

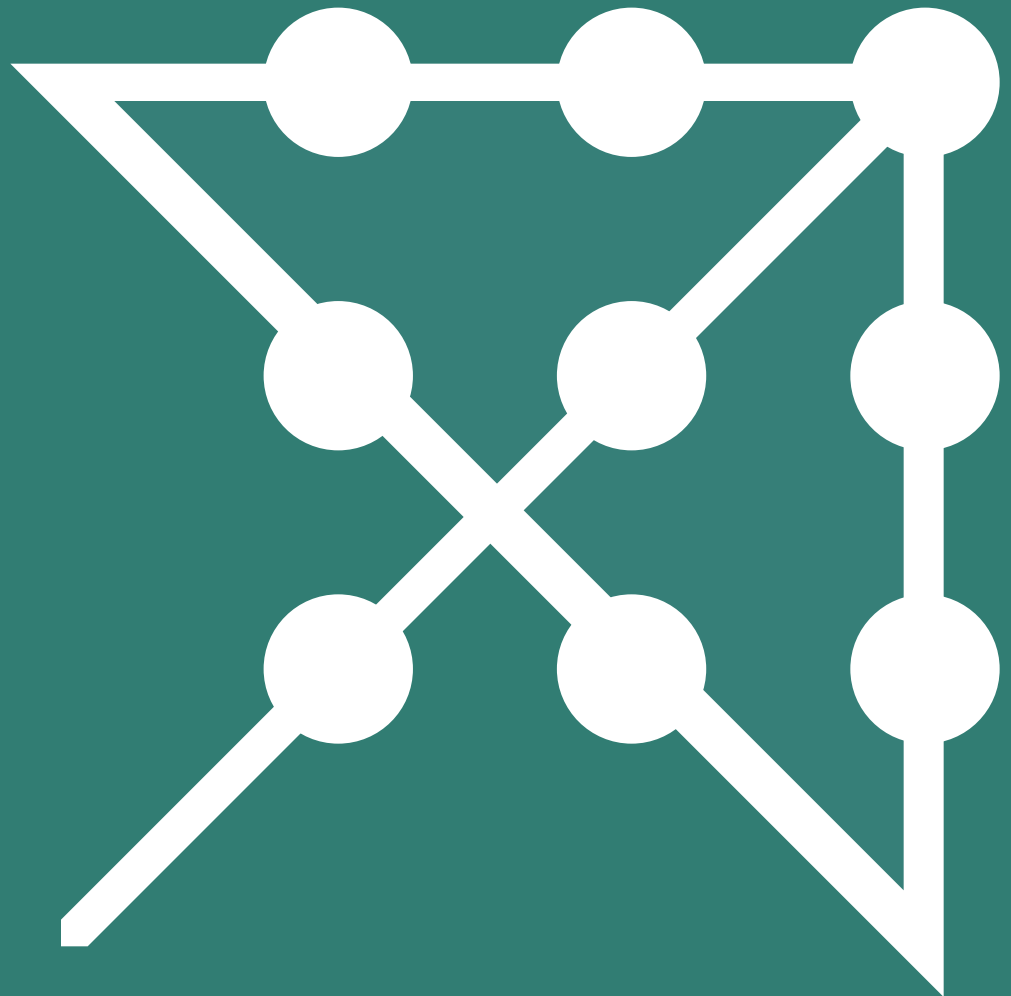
Predicting Inflation

Yardeni Research, Inc.

January 31, 2019

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blog.yardeni.com



thinking outside the box

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Measuring Price Inflation

Figure 1.

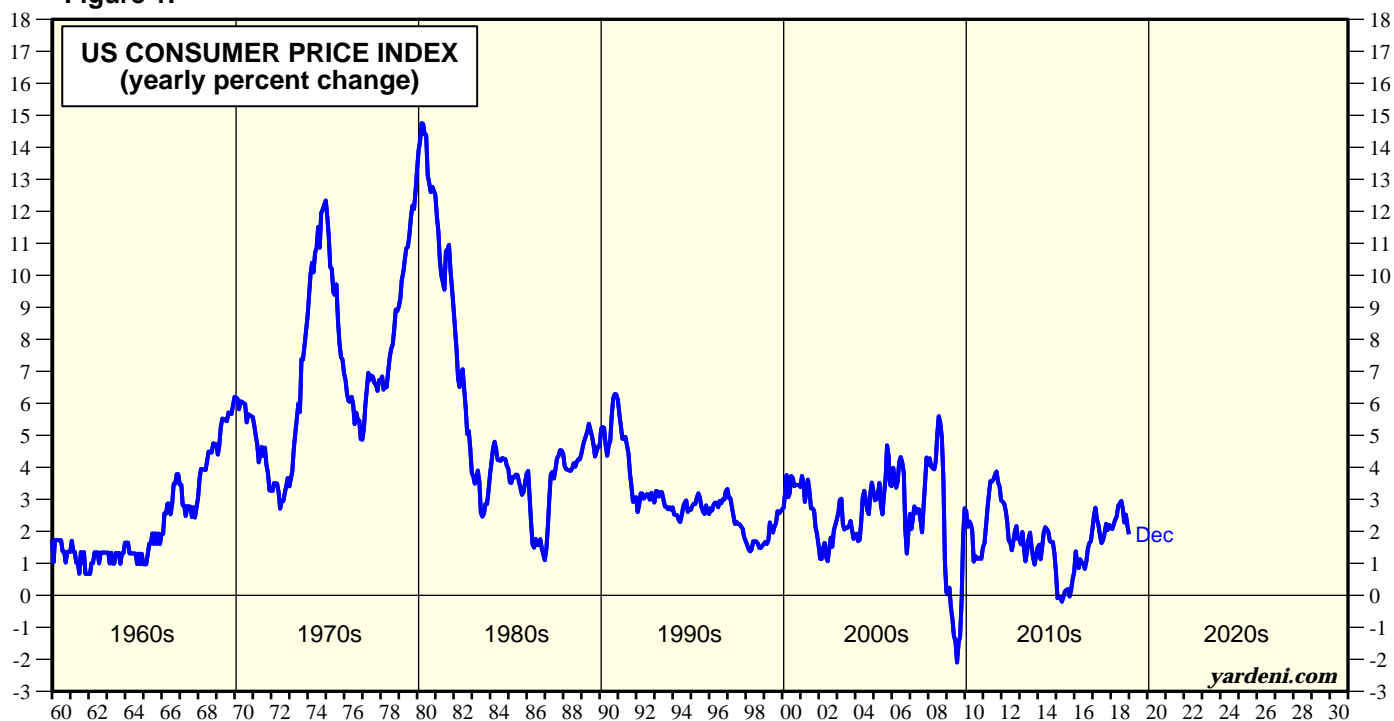
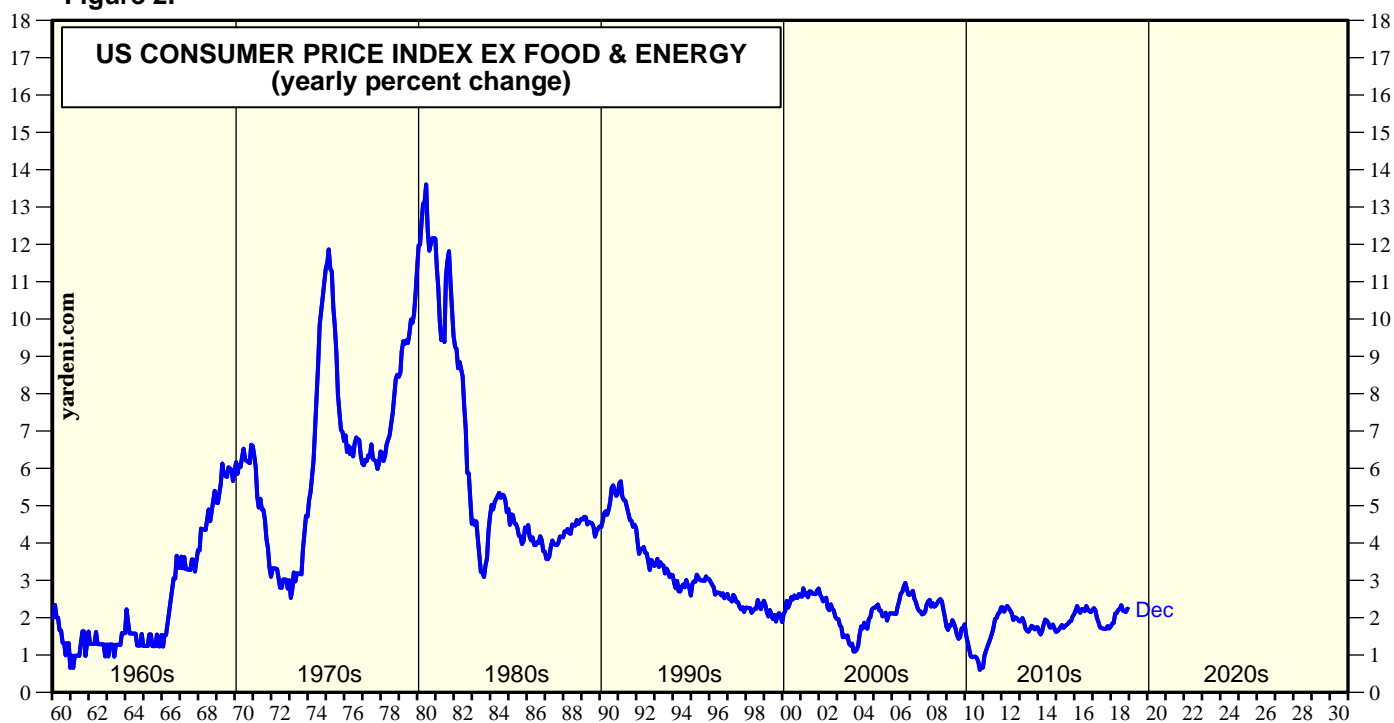
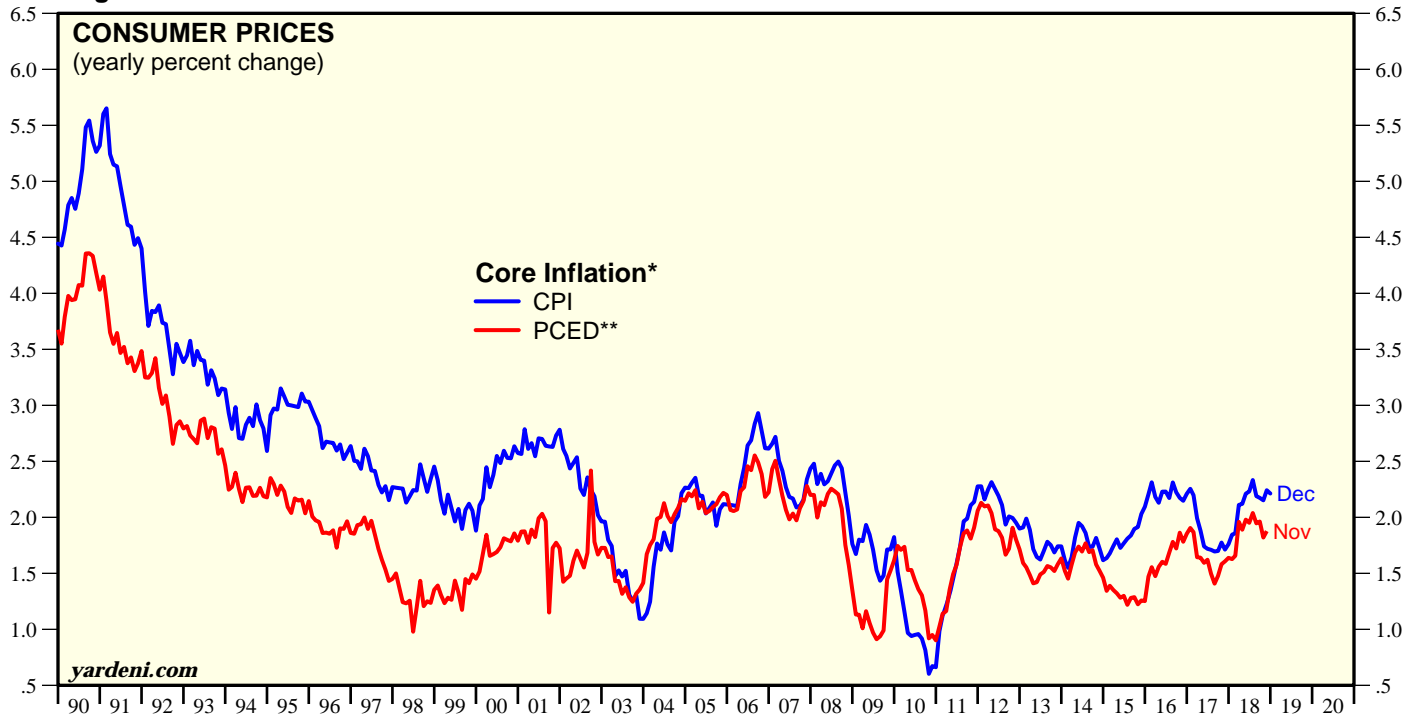


Figure 2.



