

# Chart Collection for Morning Briefing

Yardeni Research, Inc.

*September 26, 2022*

**Dr. Edward Yardeni**

516-972-7683  
eyardeni@yardeni.com

**Mali Quintana**

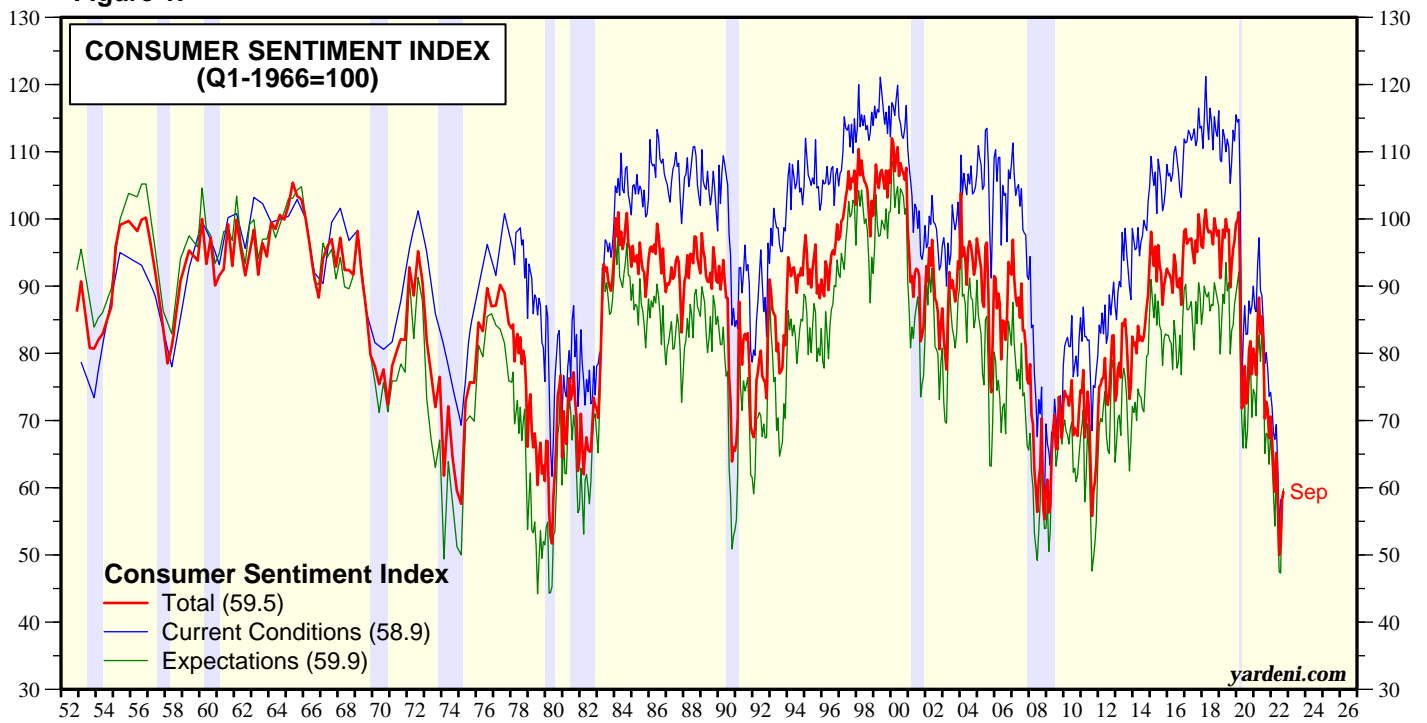
480-664-1333  
aquintana@yardeni.com

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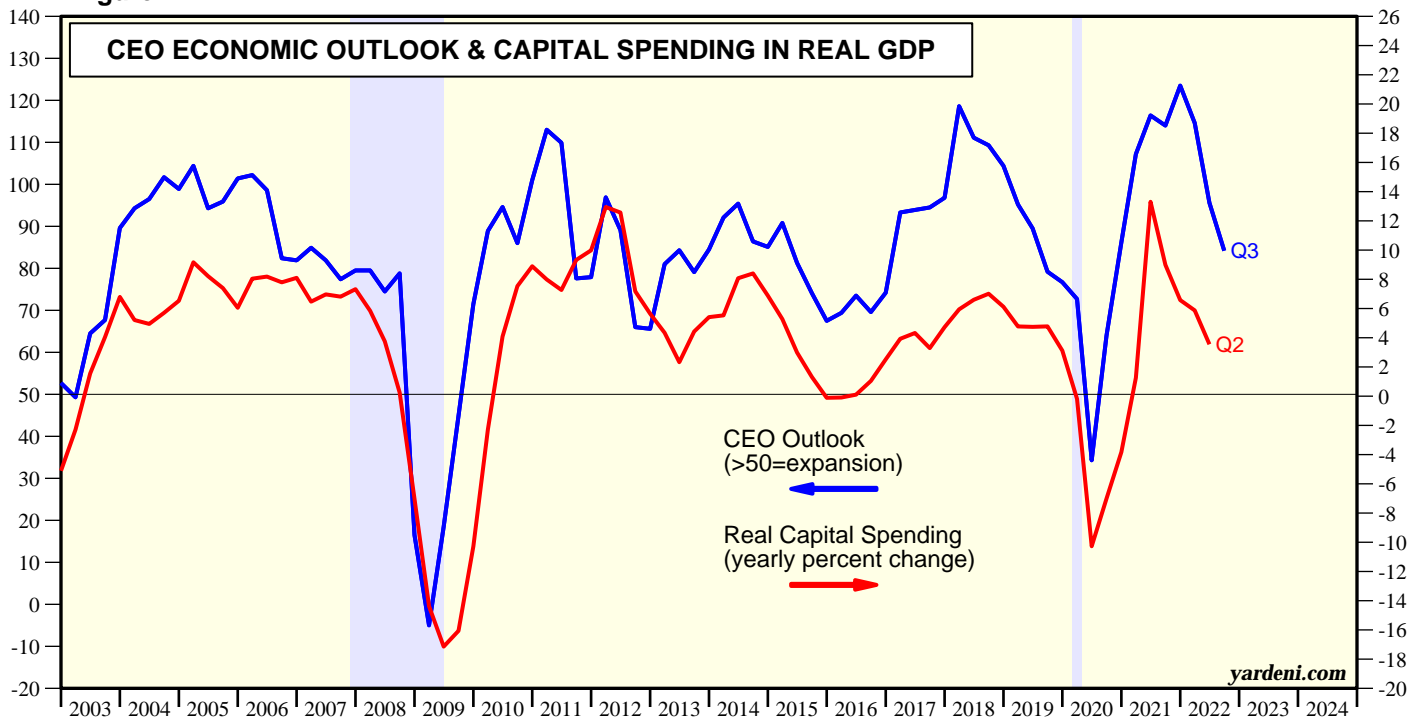
*thinking outside the box*

Figure 1.



