

# Chart Collection for Morning Briefing

Yardeni Research, Inc.

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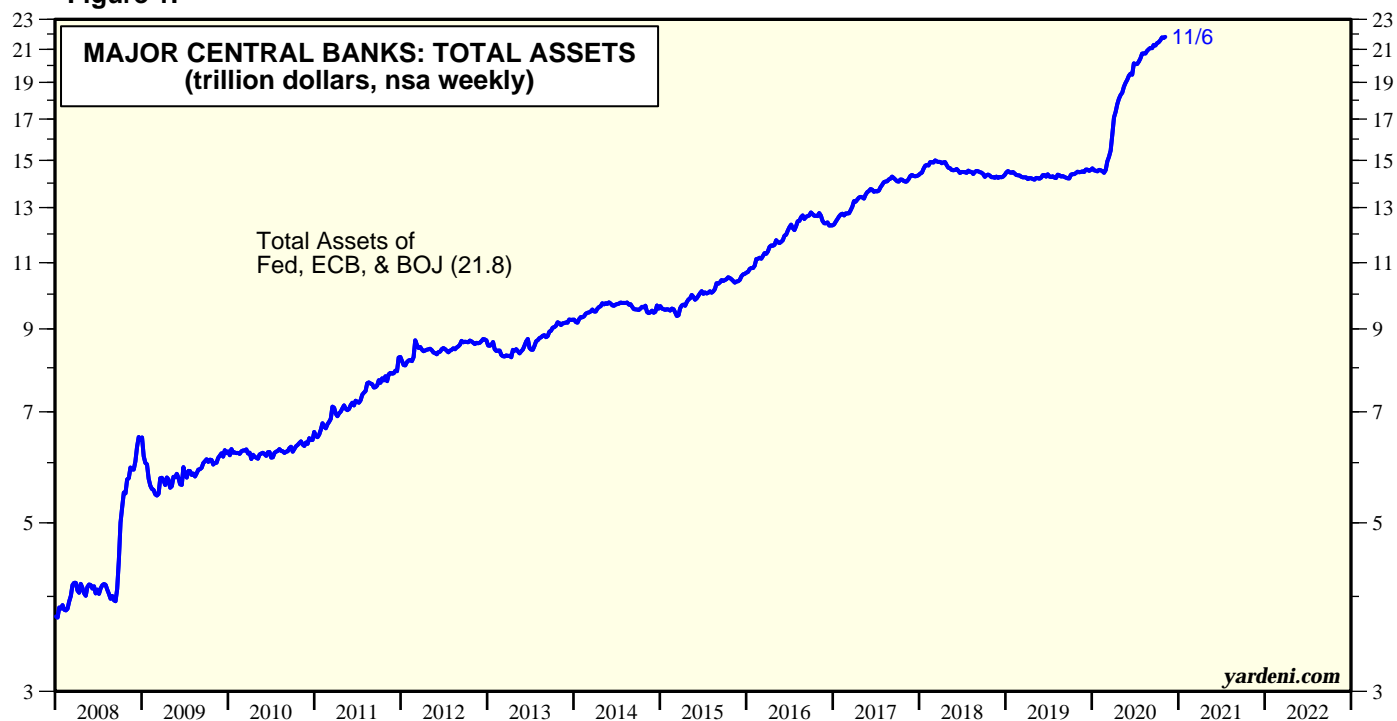
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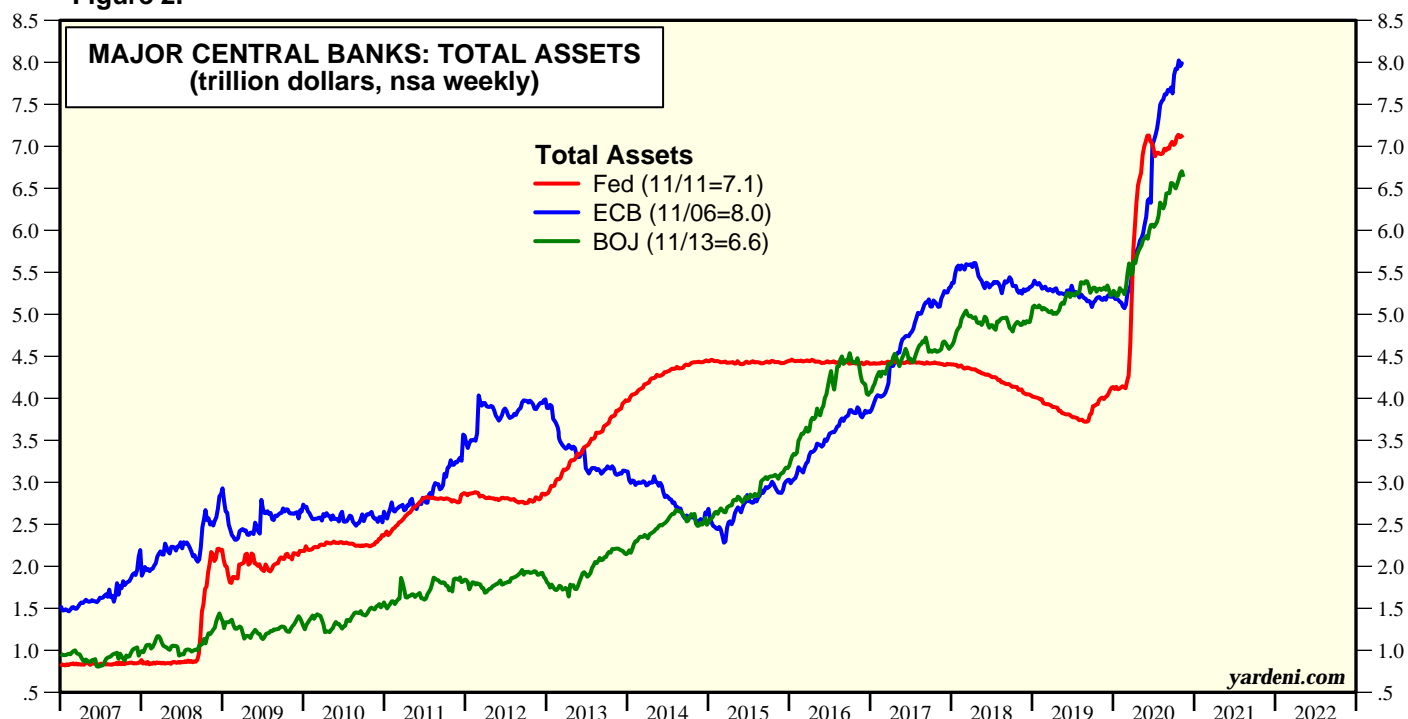
*thinking outside the box*

Figure 1.



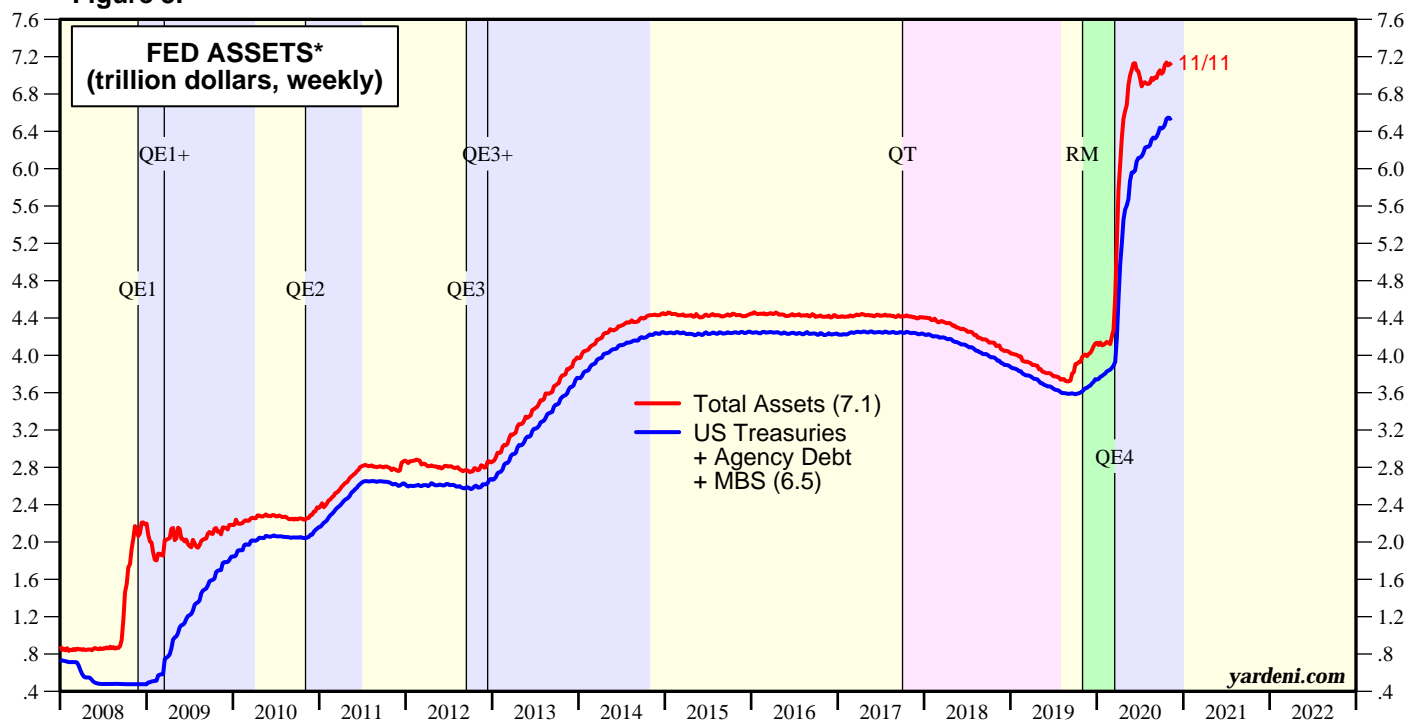
Source: Haver Analytics.

Figure 2.