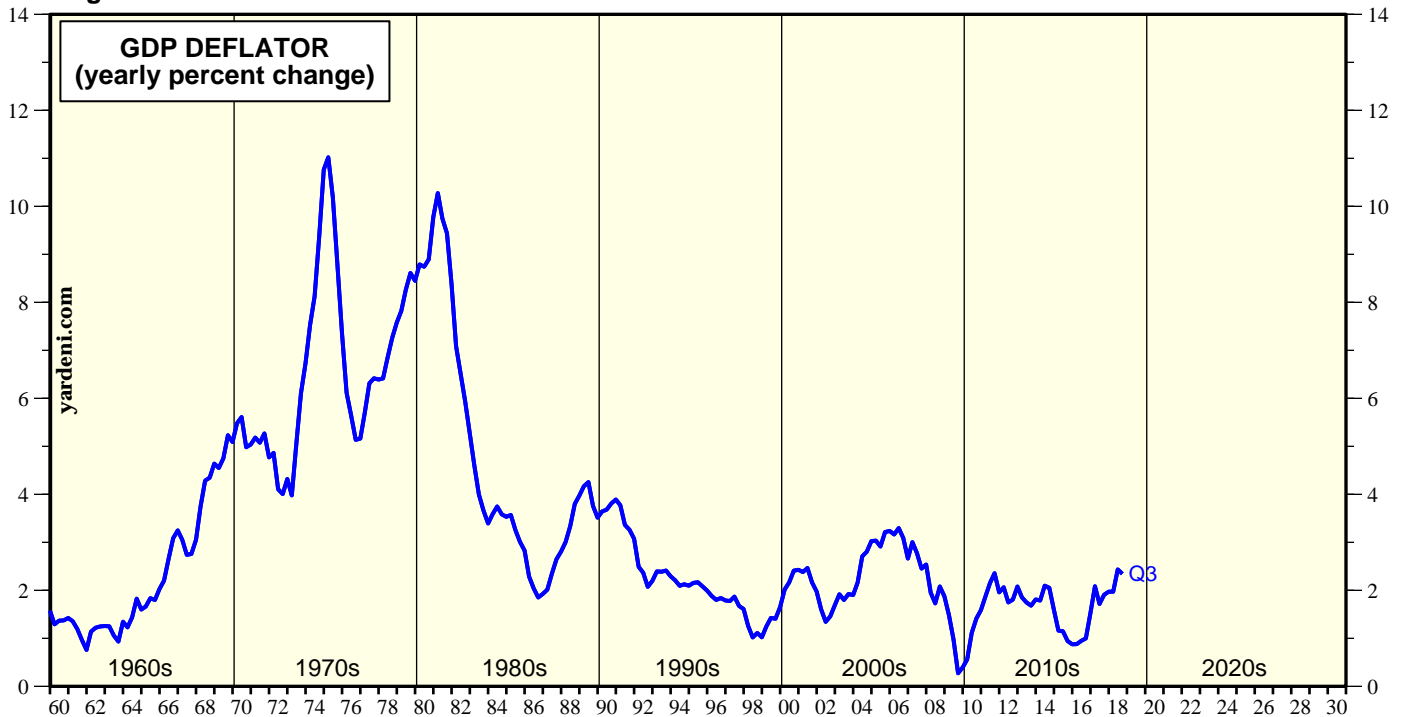
Measuring Price Inflation

Figure 3.



* Excluding food and energy.
** Personal consumption expenditures deflator.
Source: Bureau of Economic Analysis and Bureau of Labor Statistics.

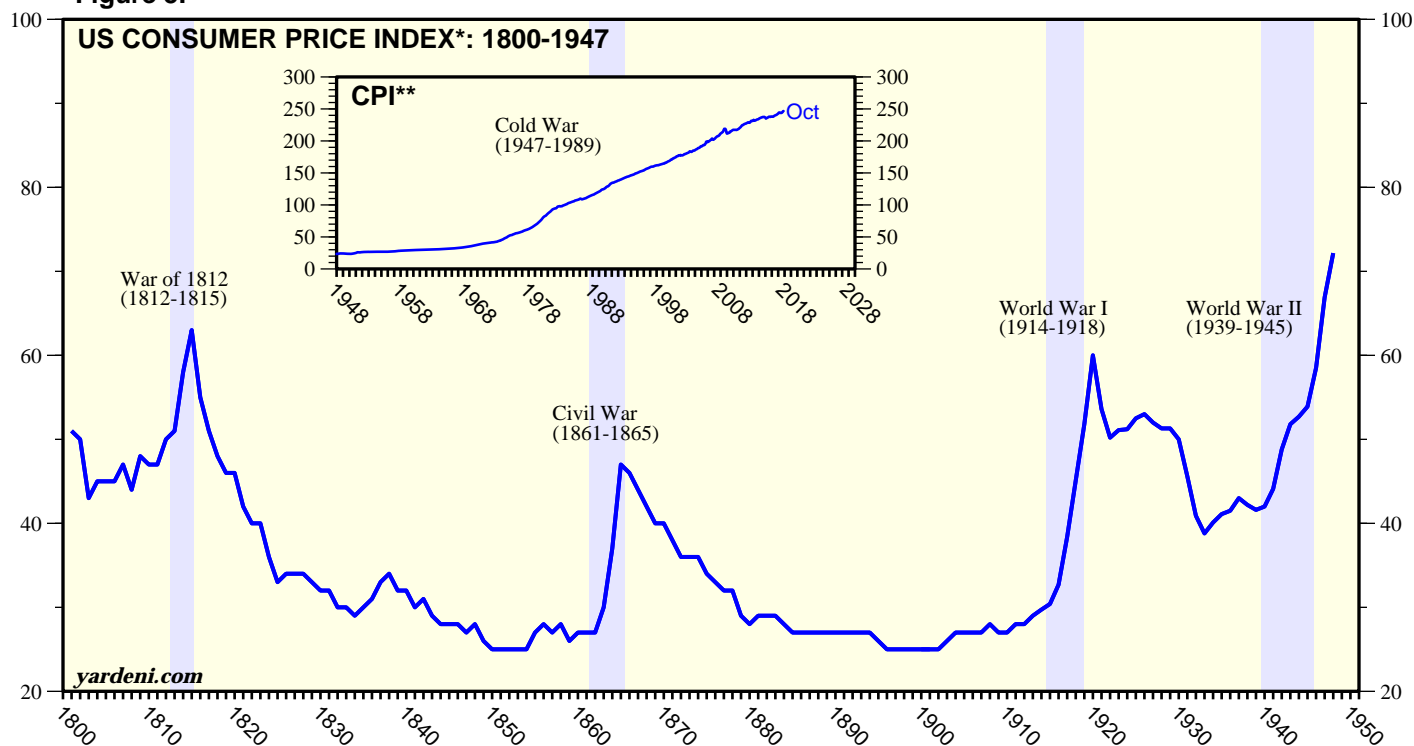
Figure 4.



Source: Bureau of Economic Analysis.

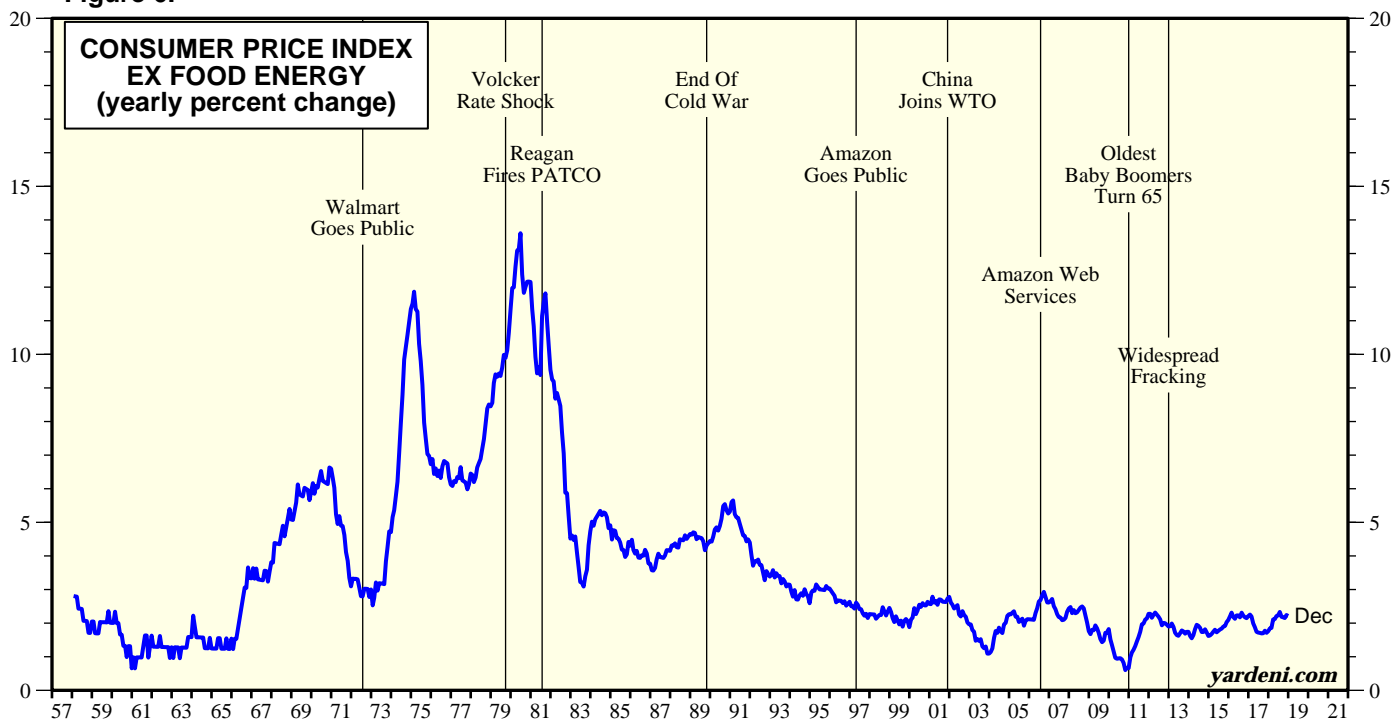
Tolstoy Model of Inflation

Figure 5.



* Annual data. Base index from 1800 to 1947 is 1967 = 100.
 ** 1982-84=100.
 Source: Census Bureau, Historical Statistics of the United States.

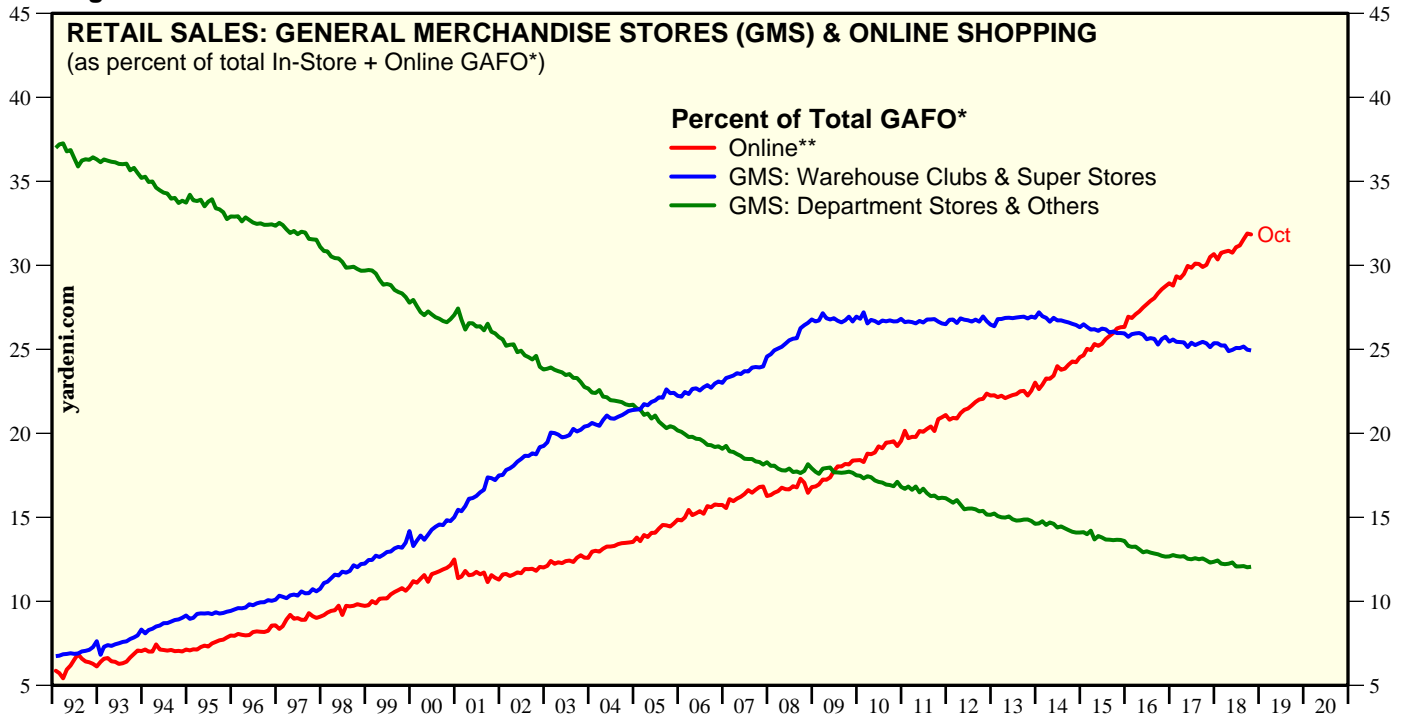
Figure 6.



Source: Bureau of Labor Statistics.

Tolstoy Model of Inflation

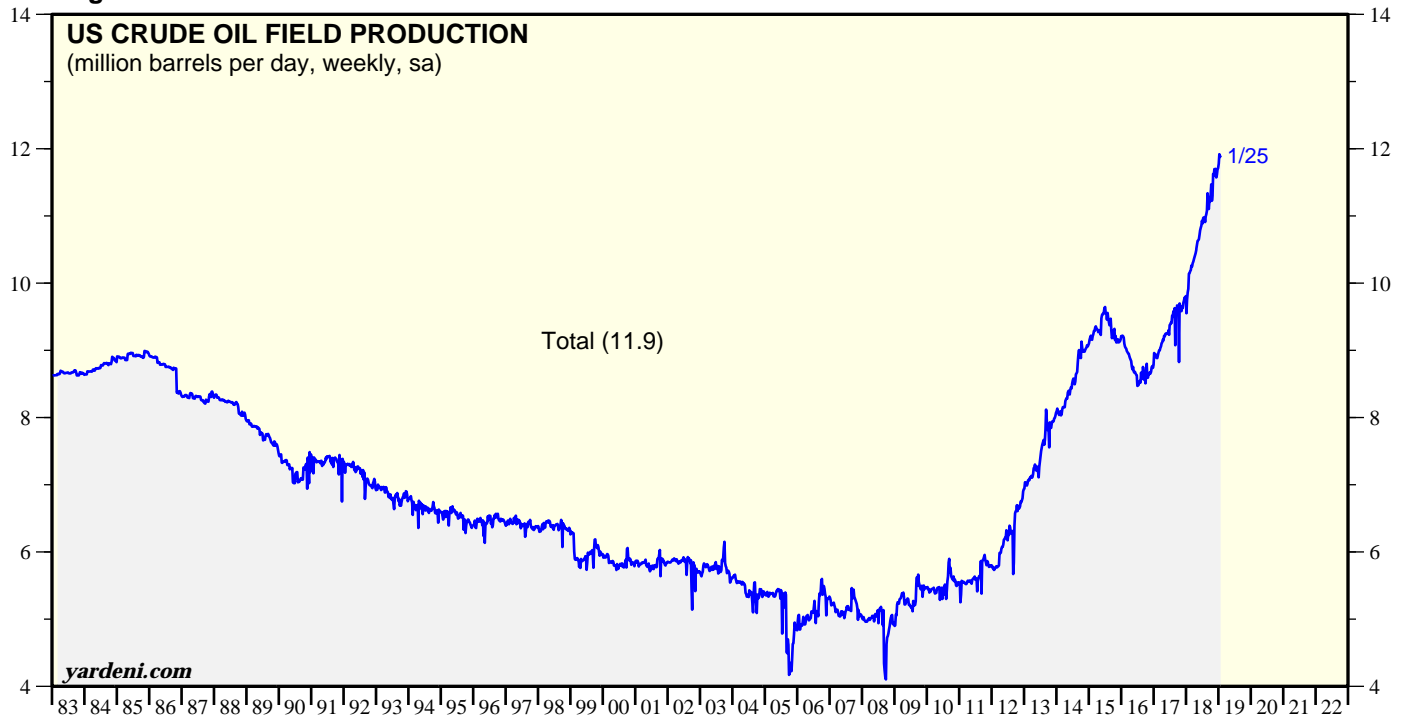
Figure 7.



