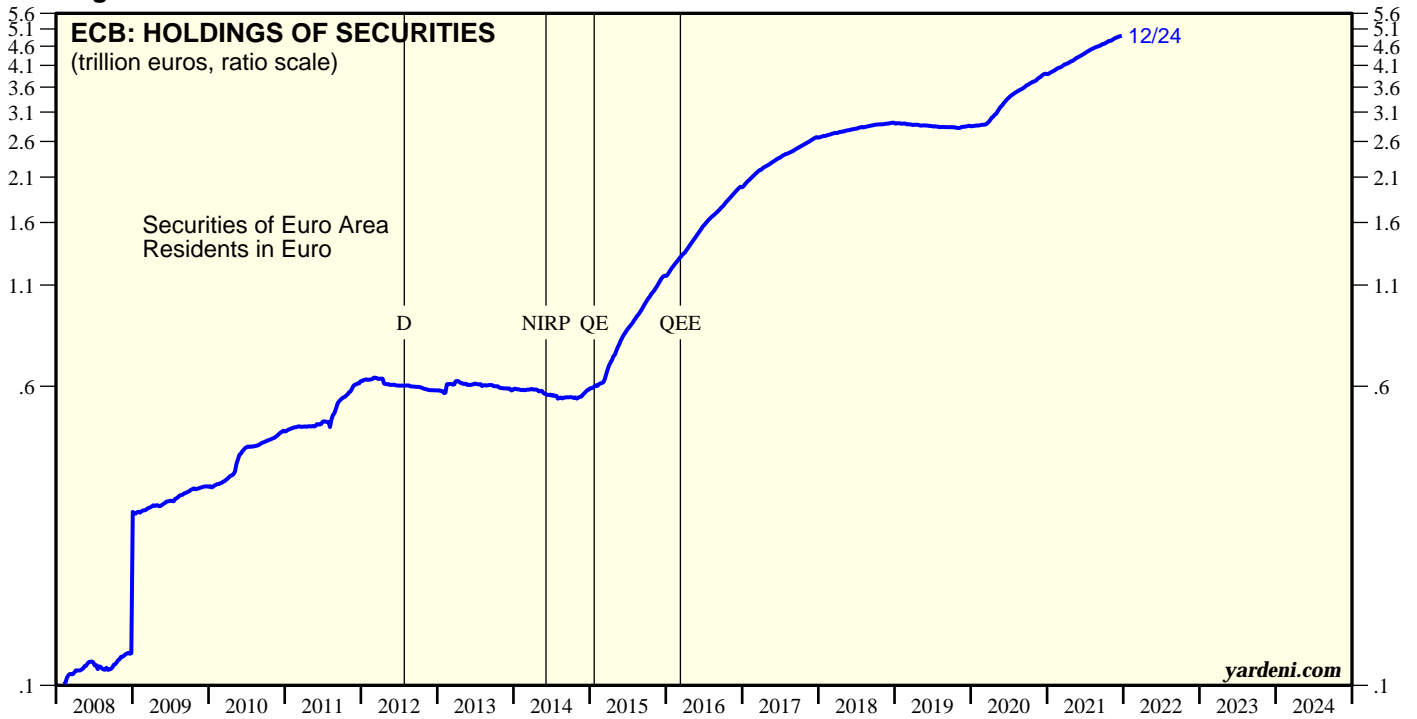
Figure 34.



Source: European Central Bank and Haver Analytics.

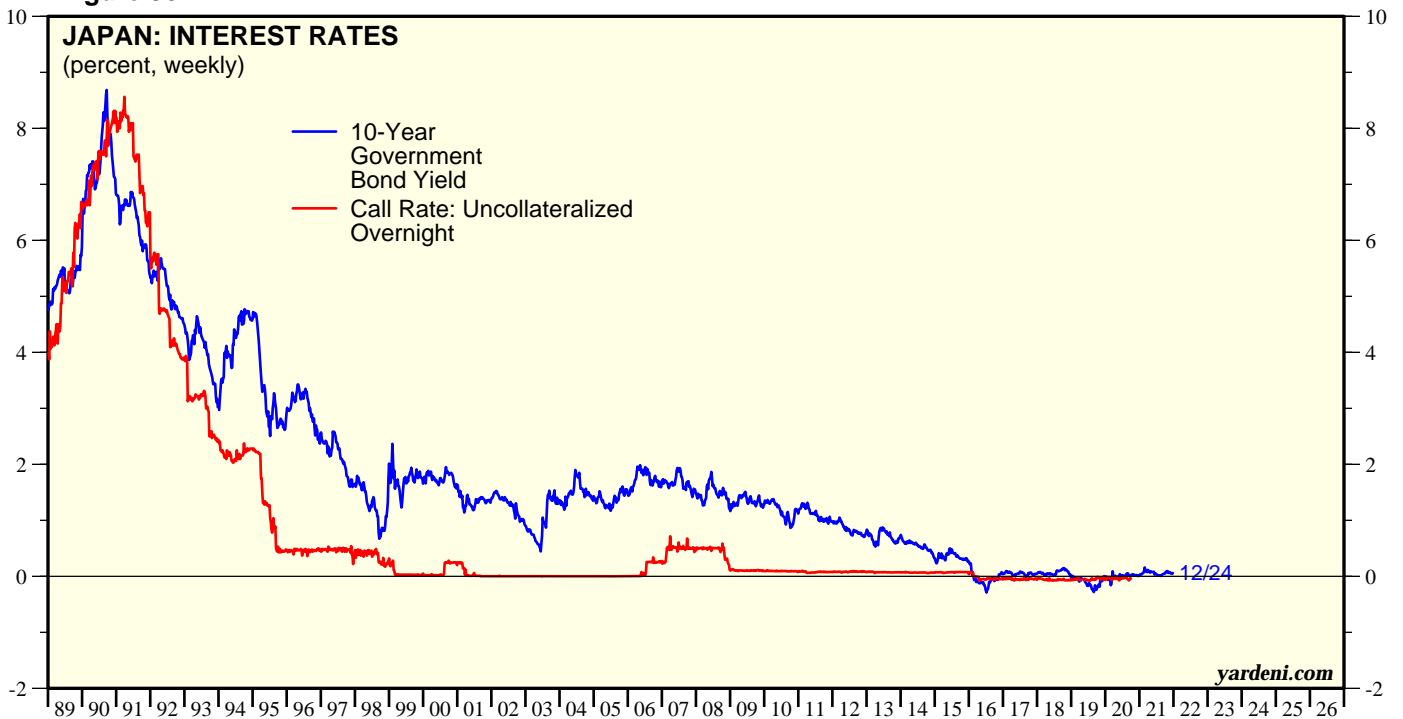
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Figure 35.



Note: D (7/26/12) = ECB President Mario Draghi pledged to do "whatever it takes" to defend the euro. NIRP (6/5/14) = negative interest-rate policy. QE (1/22/15) = quantitative easing. QEE (3/10/16) = expansion and extension of QE with corporate bond purchases started 6/1/16.  
Source: European Central Bank.