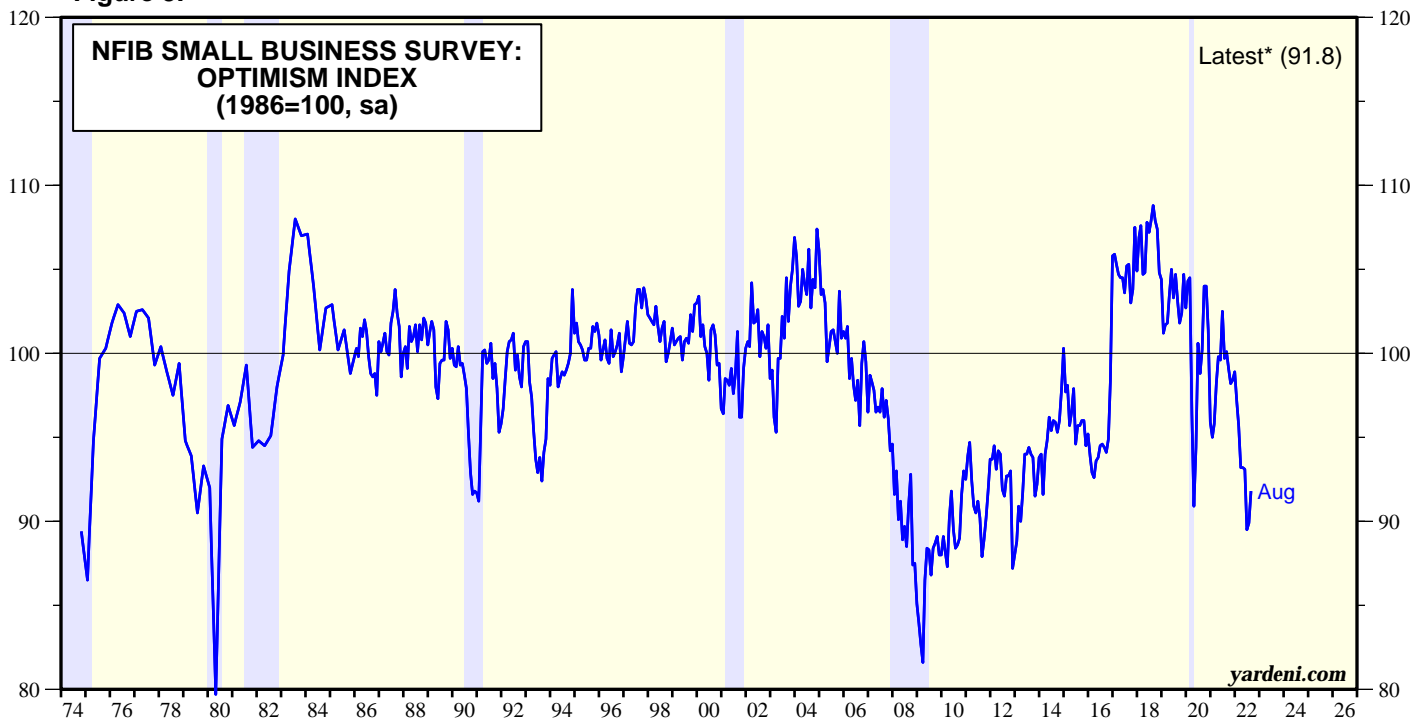
Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: University of Michigan Survey Research Center

Figure 2.



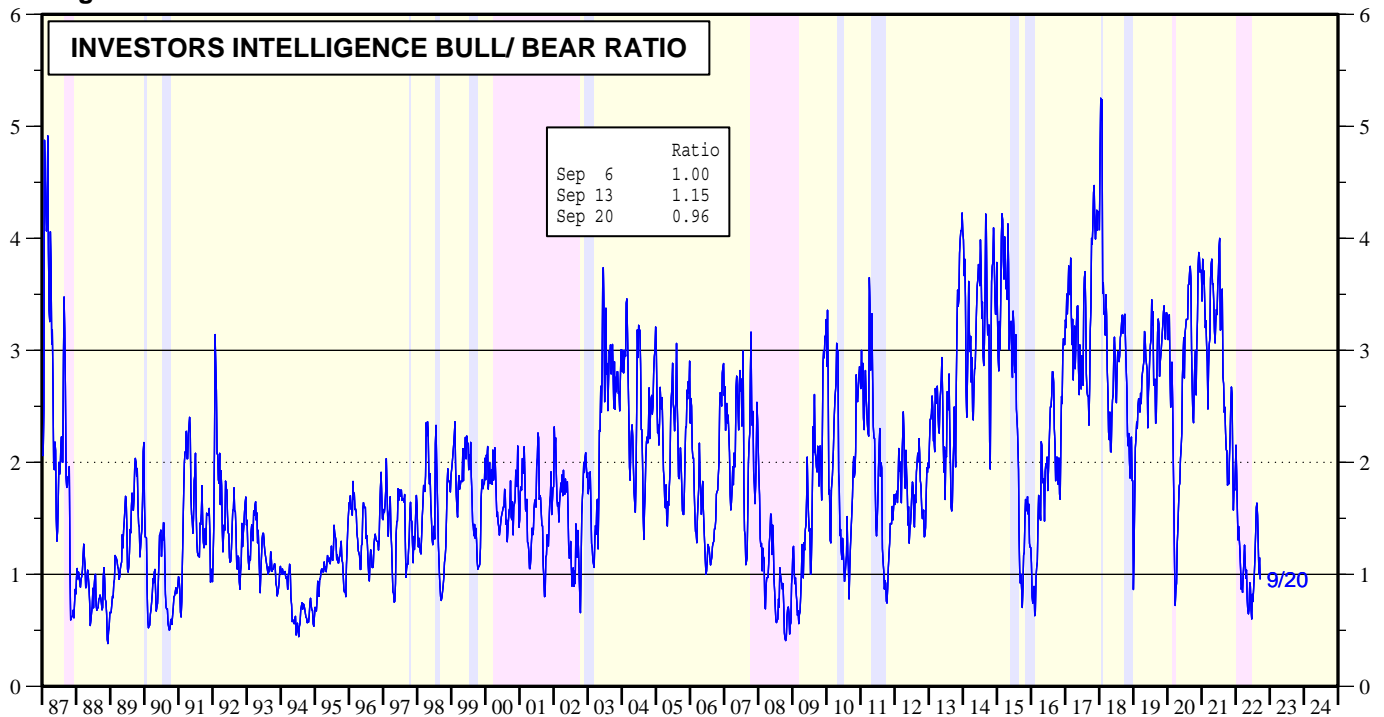
Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Business Roundtable, Bureau of Economic Analysis, and Haver Analytics.