* GAFO (general merchandise, apparel and accessories, furniture, and other sales) includes retailers that specialize in department-store types of merchandise such as furniture & home furnishings, electronics & appliances, clothing & accessories, sporting goods, hobby, book, and music, general merchandise, office supply, stationery, and gift stores.

** Electronic shopping and mail order houses.
Source: Census Bureau and Haver Analytics.

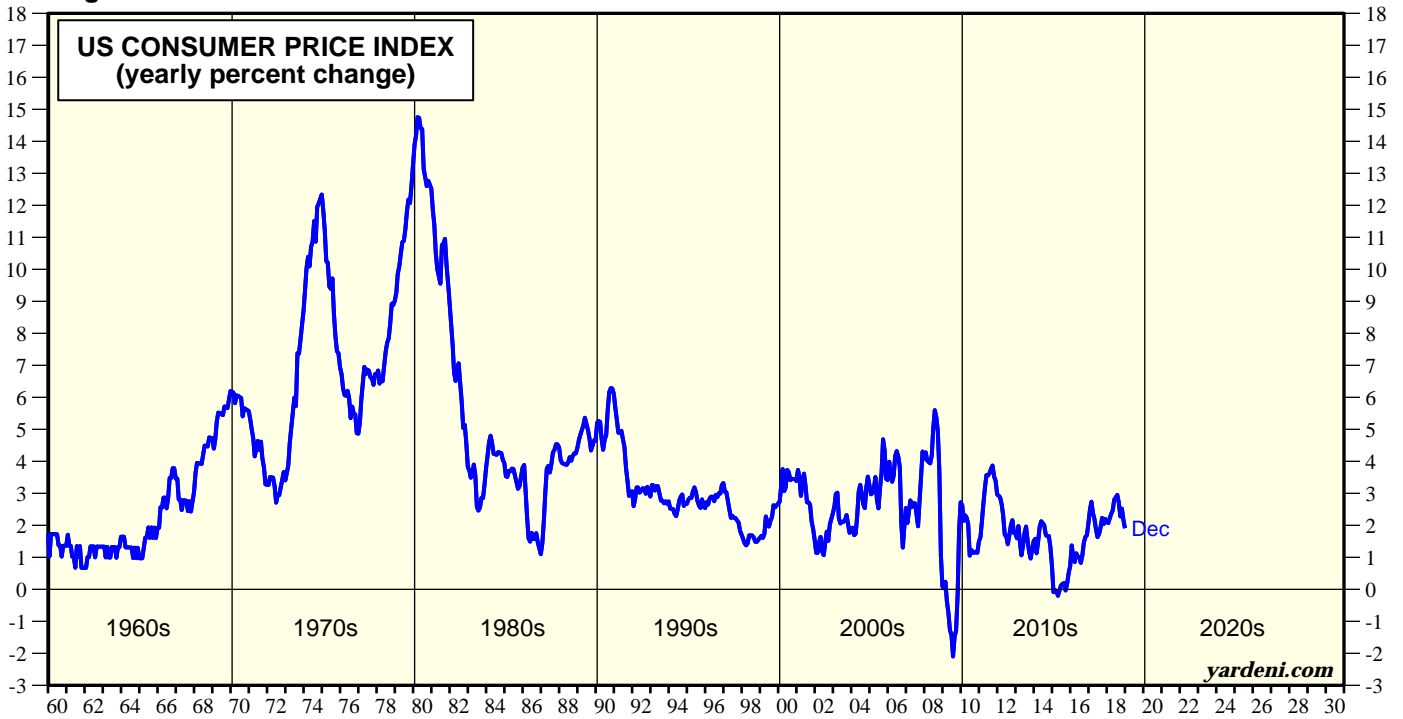
Figure 8.



Source: US Department of Energy and Haver Analytics.

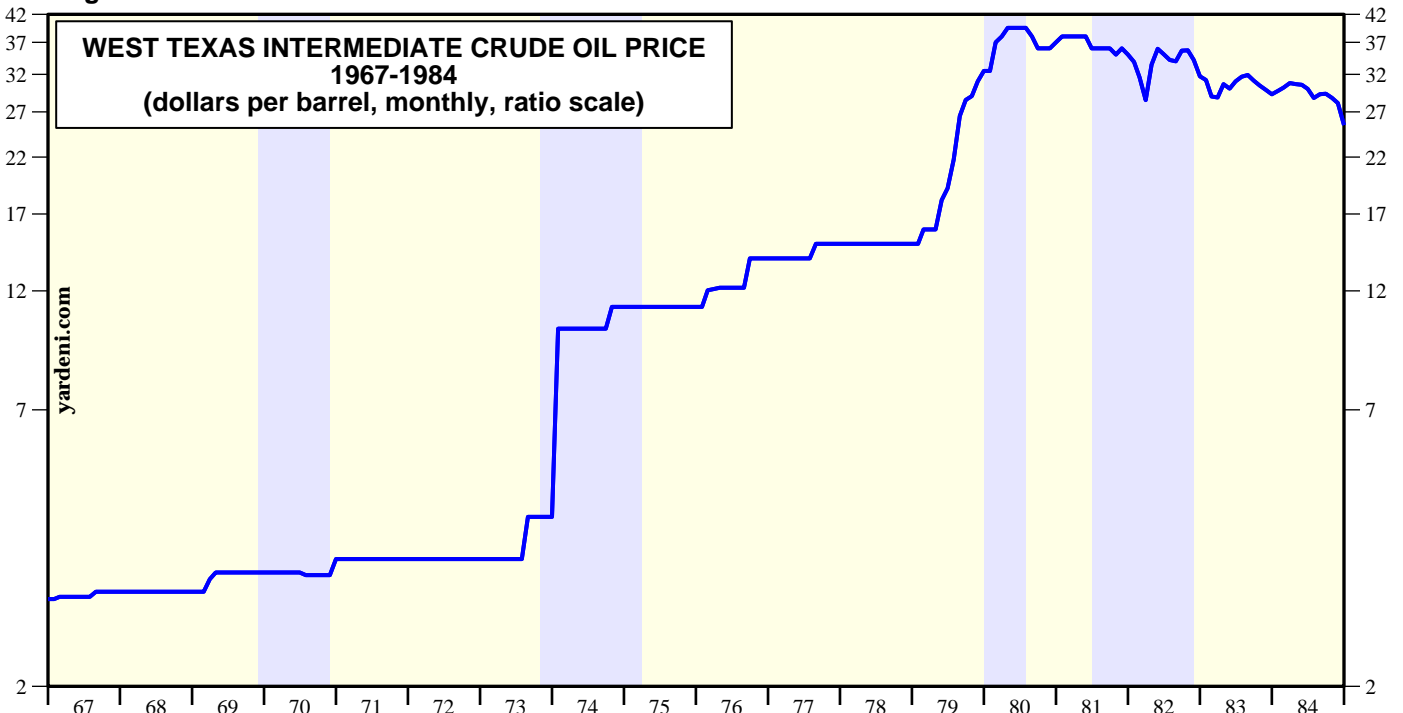
The Great Inflation of the 1970s

Figure 9.



Source: Bureau of Labor Statistics.

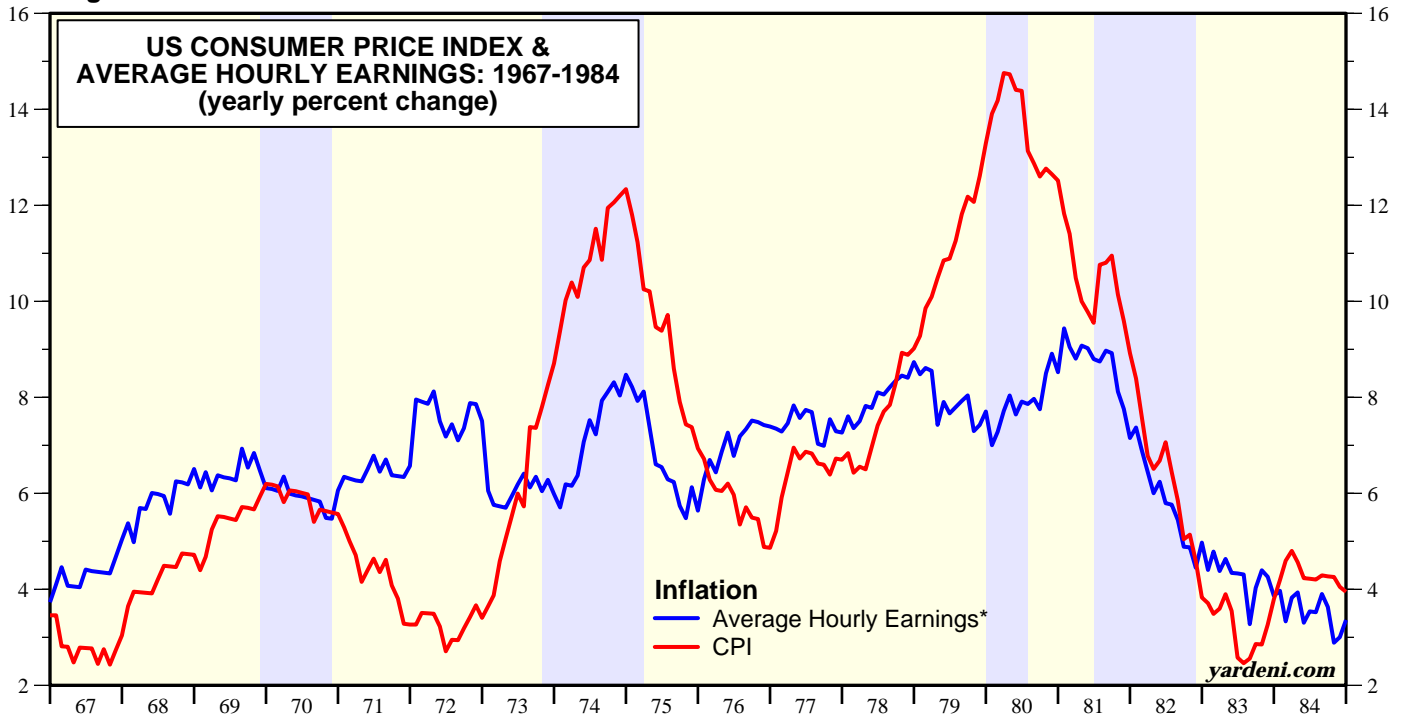
Figure 10.



* Shaded areas denote recessions according to the National Bureau of Economic Research. Monthly from 1946 to 1984, daily thereafter.
Source: Haver Analytics.

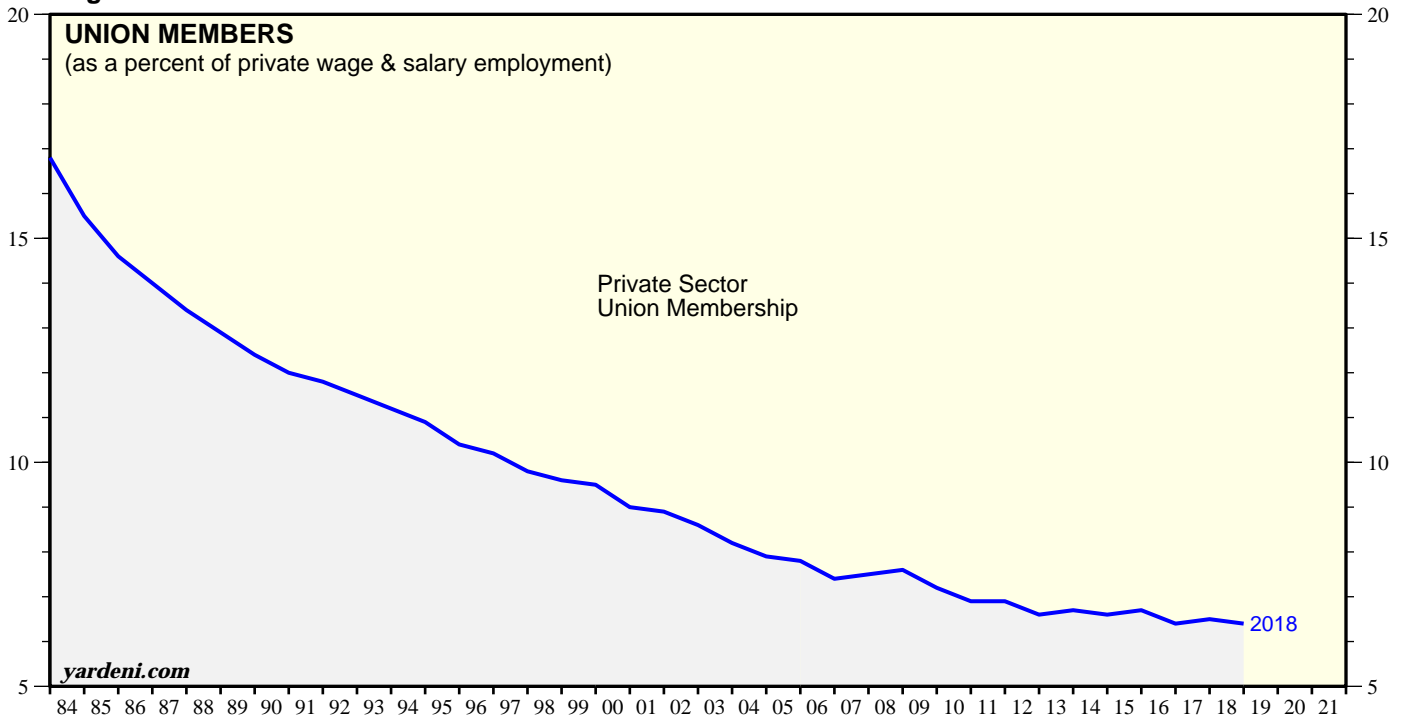
The Great Inflation of the 1970s

Figure 11.