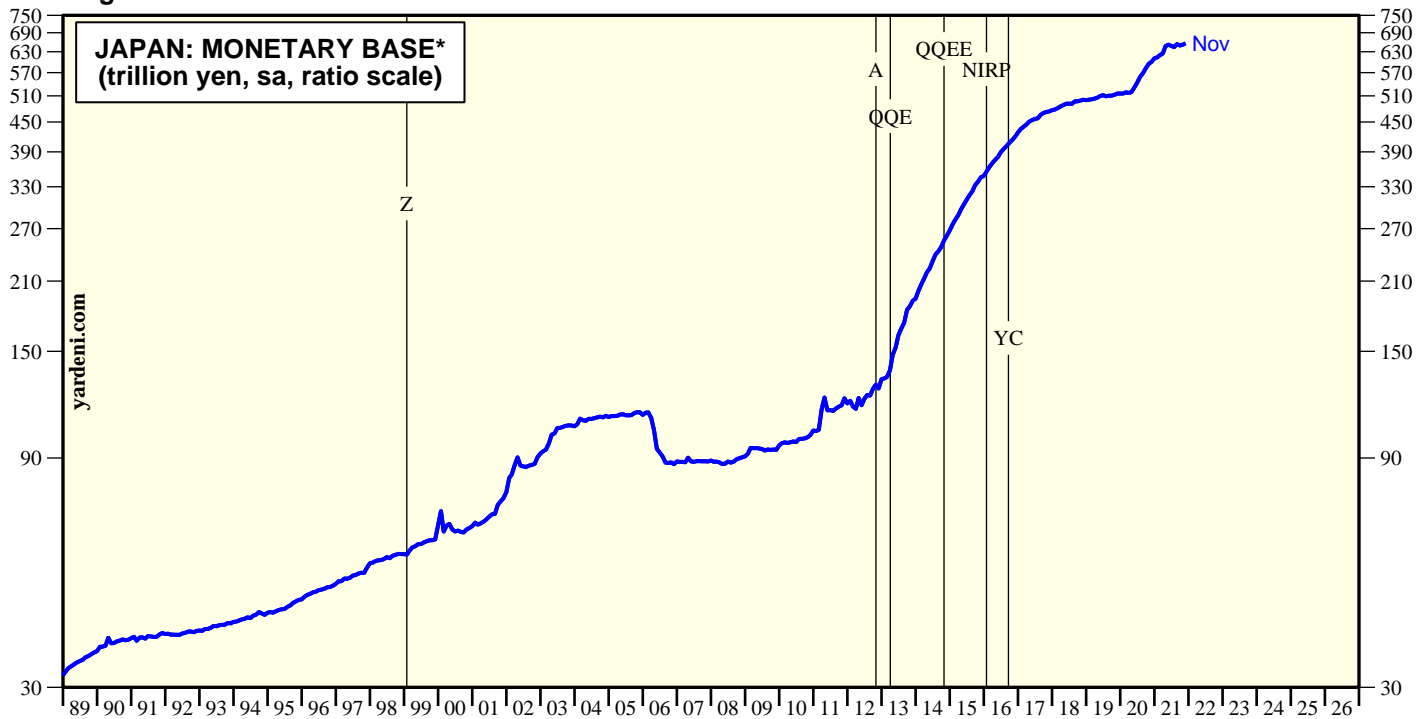
Figure 36.



Source: Bank of Japan.

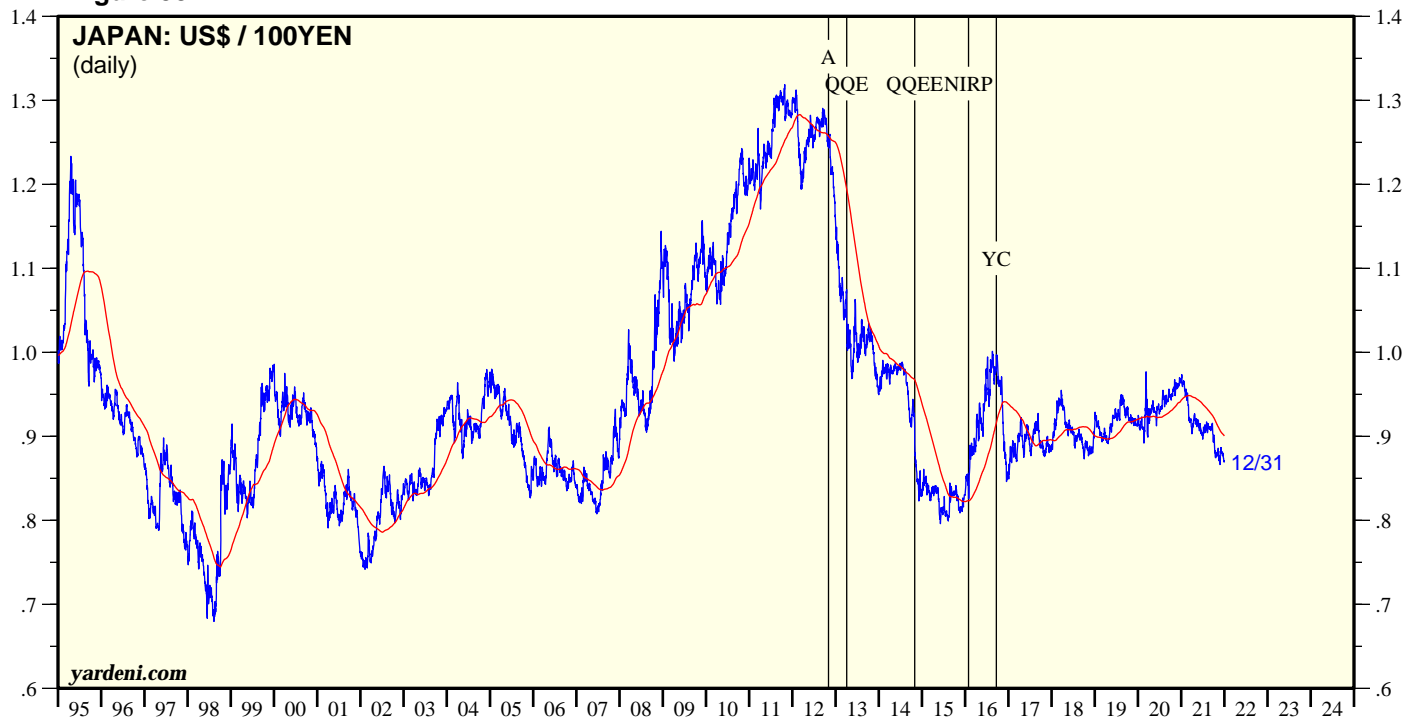
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Figure 37.



\* Adjusted for change in reserve requirements.  
 Note: Z = Zero Interest Rate Policy. A = Markets start to anticipate Abenomics. QE (4/4/13) = Quantitative and Qualitative Easing. QQEE (10/31/14) = QE expanded and extended version. NIRP (1/29/16) = Negative interest rate policy. YC (9/21/16) = Yield curve targeting.  
 Source: Bank of Japan.

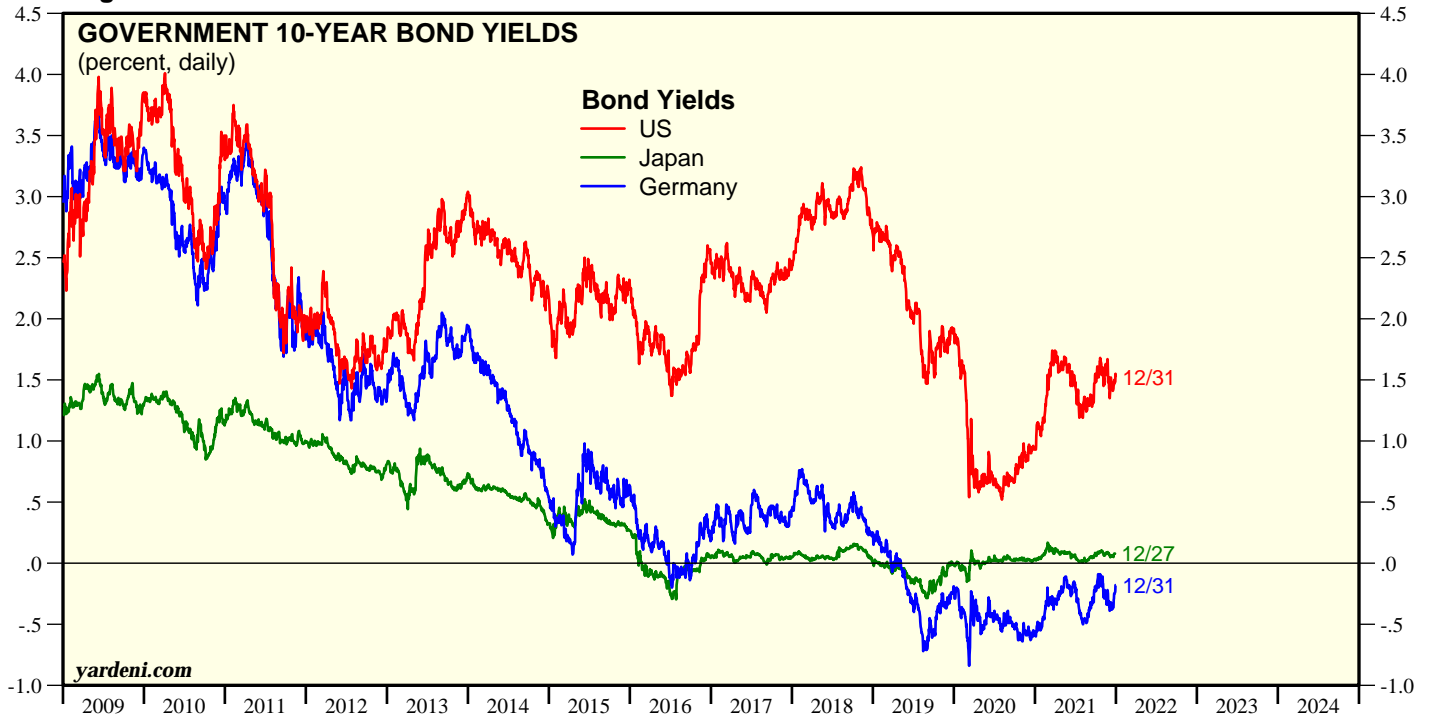
Figure 38.