**Figure 3.**



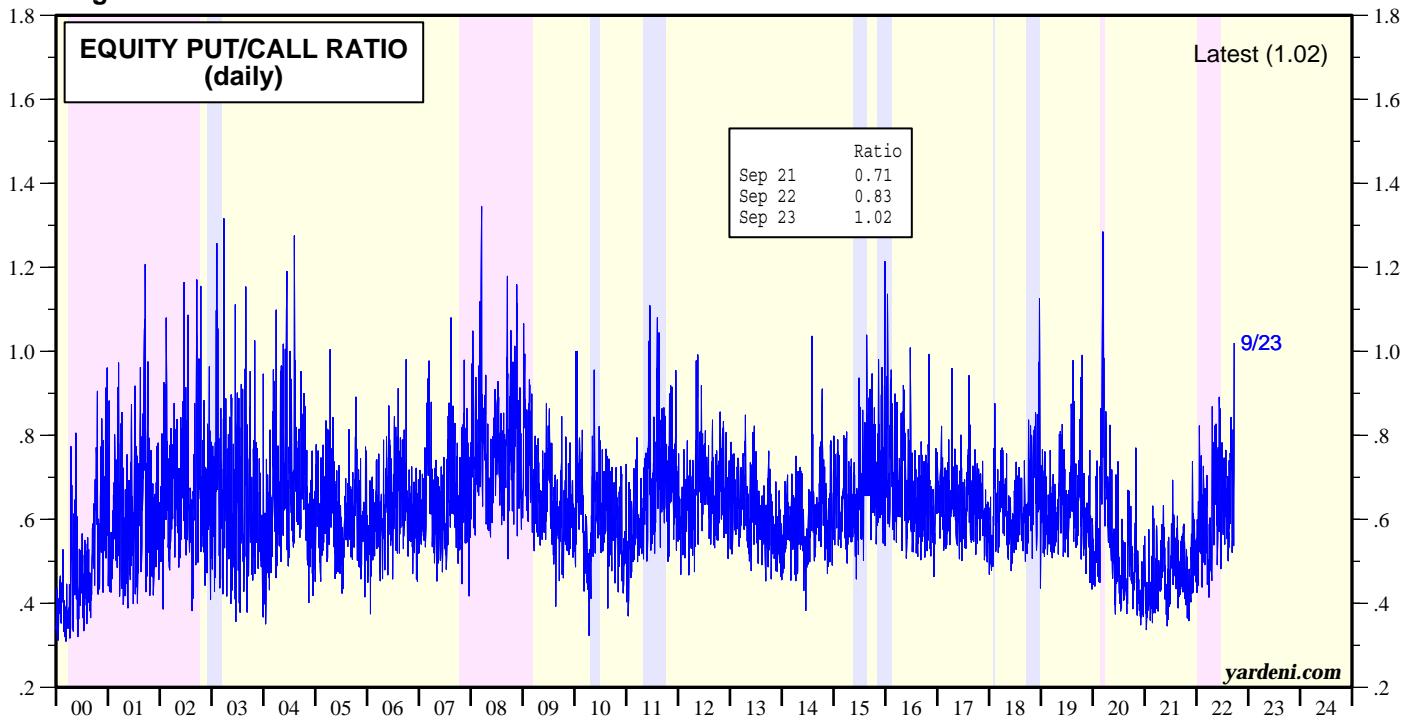
\* First month of every quarter from 1974 to 1986, then monthly.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: National Federation of Independent Business.

**Figure 4.**



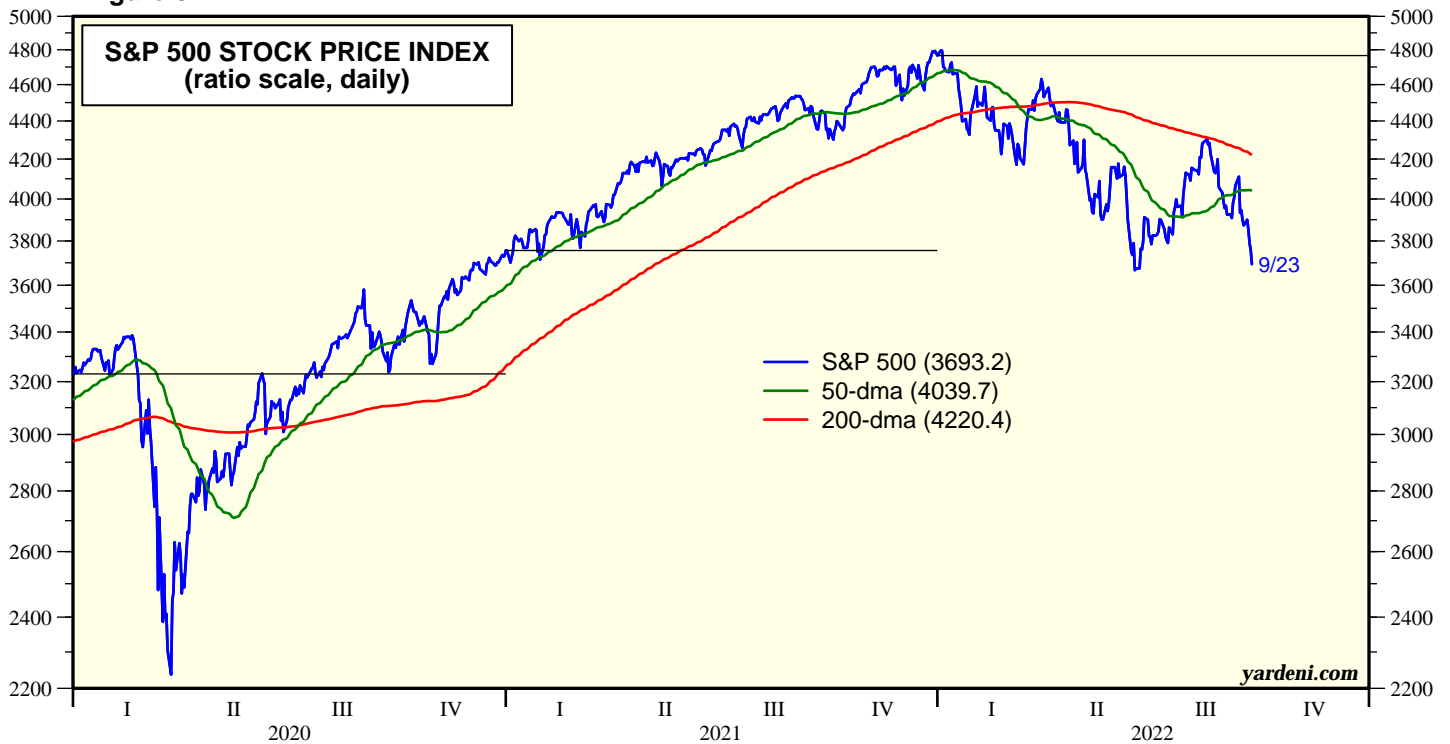
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%.  
 Yellow areas are bull markets.  
 Source: Investors Intelligence.

