

# Predicting the Markets Webcast: Predicting Inflation

Yardeni Research, Inc.

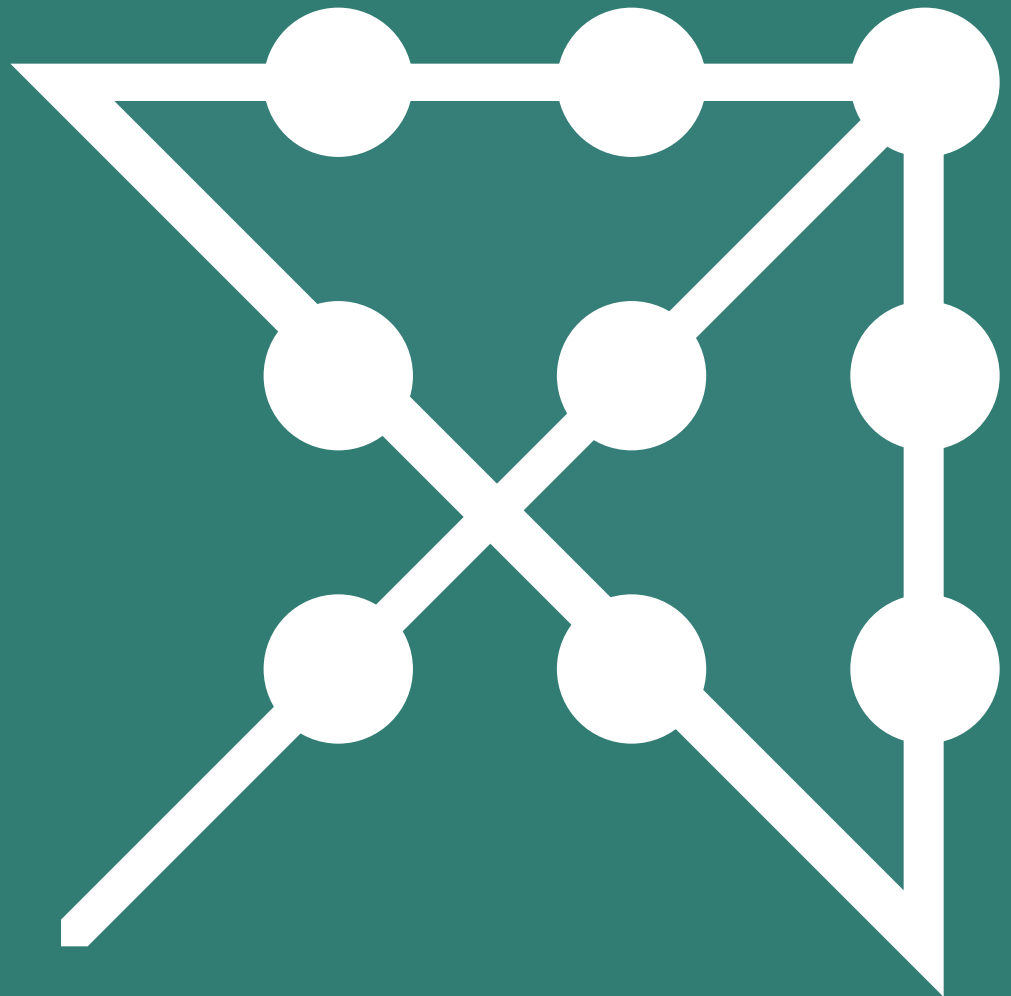
*December 22, 2023*

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*thinking outside the box*

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# History of Inflation

Figure 1.

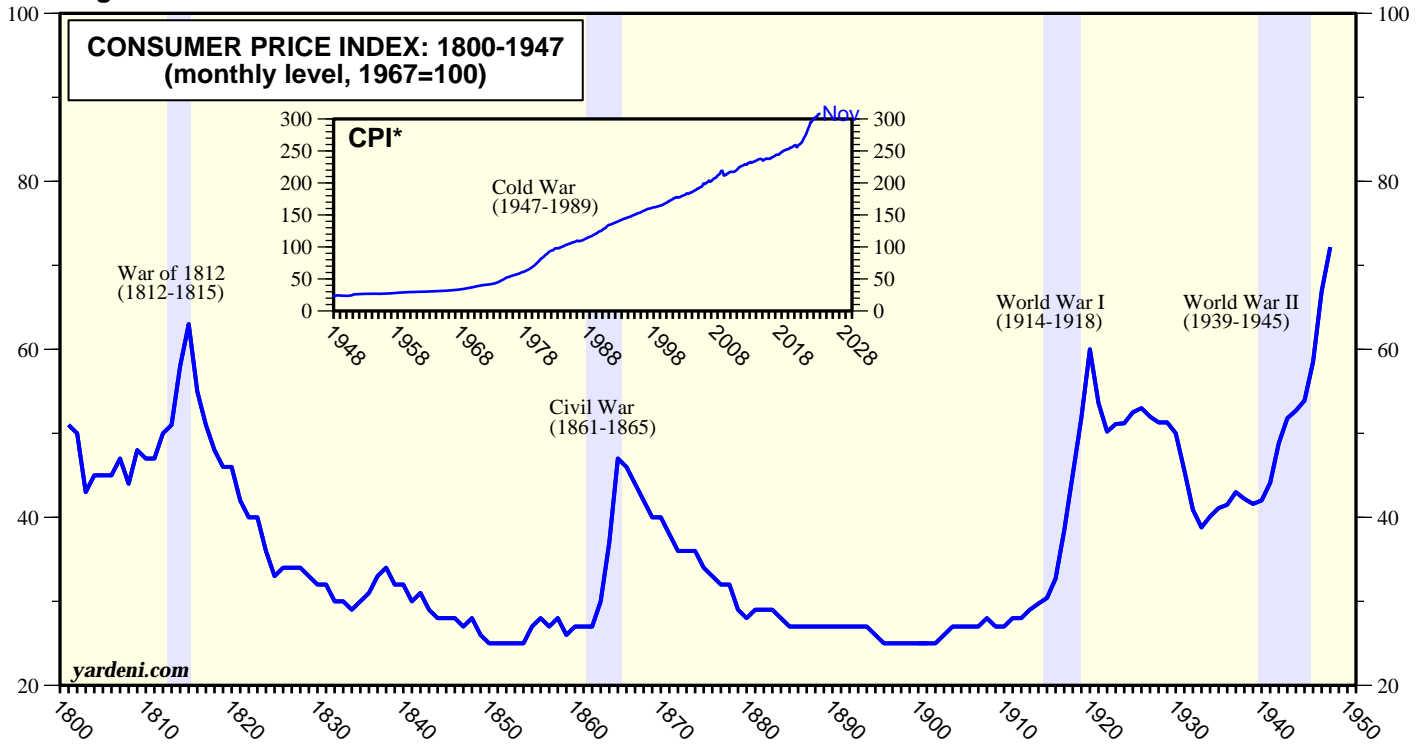
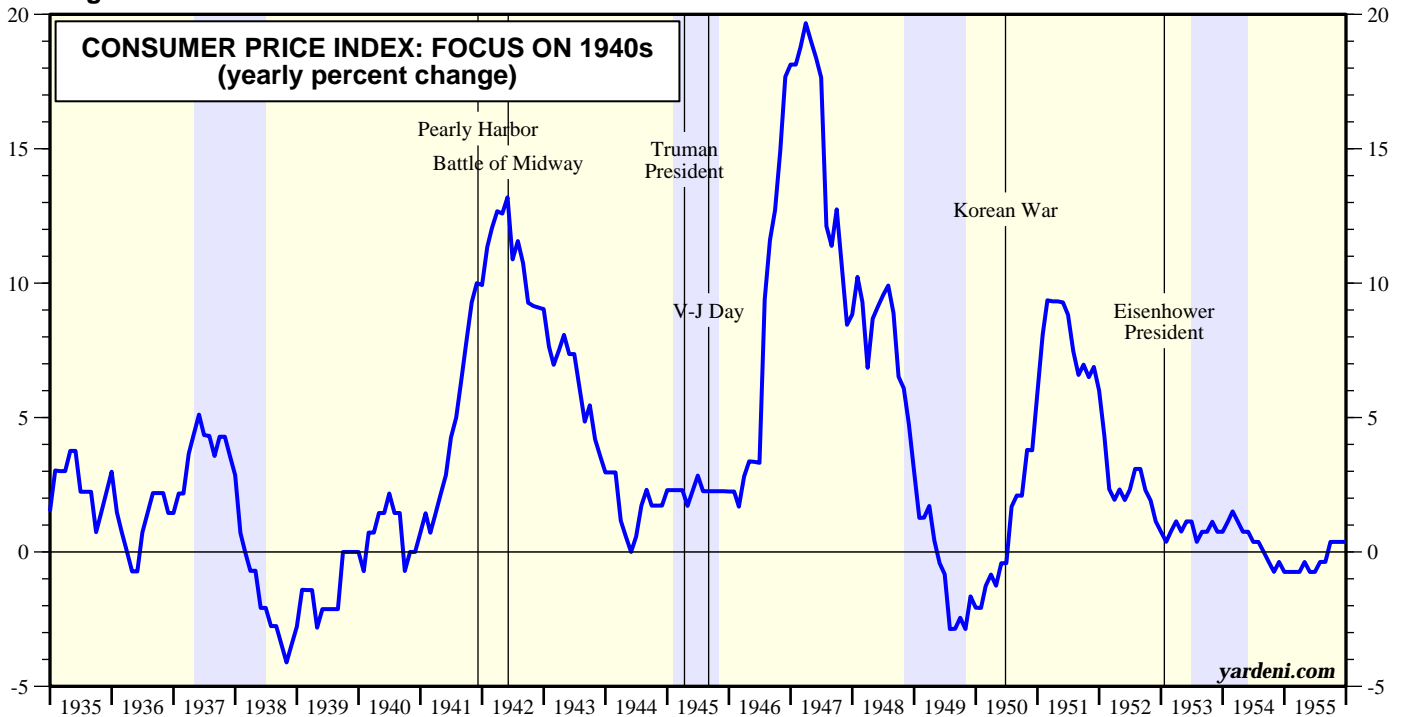


Figure 2.



# History of Inflation

Figure 3.