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

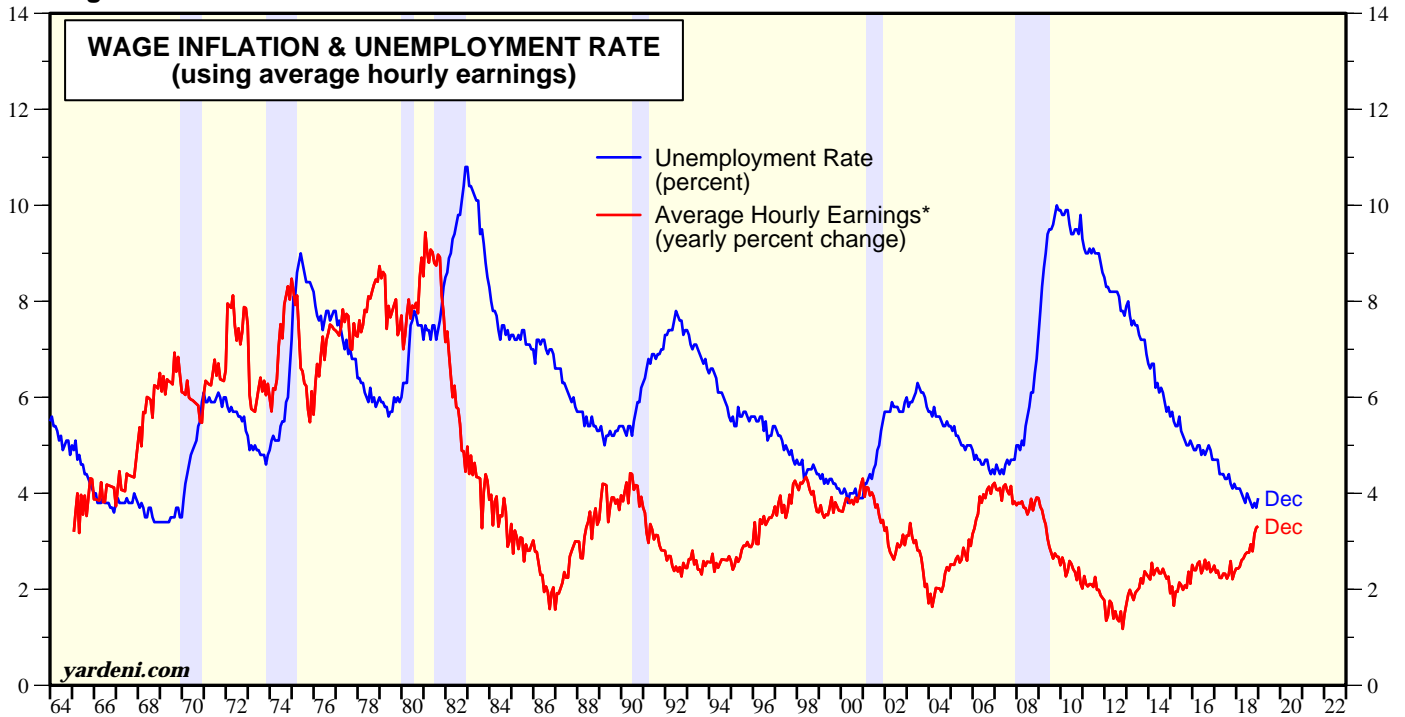
Figure 12.



Source: Bureau of Labor Statistics.

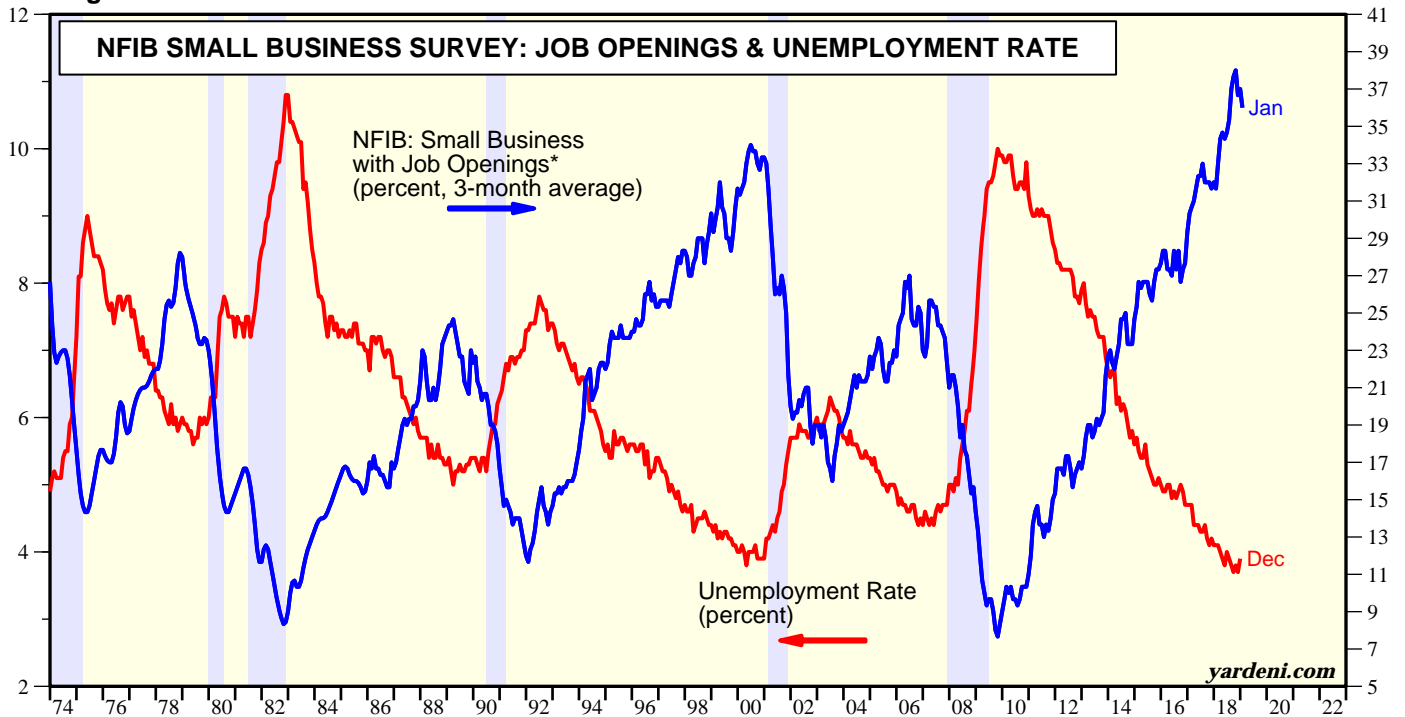
Phillips Curve Model of Wage Inflation

Figure 13.



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

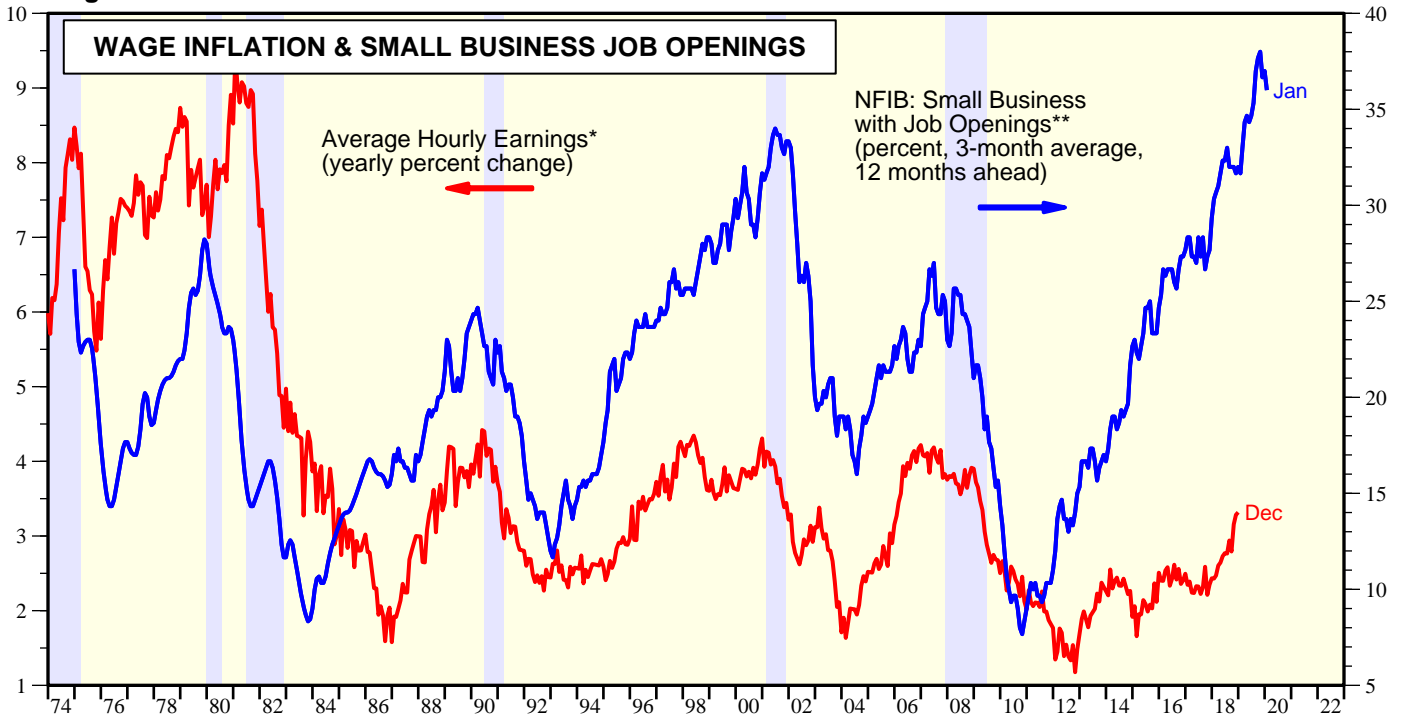
Figure 14.



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

Phillips Curve Model of Wage Inflation

Figure 15.



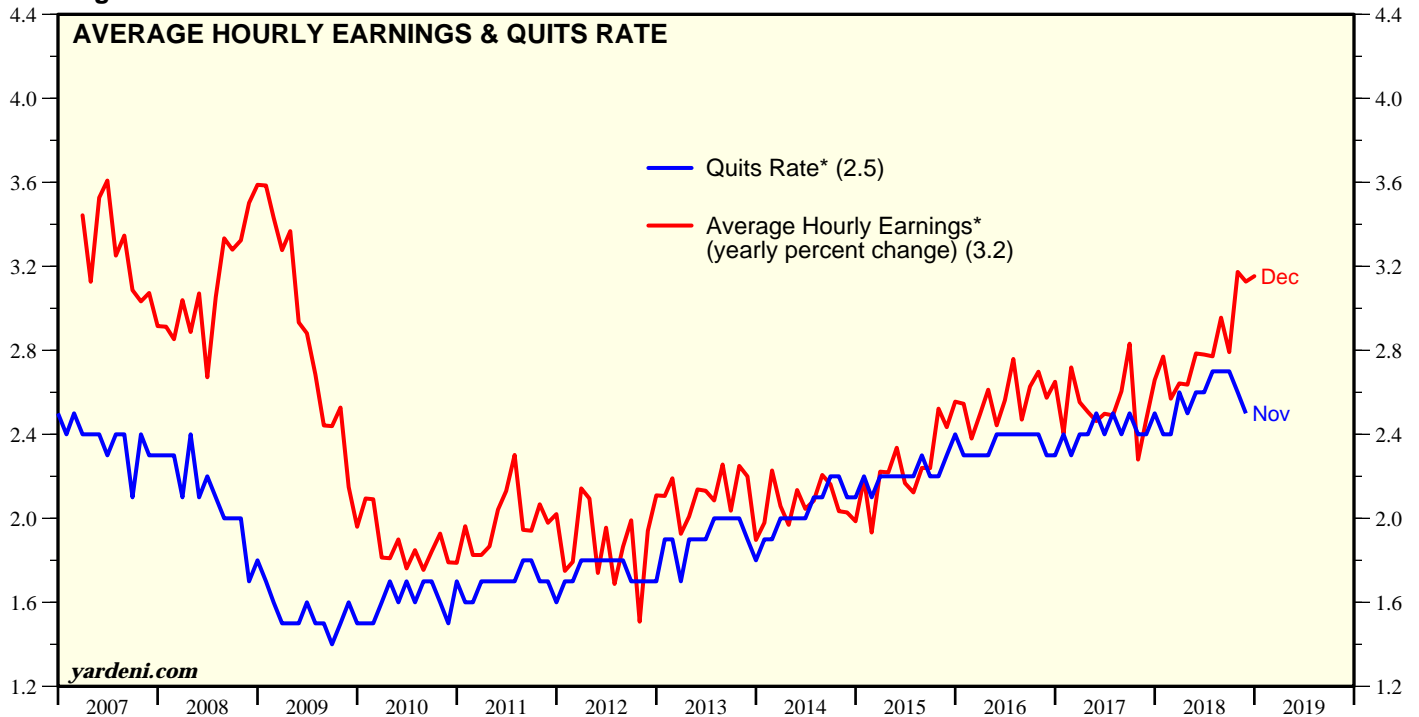
* Production & nonsupervisory workers

** First month of every quarter from 1974 to 1986, then monthly.

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

Source: Bureau of Economic Analysis and National Federation of Independent Business.