**Figure 5.**



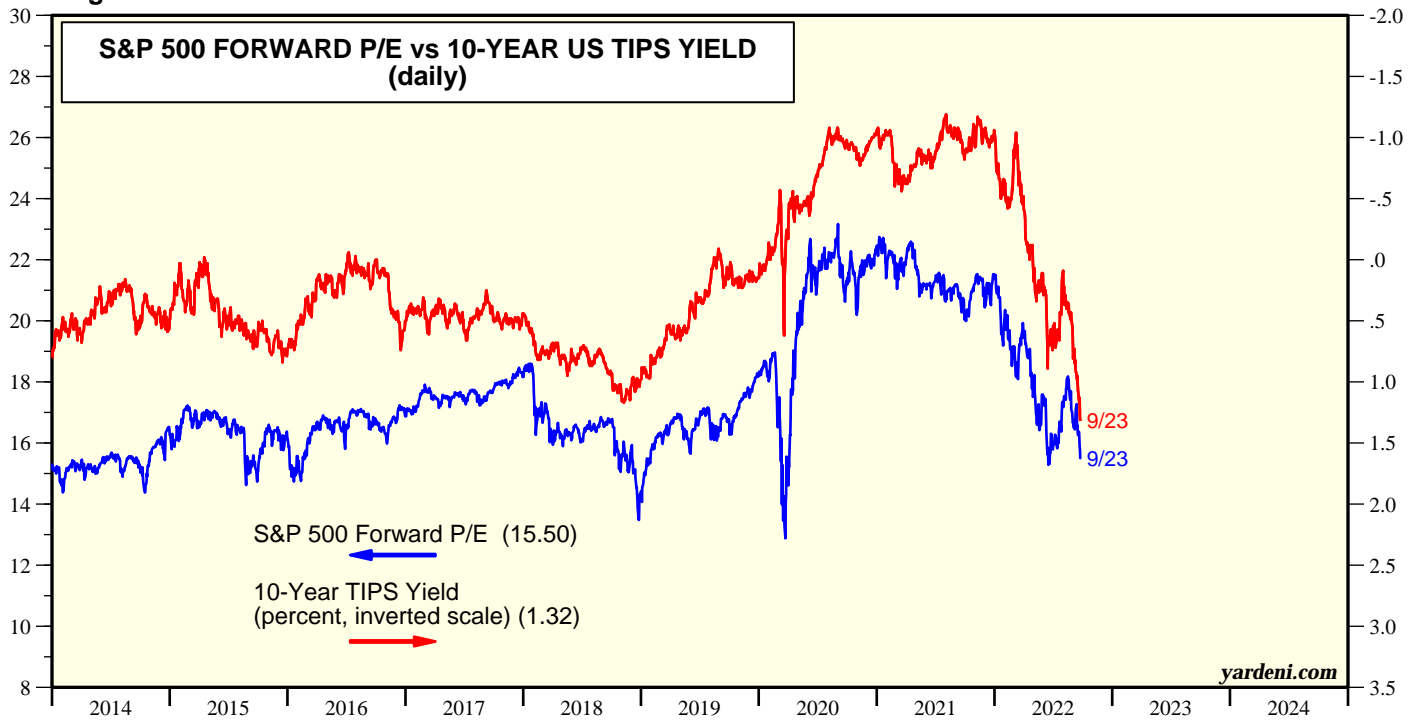
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%. Yellow areas are bull markets.  
Source: Chicago Board Options Exchange.

**Figure 6.**



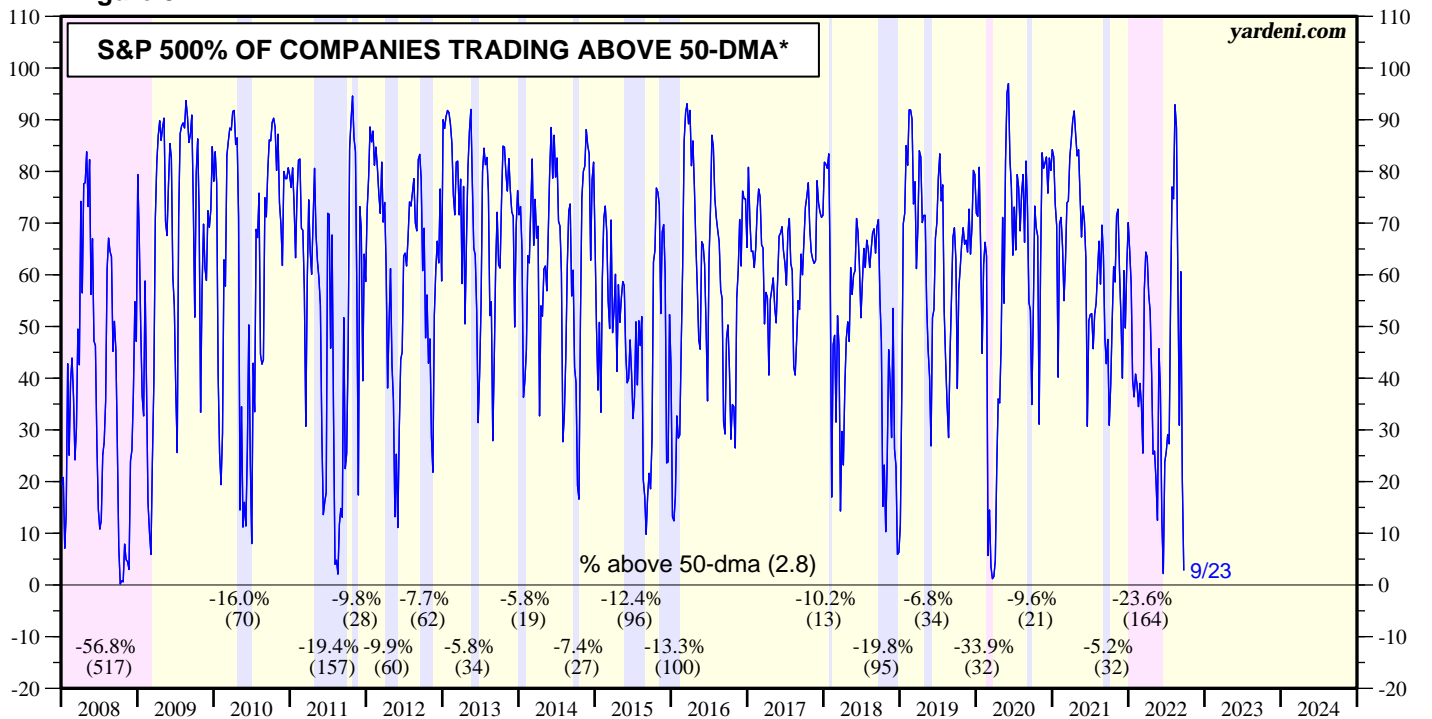
Note: Horizontal black lines are previous years' closing price index.  
Source: Standard & Poor's.

Figure 7.