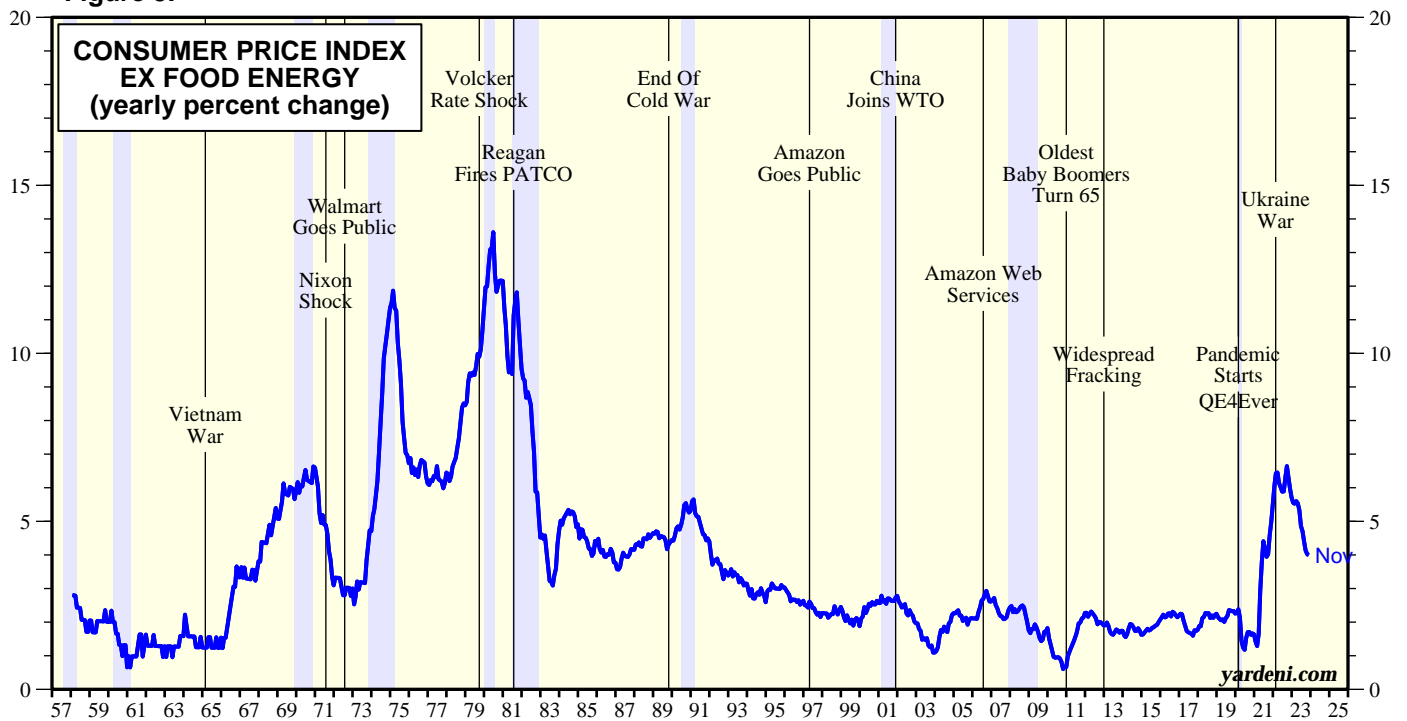
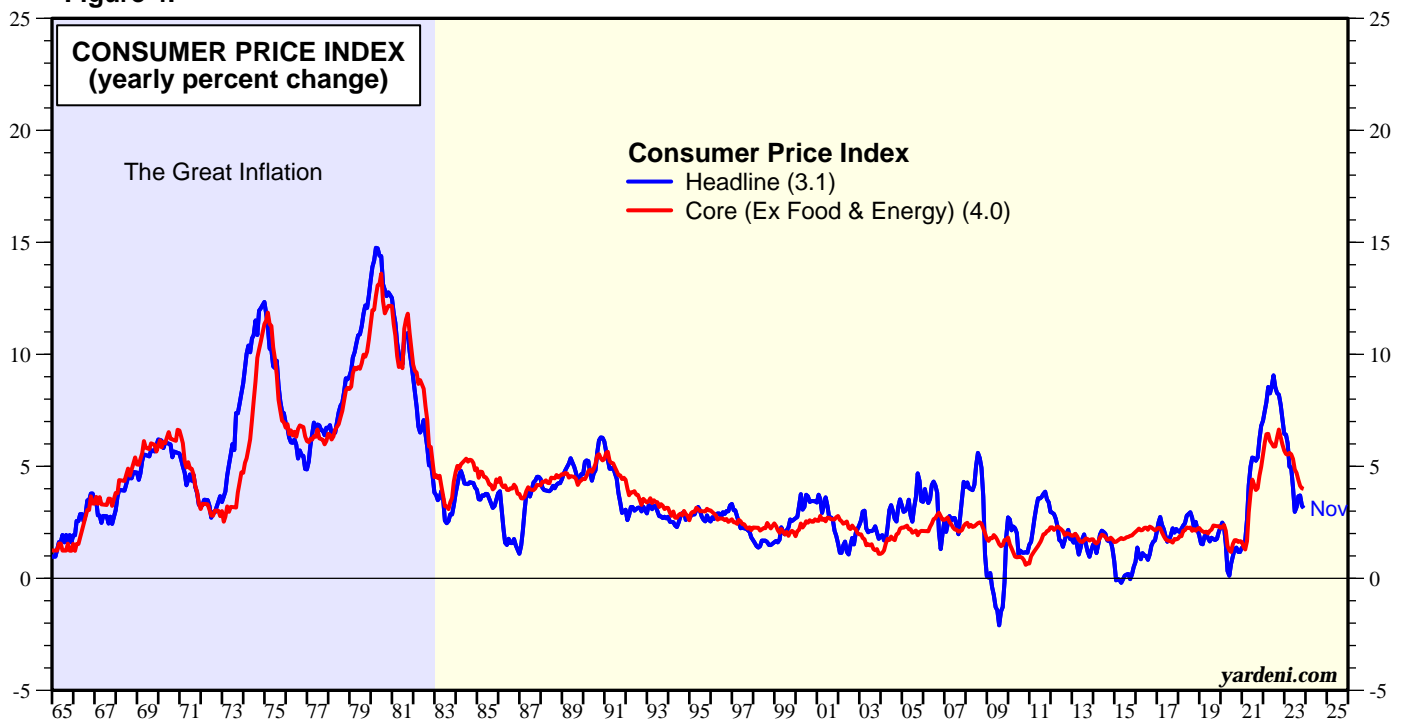
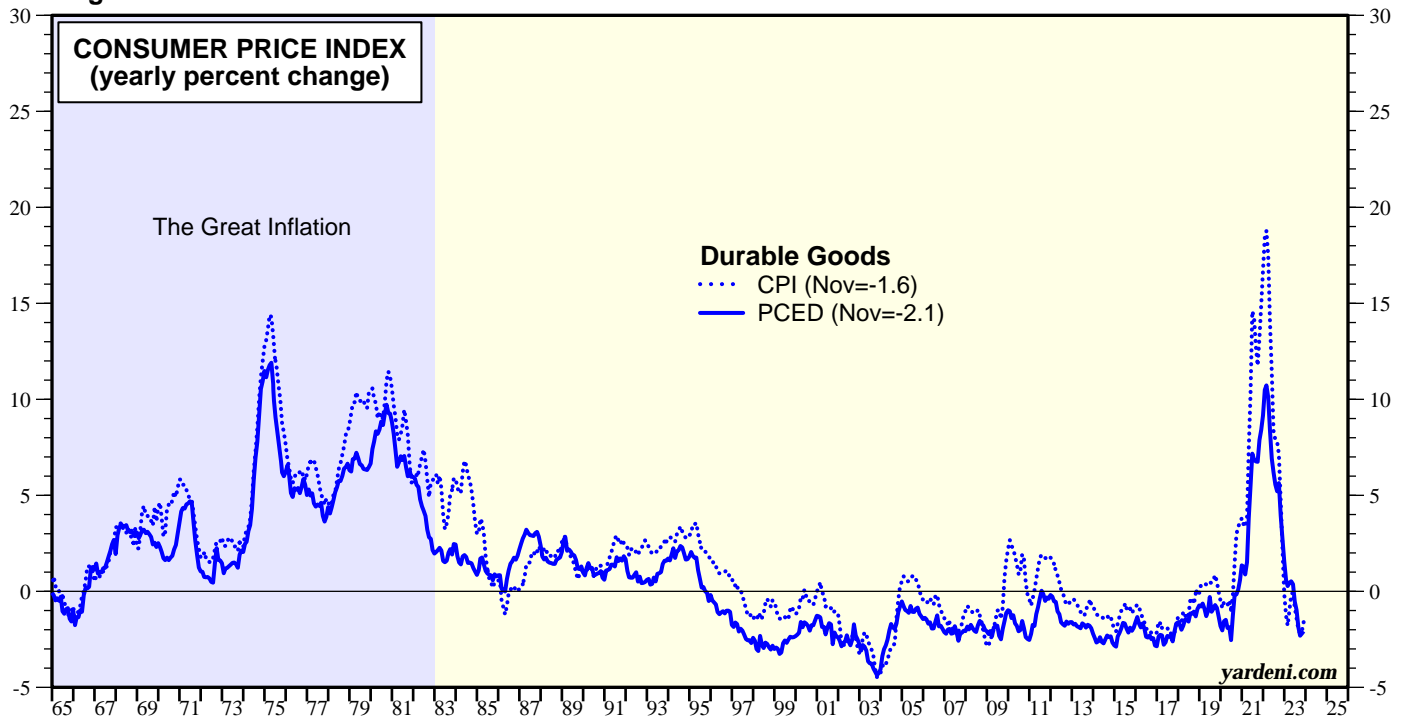


Figure 4.



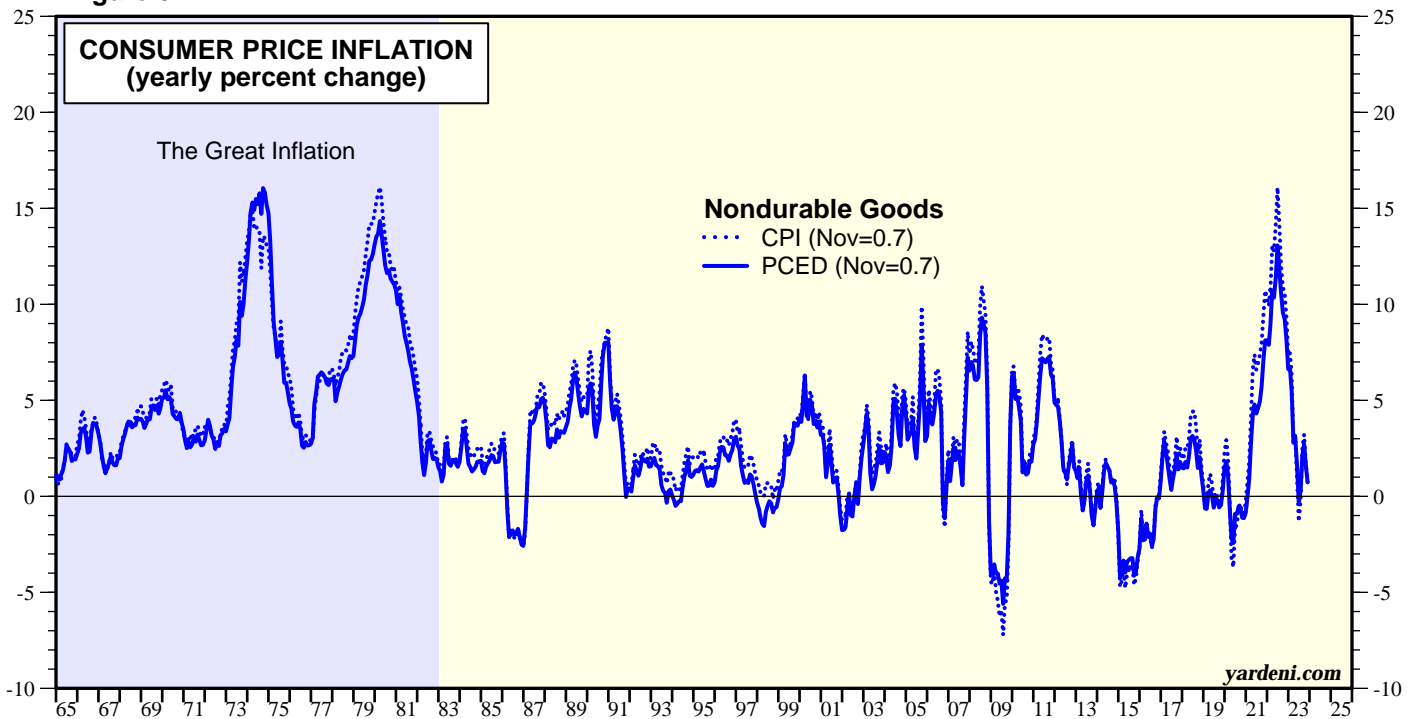
# History of Inflation

Figure 5.



Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

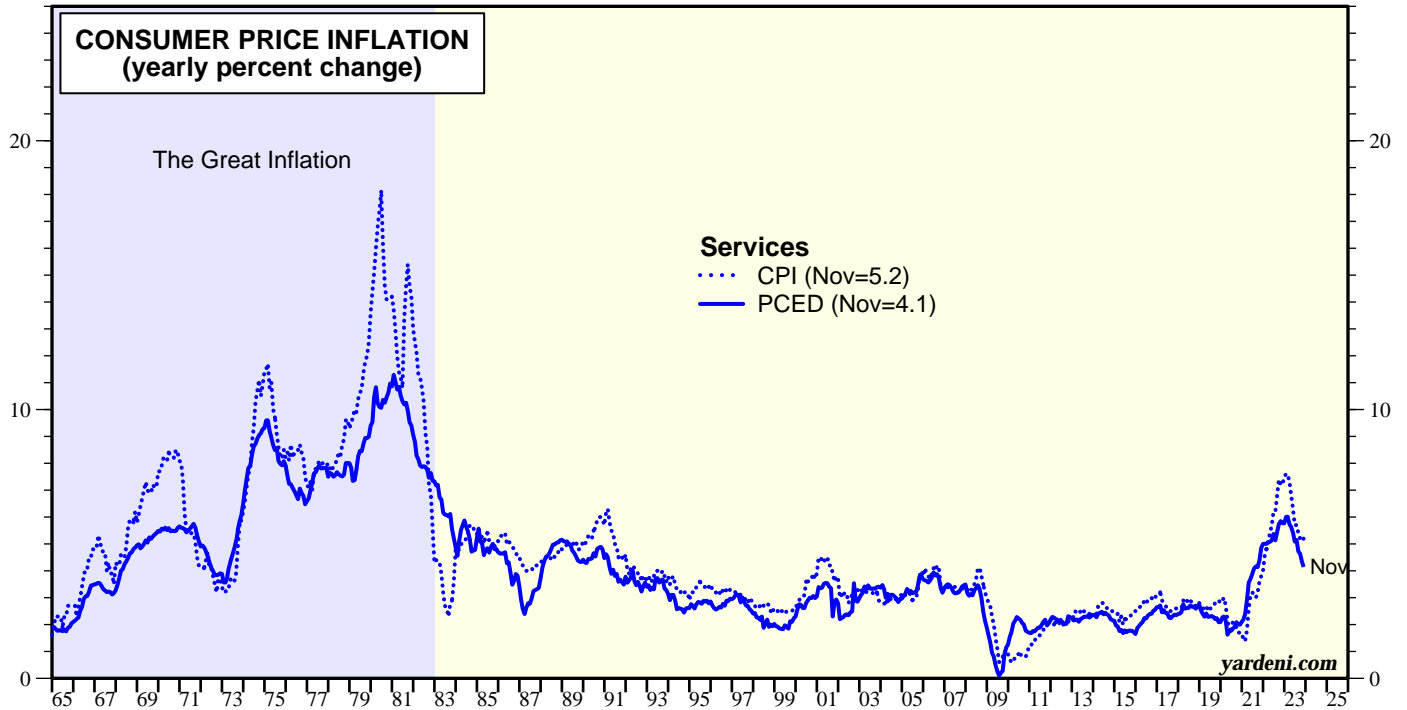
Figure 6.



Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

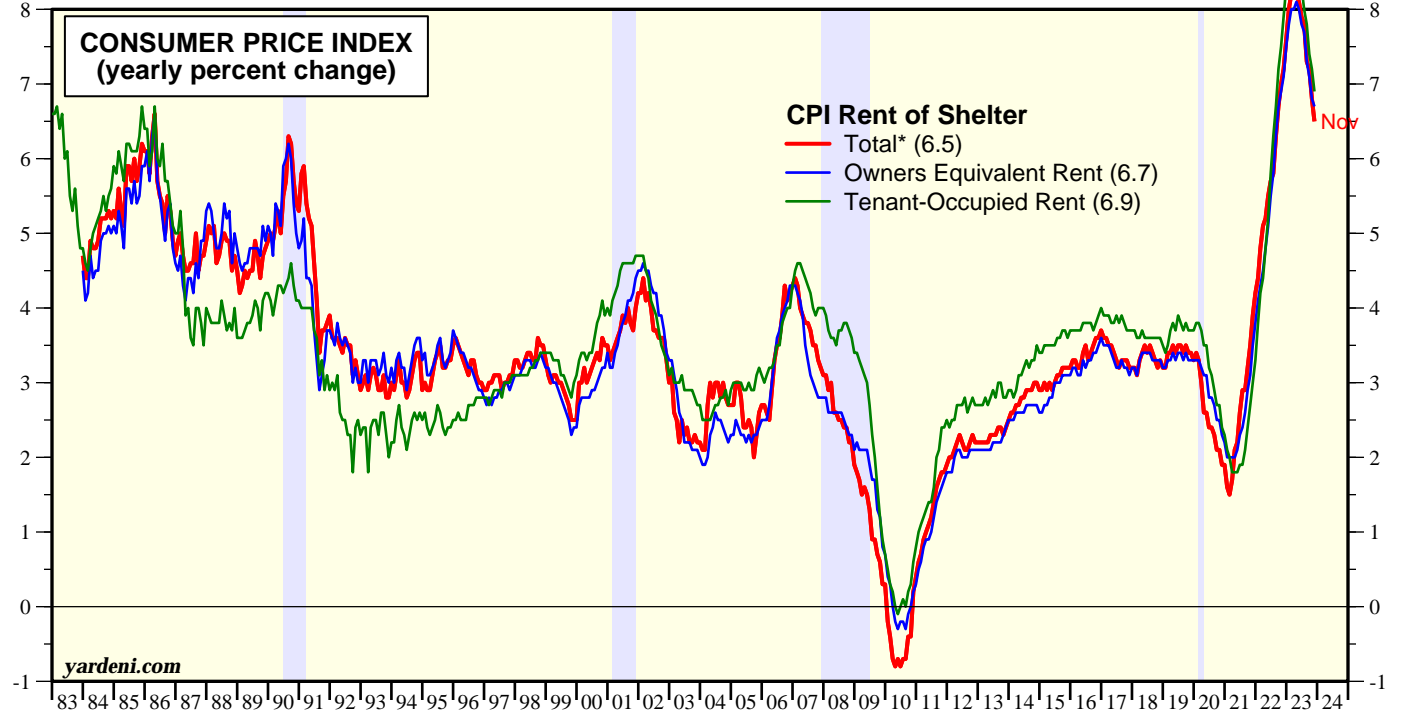
# History of Inflation

Figure 7.



Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

Figure 8.



\* Includes owners' equivalent rent, tenant-occupied rent, and lodging away from home.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Bureau of Labor Statistics.

# Measuring Prices

Figure 9.

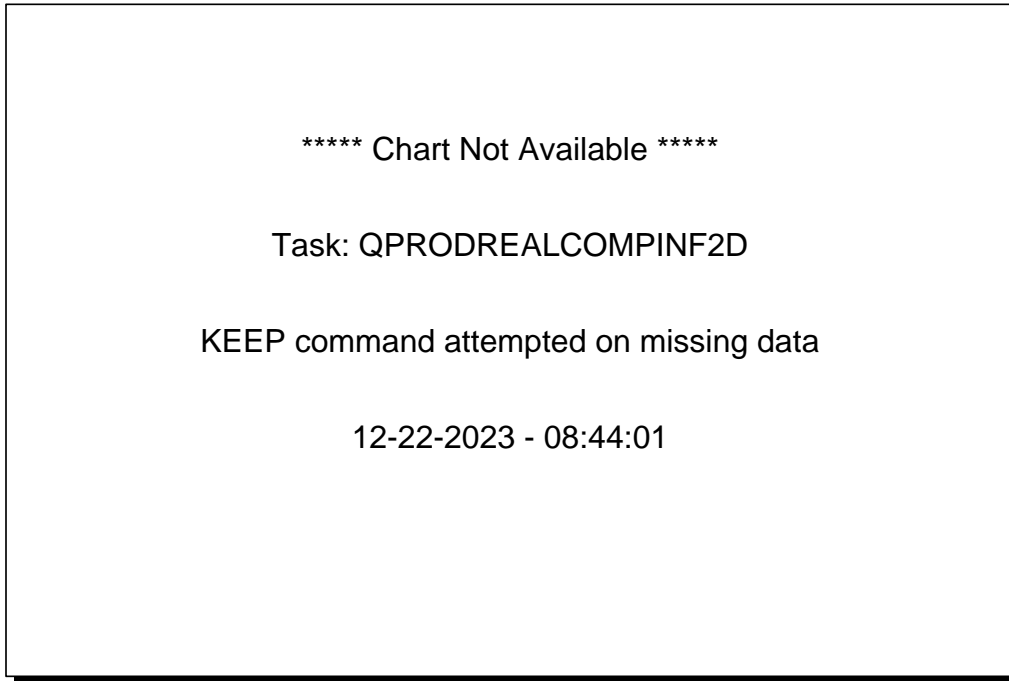
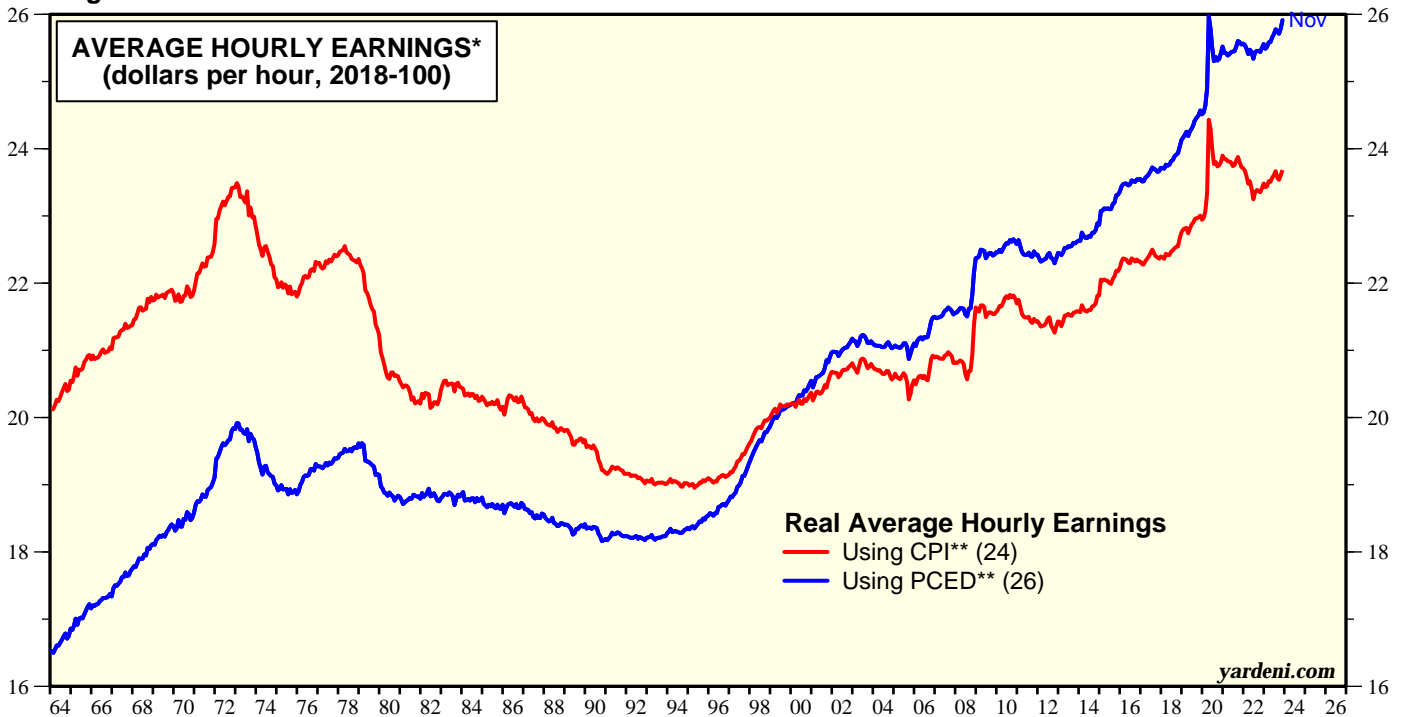


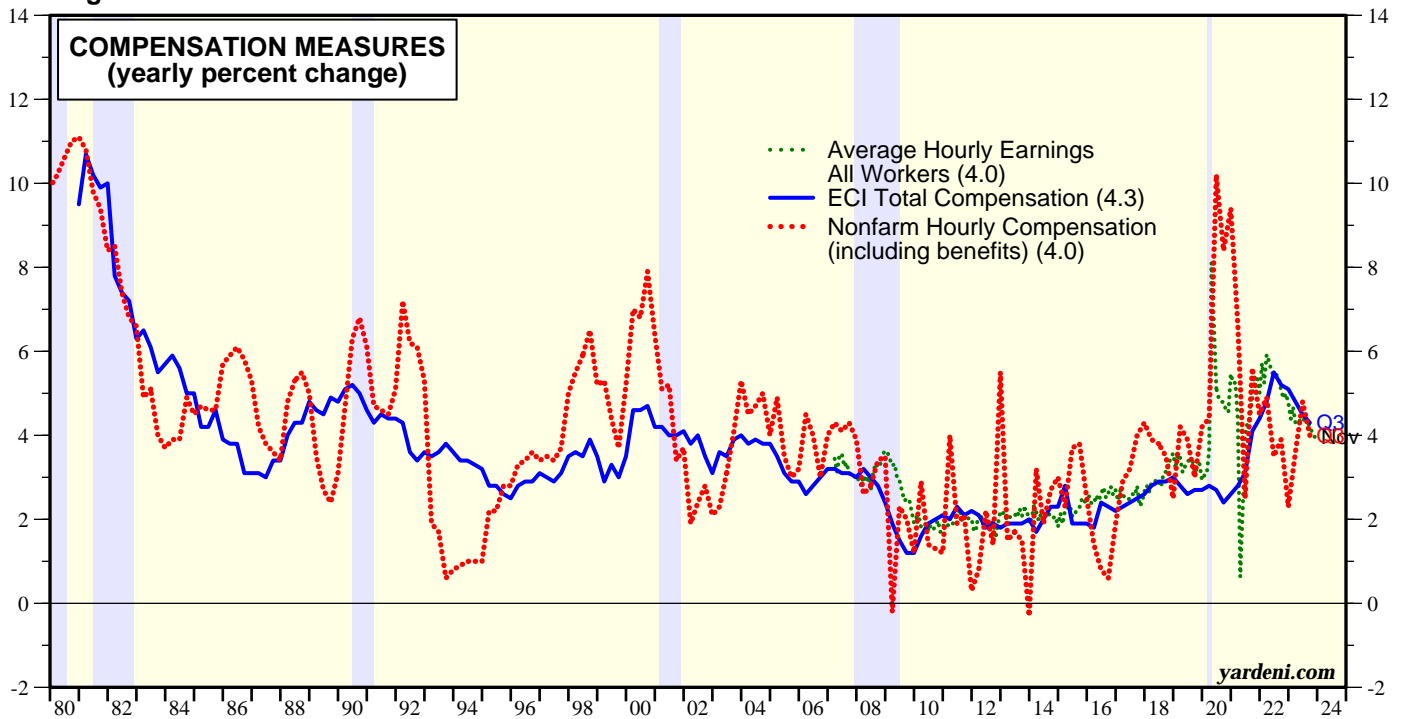
Figure 10.



\* Production and non-supervisory workers.  
\*\* CPI and PCED divided by their respective January 2018 values.  
Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

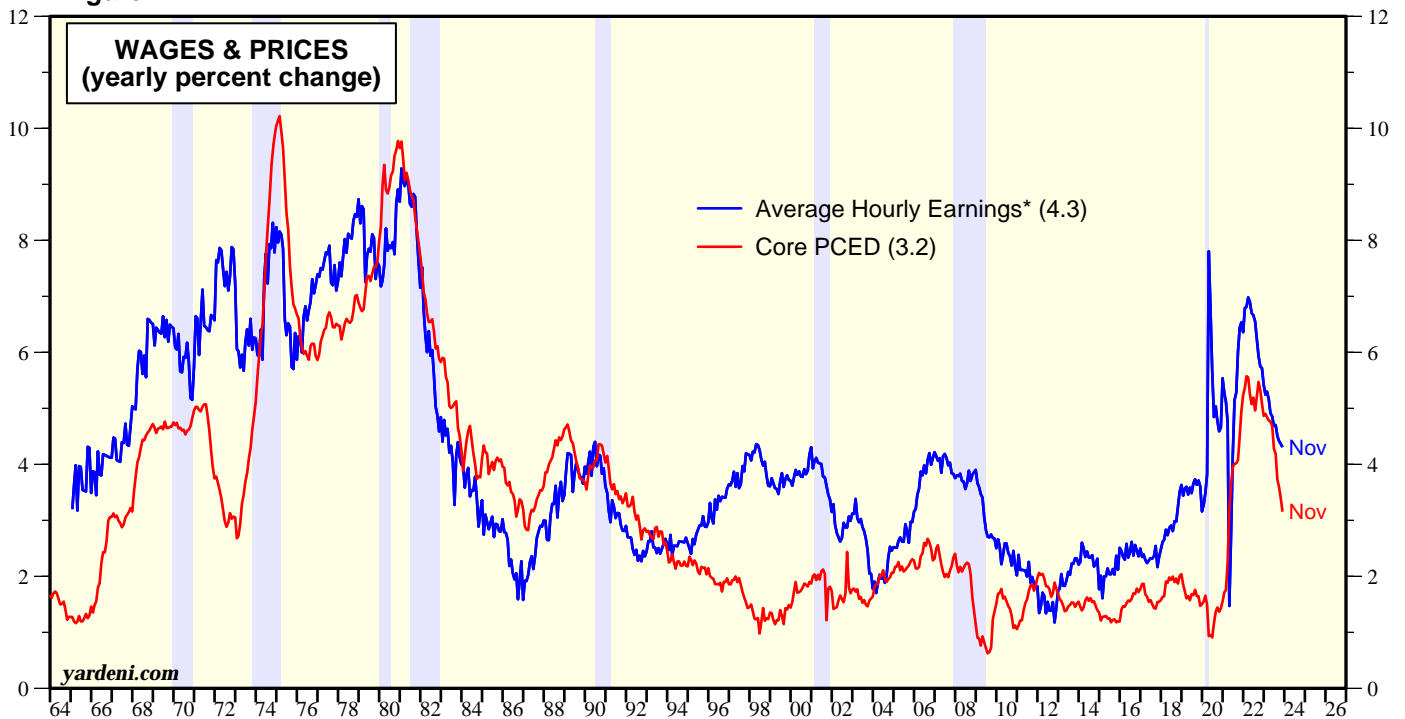
# Measuring Wages

Figure 11.