— 200-day moving average  
 Note: A = Markets start to anticipate Abenomics. QE is Quantitative and Qualitative Easing. QQEE is the expanded and extended version of QE.  
 NIRP = negative interest rates. YC = Yield curve targeting.  
 Source: Haver Analytics.

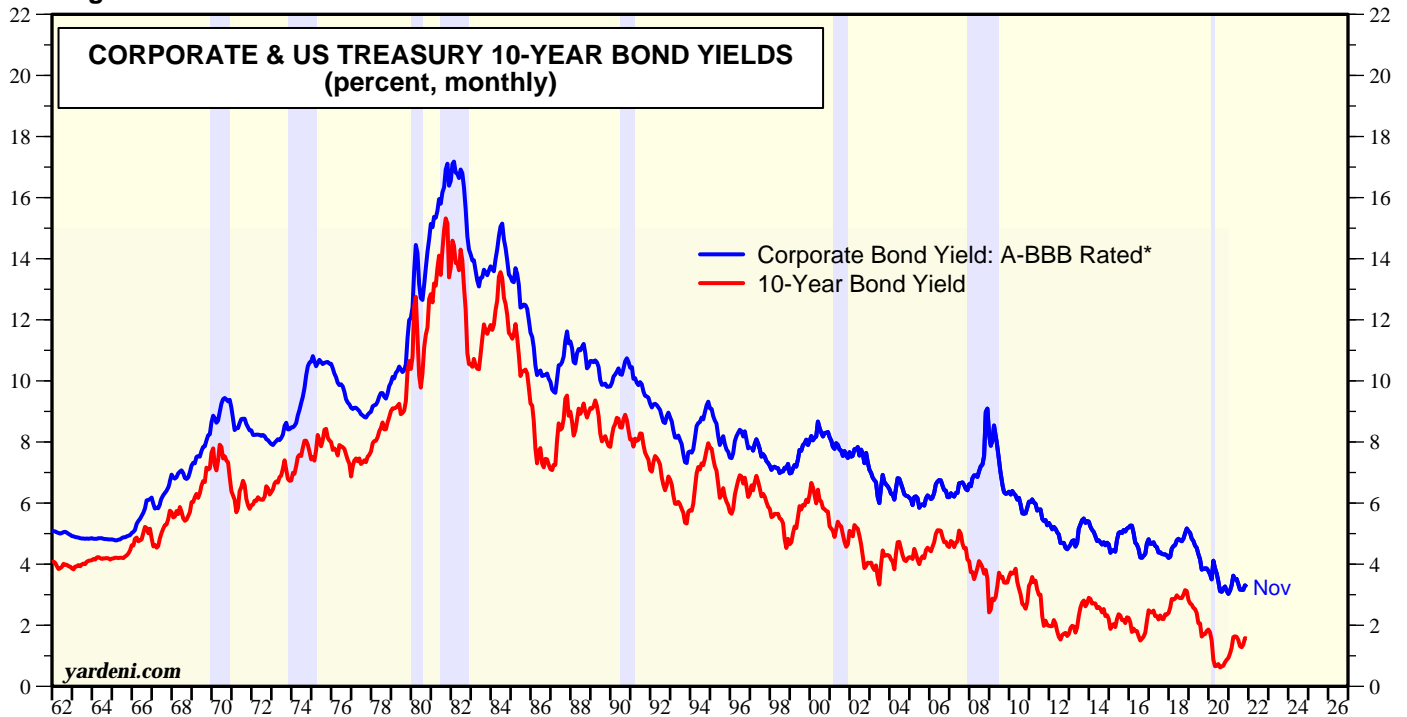
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Figure 39.



Source: Haver Analytics.

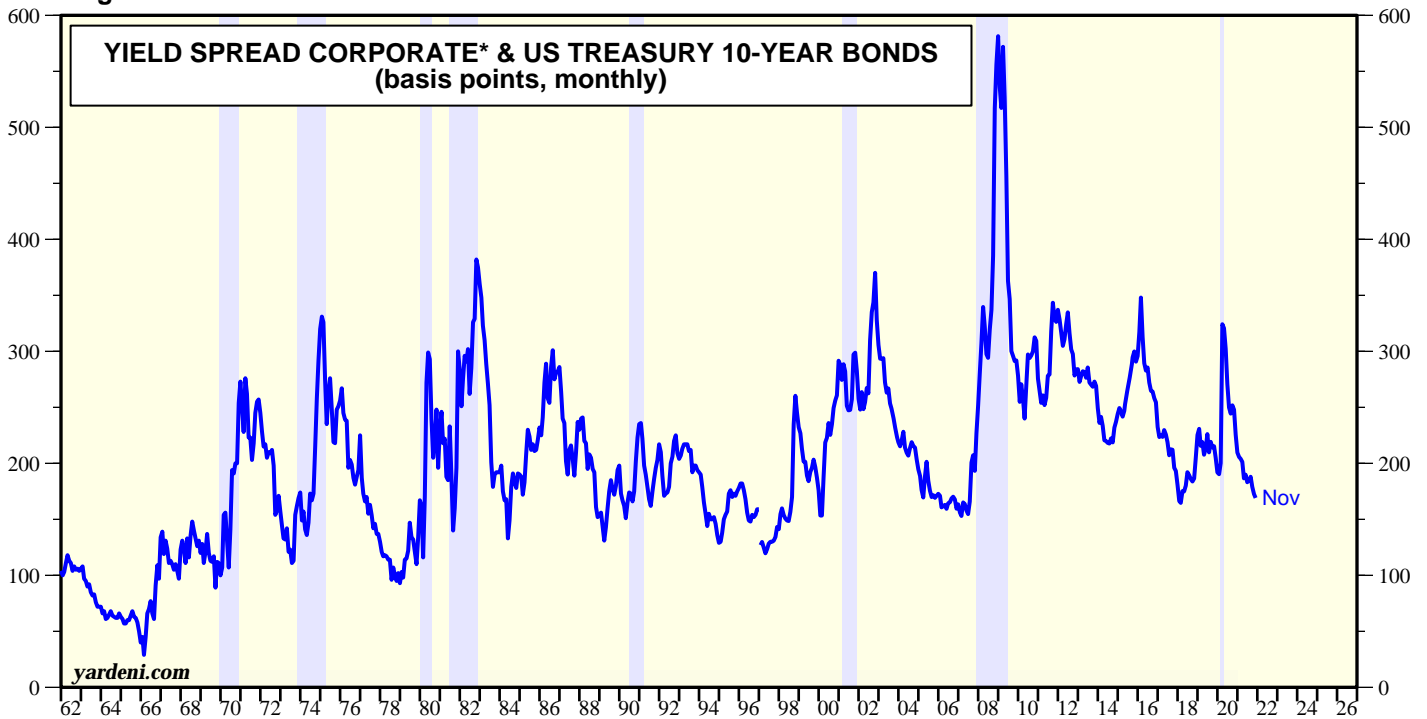
Figure 40.



\* Moody's seasoned Baa corporate bond yield from 1962 to 1996, then Bank of America Merrill Lynch A-BBB corporate bond yield.  
Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
Source: Federal Reserve Board.