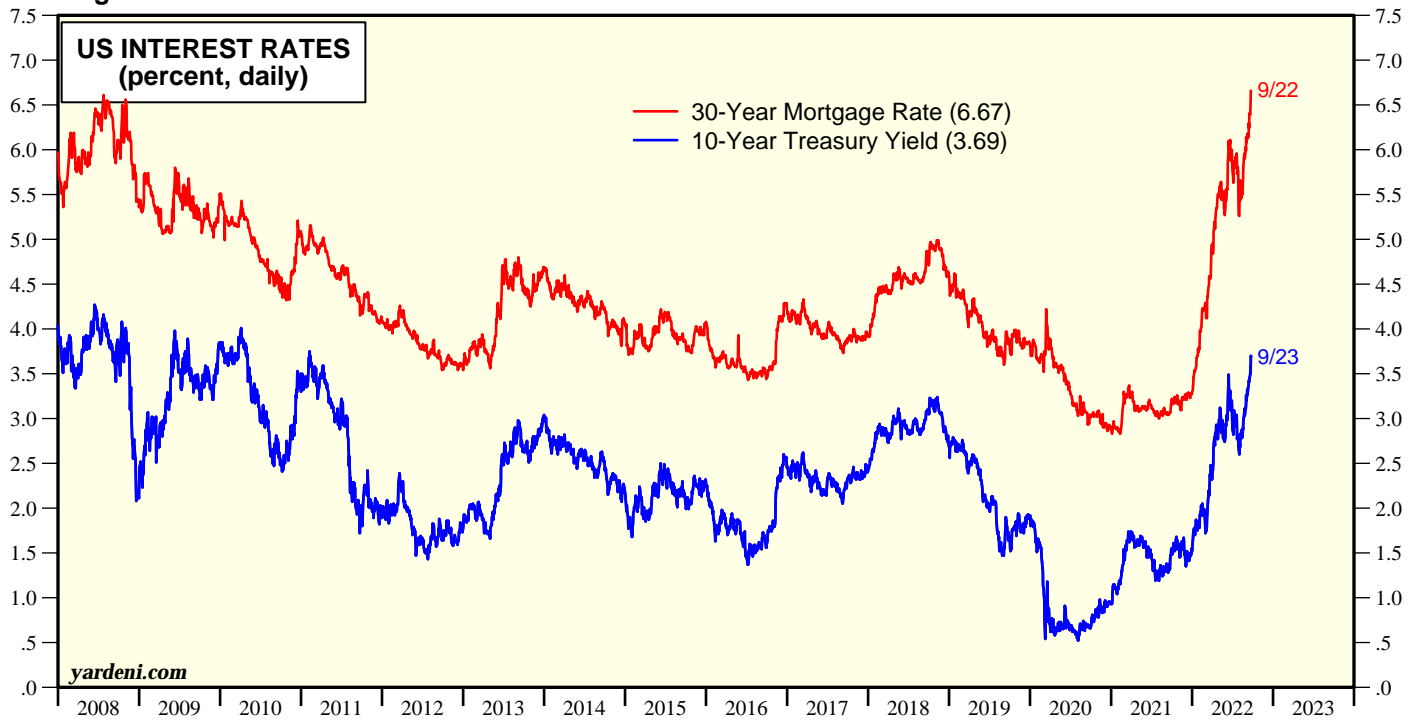
Source: Federal Reserve Board, I/B/E/S data by Refinitiv and Standard & Poor's.

Figure 8.



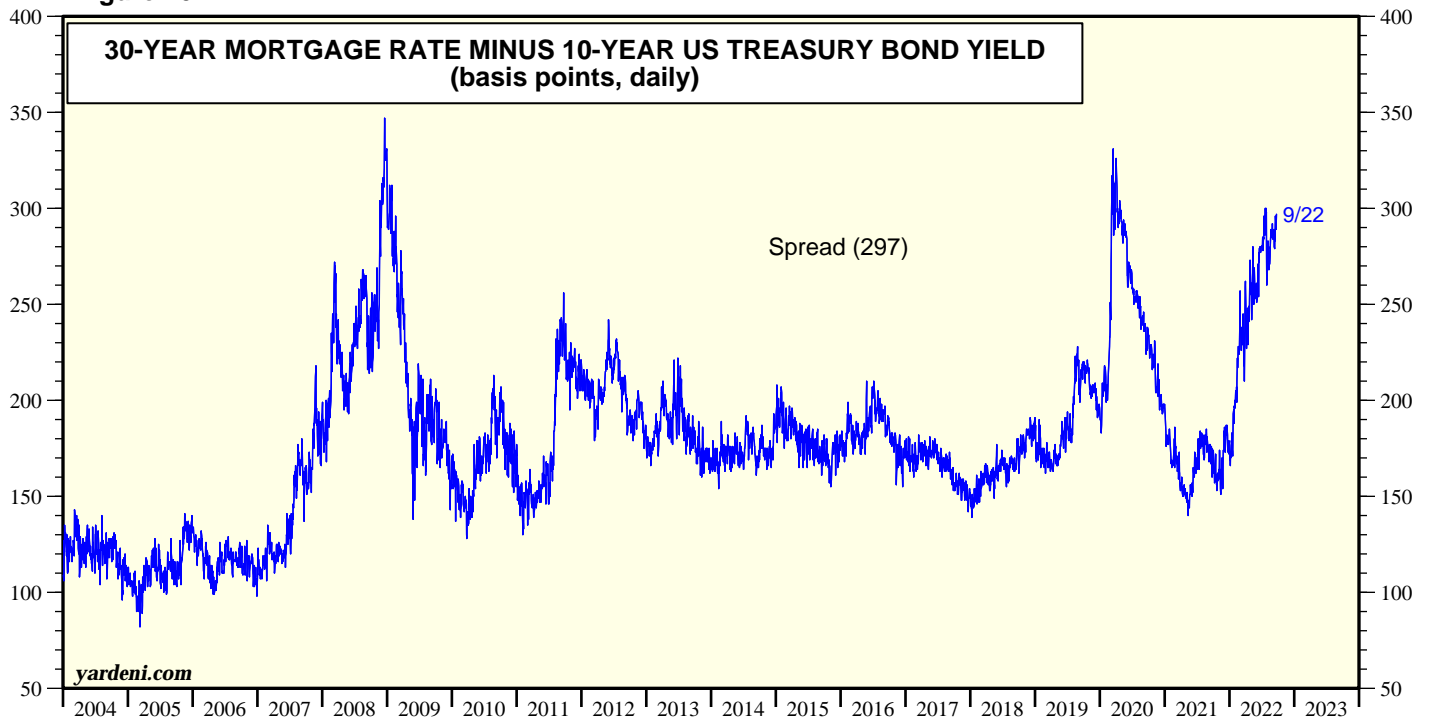
\* Using end of week price data to calculate equivalent 10-wma and 40-wma to approximate their 50-dma and 200-dmas.  
Source: I/B/E/S data by Refinitiv.

Figure 9.