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

Figure 12.

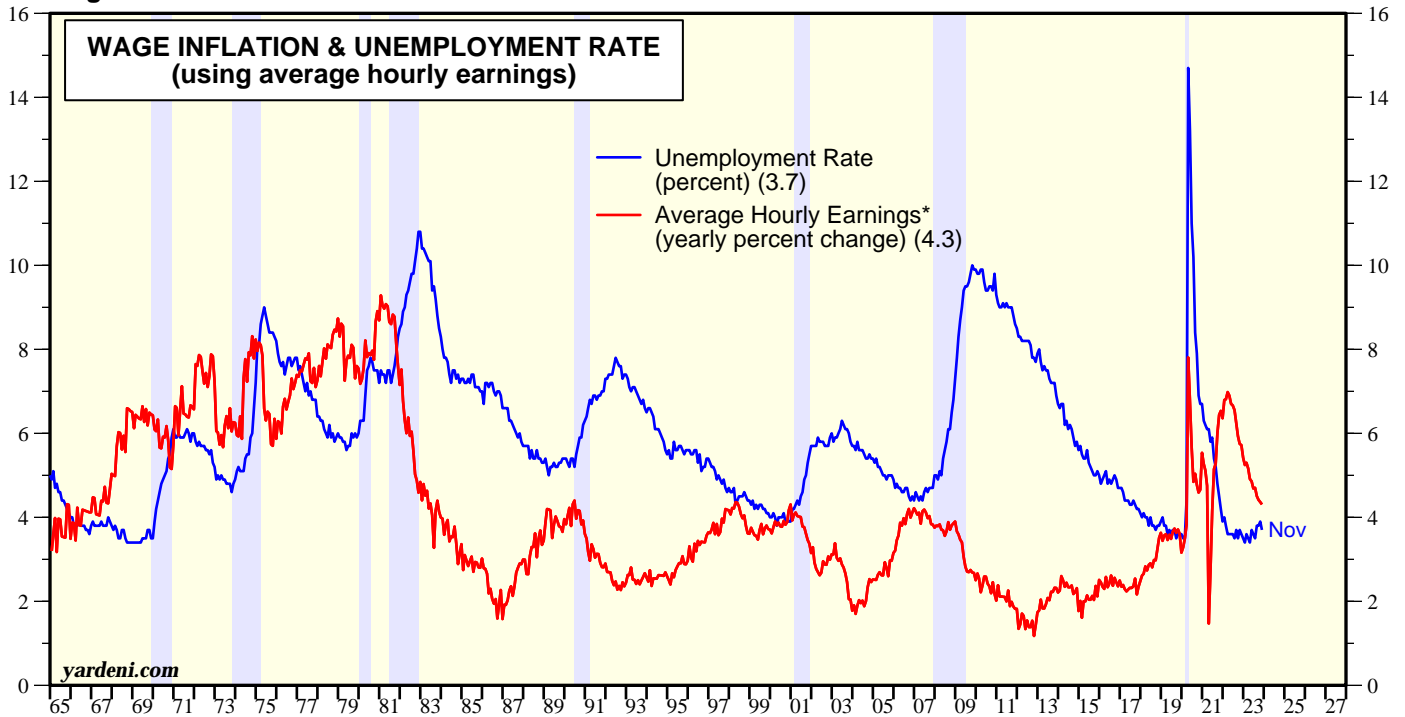


\* Production & nonsupervisory workers  
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.  
Source: Bureau of Labor Statistics.



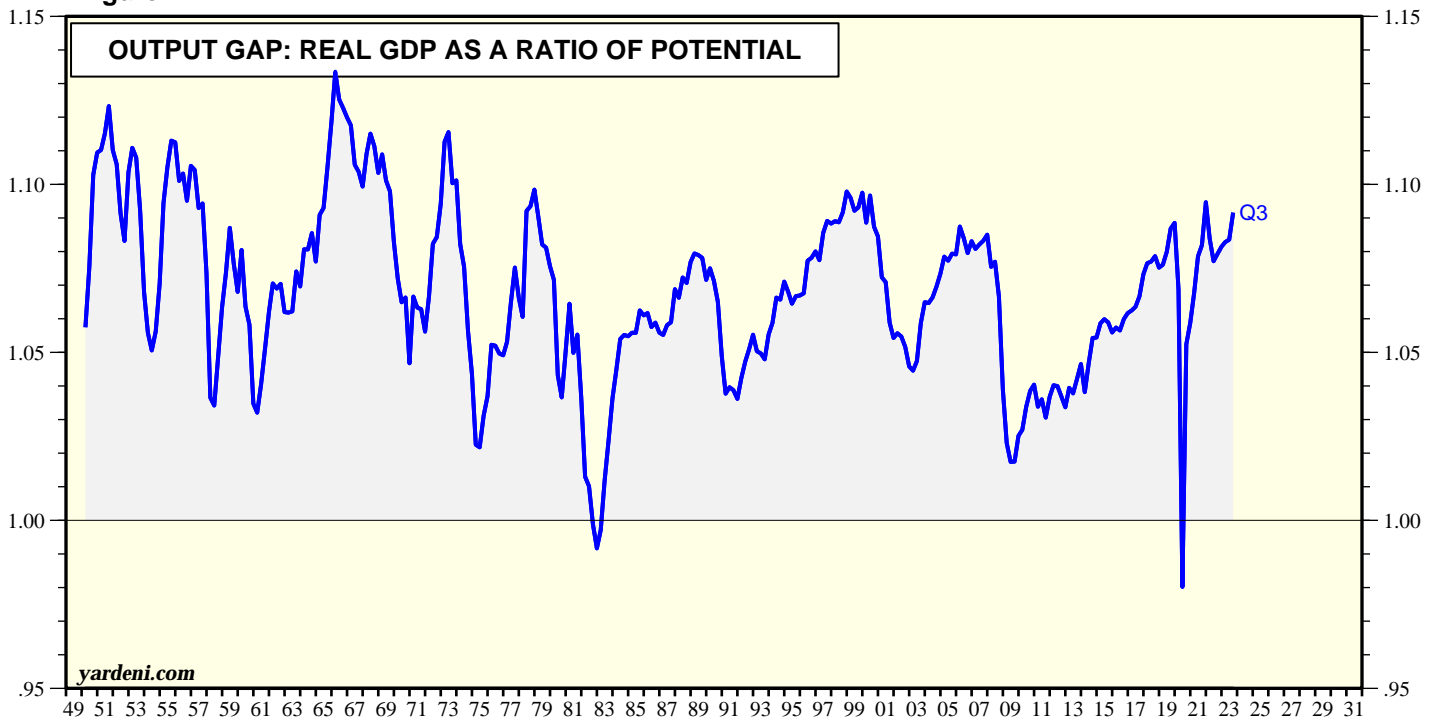
# Modeling Inflation: Phillips Curve & Output Gap

Figure 13.



\* Production & nonsupervisory workers in private sector.  
 Note: Shaded areas denote recessions according to the National Bureau of Economic Research.  
 Source: Bureau of Labor Statistics.

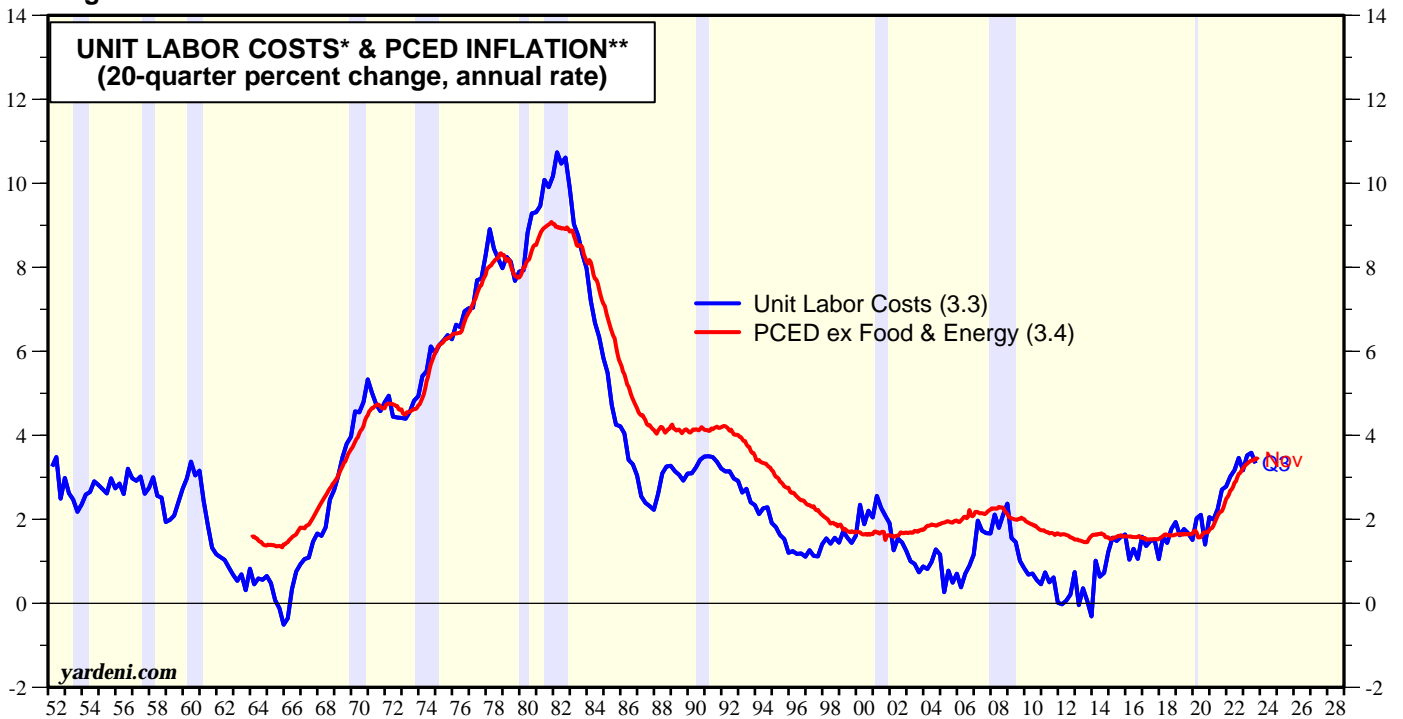
Figure 14.



Source: Congressional Budget Office and Bureau of Economic Analysis.

# Modeling Inflation: Productivity

Figure 15.



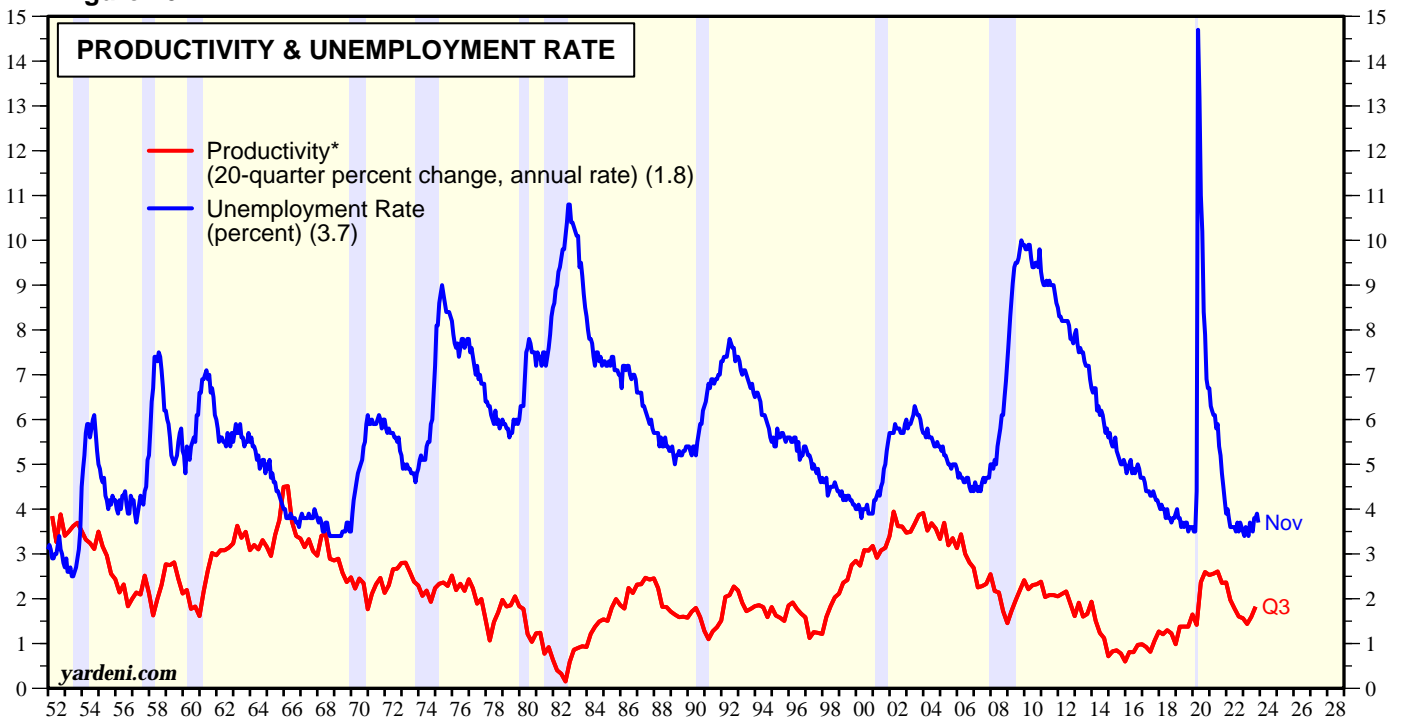
\* Nonfarm business hourly compensation divided by productivity.