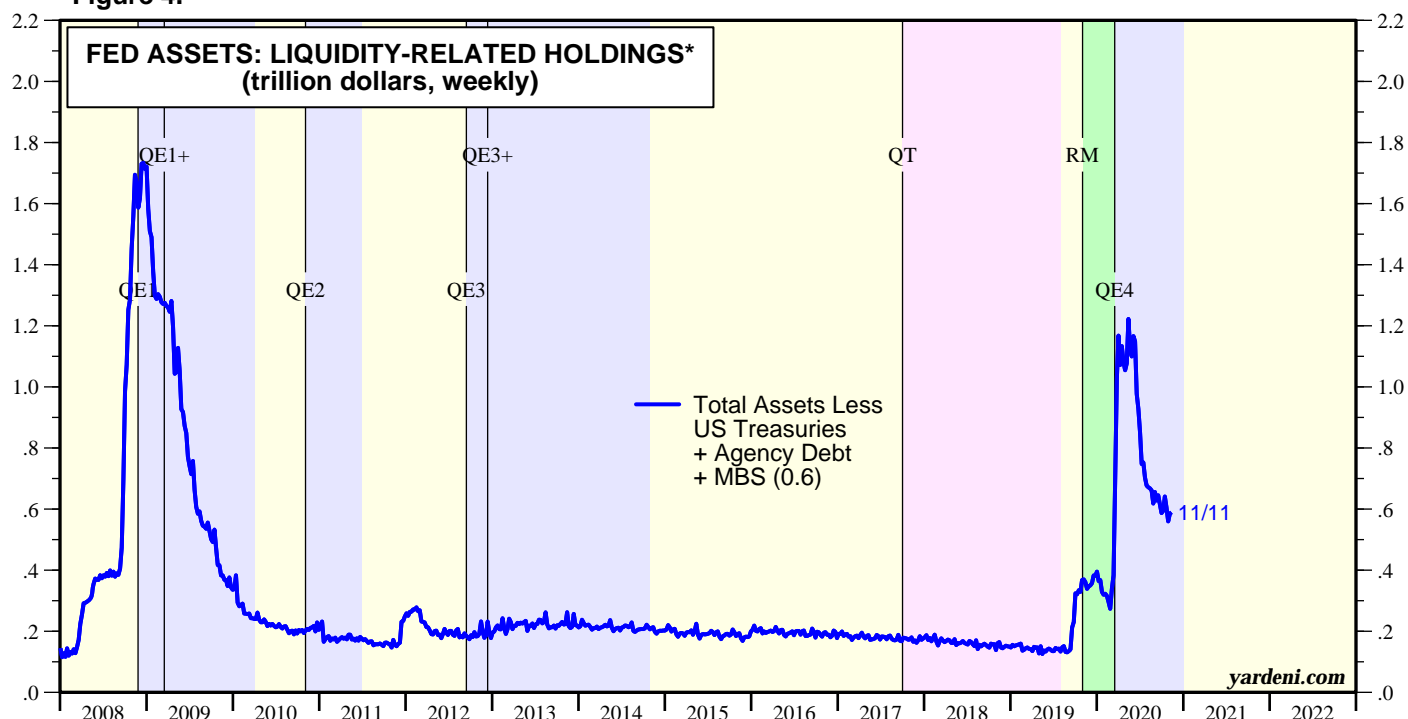
Source: Haver Analytics.

**Figure 3.**



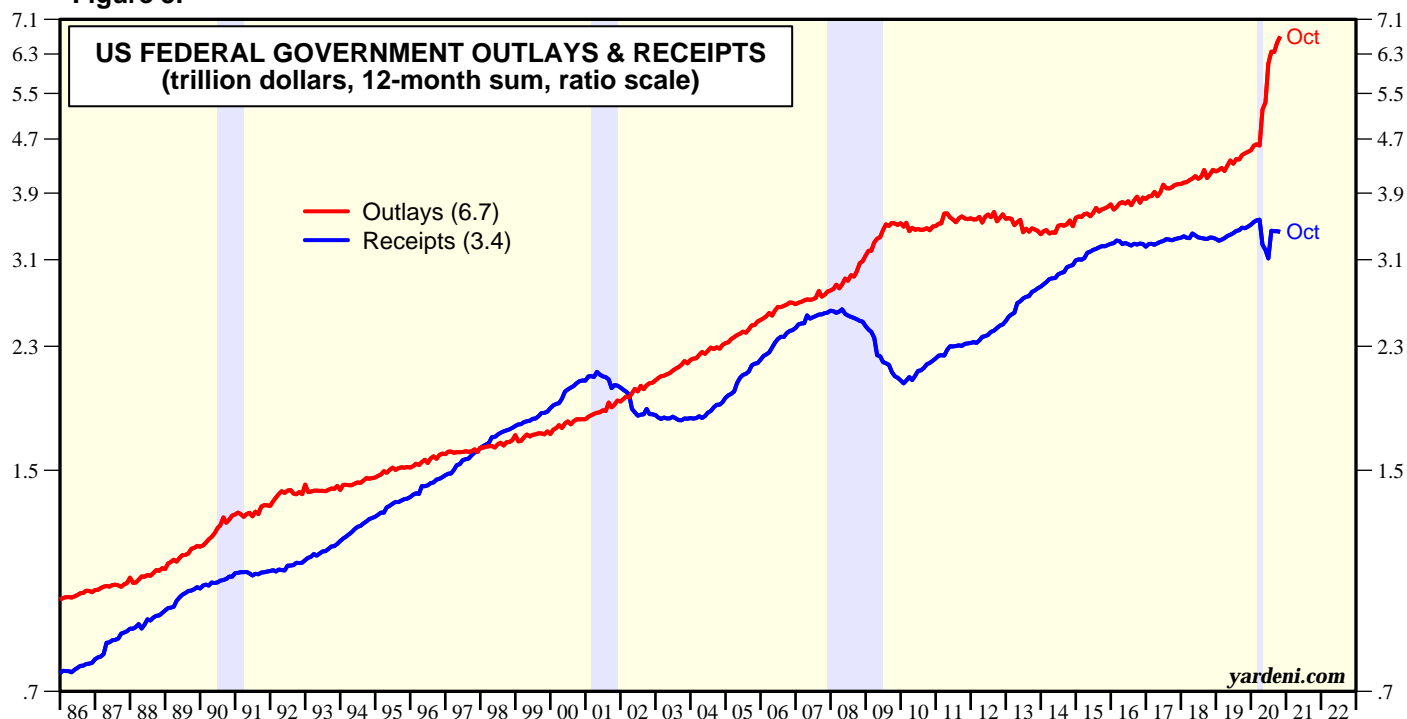
Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT (10/1/17-7/31/19)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

**Figure 4.**



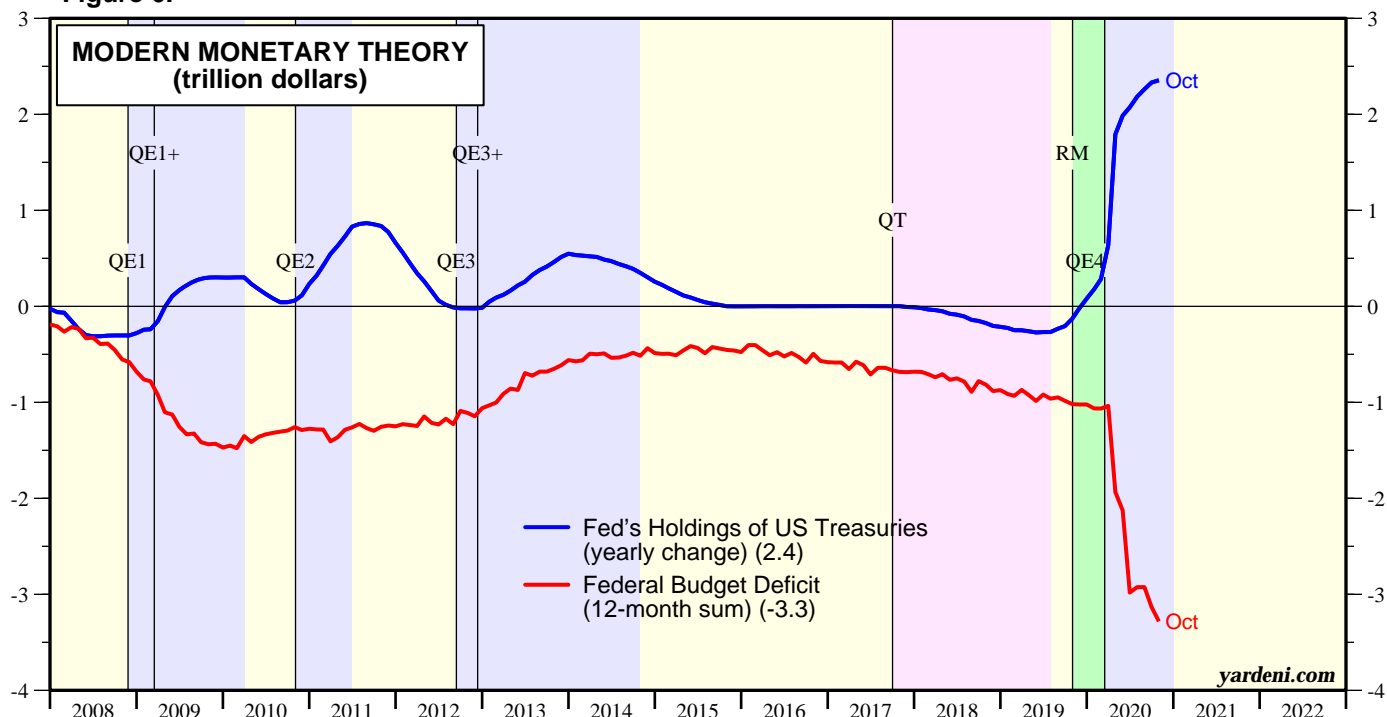
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 \* Fed data are averages of daily figures for weeks ending Wednesday. Source: Federal Reserve Board.

**Figure 5.**



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

**Figure 6.**



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Source: Federal Reserve Board and US Treasury Department.

Figure 7.