Figure 16.

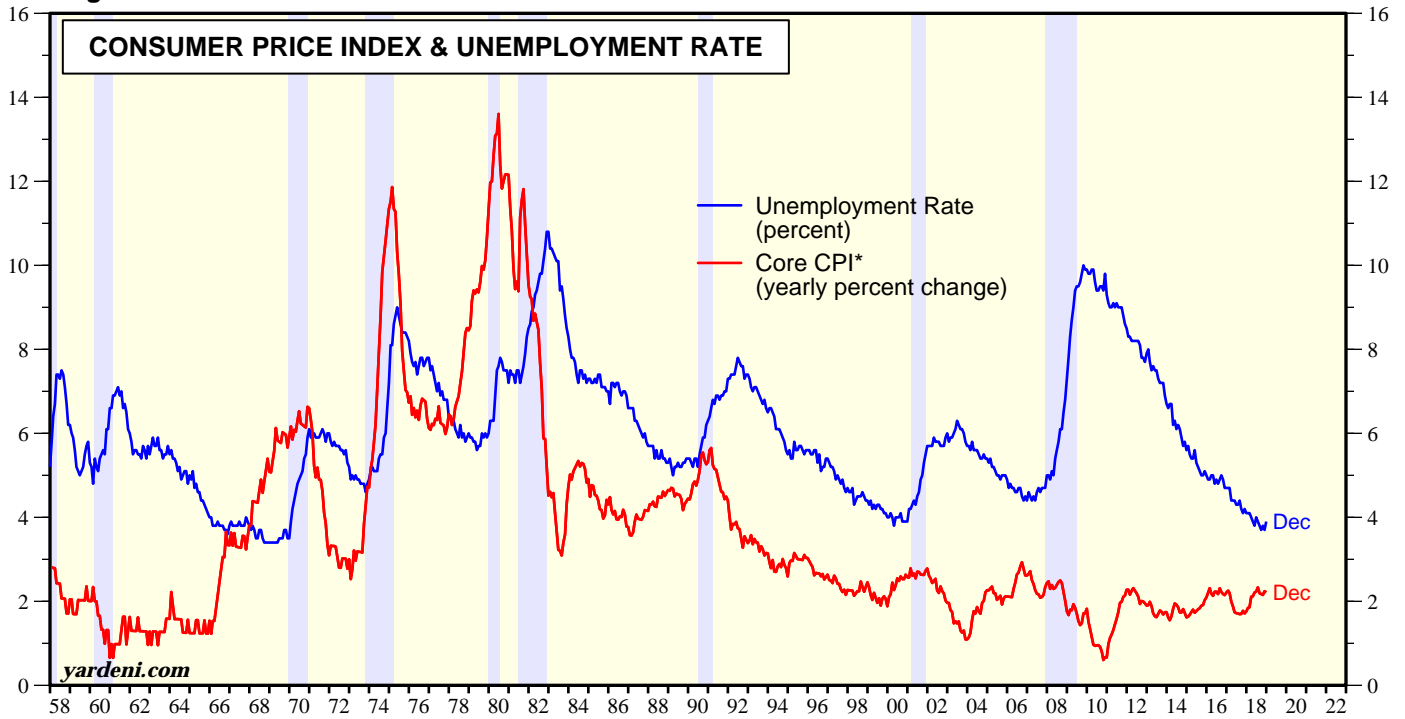


* Private industry.

Source: Bureau of Labor Statistics.

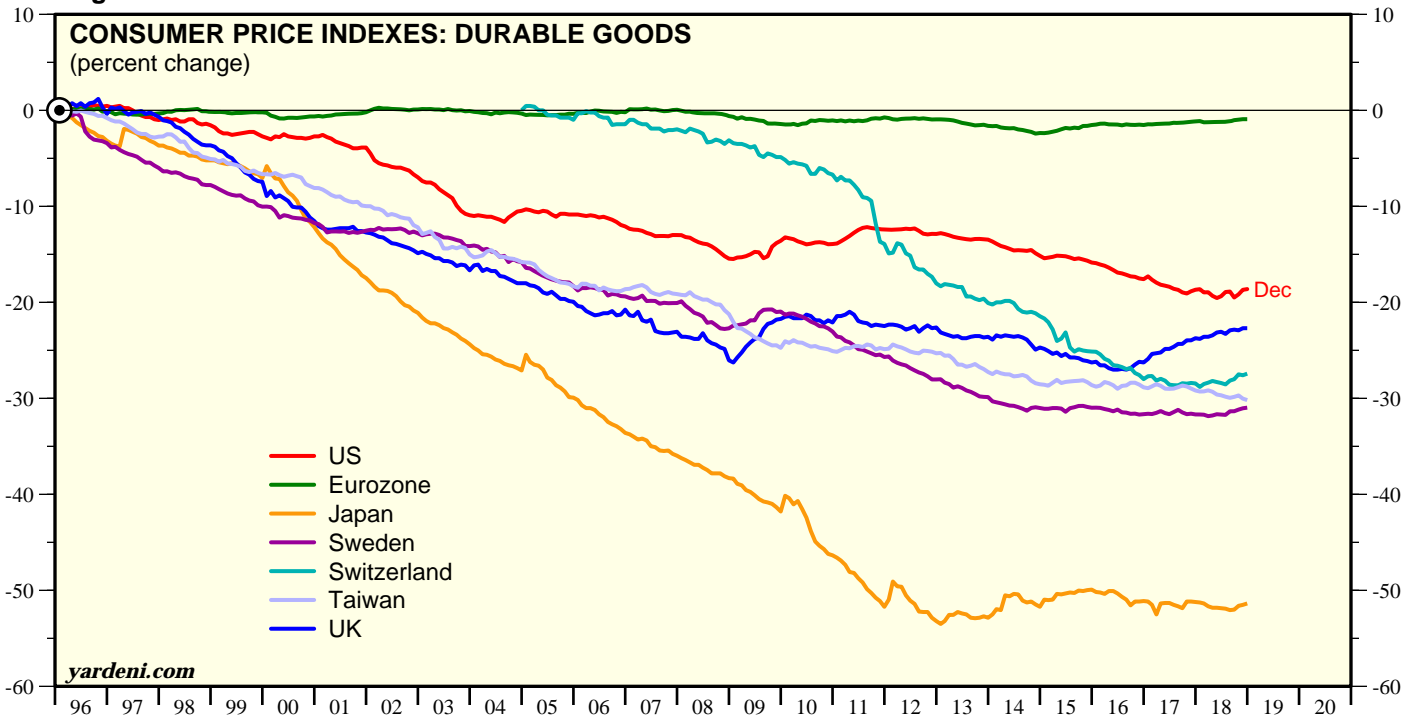
Phillips Curve Model of Price Inflation

Figure 17.



* Excluding food and energy.
 Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
 Source: Bureau of Labor Statistics and Bureau of Economic Analysis.

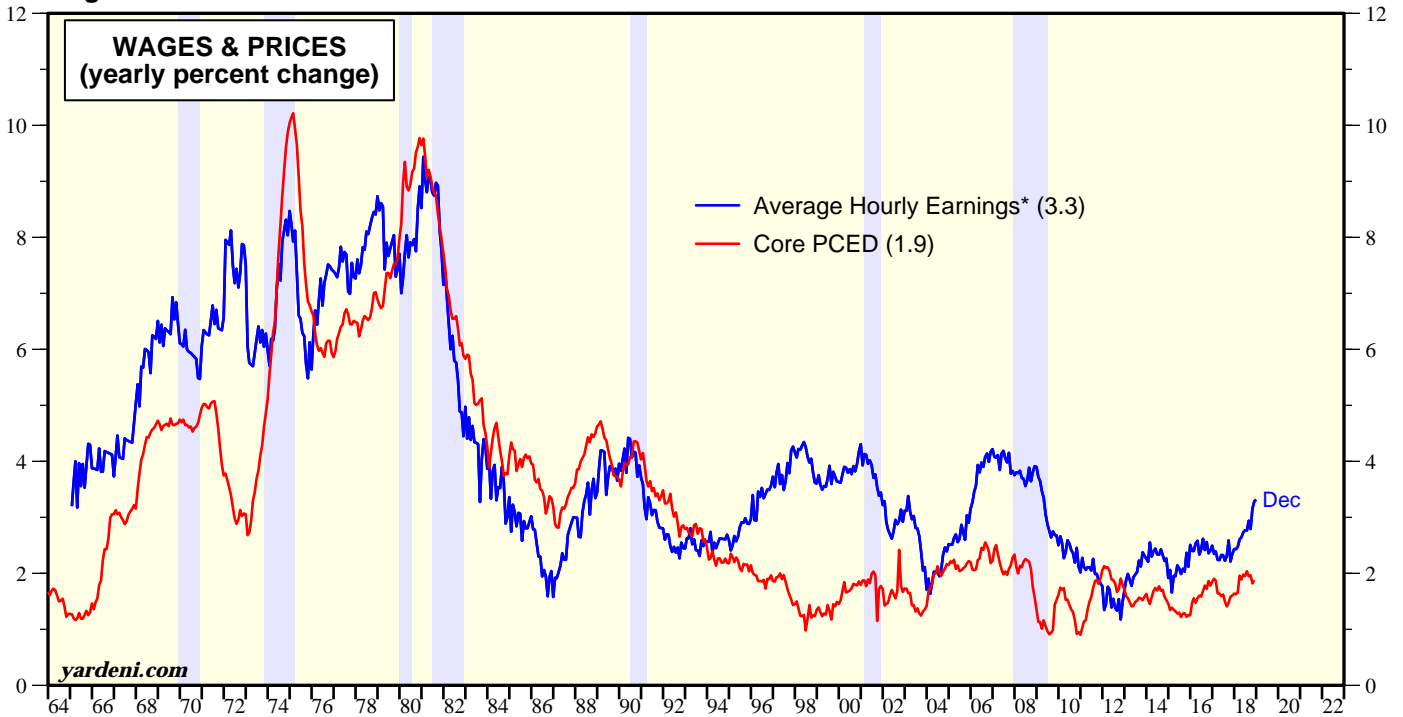
Figure 18.



Source: Bureau of Labor Statistics.

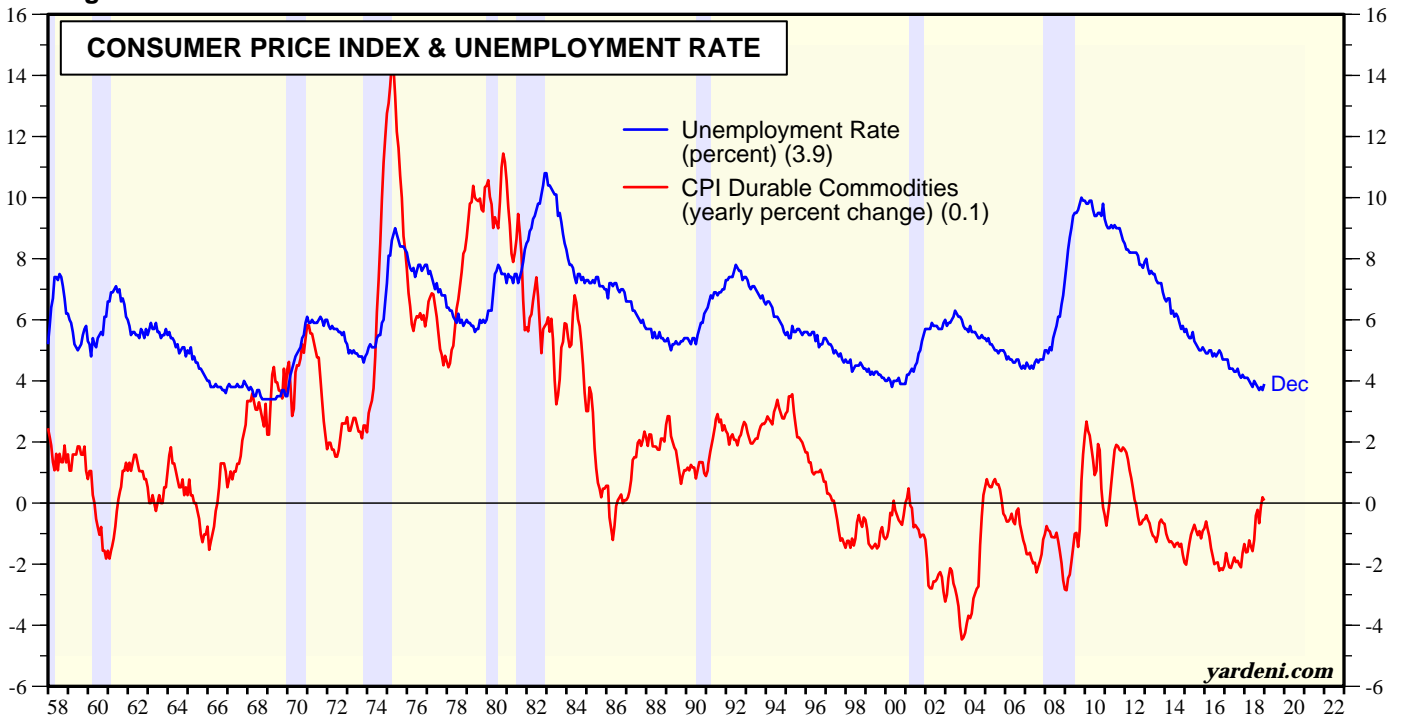
Phillips Curve Model of Price Inflation

Figure 19.