\*\* PCED = personal consumption expenditures deflator.

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

Source: Bureau of Labor Statistics.

Figure 16.



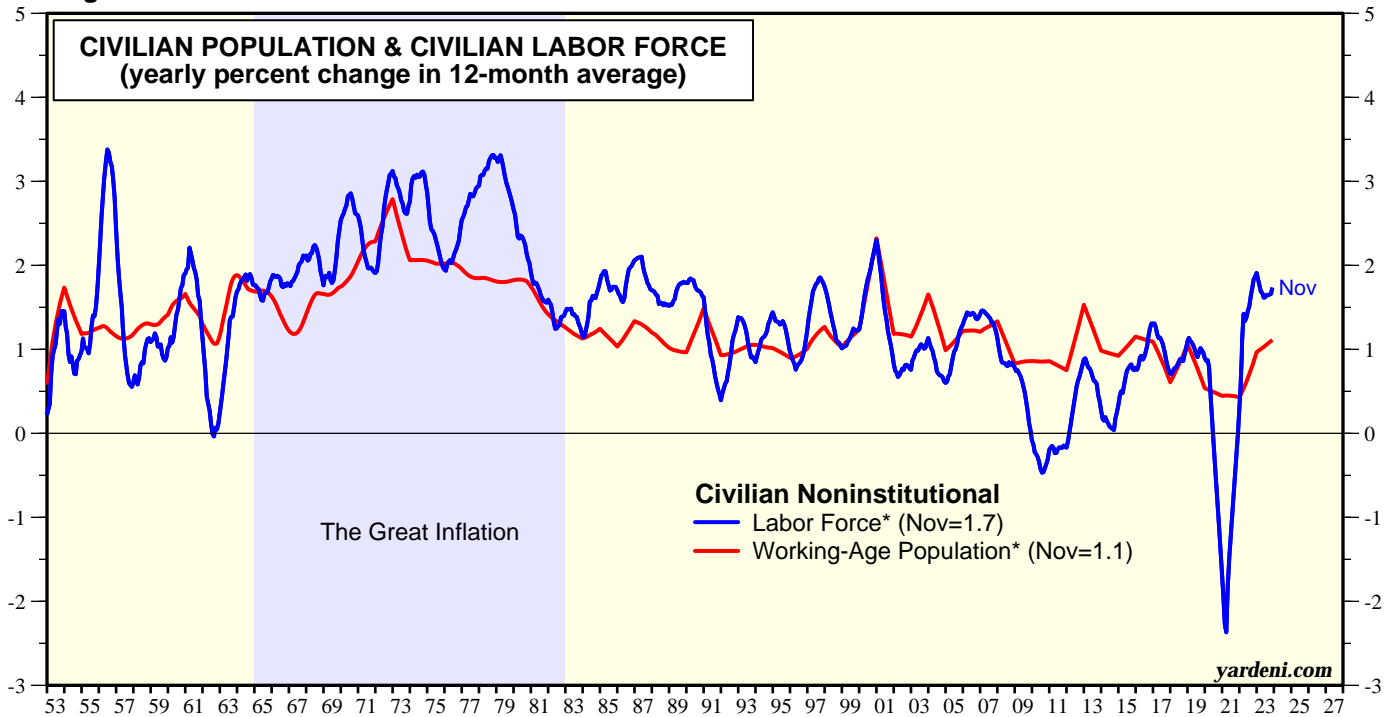
\* Nonfarm business.

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

Source: Bureau of Labor Statistics.

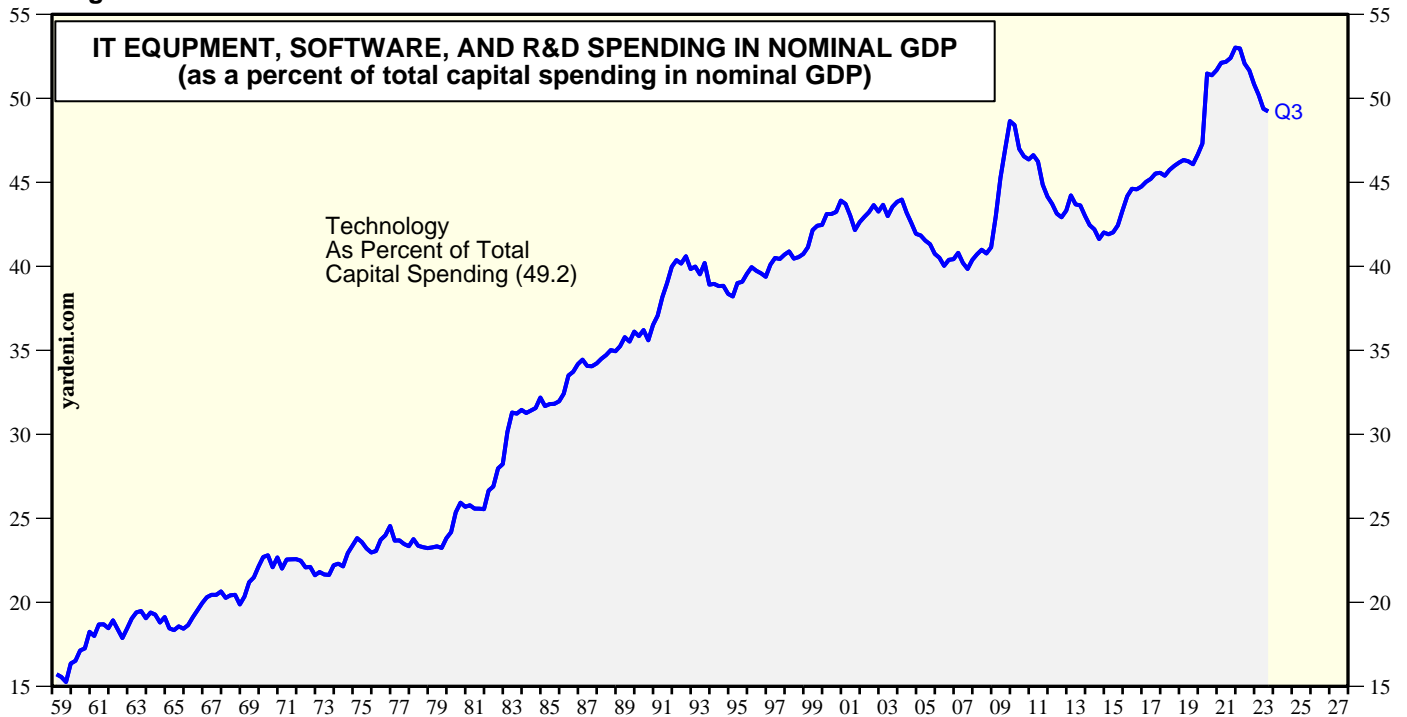
# Modeling Inflation: Technology

Figure 17.



\* 16 years & older.  
Source: Bureau of Labor Statistics.

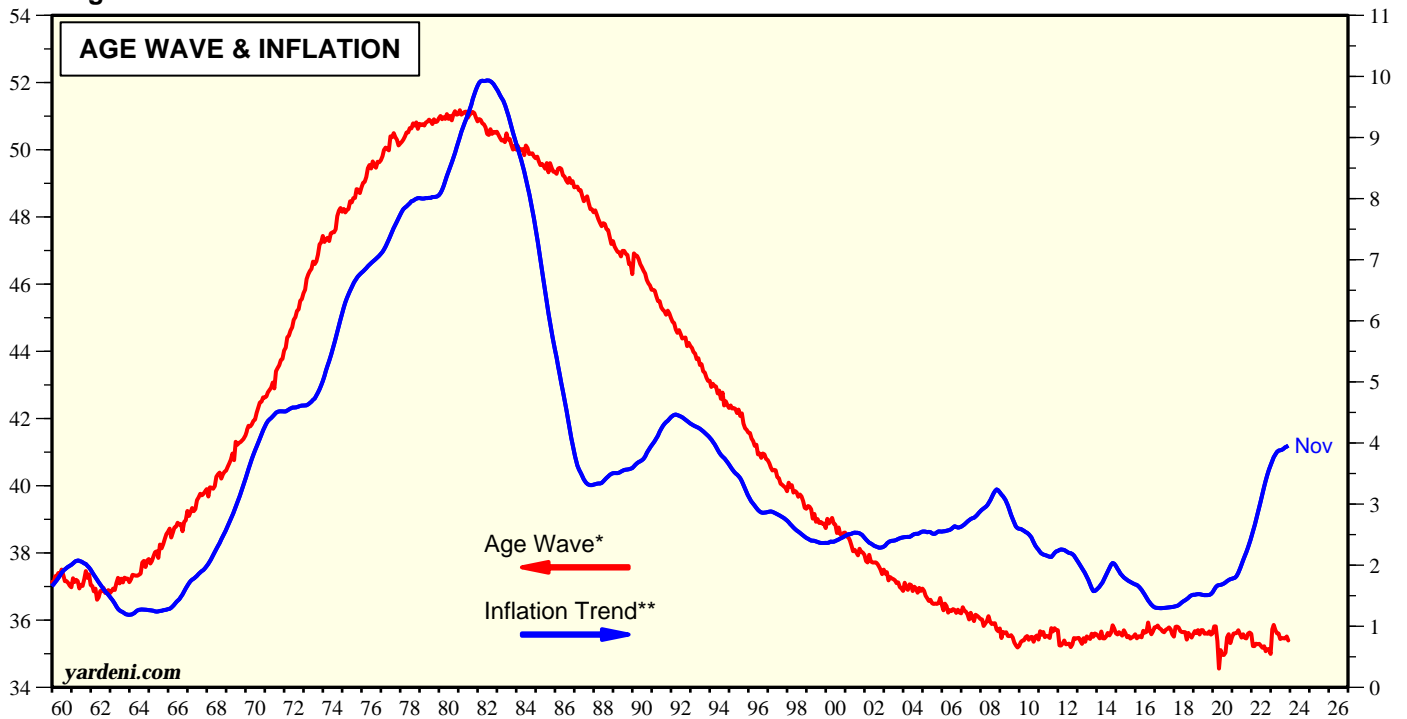
Figure 18.



Source: Bureau of Economic Analysis.

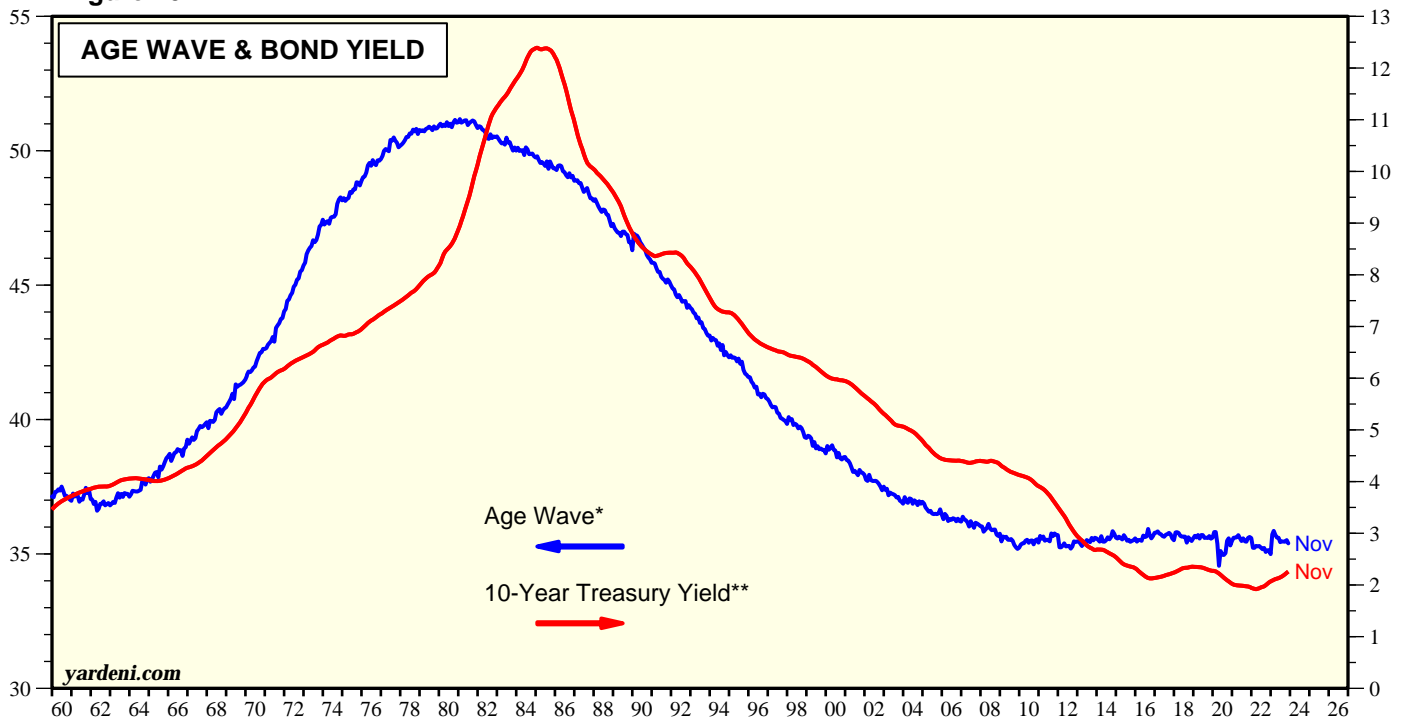
# Modeling Inflation: The Age Wave

Figure 19.