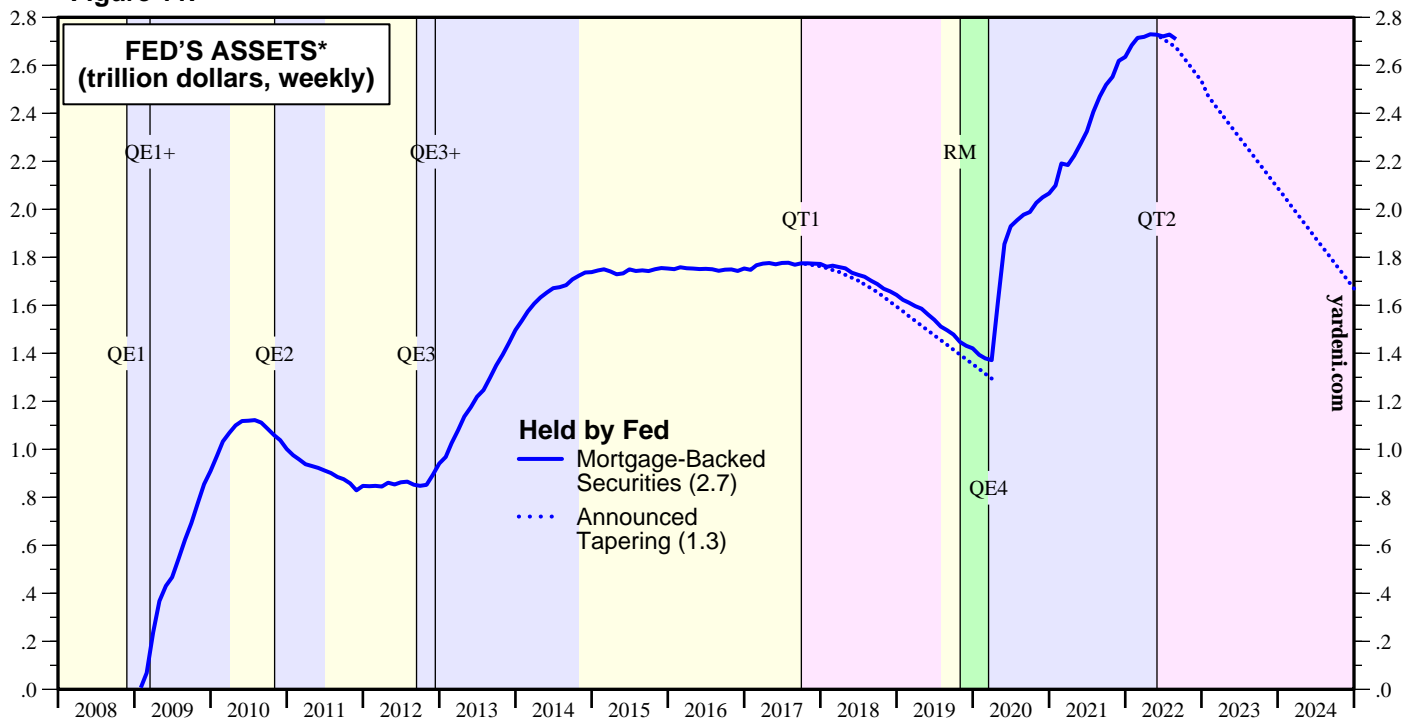
Source: Board of Governors of the Federal Reserve System.

Figure 10.



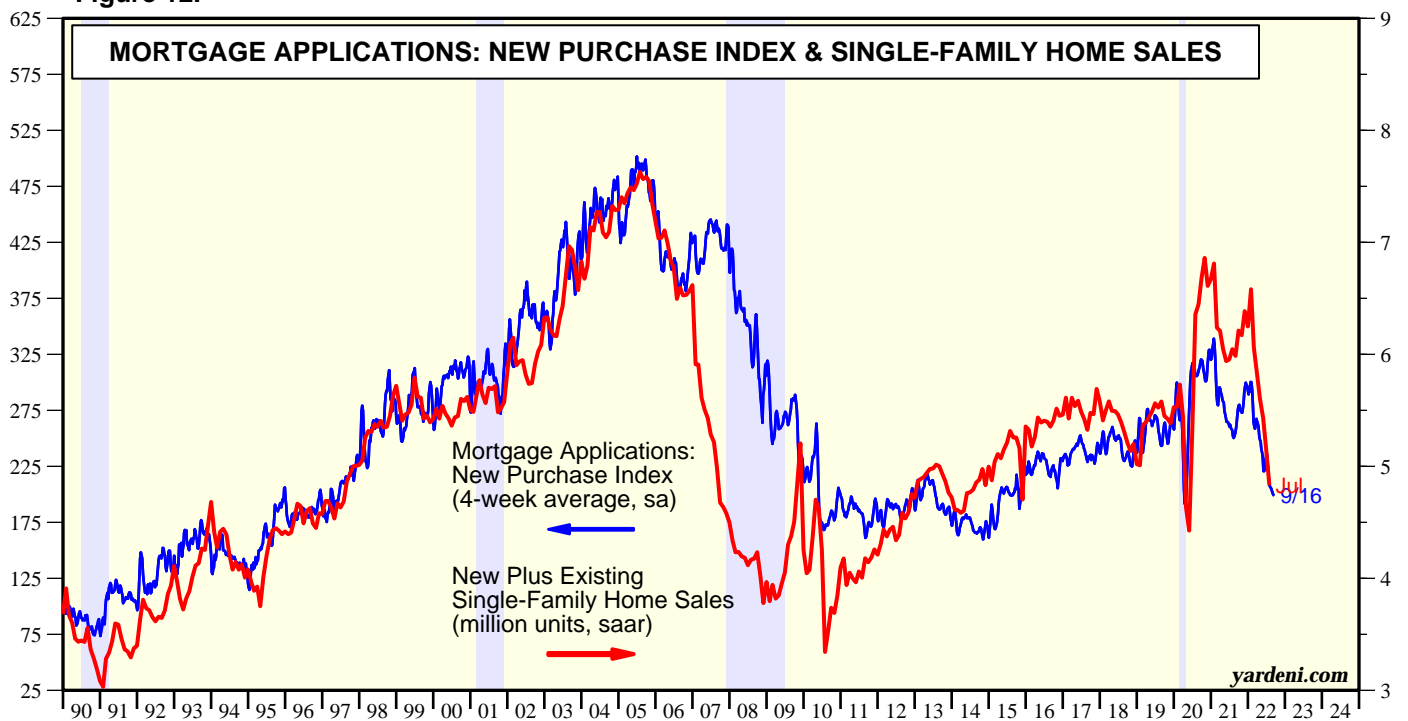
Source: The Wall Street Journal and Federal Reserve Board.