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

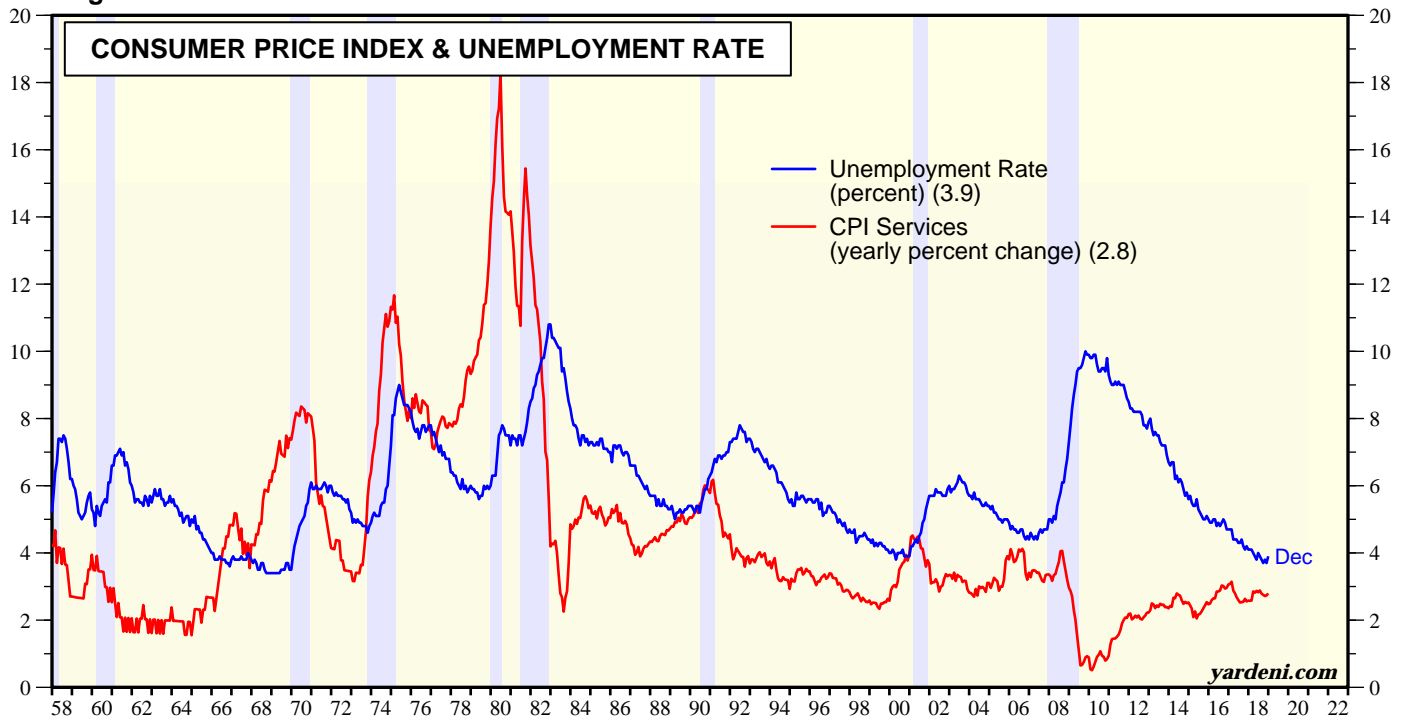
Figure 20.



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

Phillips Curve Model of Price Inflation

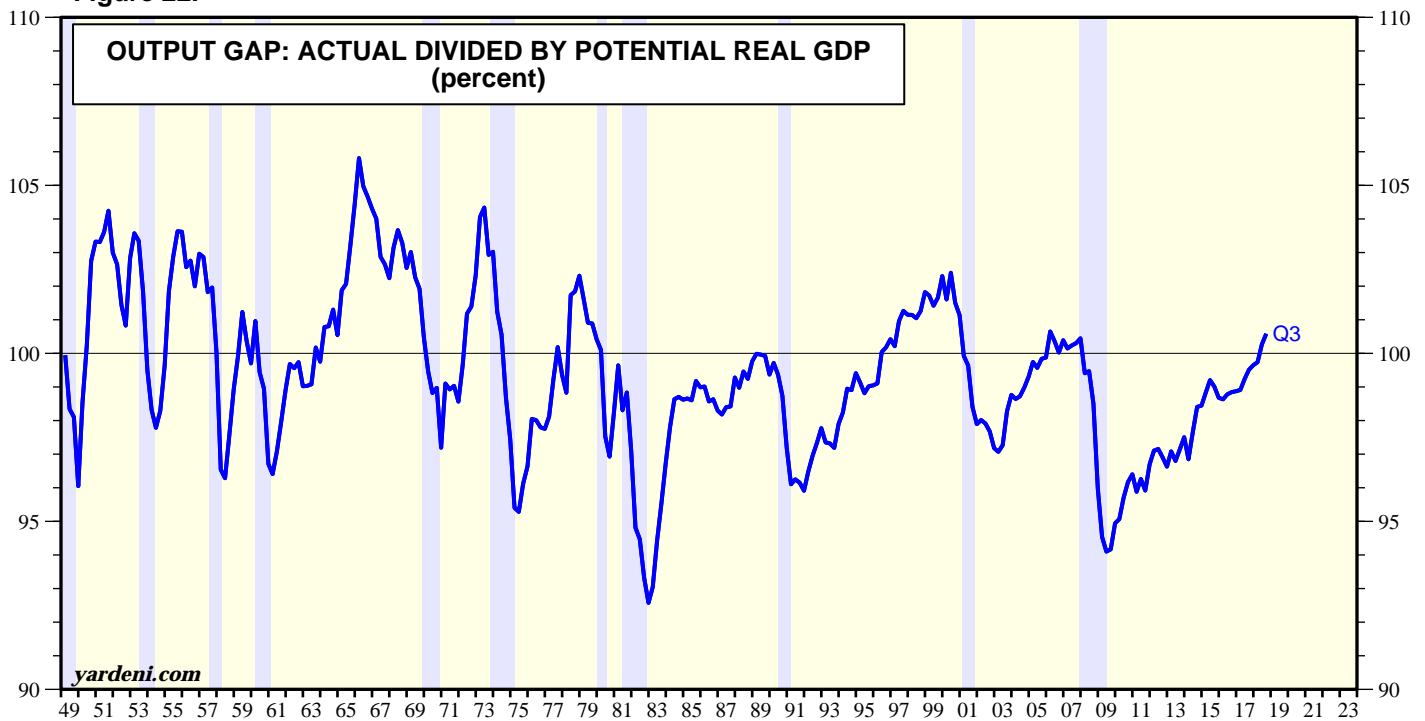
Figure 21.



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

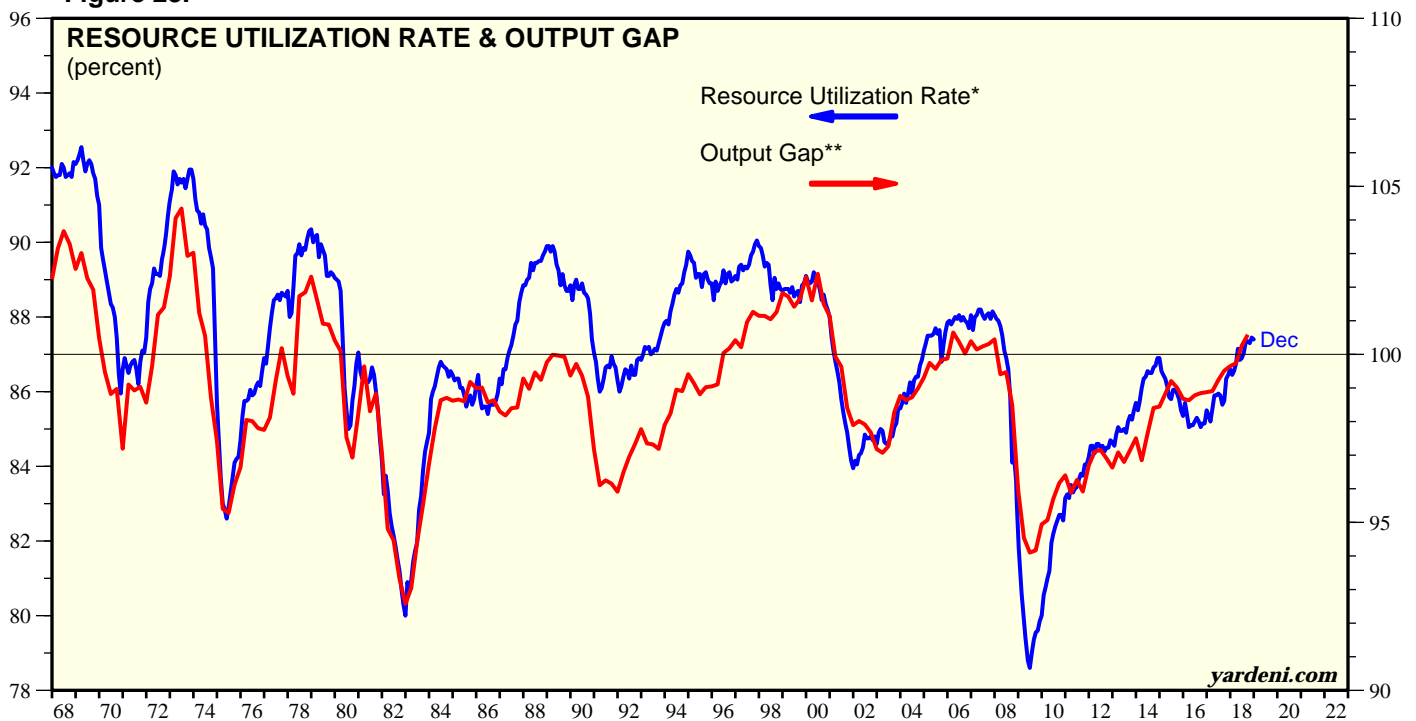
Output Gap Model of Inflation & NAIRU

Figure 22.



Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
 Source: Congressional Budget Office and Bureau of Economic Analysis.

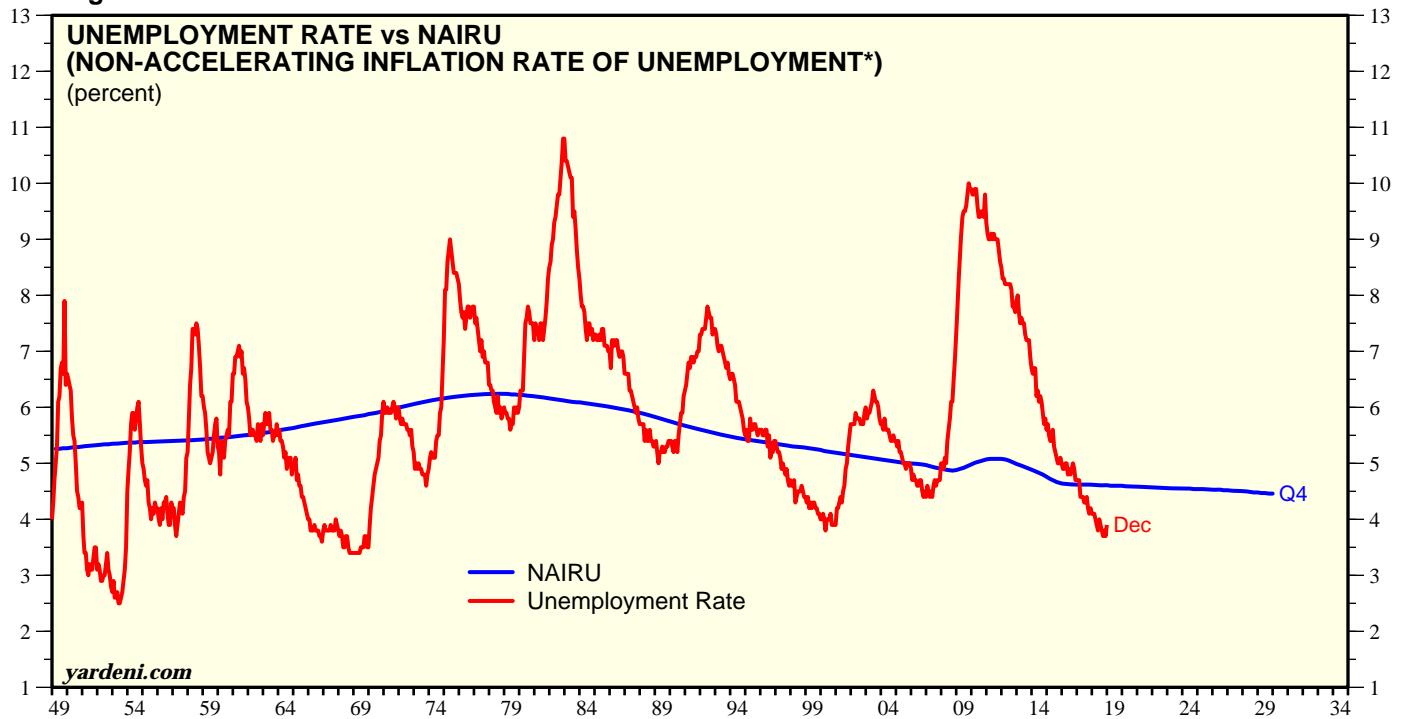
Figure 23.



* Average of all industries' capacity utilization rate and employment rate, i.e., percentage of labor force that is employed.
 ** Actual divided by potential real GDP in percent.
 Source: Congressional Budget Office, Bureau of Labor Statistics, and Federal Reserve Board.

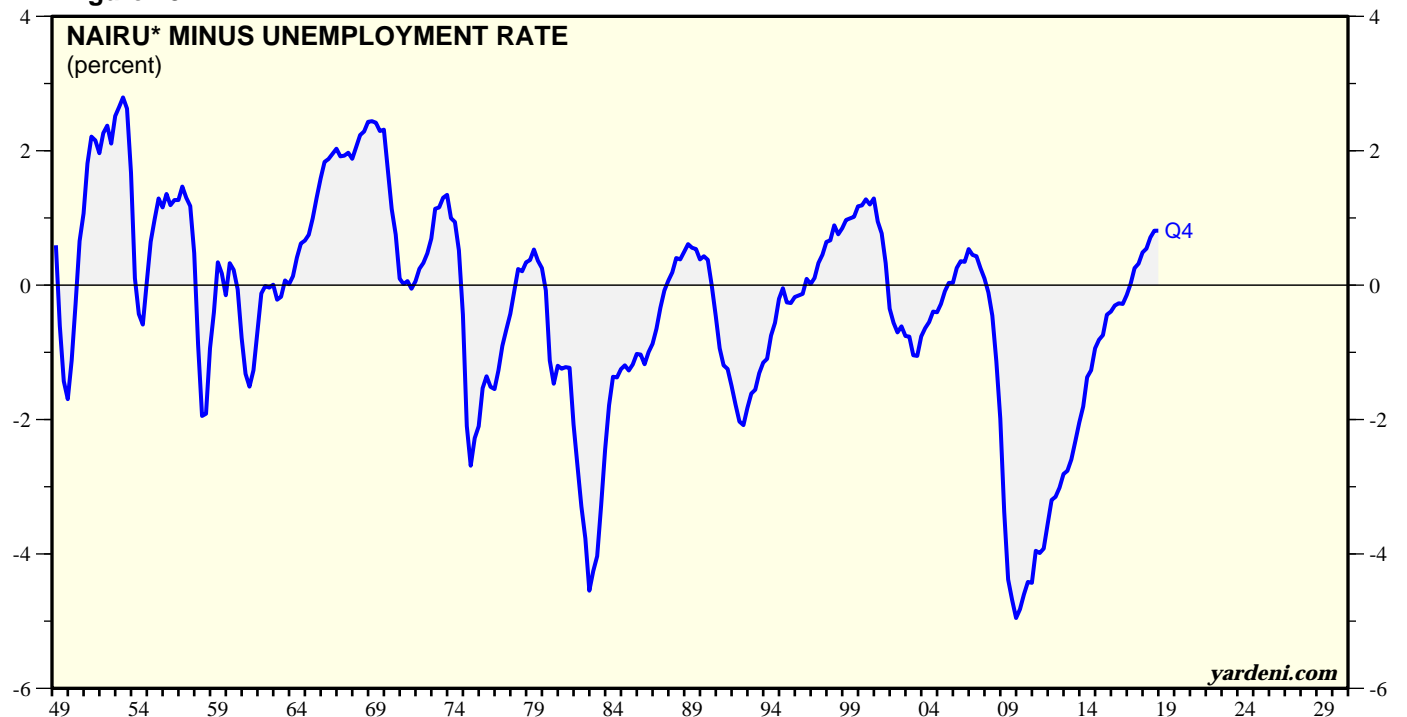
Output Gap Model of Inflation & NAIRU

Figure 24.