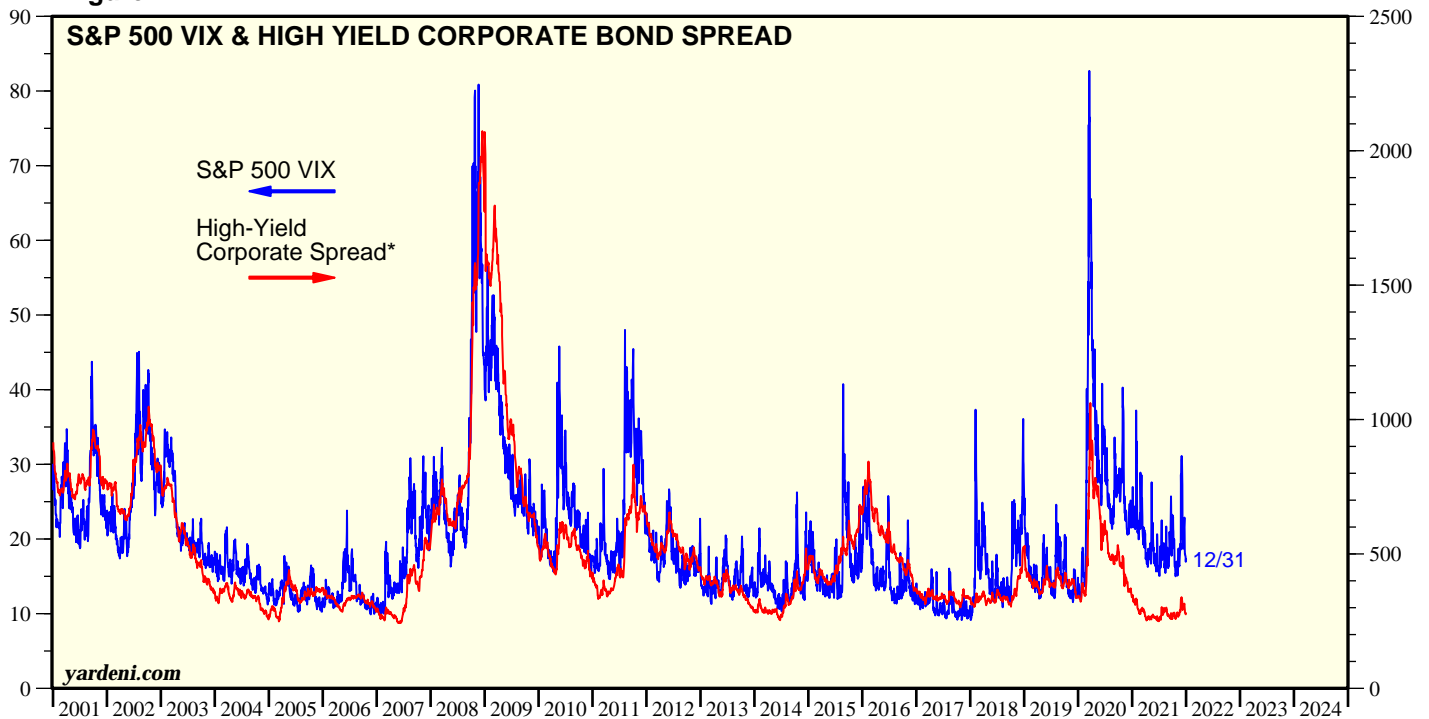
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Figure 41.



\* Moody's seasoned Baa corporate bond yield from 1962 to 1996, then Bank of America Merrill Lynch A-BBB corporate bond yield.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Federal Reserve Board.

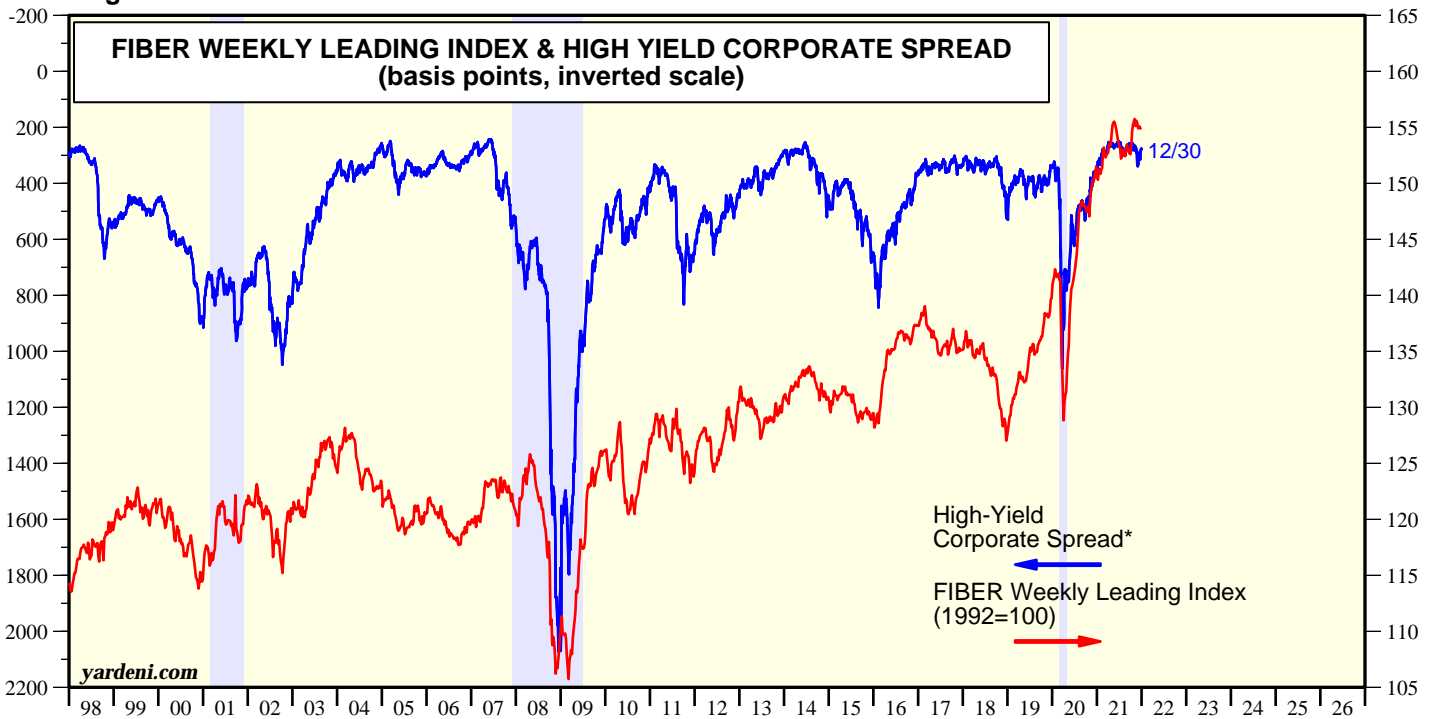
Figure 42.



\* US high-yield corporate bond yield less US Treasury 10-year bond yield (basis points).  
 Source: Chicago Board Options Exchange, Bank of America Merrill Lynch, and Federal Reserve Board.