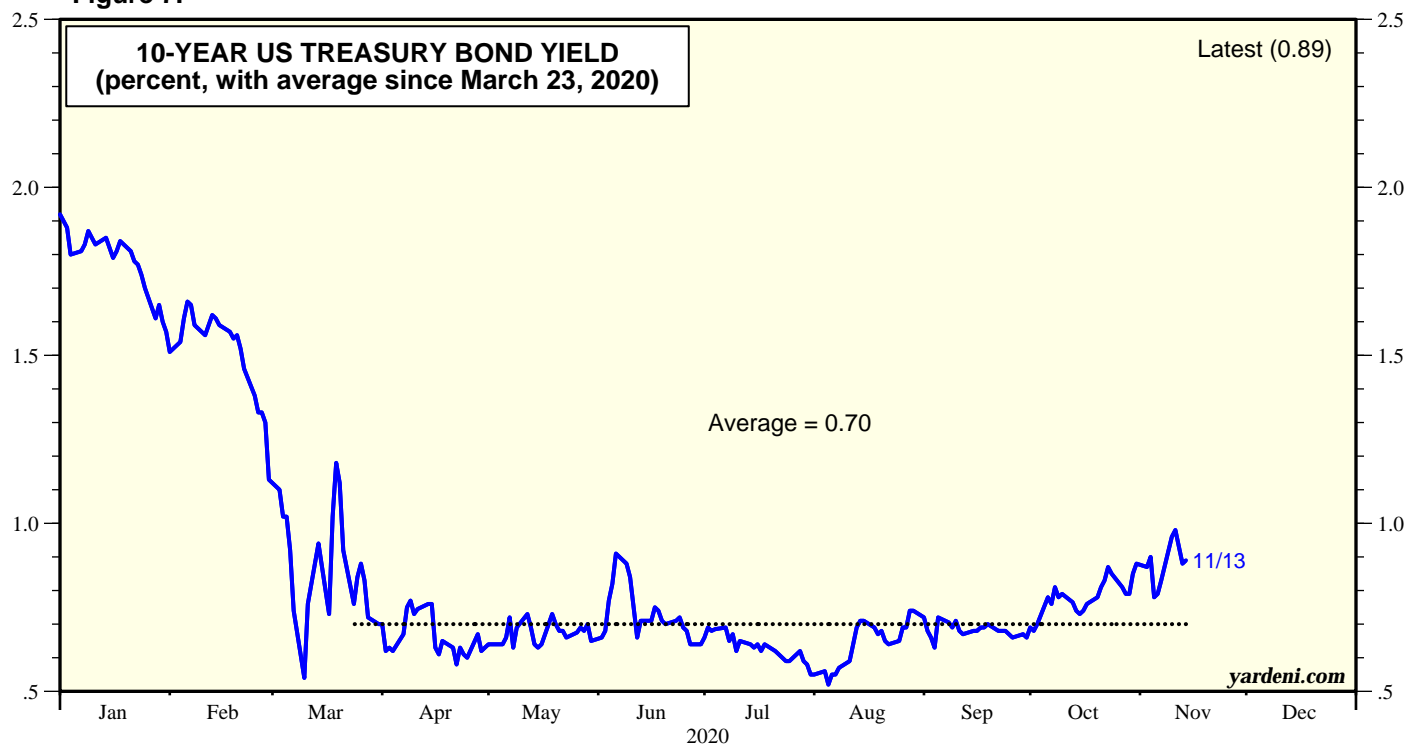
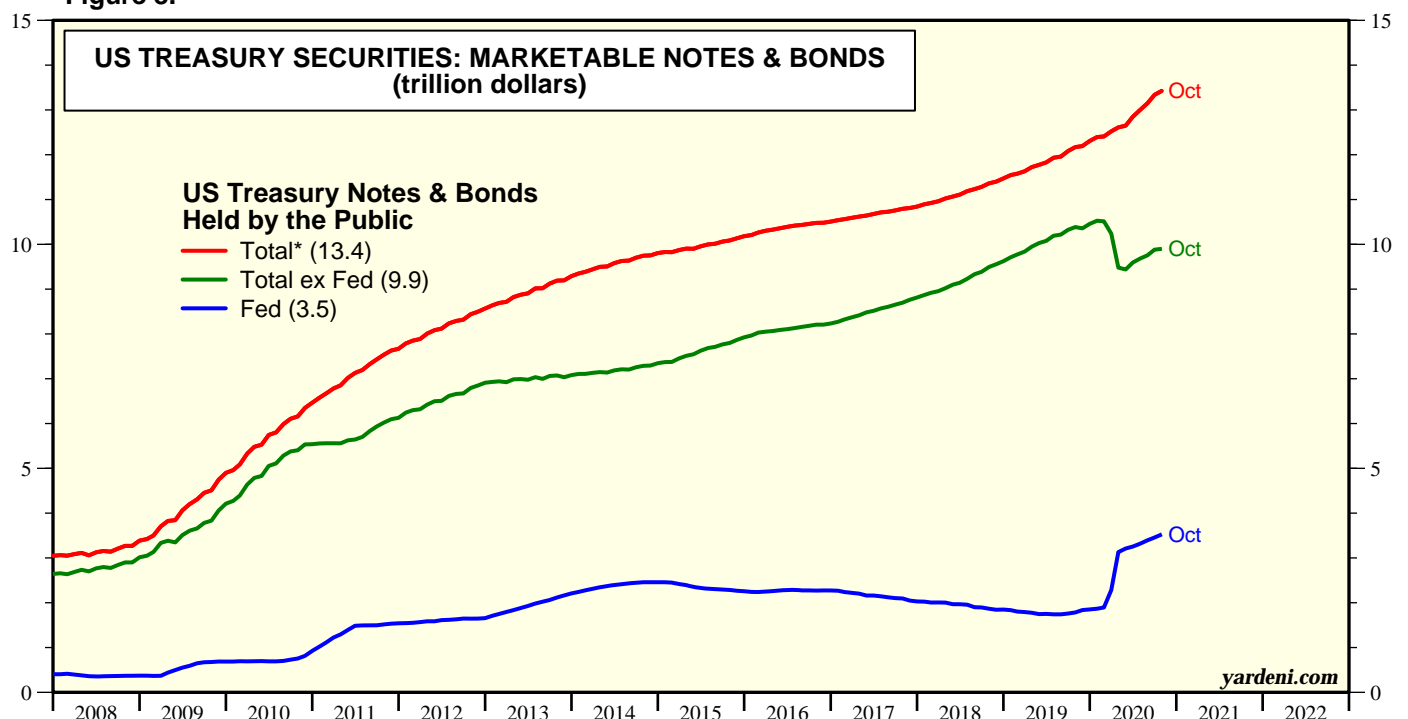


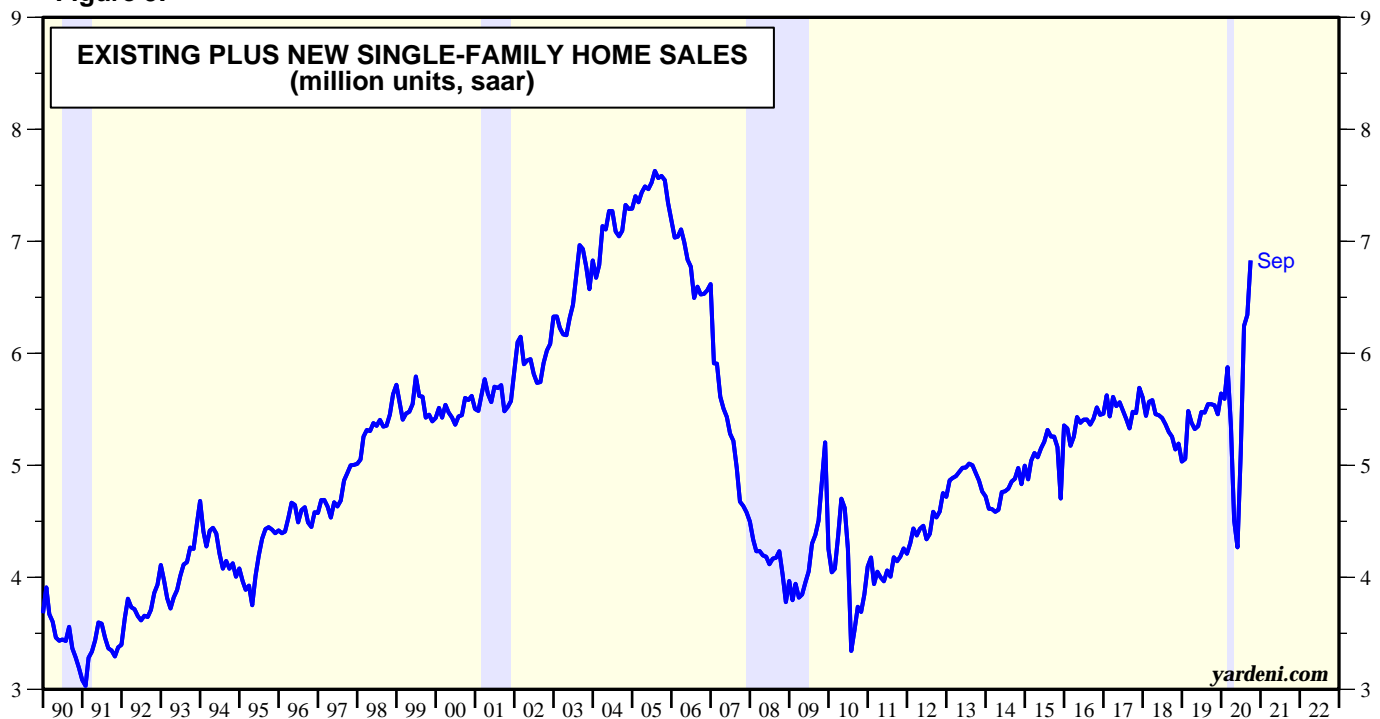
Figure 8.