* Estimated and projected
 Source: Congressional Budget Office and Bureau of Labor Statistics.

Figure 25.



* Non-accelerating inflation rate of unemployment.
 Source: Congressional Budget Office.

Monetarist Model of Inflation

Figure 26.

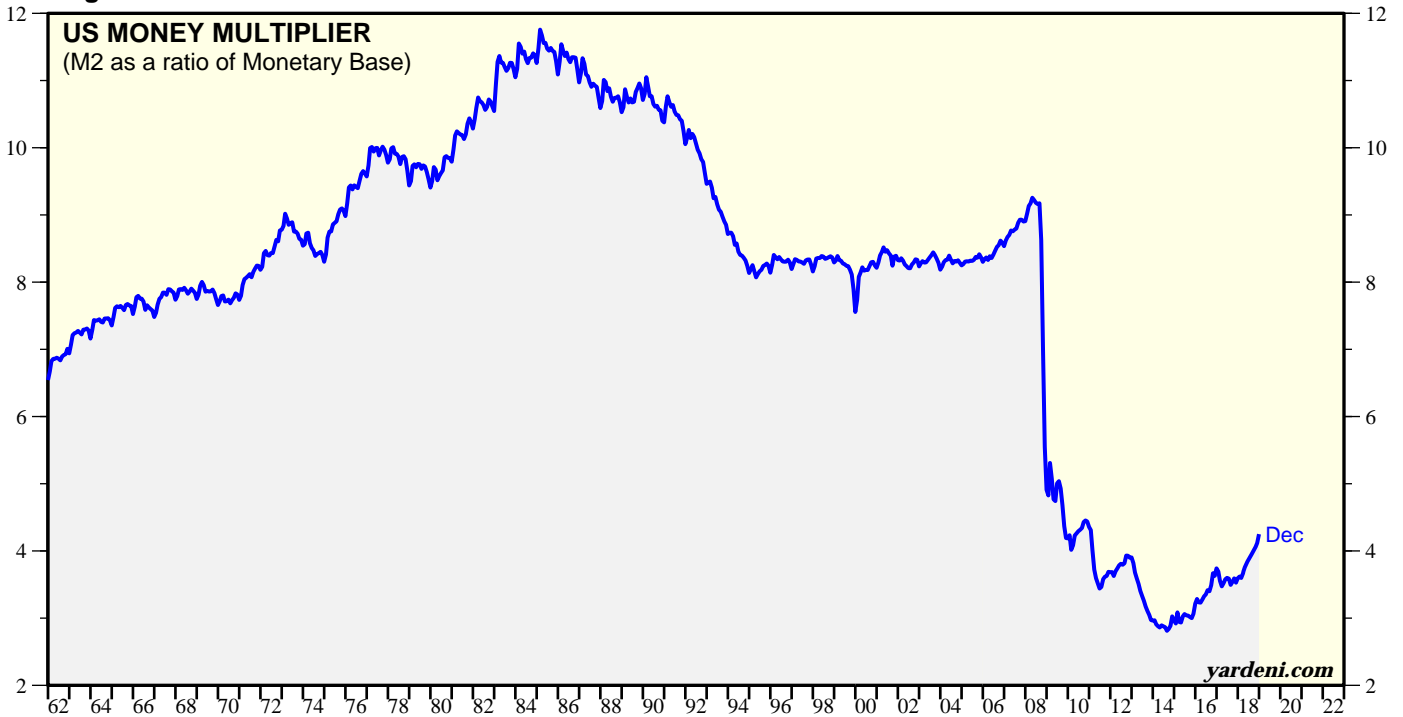
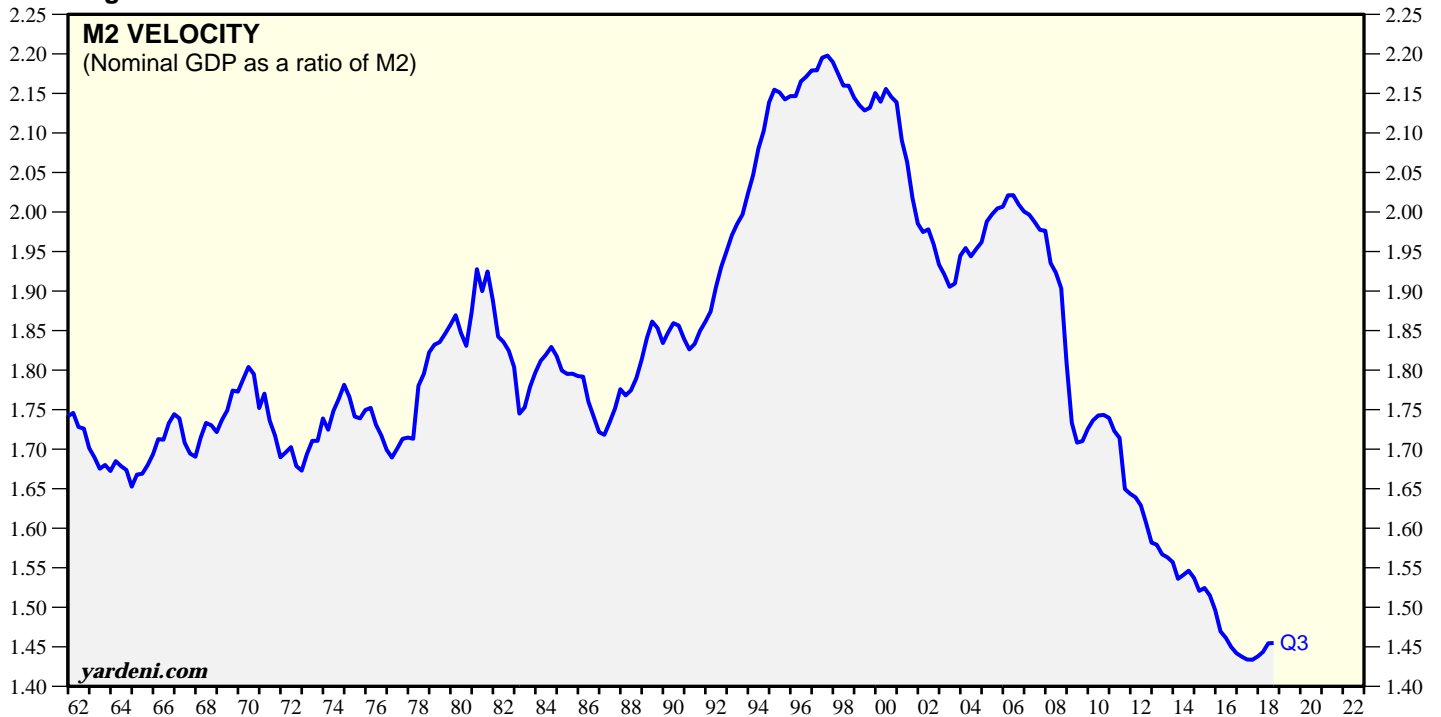
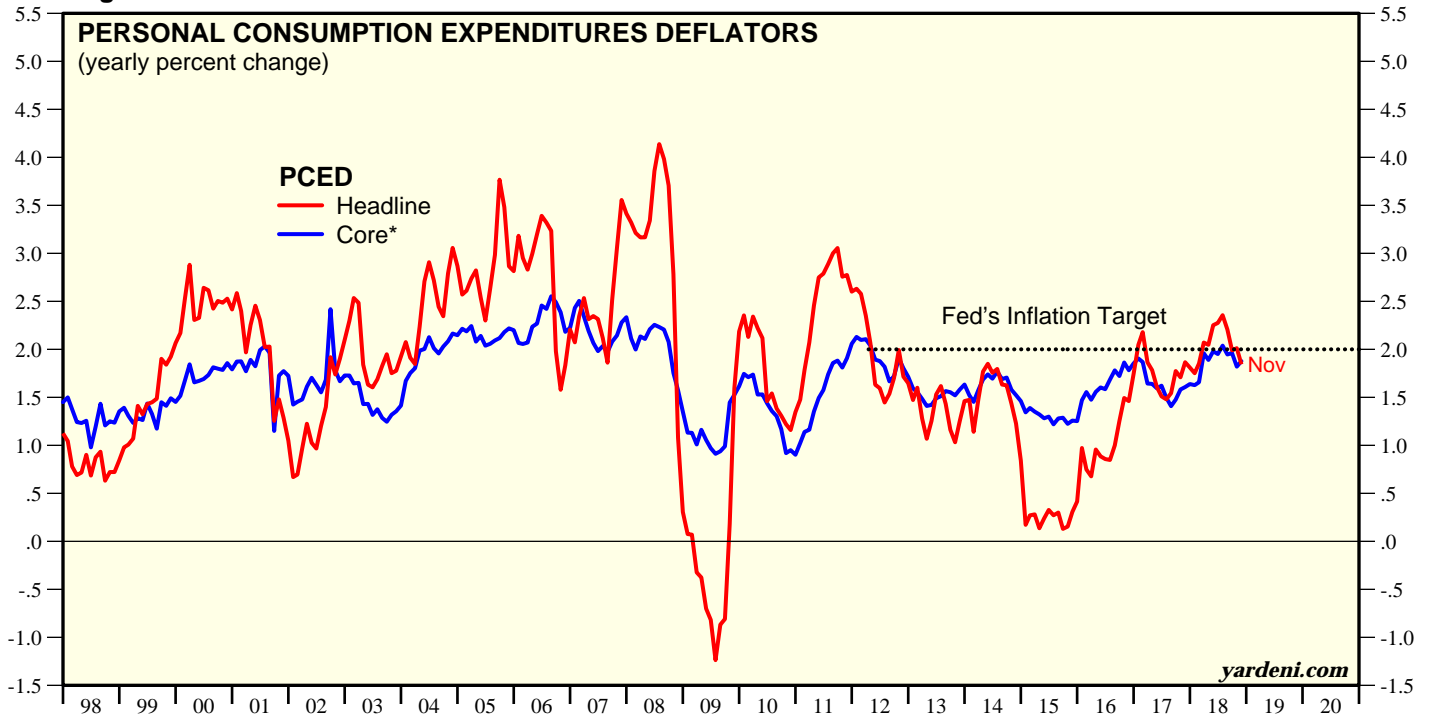


Figure 27.



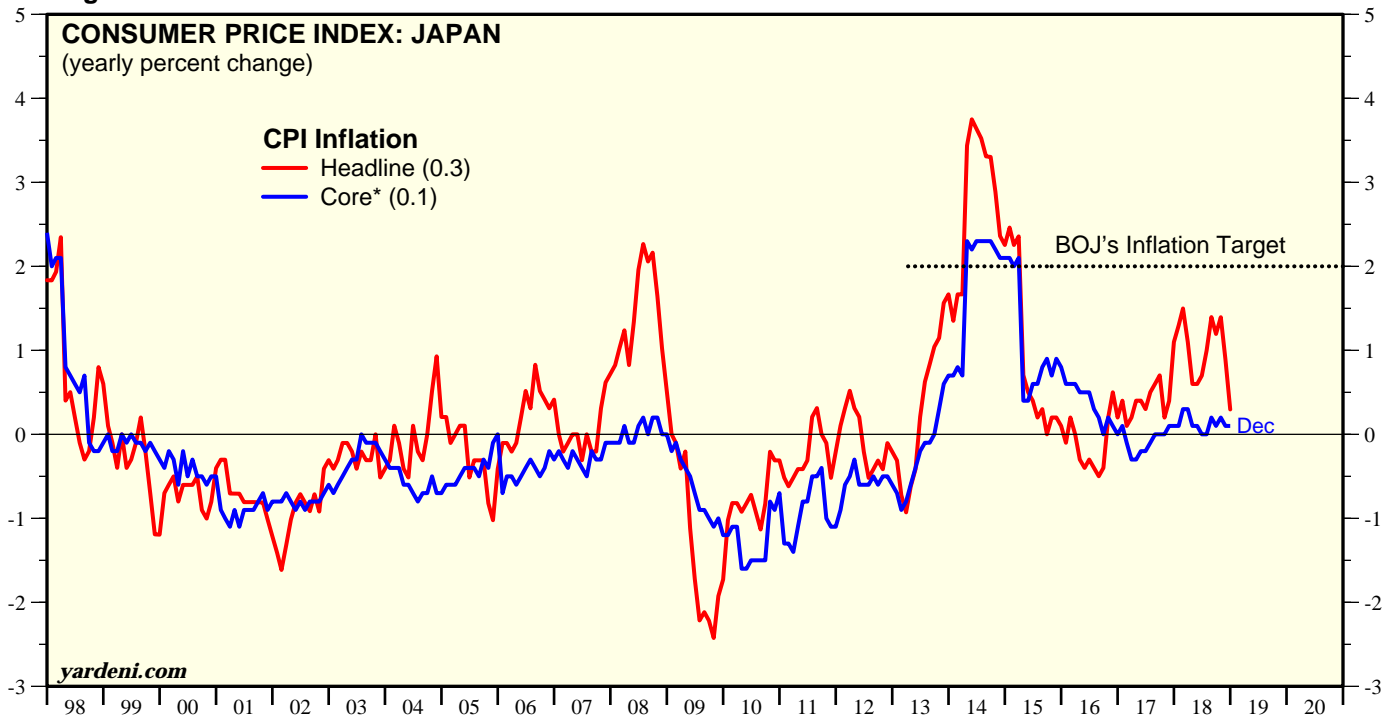
Monetarist Model of Inflation

Figure 28.