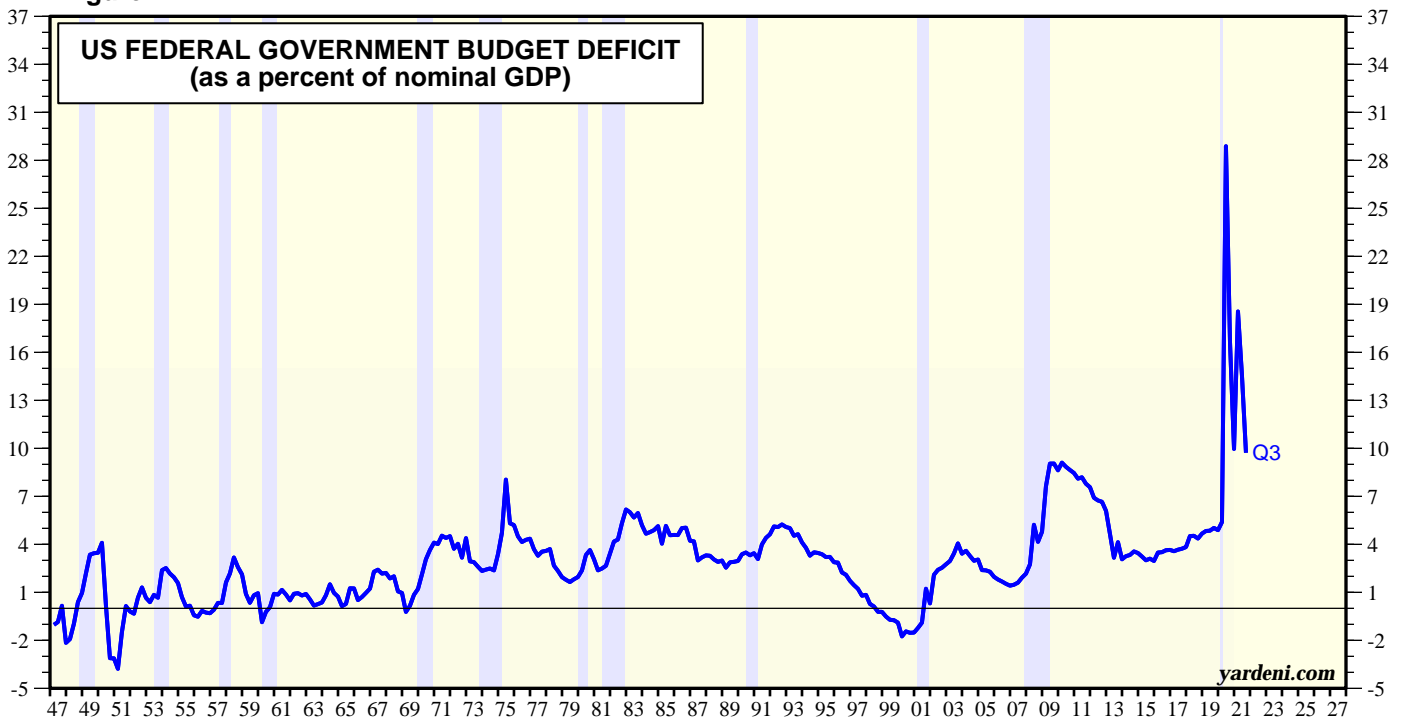
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Figure 43.



\* High yield corporate less US Treasury 10-year bond yield.  
Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
Source: Merrill Lynch, Federal Reserve Board, and Foundation of International Business & Economic Research (FIBER).

Figure 44.

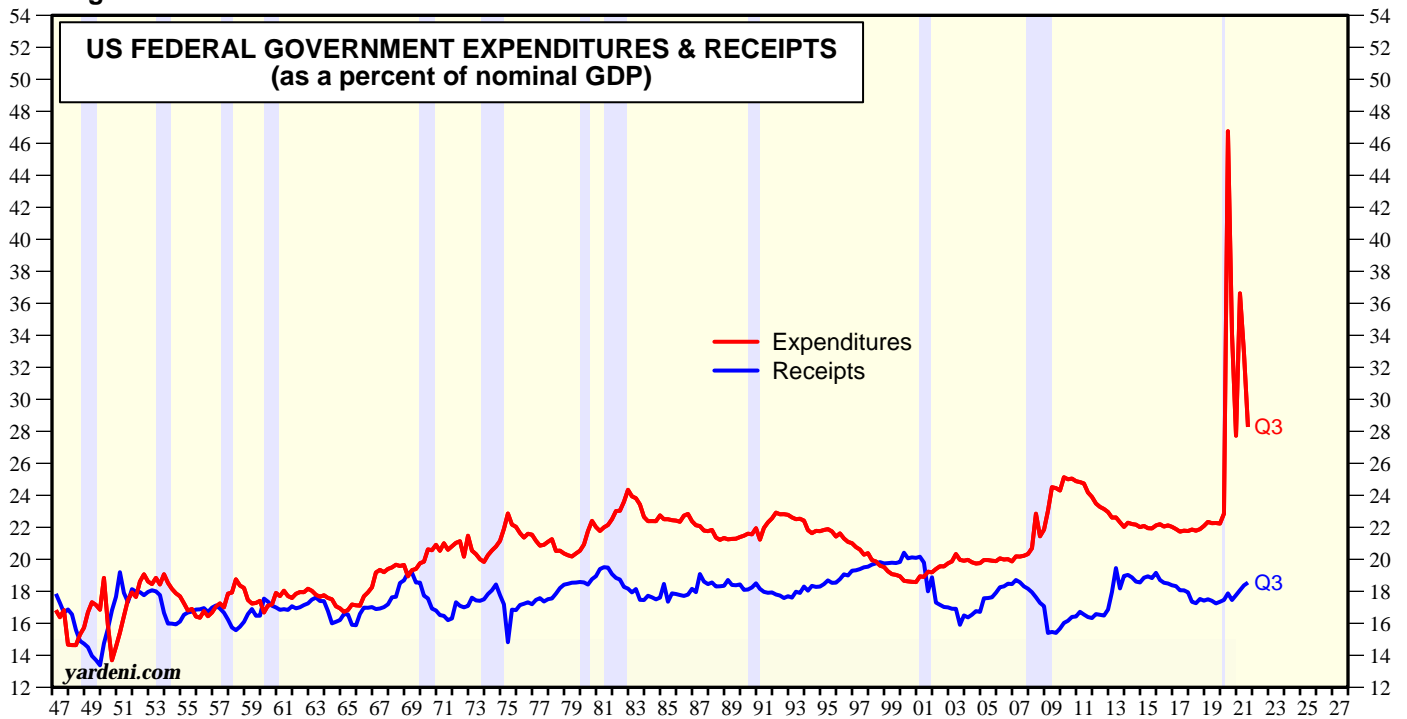


Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
Source: Bureau of Economic Analysis.



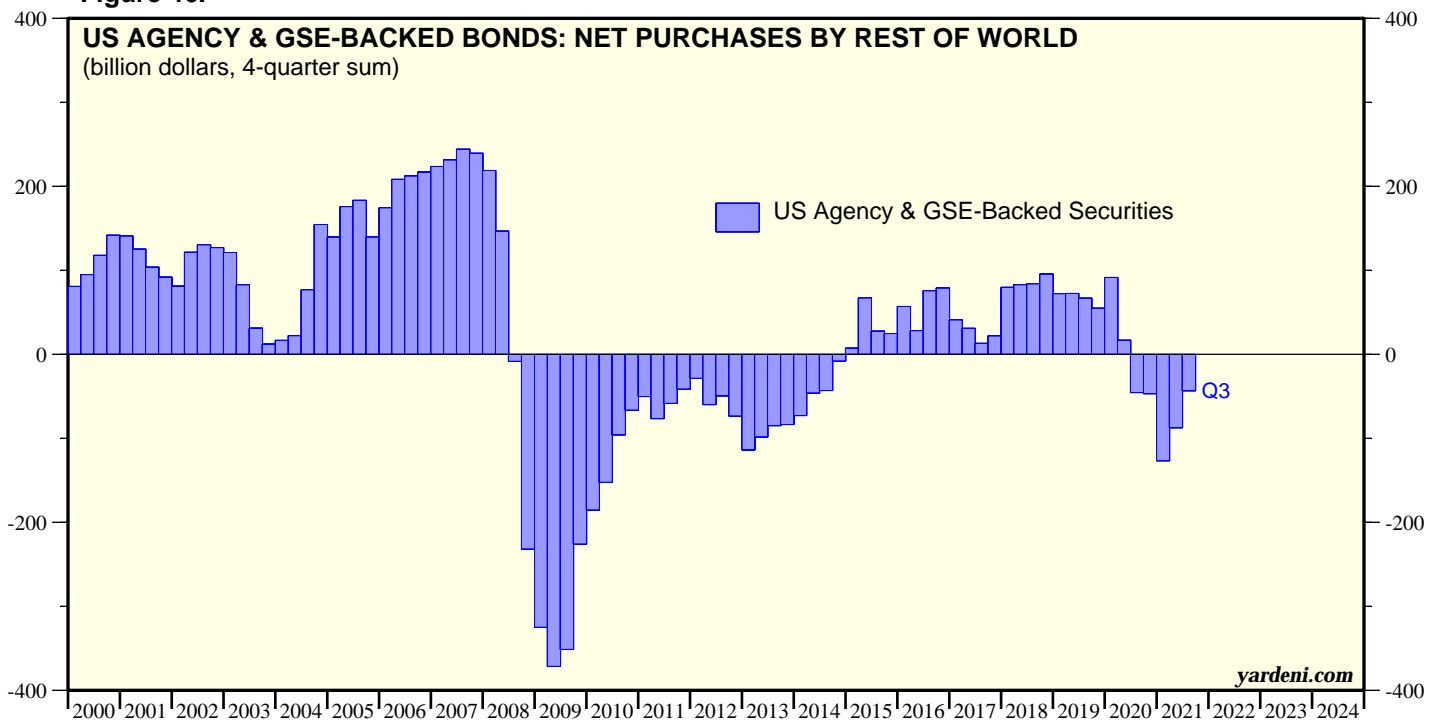
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Figure 45.



Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
Source: Bureau of Economic Analysis.

Figure 46.



Source: Federal Reserve Board Financial Accounts of the United States.

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Figure 47.

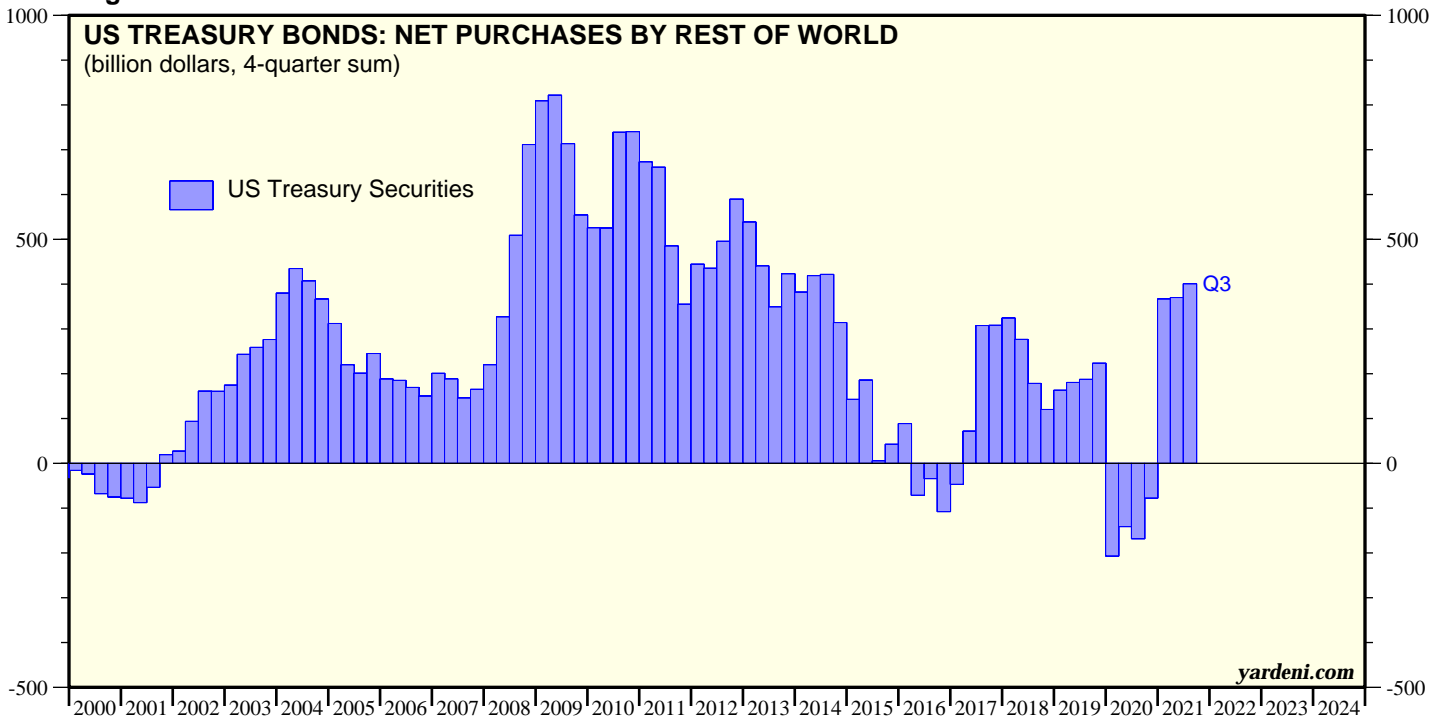
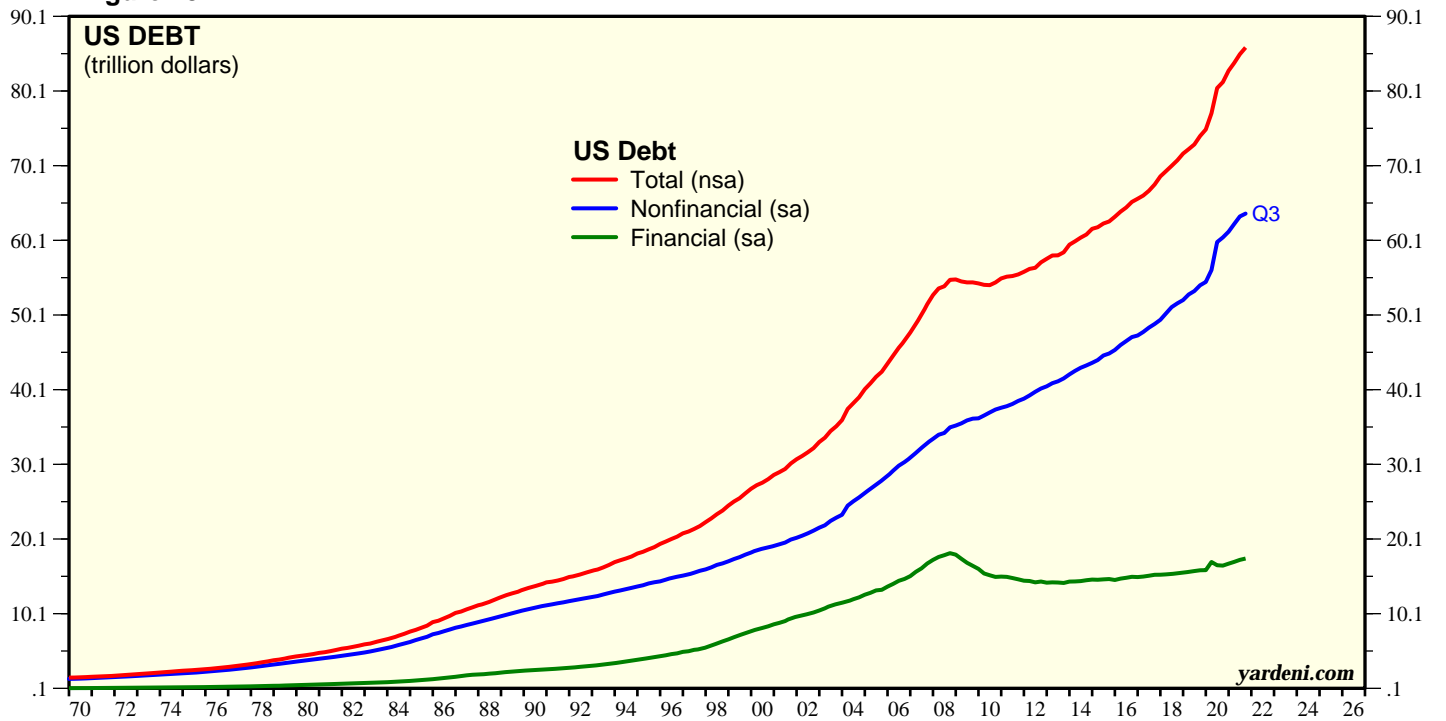
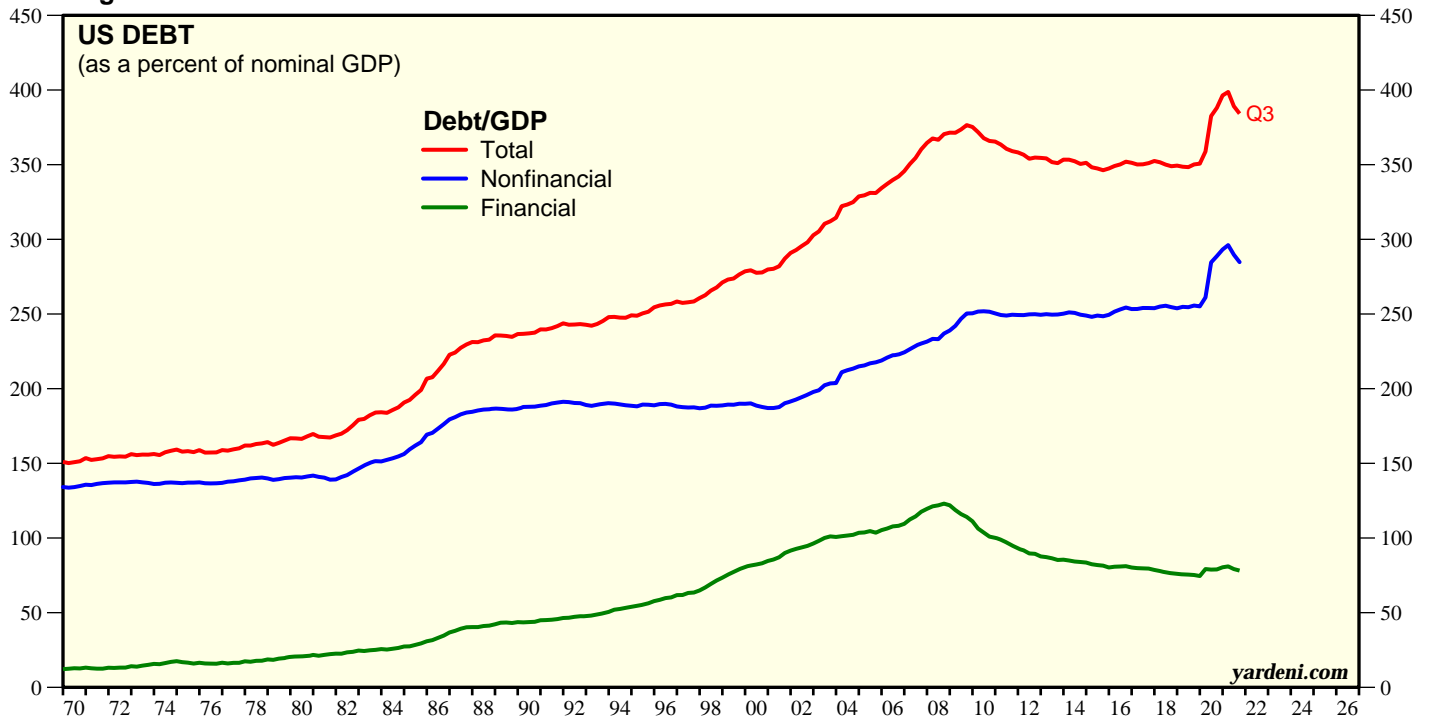