\* Percent of labor force 16-34 years old.  
 \*\* Five-year moving average of yearly percent change in CPI.  
 Source: Bureau of Labor Statistics.

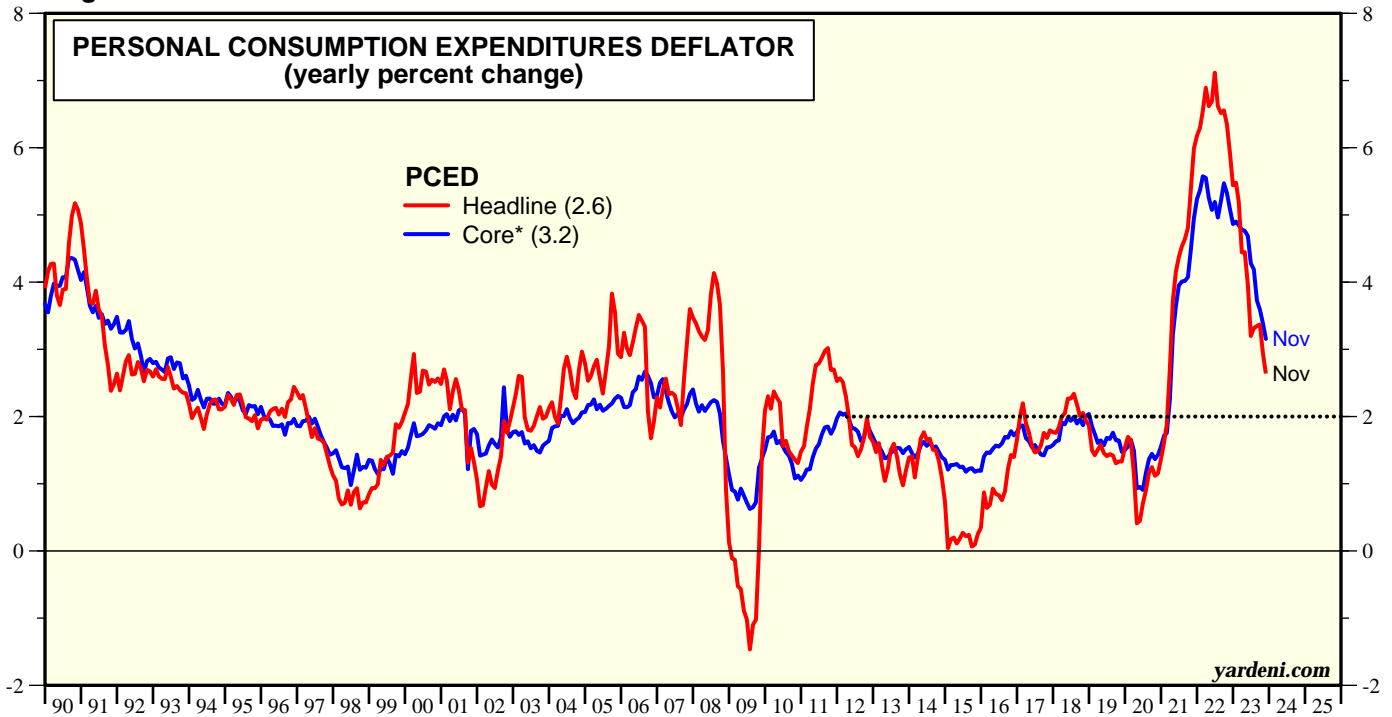
Figure 20.



\* Percent of labor force 16-34 years old.  
 \*\* Five-year moving average of ten-year government bond yield.  
 Source: US Department of Labor, Bureau of Labor Statistics and Board of Governors of the Federal Reserve System.

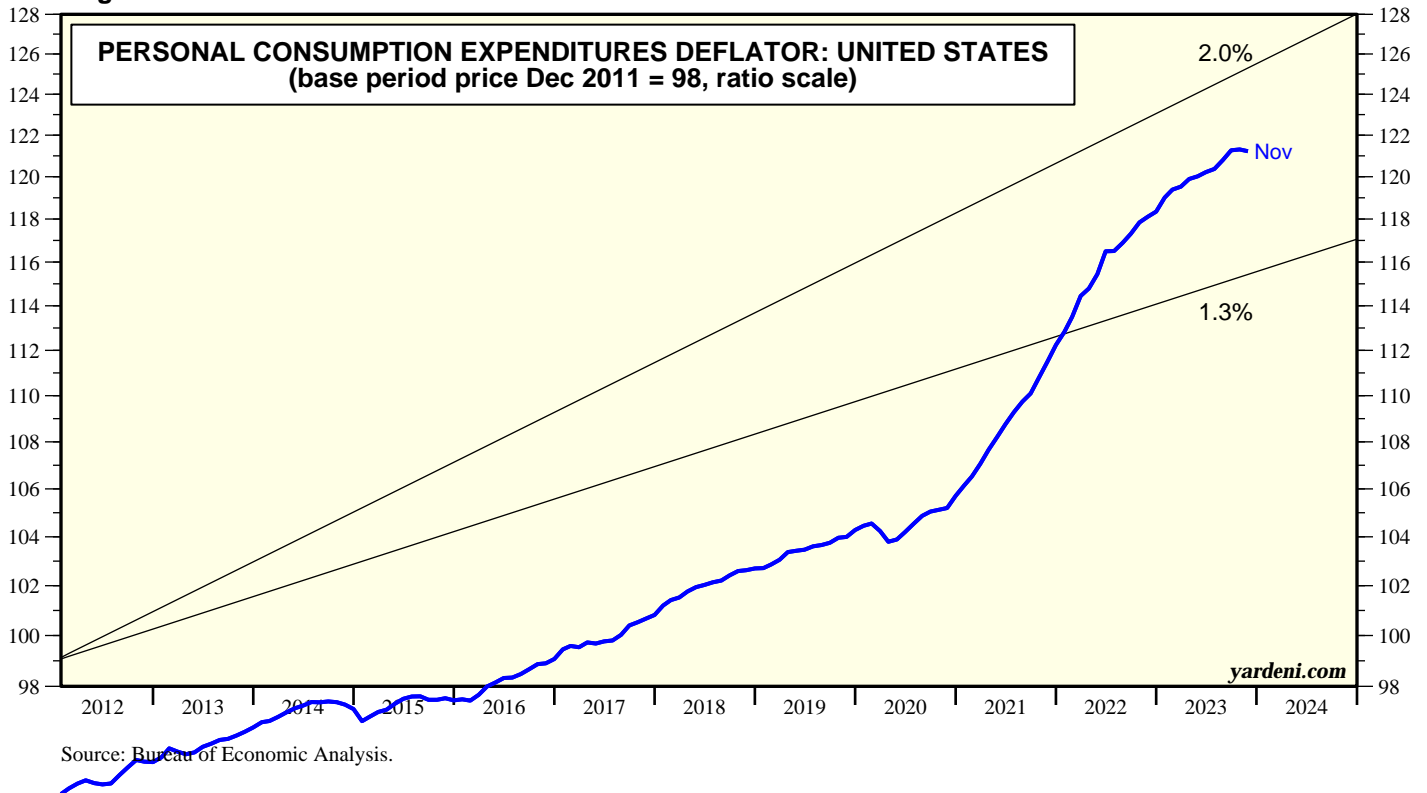
# Monetary Policy & Inflation Targeting

Figure 21.



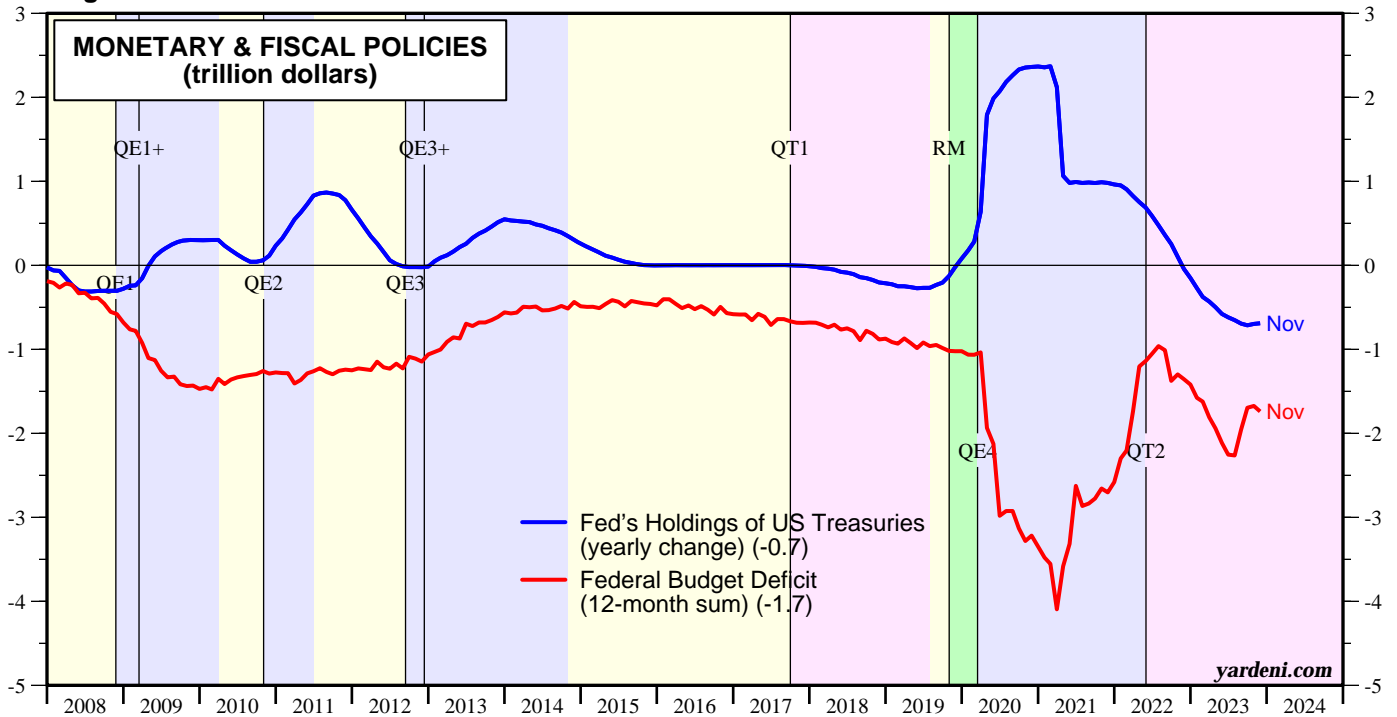
\* Excluding food and energy prices.  
 Note: Dotted line is the Fed's official target set during January 2012.  
 Source: Bureau of Economic Analysis.

Figure 22.



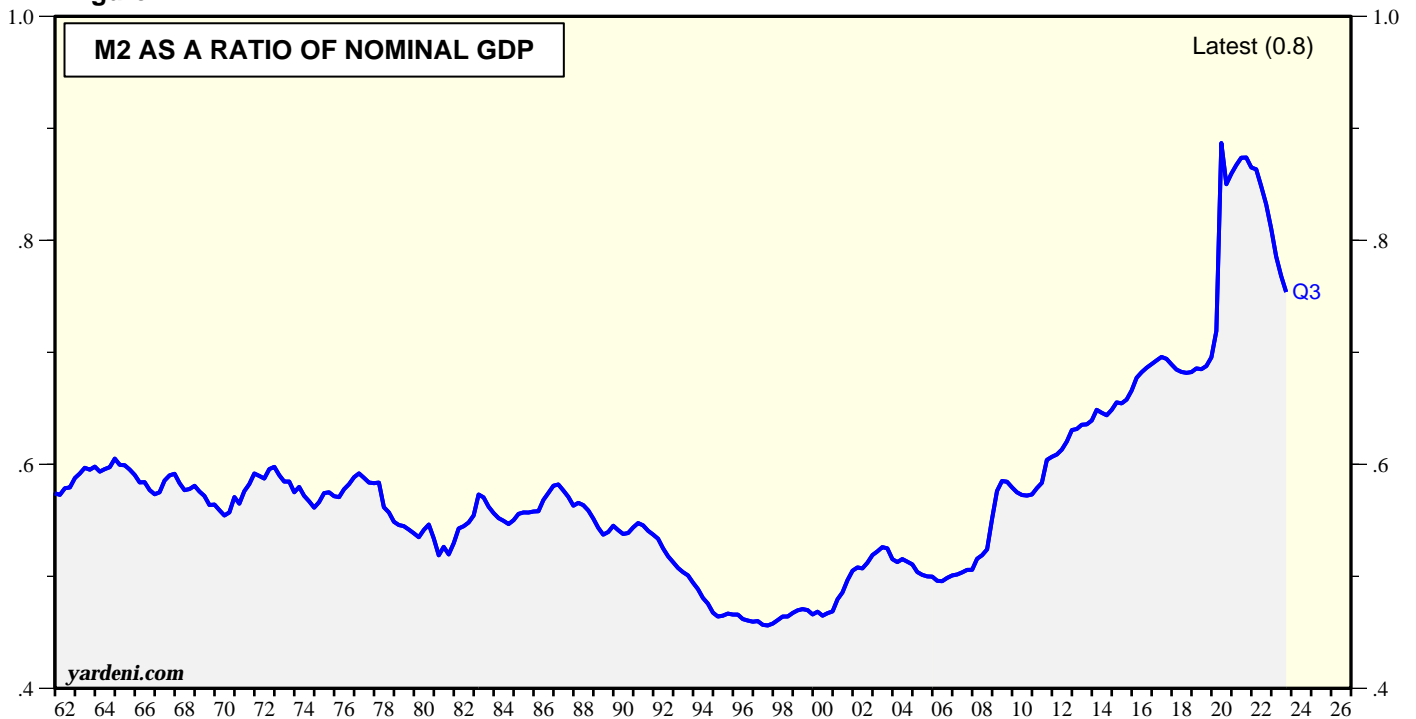
# Modern Monetary Theory vs Deflation

Figure 23.