* Excluding food and energy prices
Source: Bureau of Economic Analysis.

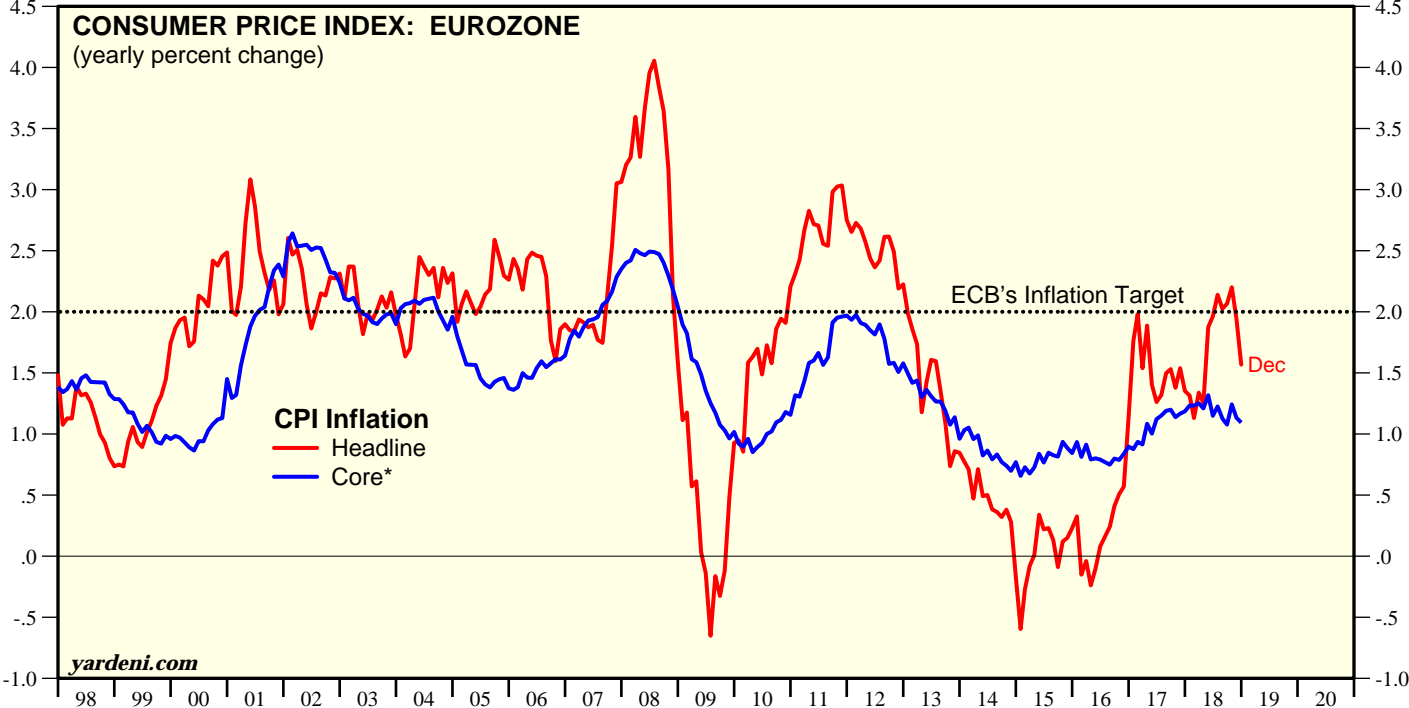
Figure 29.



* Excluding energy, food, alcohol.
Source: Ministry of Internal Affairs and Communications.

Monetarist Model of Inflation

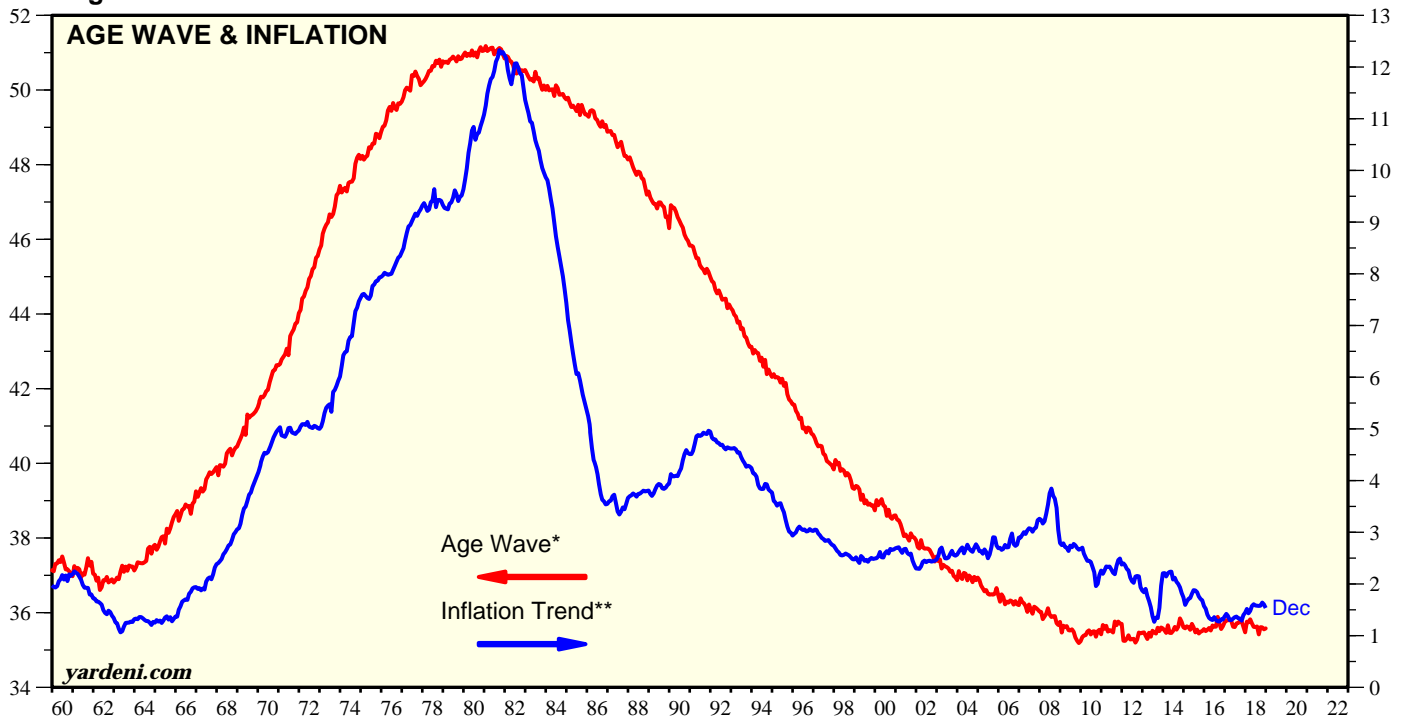
Figure 30.



* Excluding energy and unprocessed food.
Source: Haver Analytics.

Microeconomics & the Future of Inflation

Figure 31.

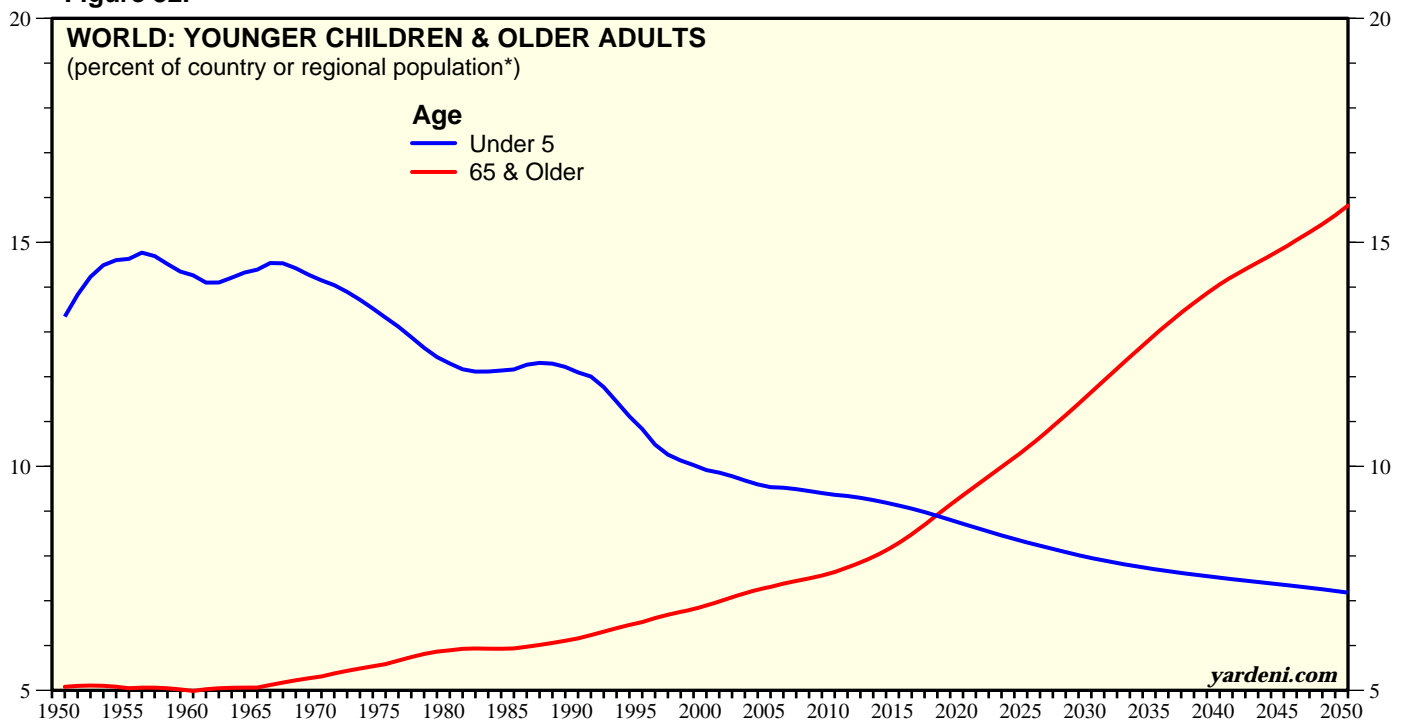


* Percent of labor force 16-34 years old.

** Five-year percent change in CPI at annual rate.

Source: Bureau of Labor Statistics.

Figure 32.

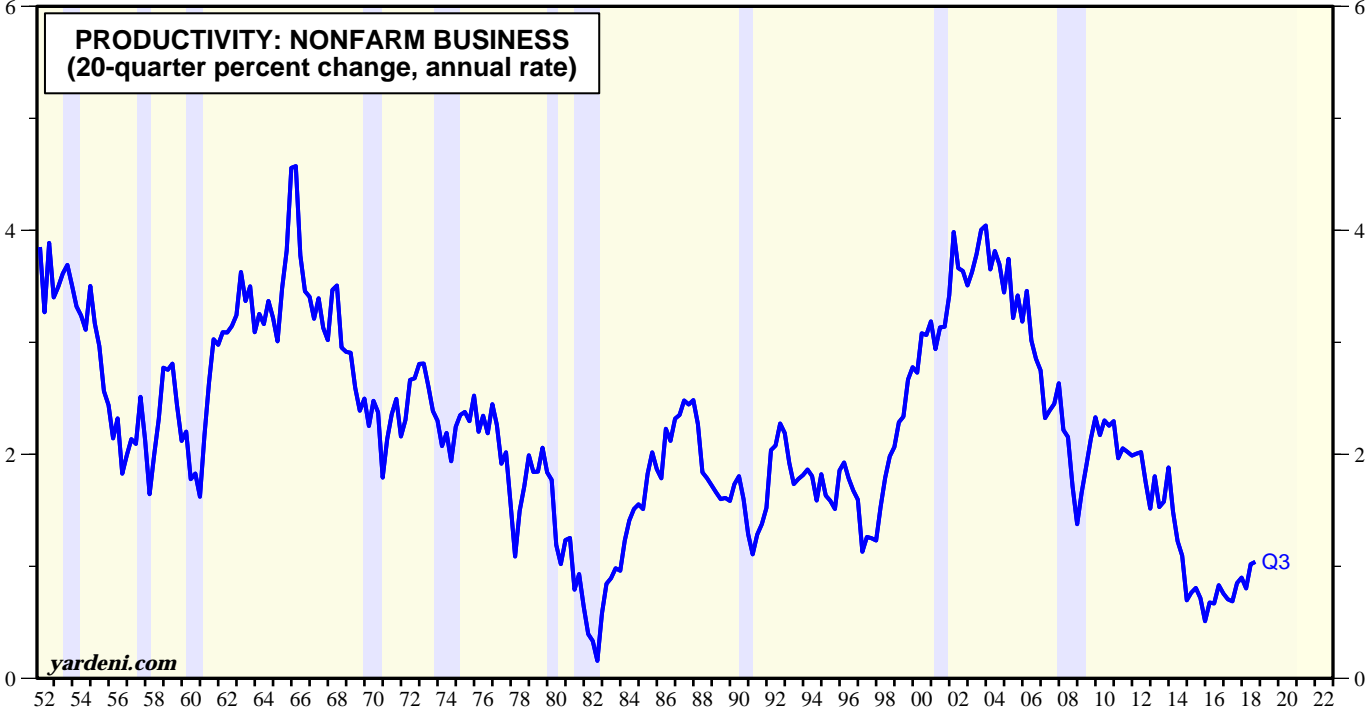


* Estimates through 2015, then projections through 2050.

Source: United Nations.

Microeconomics & the Future of Inflation

Figure 33.



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

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