Figure 48.



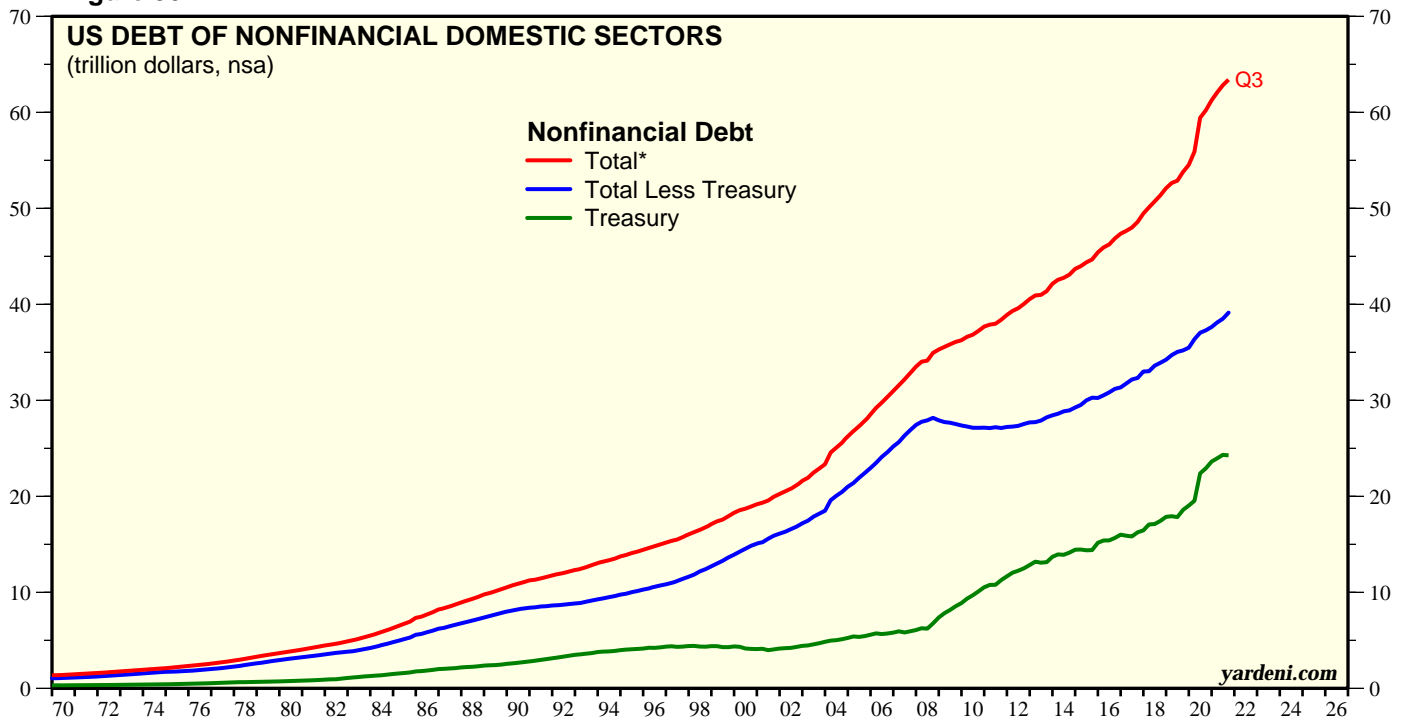
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Figure 49.



Source: Federal Reserve Board Financial Accounts of the United States.

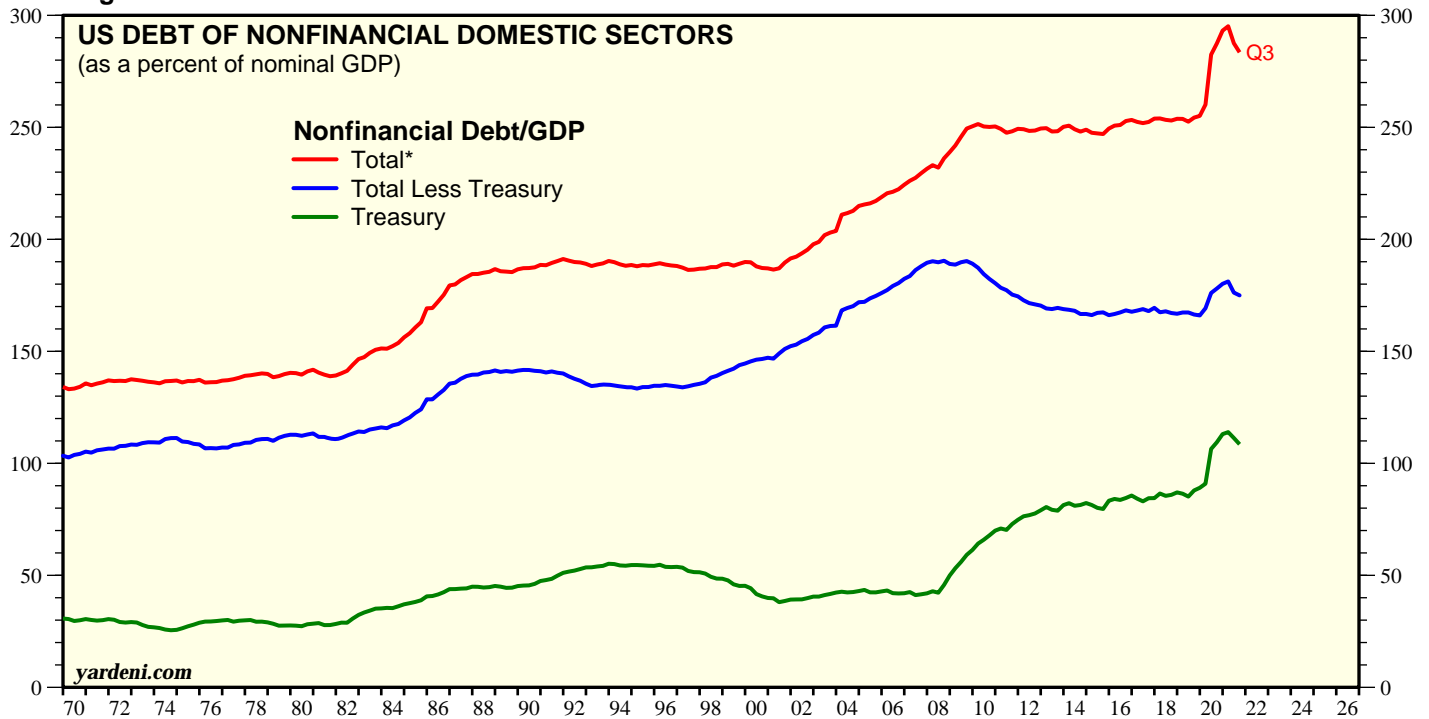
Figure 50.