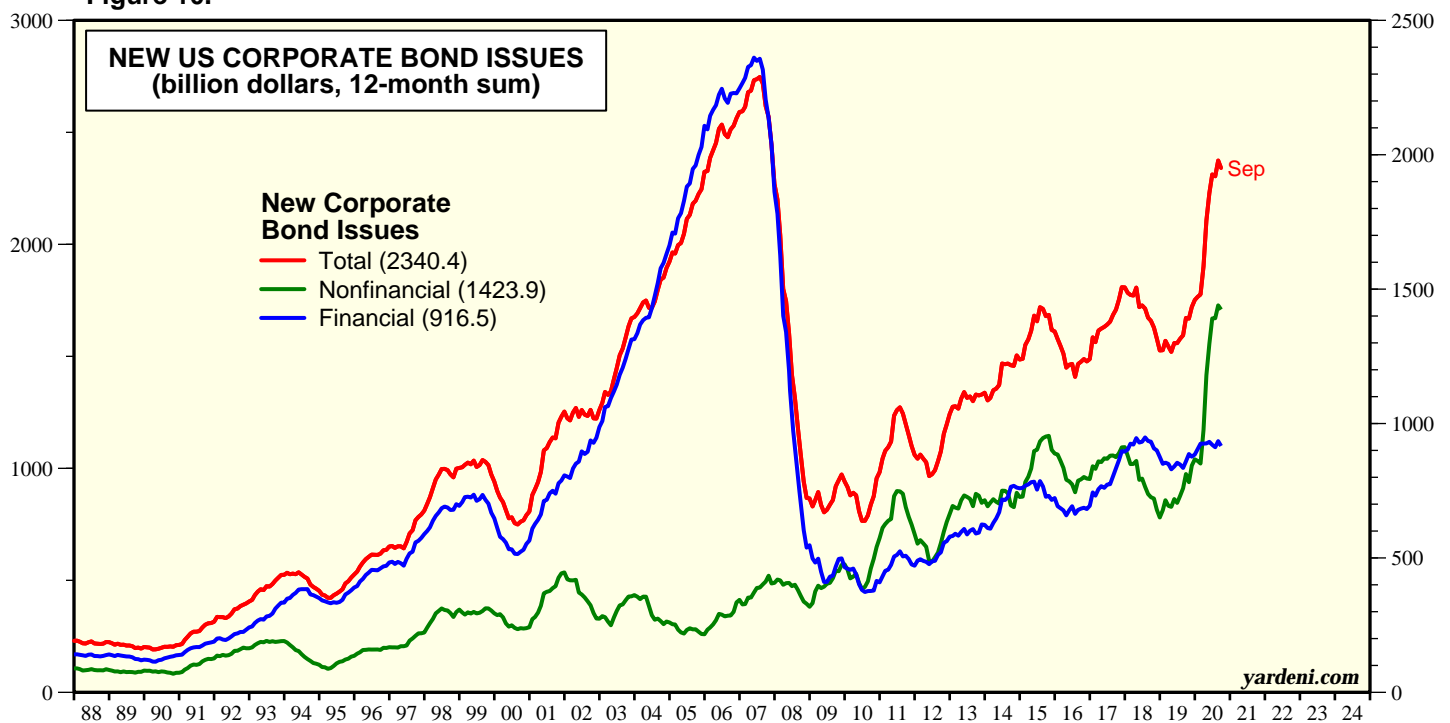
\* Including held by the Fed.

Source: Federal Reserve Board and US Treasury Department, Monthly Statement of the Public Debt of the United States.