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.

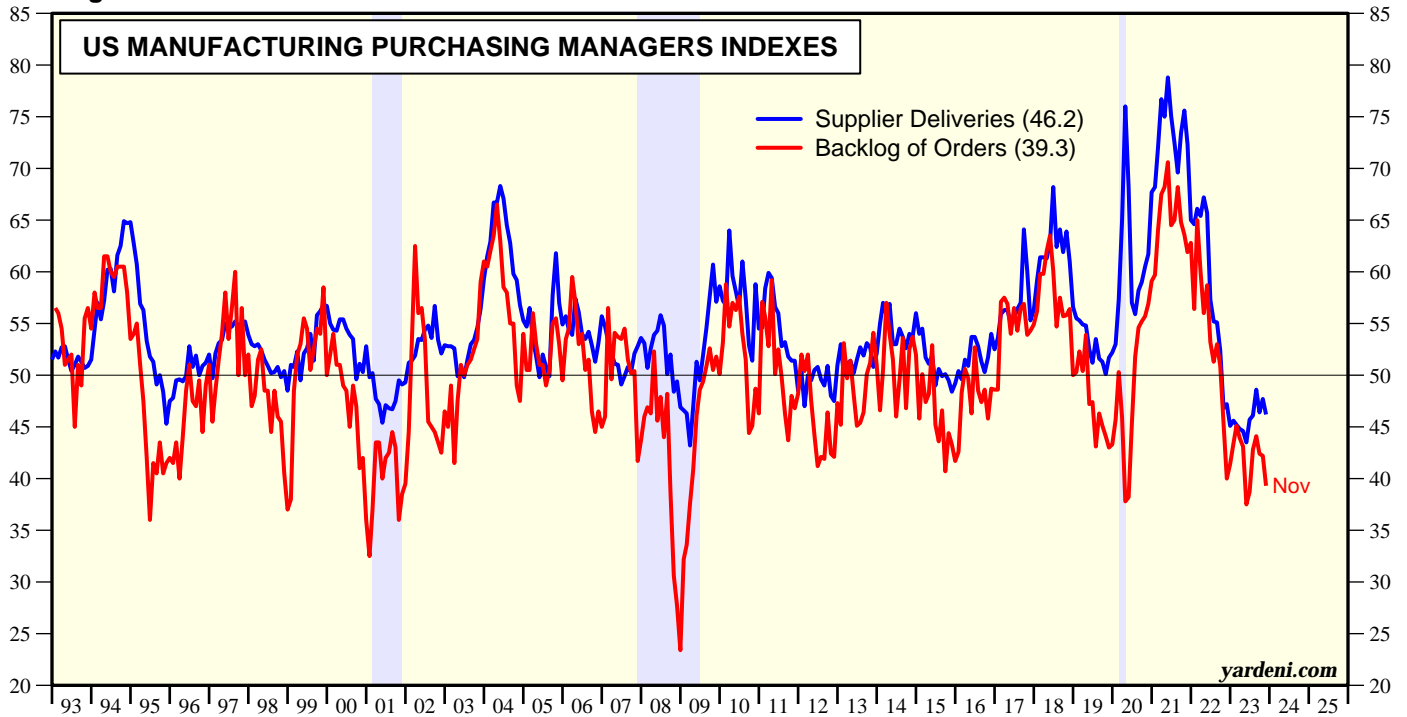
Figure 24.



Source: Federal Reserve Board.

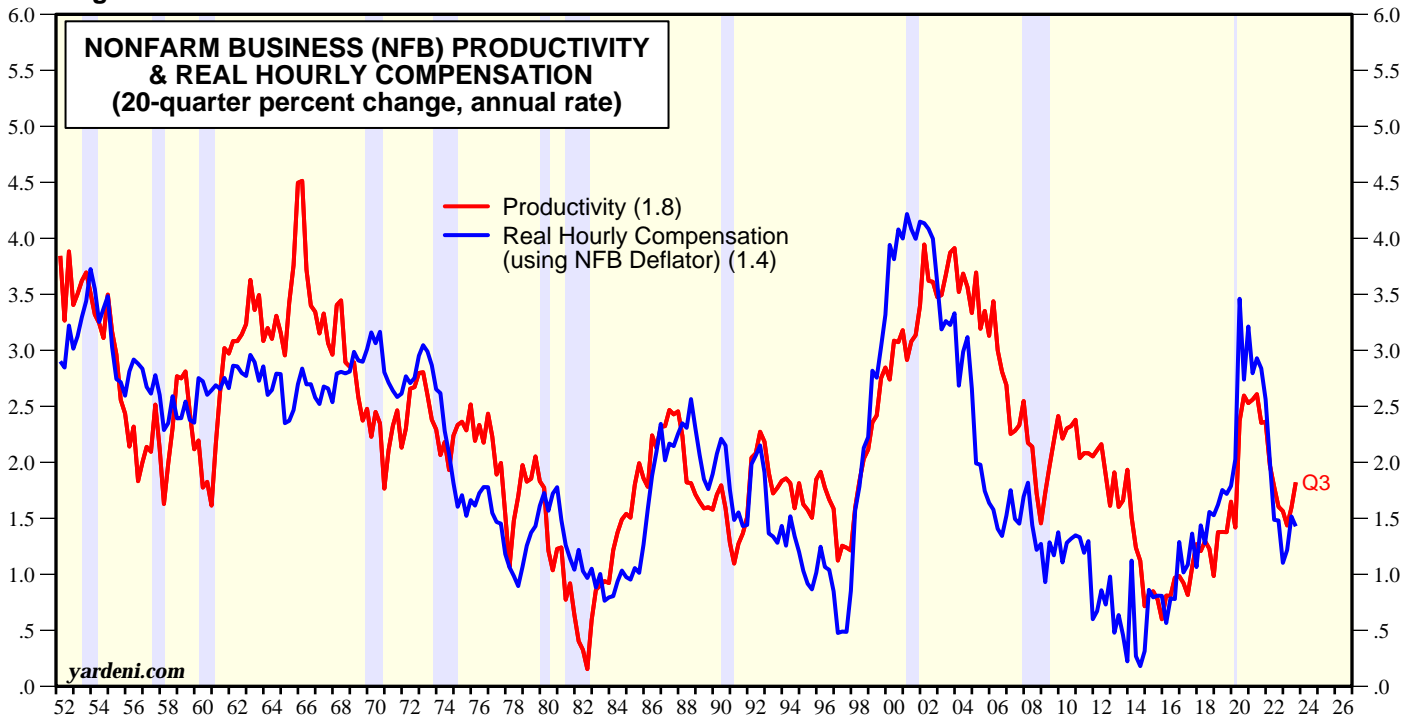
# Great Inflation 2.0 or Roaring 2020s?

Figure 25.



Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
Source: Institute for Supply Management.

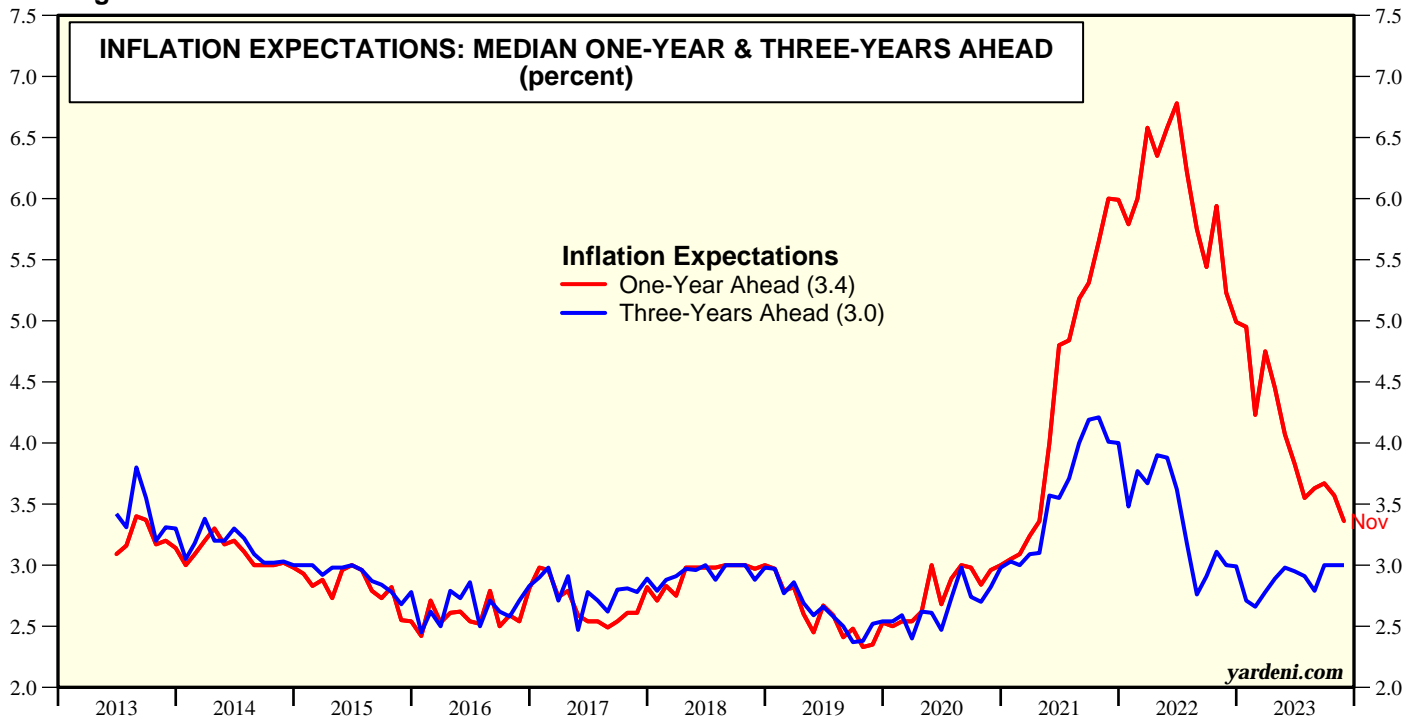
Figure 26.



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

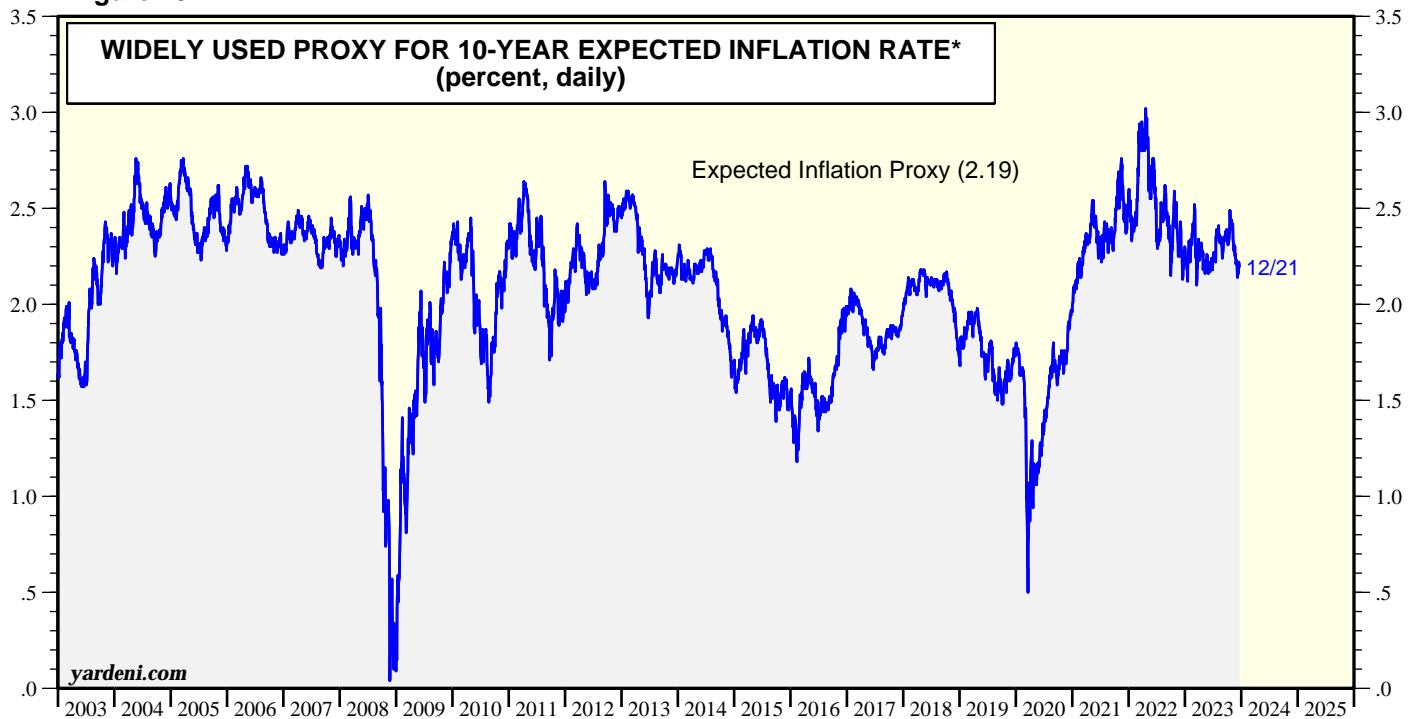
# Inflationary Expectations

Figure 27.



Source: Federal Reserve Bank of New York.

Figure 28.