\* Includes mortgage, consumer, business, and US Treasury debt.  
Source: Federal Reserve Board Financial Accounts of the United States.

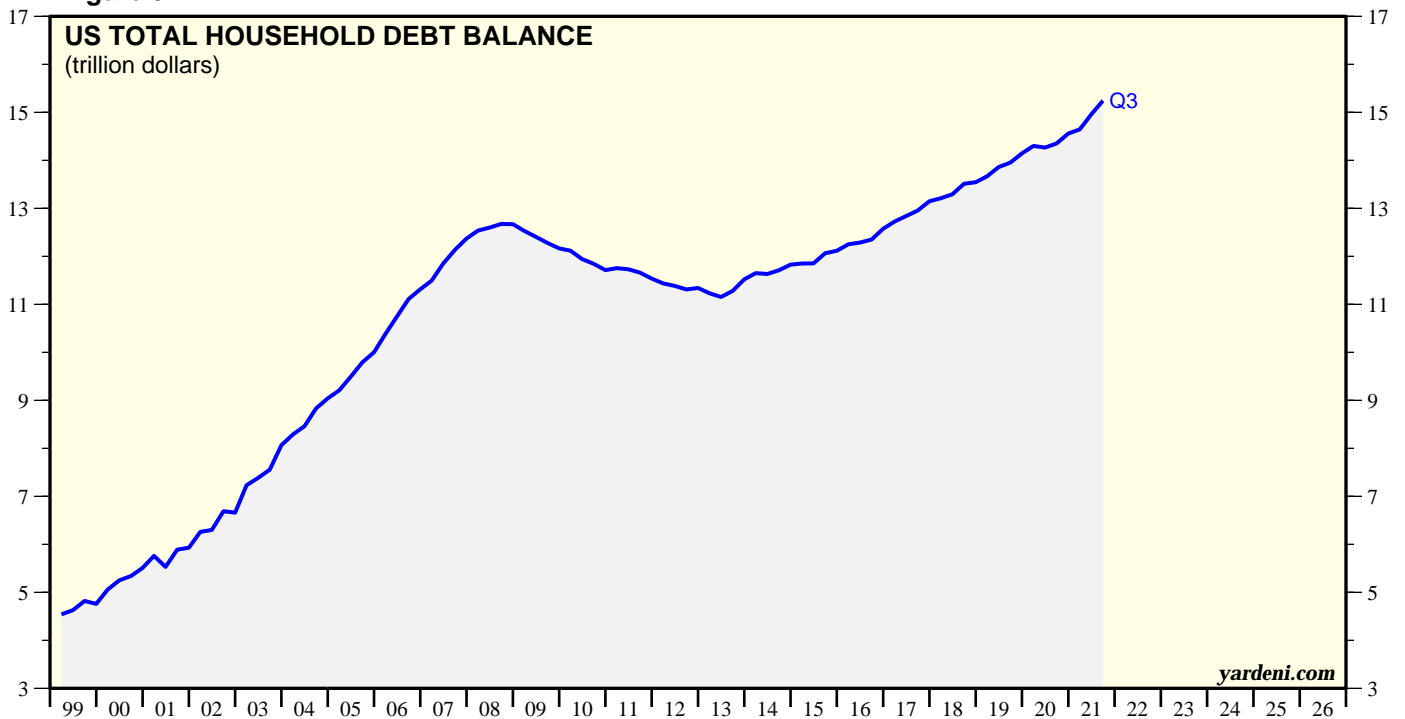
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Figure 51.



\* Includes mortgage, consumer, business, and government debt.  
Source: Federal Reserve Board Financial Accounts of the United States.

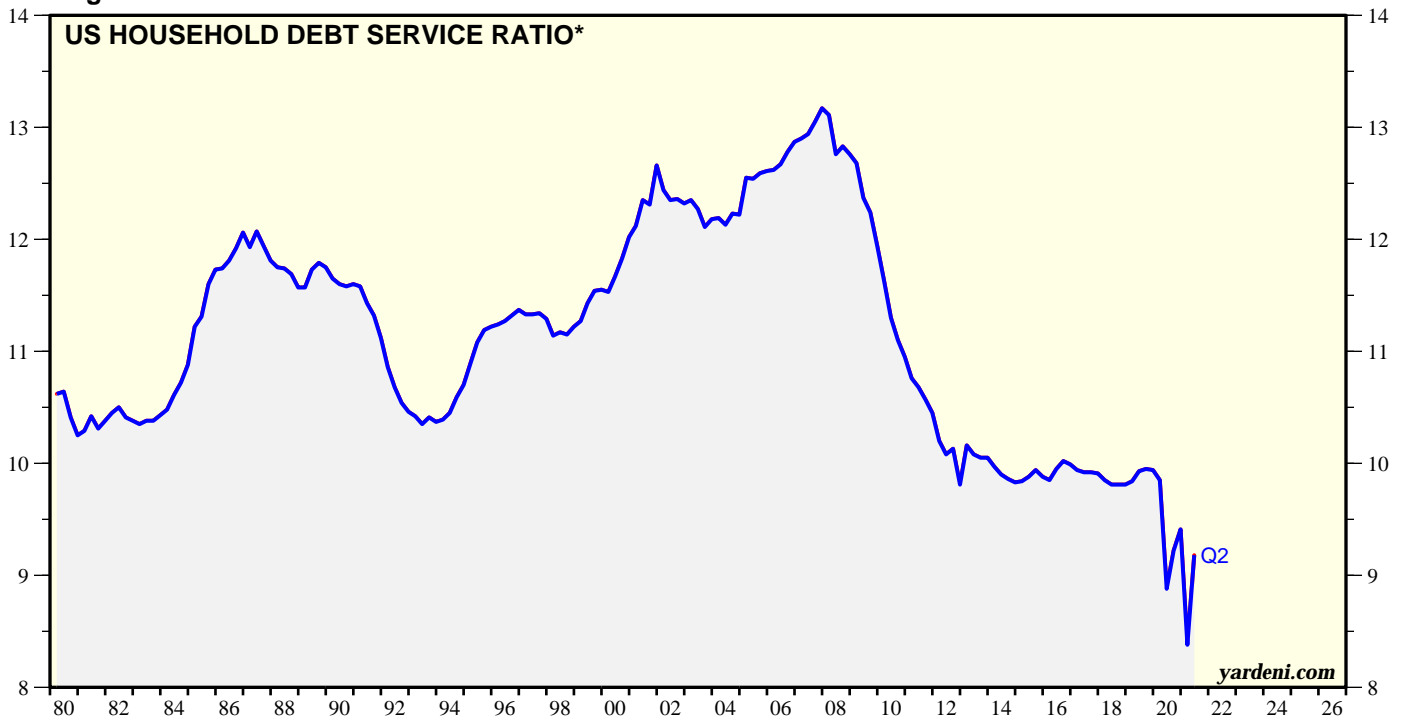
Figure 52.



Source: New York Fed Credit Panel.

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Figure 53.



\* Ratio of debt service payments to disposable personal income.  
Source: Federal Reserve Board.

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