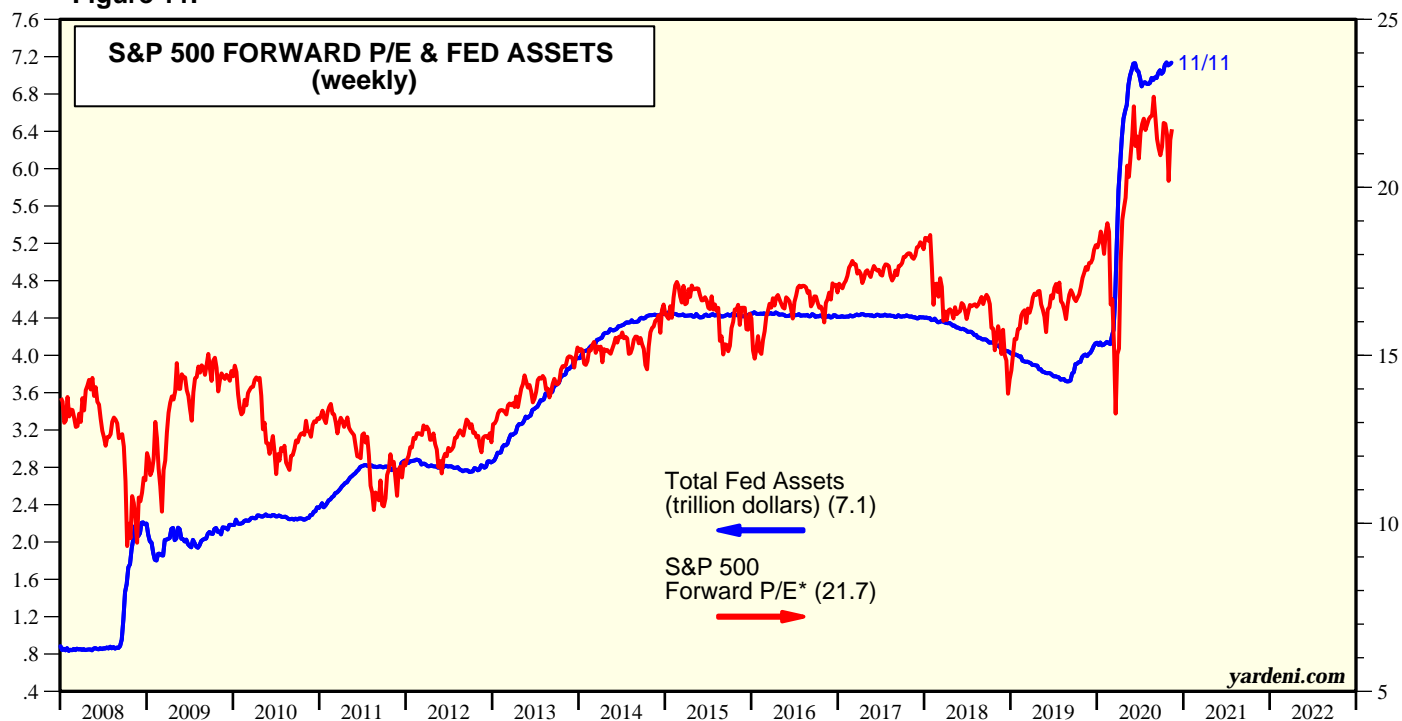
**Figure 9.**



**Figure 10.**

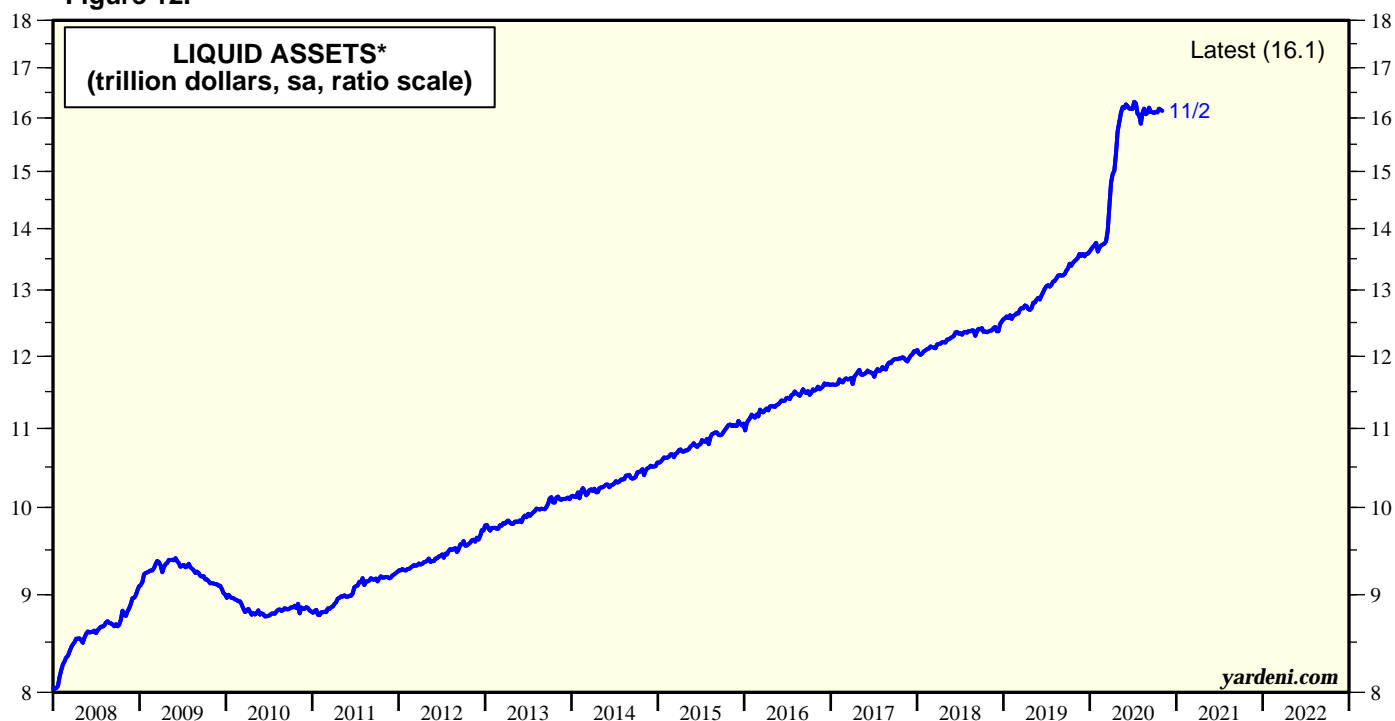


**Figure 11.**



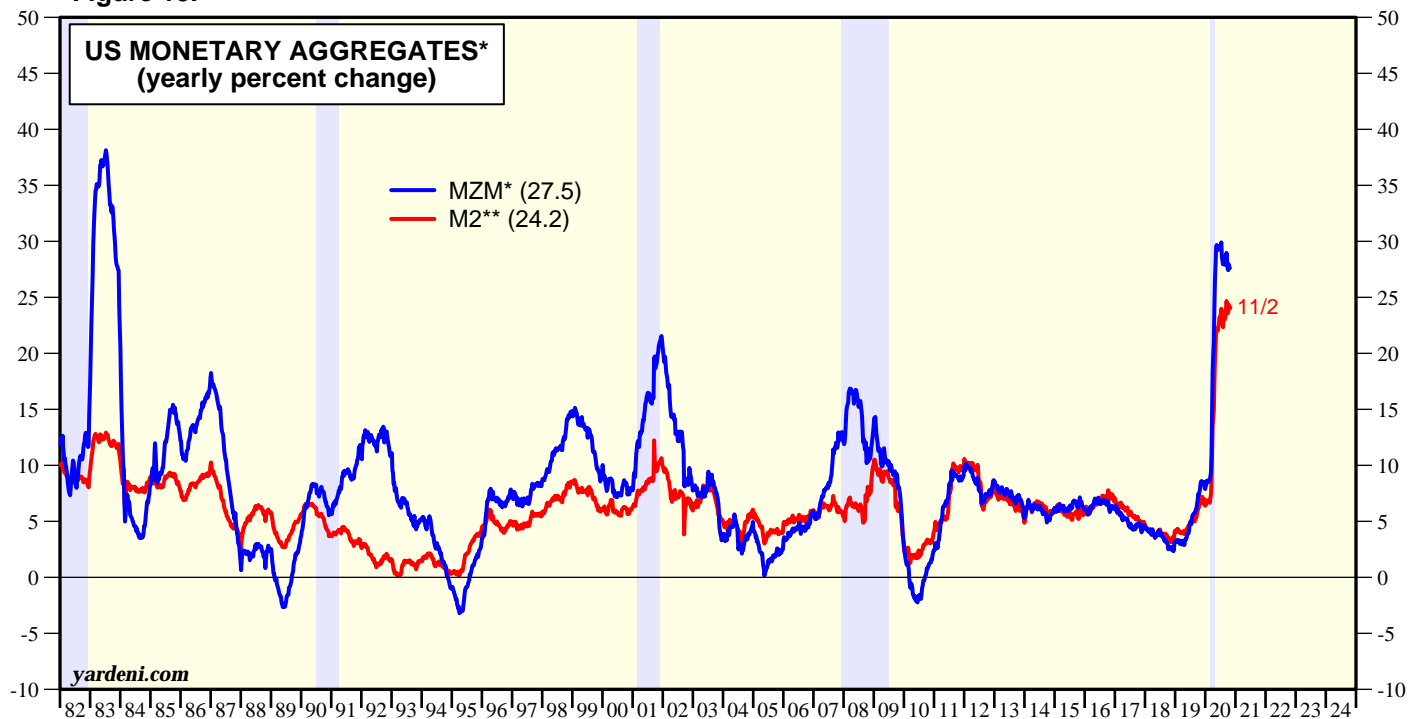
\* S&P 500 index divided by year-ahead forward analysts' consensus expected S&P 500 operating earnings per share.  
Source: Federal Reserve Board, I/B/E/S data by Refinitiv, and Standard & Poor's.

**Figure 12.**



\* Total savings deposits (including money market deposit accounts), small time deposits, and total money market mutual funds held by individuals & institutions.  
Source: Federal Reserve Board.

Figure 13.



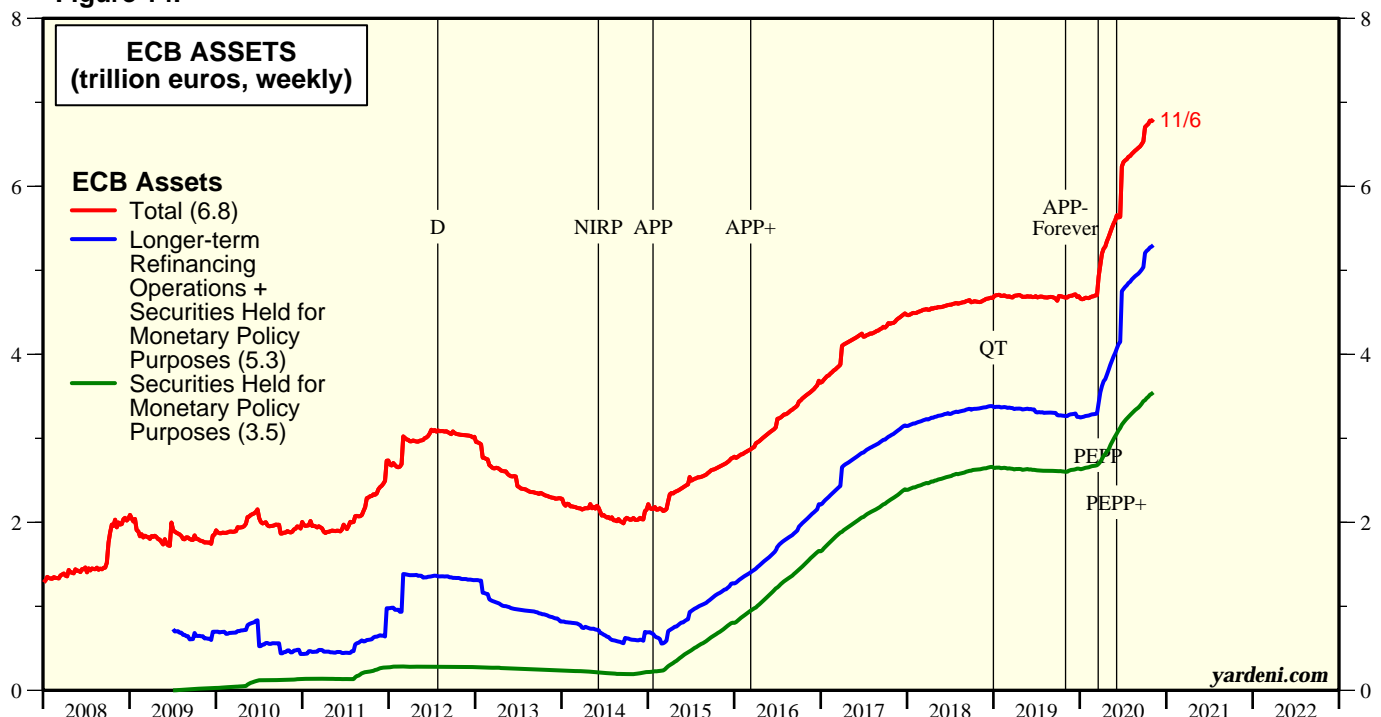
\* Money Zero Maturity is M2 less time deposits plus all money market funds.

\*\* M2 is M1 plus most savings accounts, money market accounts, retail money market mutual funds, and small denomination time deposits (certificates of deposit of under \$100,000).

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

Source: Federal Reserve Board.

Figure 14.

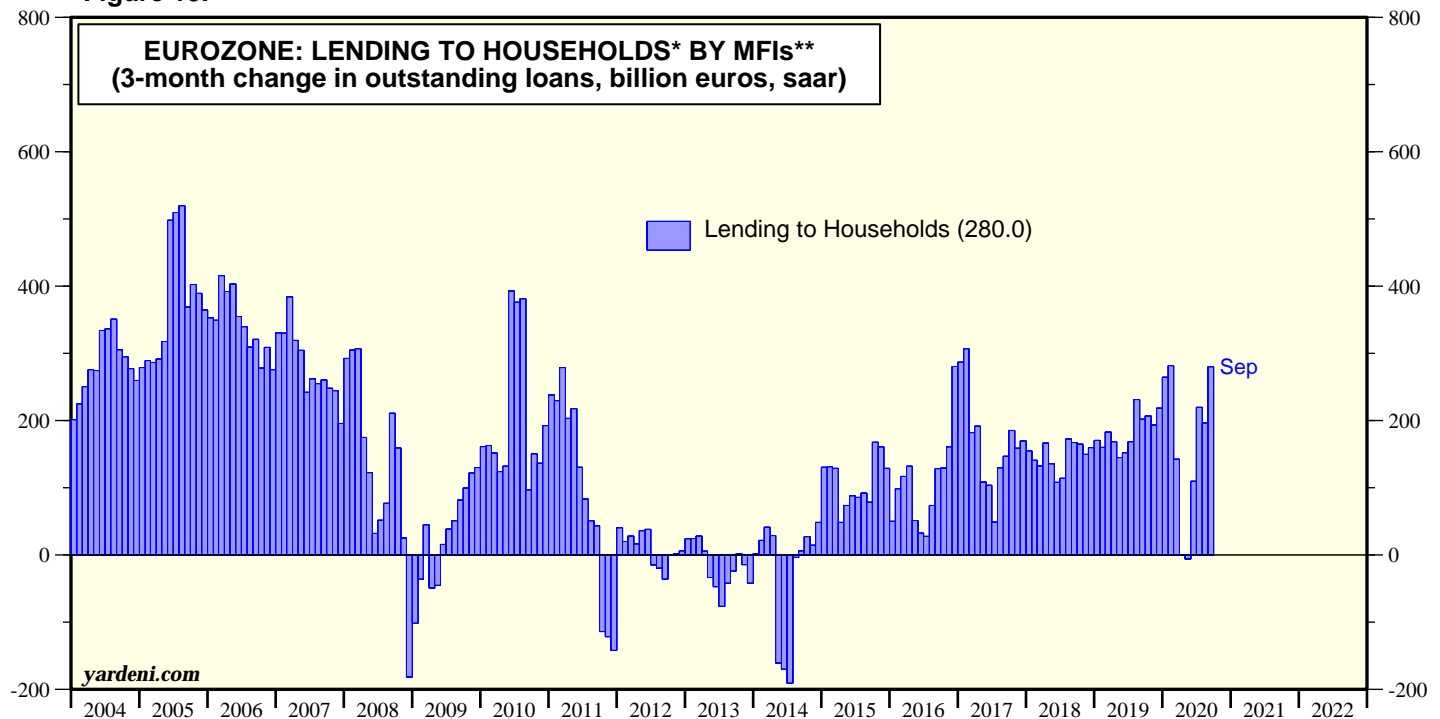


D = ECB President Mario Draghi pledged to do "whatever it takes" to defend the euro (7/26/12). NIRP = negative interest-rate policy (6/5/2014). APP (1/22/15). APP+ = expansion and extension of APP (3/10/16, corporate bond purchases started 6/1/16). QT (12/31/18). APP-Forever (11/1/19) 20 billion euros per month. PEPP (3/18/20) 750 billion euros open-ended asset purchases. PEPP+ (6/4/20) expanded by 600 billion euros.

Source: European Central Bank.