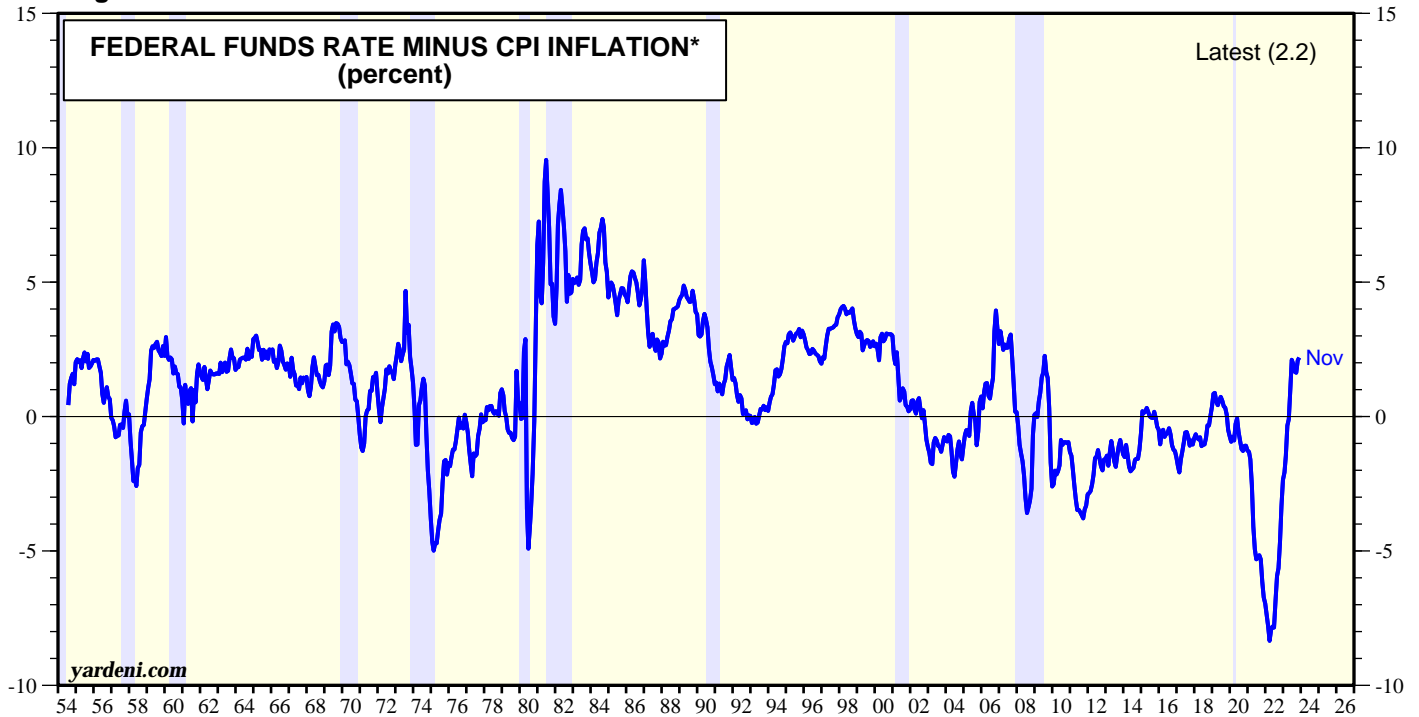


\* Nominal 10-year US Treasury bond yield minus 10-year TIPS yield.  
Source: Federal Reserve Board.



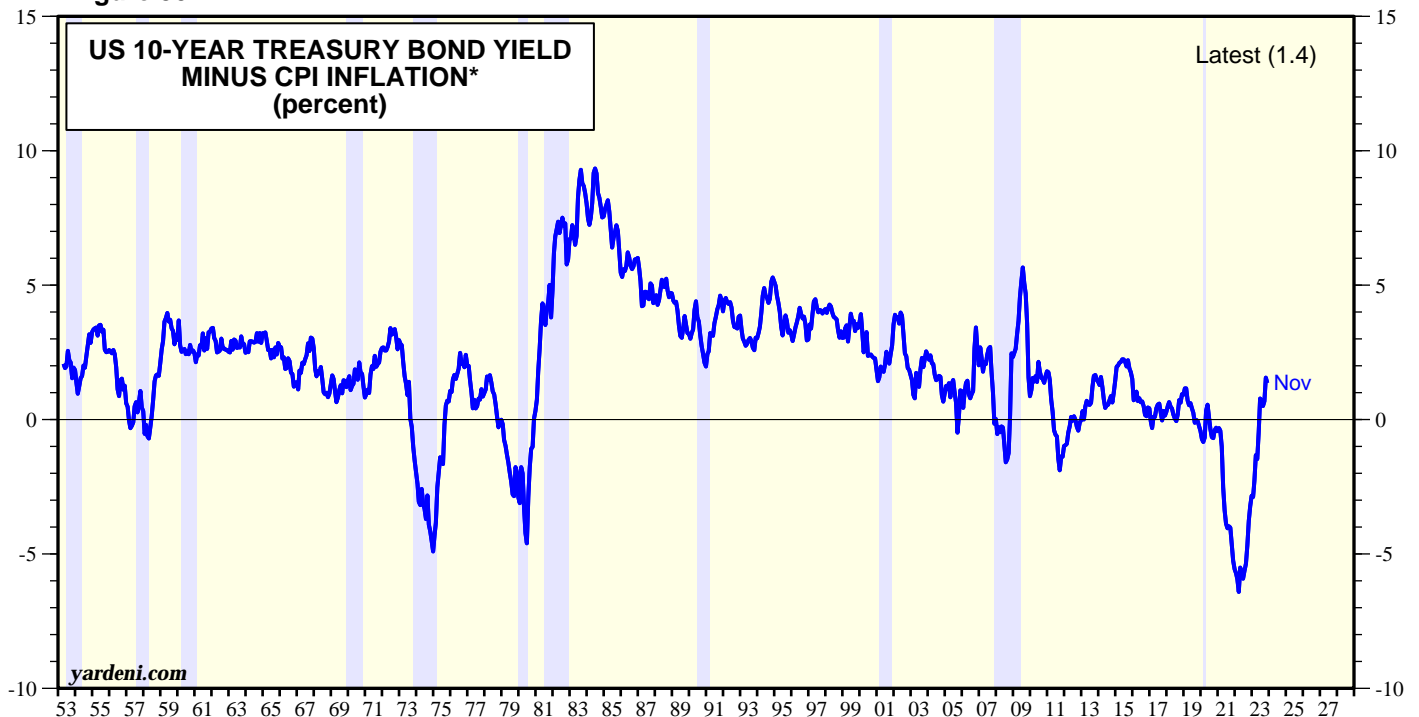
# Inflation-Adjusted Interest Rates

Figure 29.



\* Yearly percent change in CPI.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Board of Governors of the Federal Reserve System and Bureau of Labor Statistics.

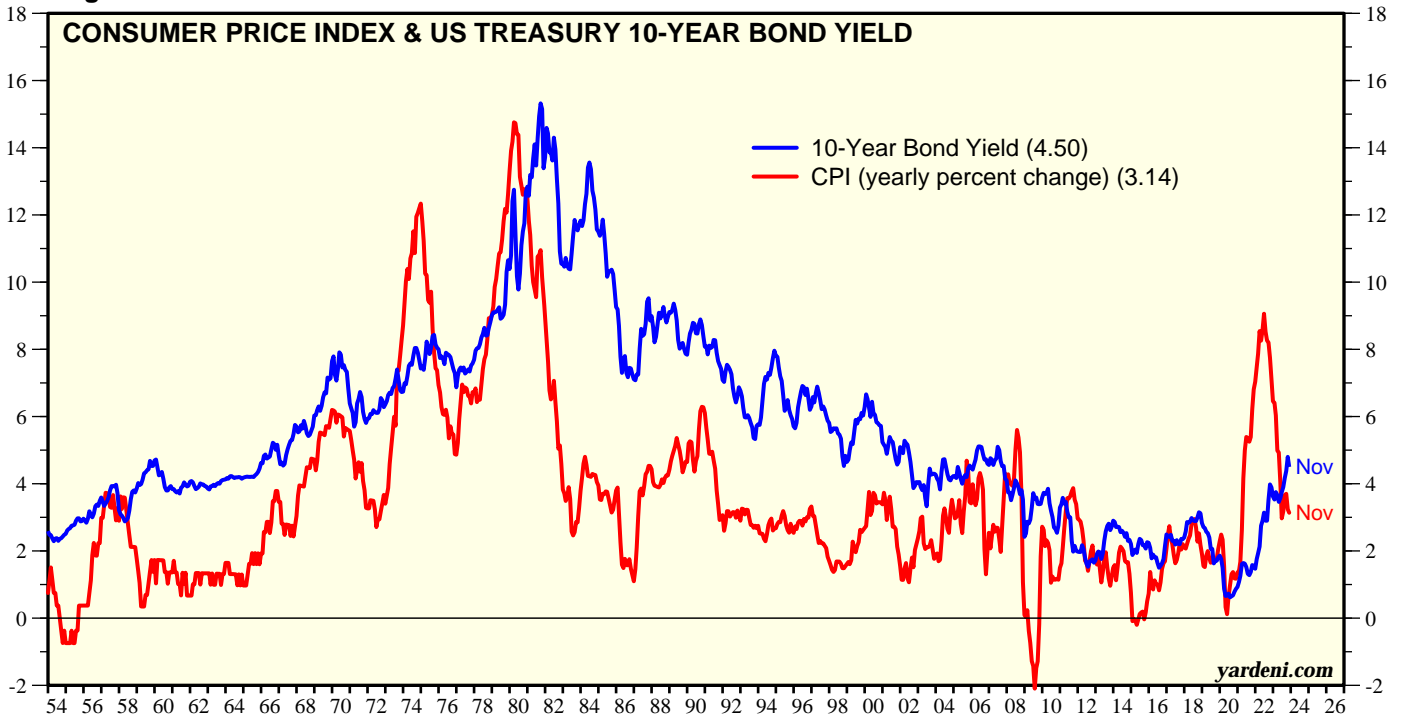
Figure 30.



\* Yearly percent change in CPI.  
 Note: Shaded areas are recessions according to the National Bureau of Economic Research.  
 Source: Board of Governors of the Federal Reserve System and Bureau of Labor Statistics.

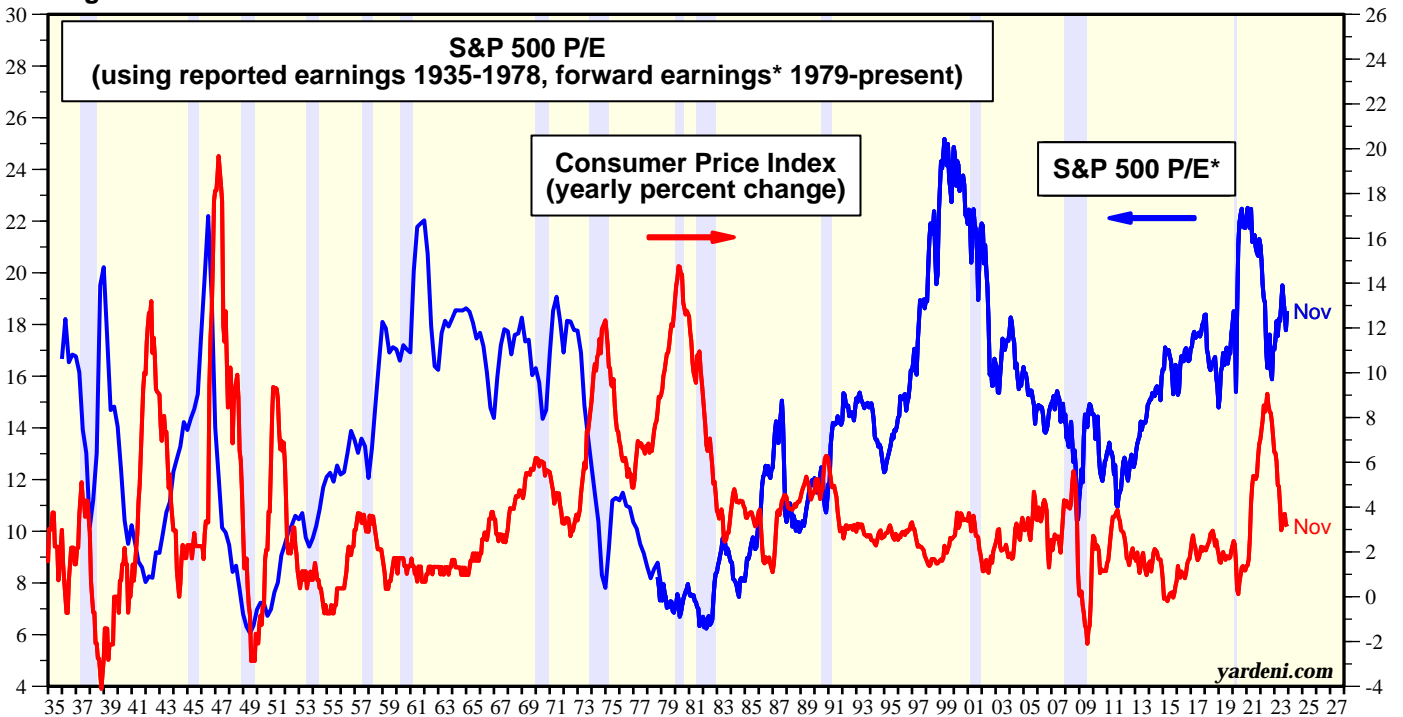
# Inflation, Bonds & Stocks

Figure 31.



Source: Federal Reserve Board and Bureau of Labor Statistics.

Figure 32.



\* Four-quarter trailing sum of reported earnings through 1978, then time-weighted average of analysts' consensus estimates for S&P 500 operating earnings per share for current year and next year. Monthly from January 1979.

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

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

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