**Figure 11.**



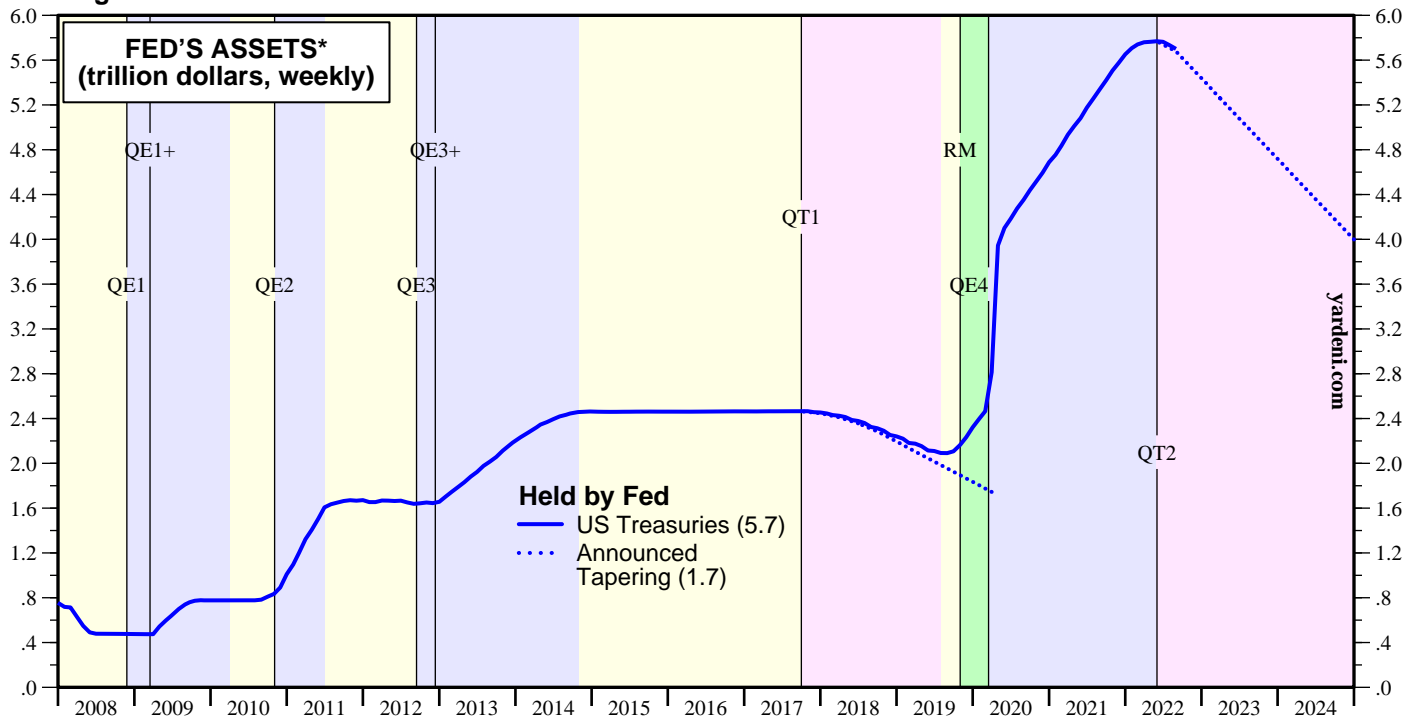
\* Averages of daily figures for weeks ending Wednesday. Securities held by Fed include US Treasuries, Agency debt, and mortgage-backed securities. Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) = balance sheet pared by \$675bn. RM (11/1/19-3/15/20) = reserve management, \$60bn/month in Treasury bills. QE4 (3/16/20-infinity). QT2 = balance sheet pared by \$95 billion per month. Source: Federal Reserve Board.

**Figure 12.**



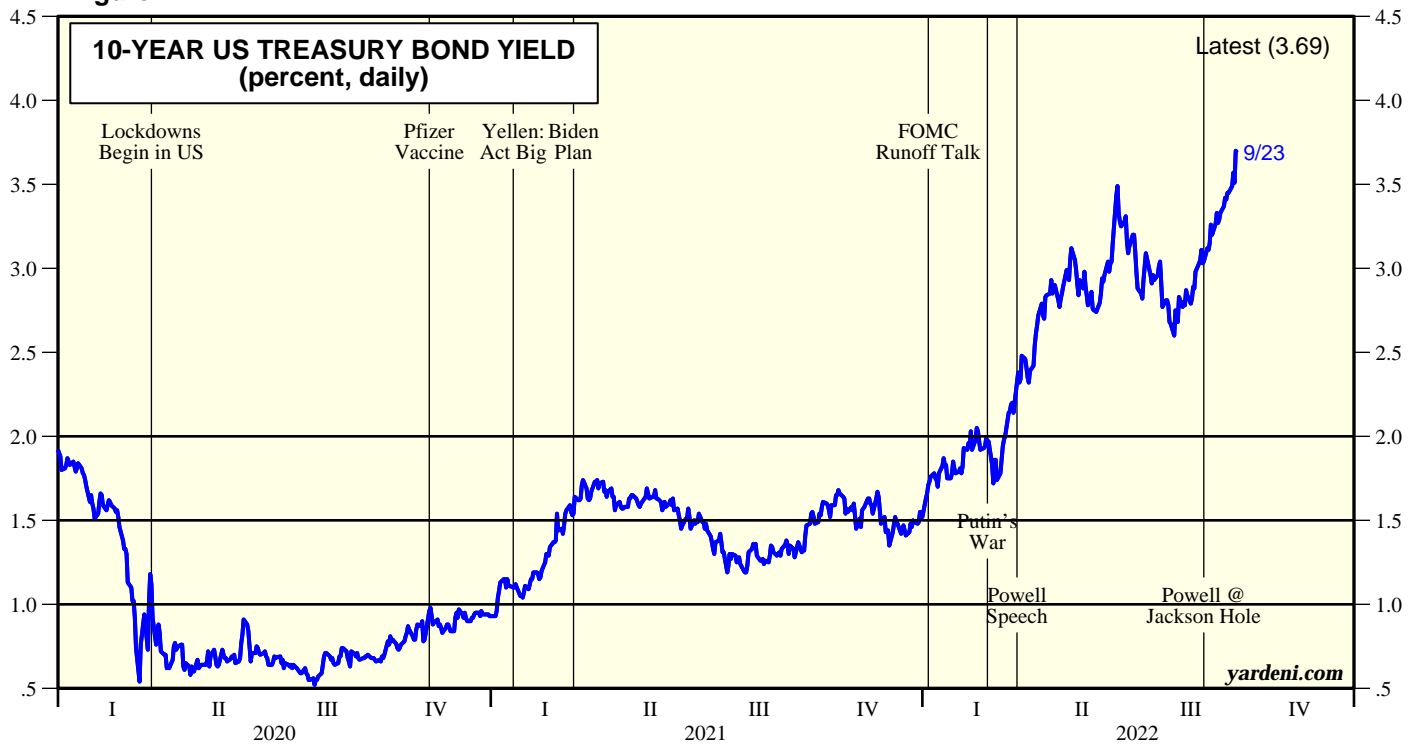
Note: Shaded areas are recessions according to the National Bureau of Economic Research. Source: Mortgage Bankers of America.

**Figure 13.**



\* Averages of daily figures for weeks ending Wednesday. Securities held by Fed include US Treasuries, Agency debt, and mortgage-backed securities. Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) = balance sheet pared by \$675bn. RM (11/1/19-3/15/20) = reserve management, \$60bn/month in Treasury bills. QE4 (3/16/20-infinity). QT2 = balance sheet pared by \$95 billion per month. Source: Federal Reserve Board.