**Figure 15.**

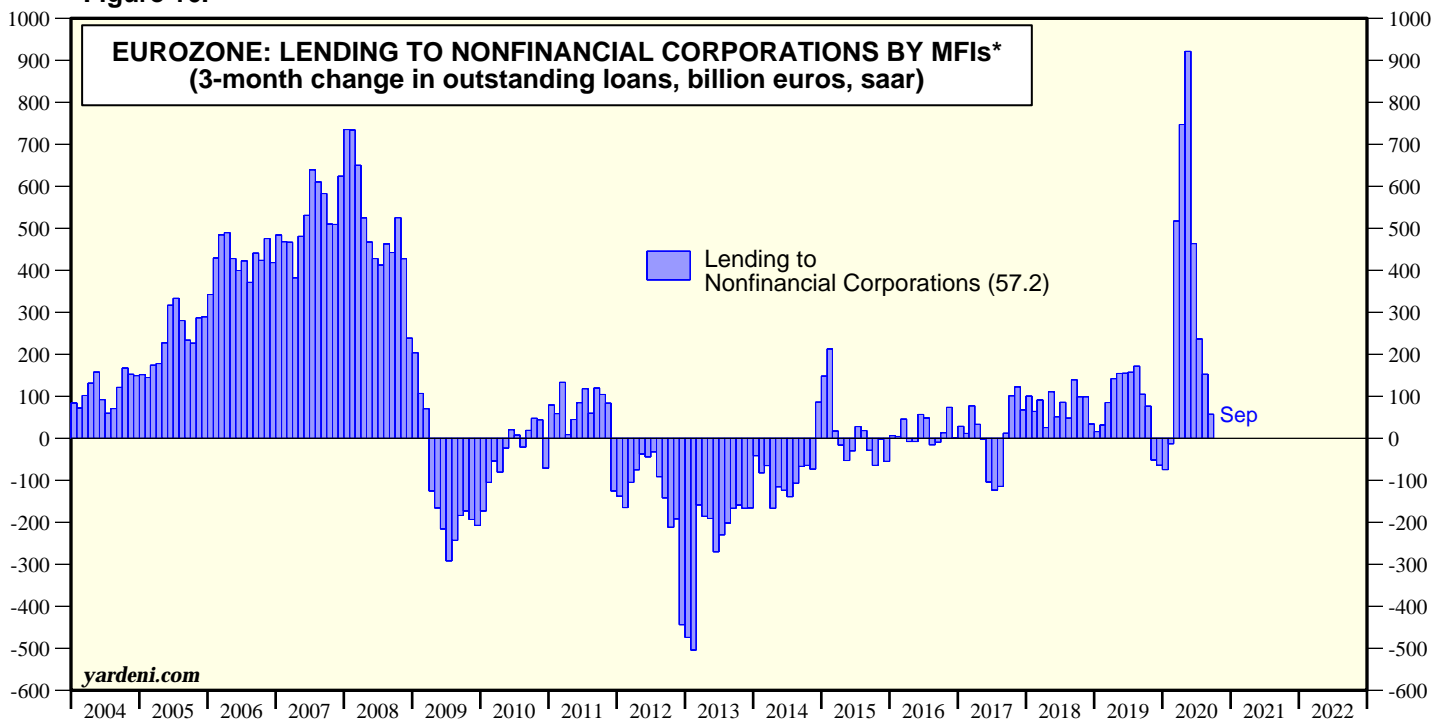


\* Households include non-profit institutions. Lending to Households include consumer credit, mortgages and other types of credit.

\*\* Monetary Financial Institutions (MFIs) exclude European System of Central Banks (ESCB) and Money Market Funds (MMFs).

Source: Haver Analytics and ECB.

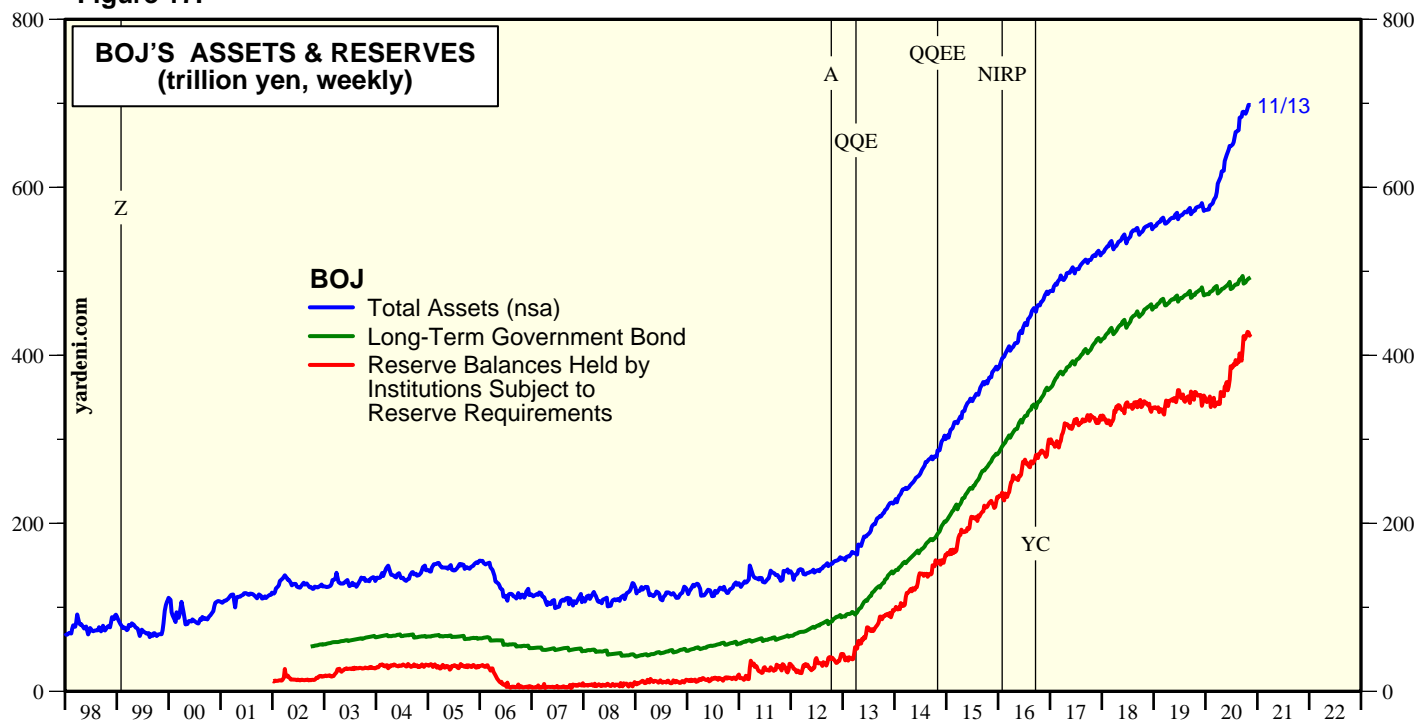
**Figure 16.**



\* Monetary Financial Institutions (MFIs) exclude Euro System of Central Banks (ESCB) and Money Market Funds (MMFs).

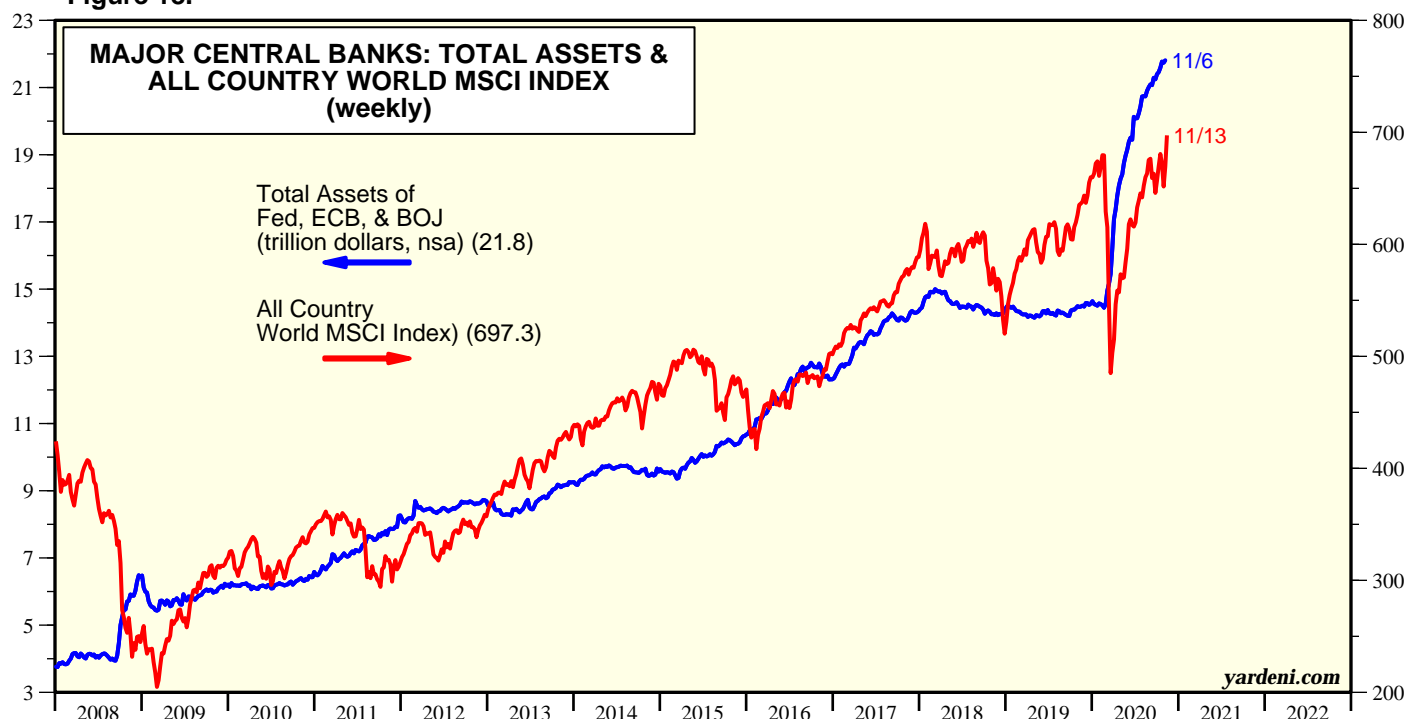
Source: Haver Analytics and ECB.

Figure 17.



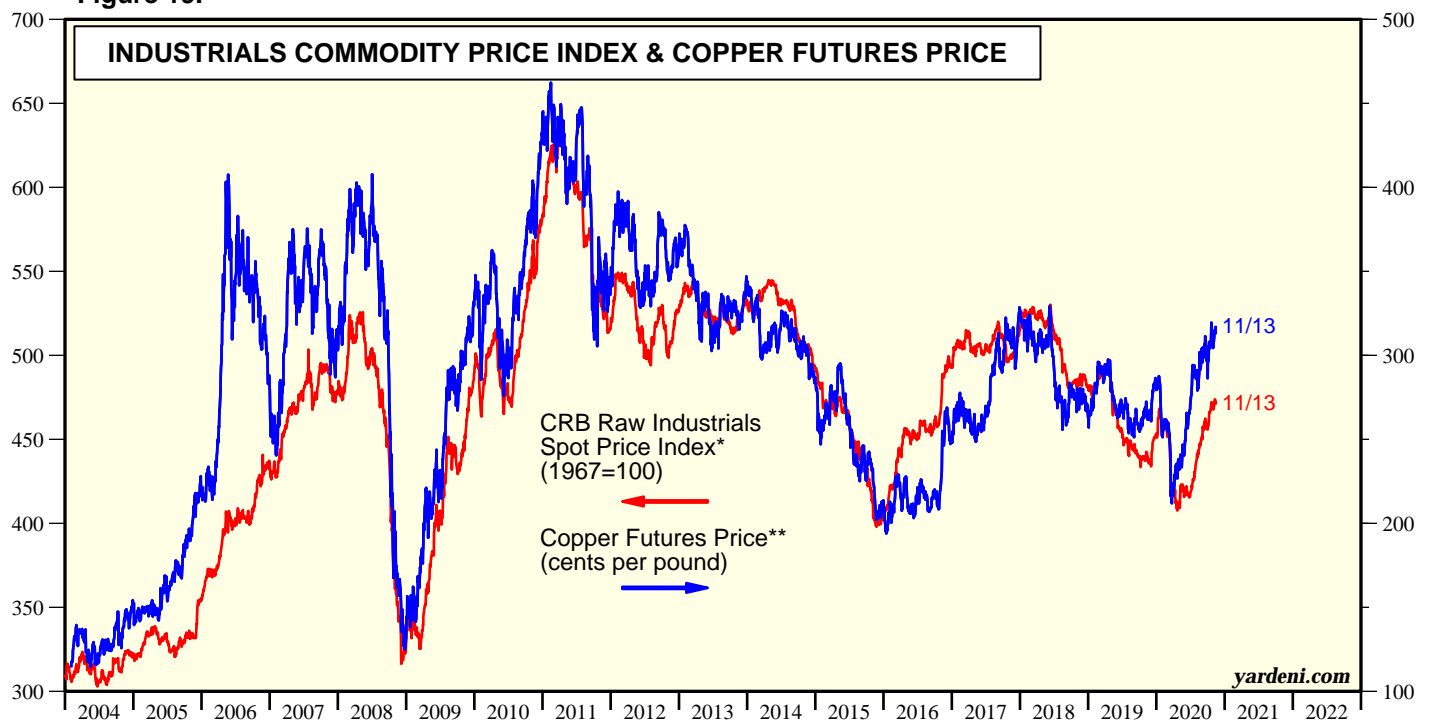
Note: Z (2/12/99) = Zero interest rate policy. A = (10/12/12) = Markets start to anticipate Abenomics. QQE (4/4/13) = Quantitative and Qualitative Easing. QQEE (10/31/14) = expanded and extended version of QQE. NIRP = (1/29/16) = Negative interest rate policy. YC (9/21/16) = Yield curve targeting. Source: Bank of Japan.

Figure 18.



Source: Haver Analytics.

**Figure 19.**

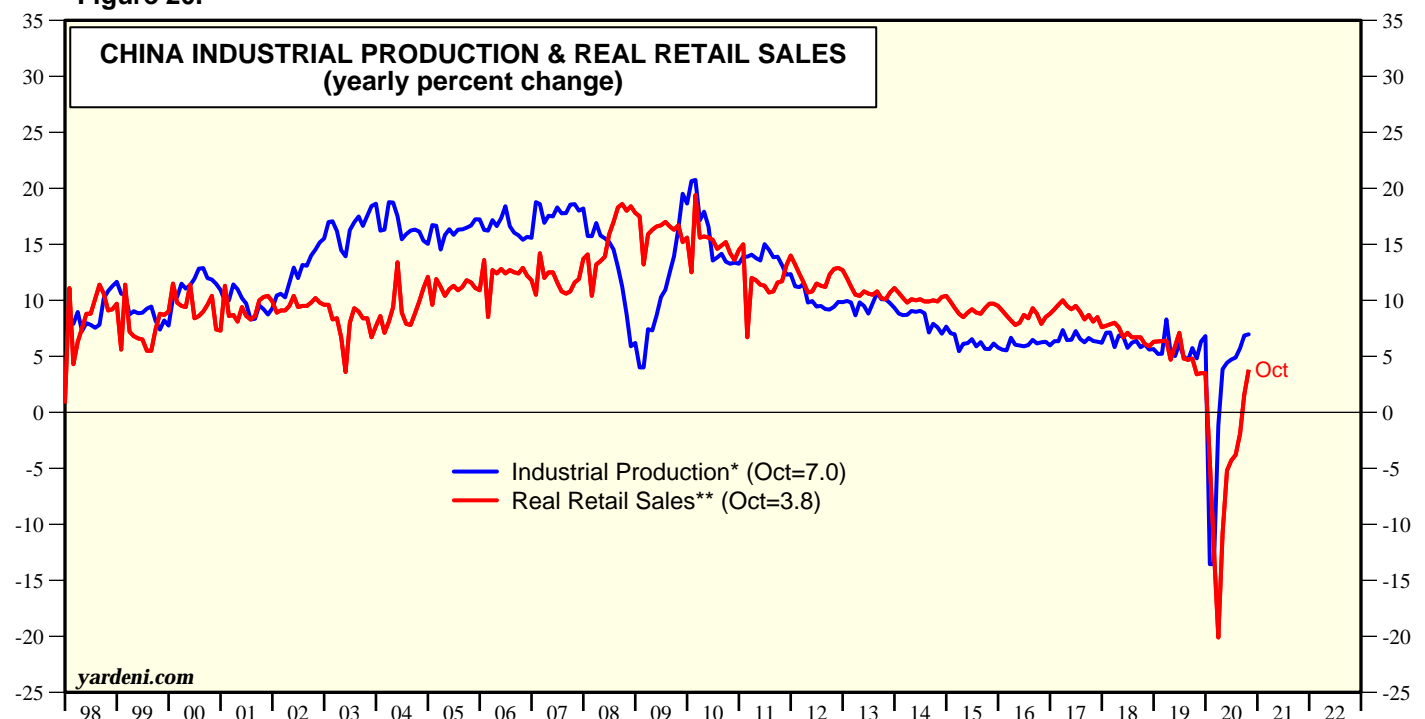


\* Includes copper scrap, lead scrap, steel scrap, tin, zinc, burlap, cotton, print cloth, wool tops, hides, rosin, rubber, and tallow.

\*\* Nearby futures contract.

Source: Commodity Research Bureau and Haver Analytics.

**Figure 20.**

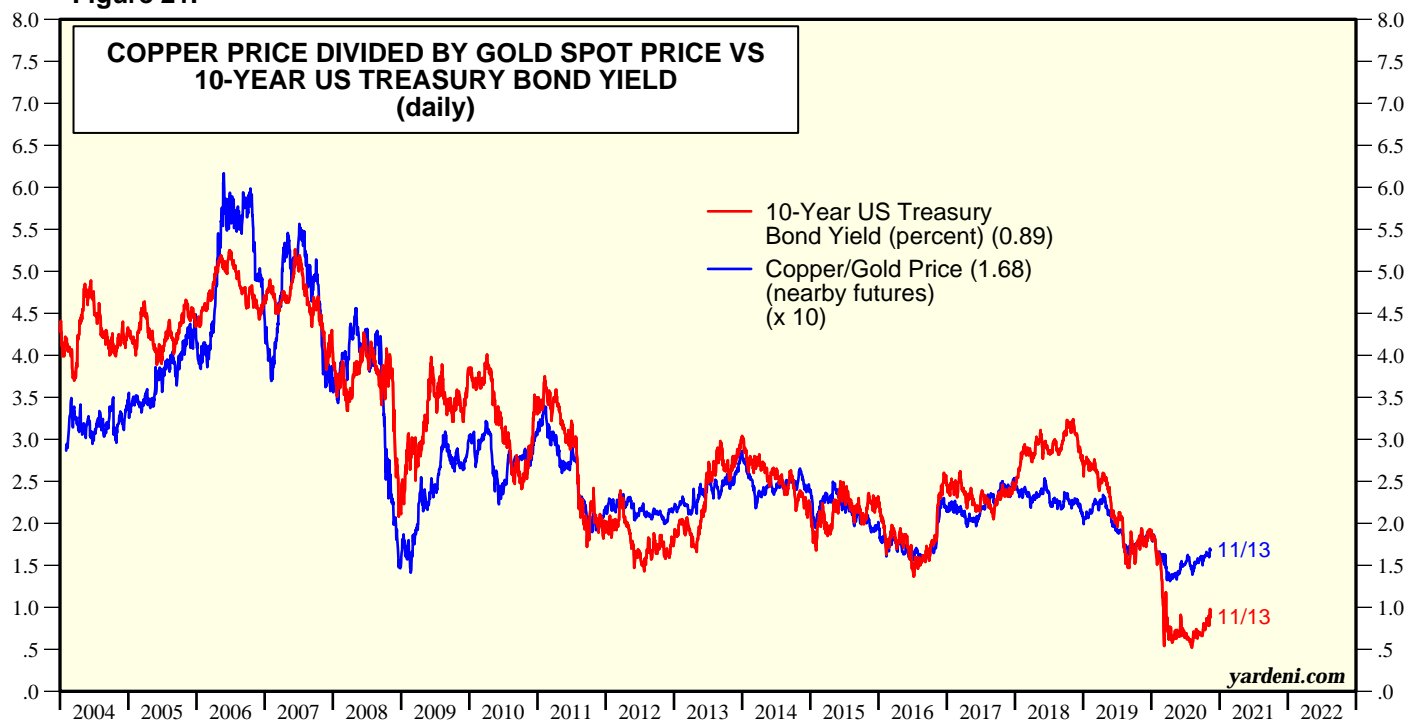


\* Value added basis.