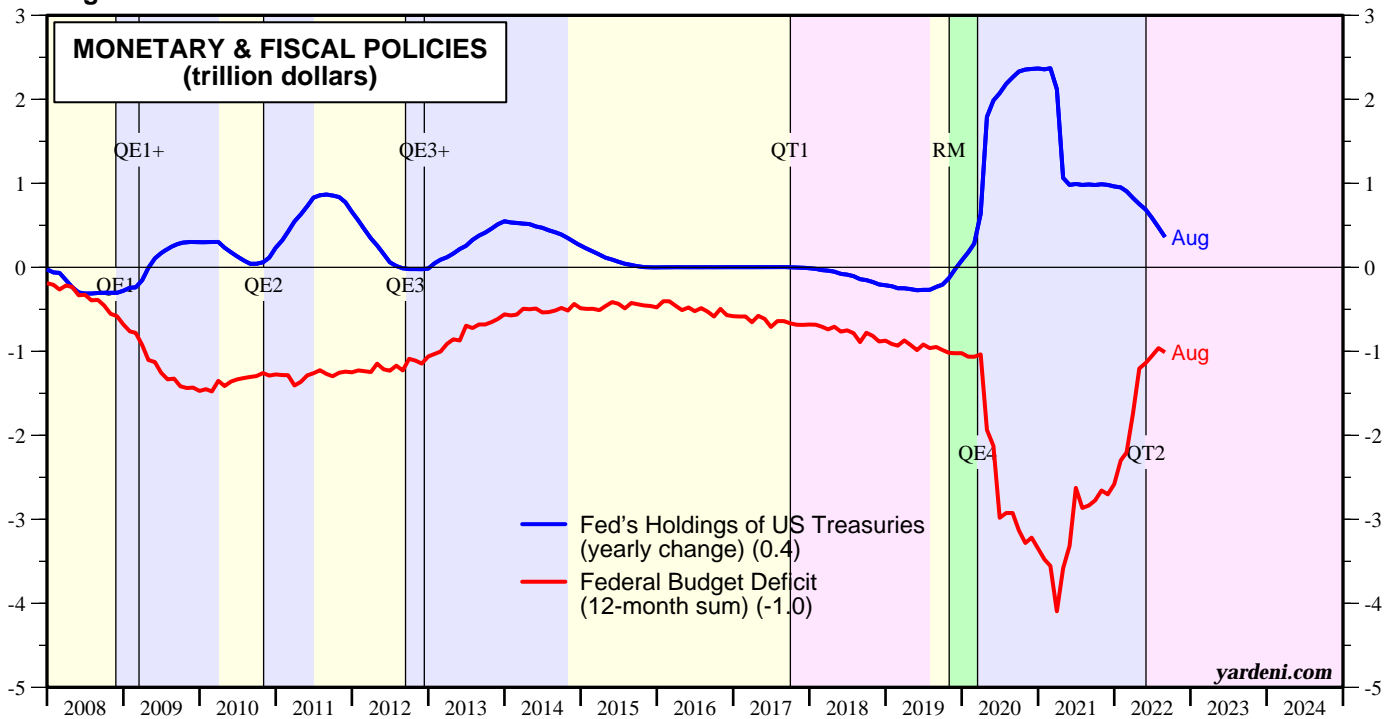
**Figure 14.**



Source: Federal Reserve Board.

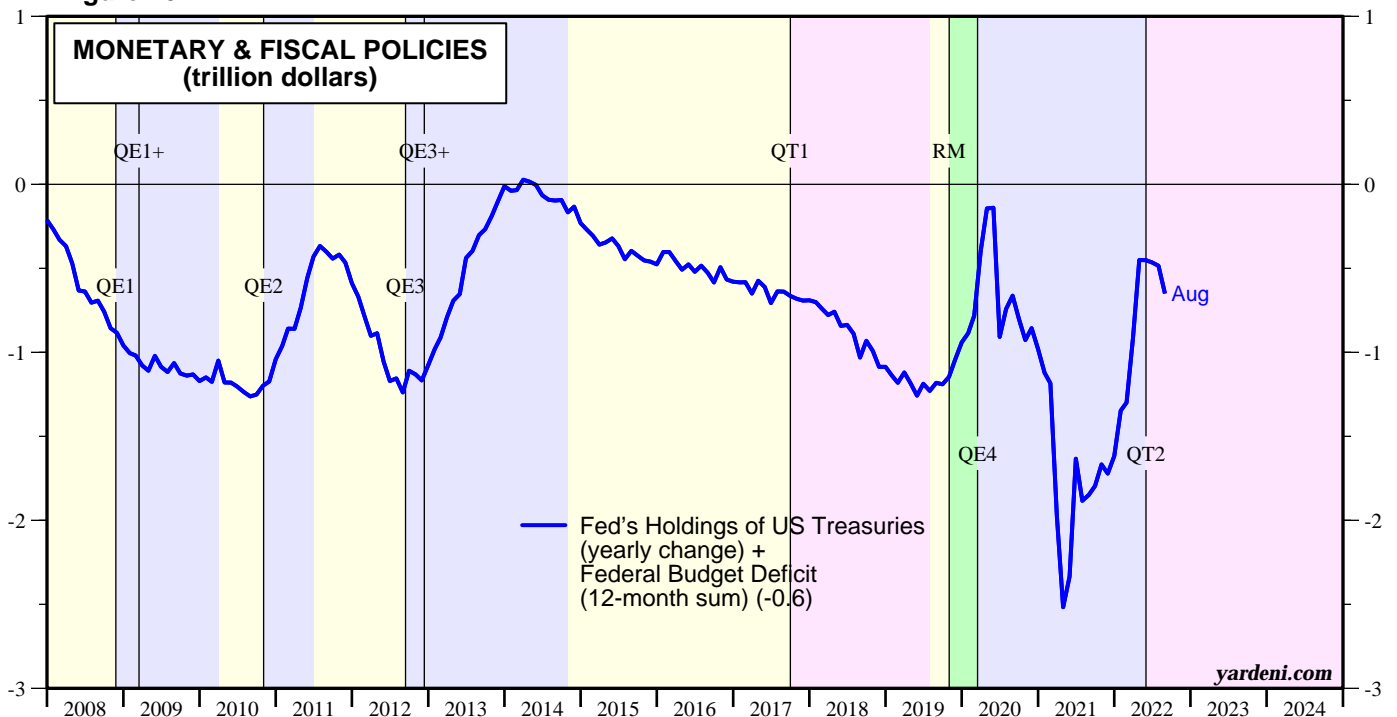


Figure 15.



Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) = balance sheet pared by \$675bn. RM (11/1/19-3/15/20) = reserve management, \$60bn/month in Treasury bills. QE4 (3/16/20-infinity). QT2 = balance sheet pared by \$95 billion per month. Source: Federal Reserve Board and US Treasury Department.

Figure 16.



Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) = balance sheet pared by \$675bn. RM (11/1/19-3/15/20) = reserve management, \$60bn/month in Treasury bills. QE4 (3/16/20-infinity). QT2 = balance sheet pared by \$95 billion per month. Source Federal Reserve Board and US Treasury Department.

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