\*\* Yearly percent change in retail sales minus yearly percent change in CPI.

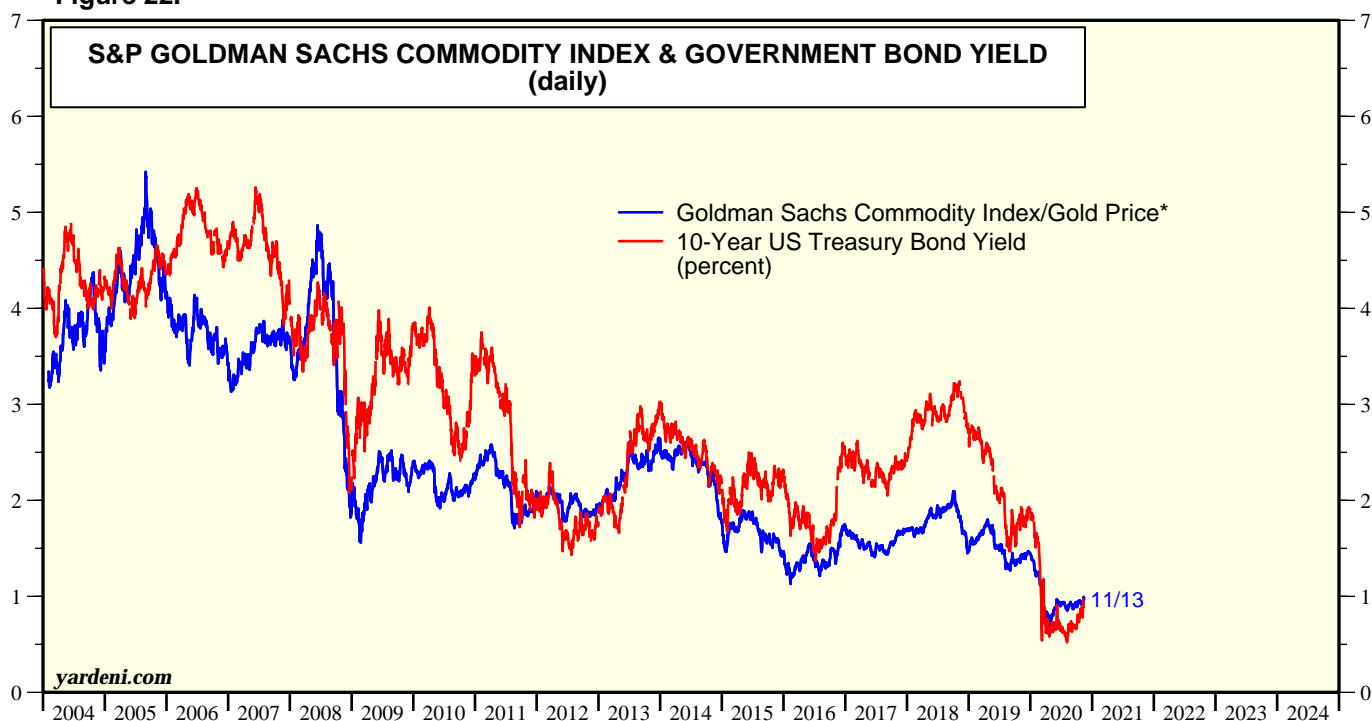
Source: China National Bureau of Statistics.

Figure 21.



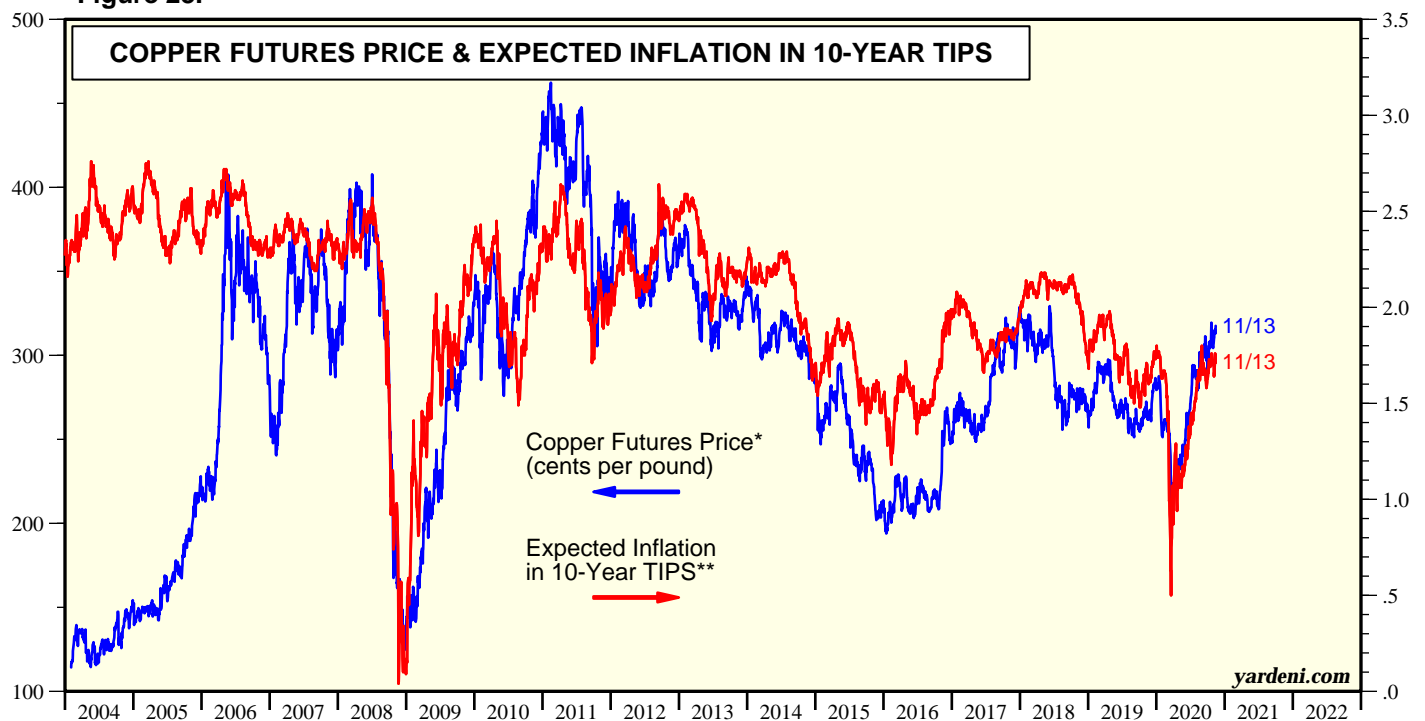
Source: Federal Reserve Board and Haver Analytics.

Figure 22.



\* Using nearby futures prices and divided by 20.  
Source: Federal Reserve Board and Haver Analytics.

**Figure 23.**

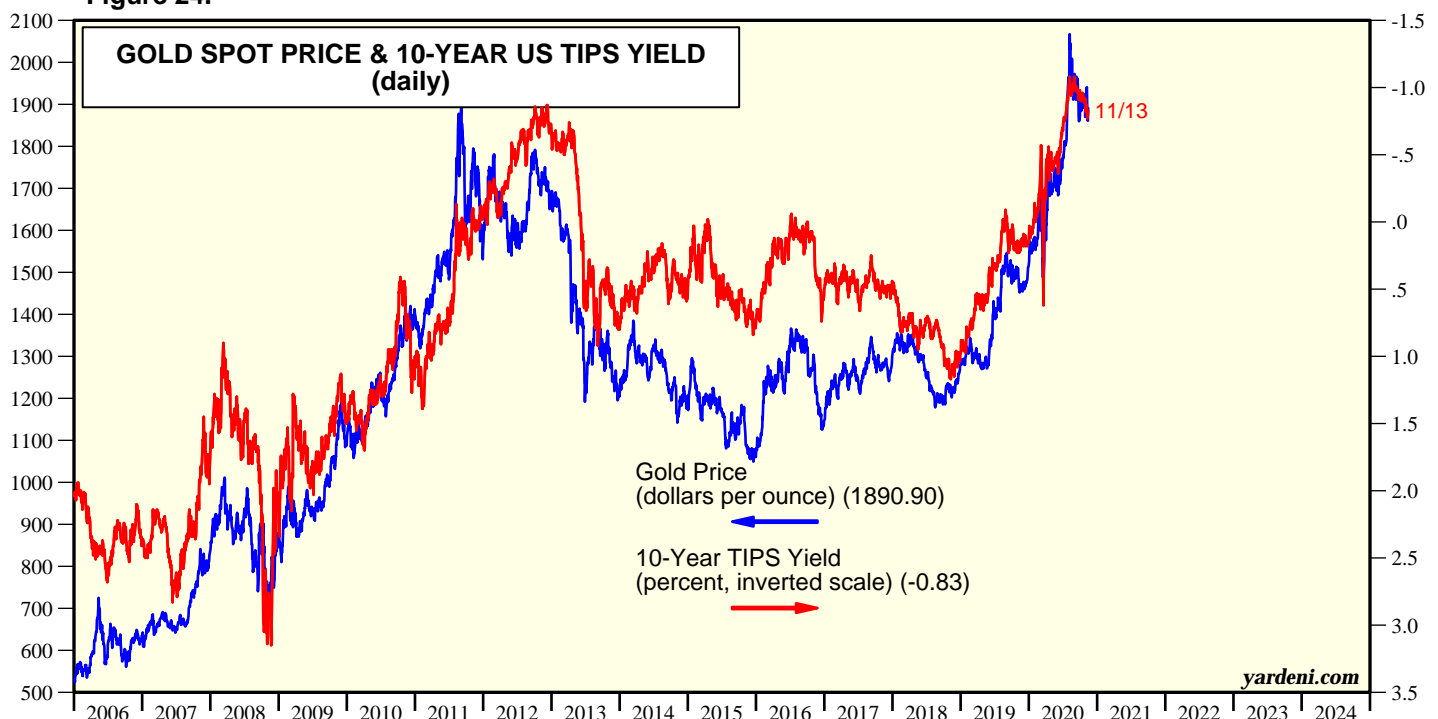


\* Nearby futures contract.

\*\* Nominal 10-year US Treasury bond yield minus 10-year TIPS yield.

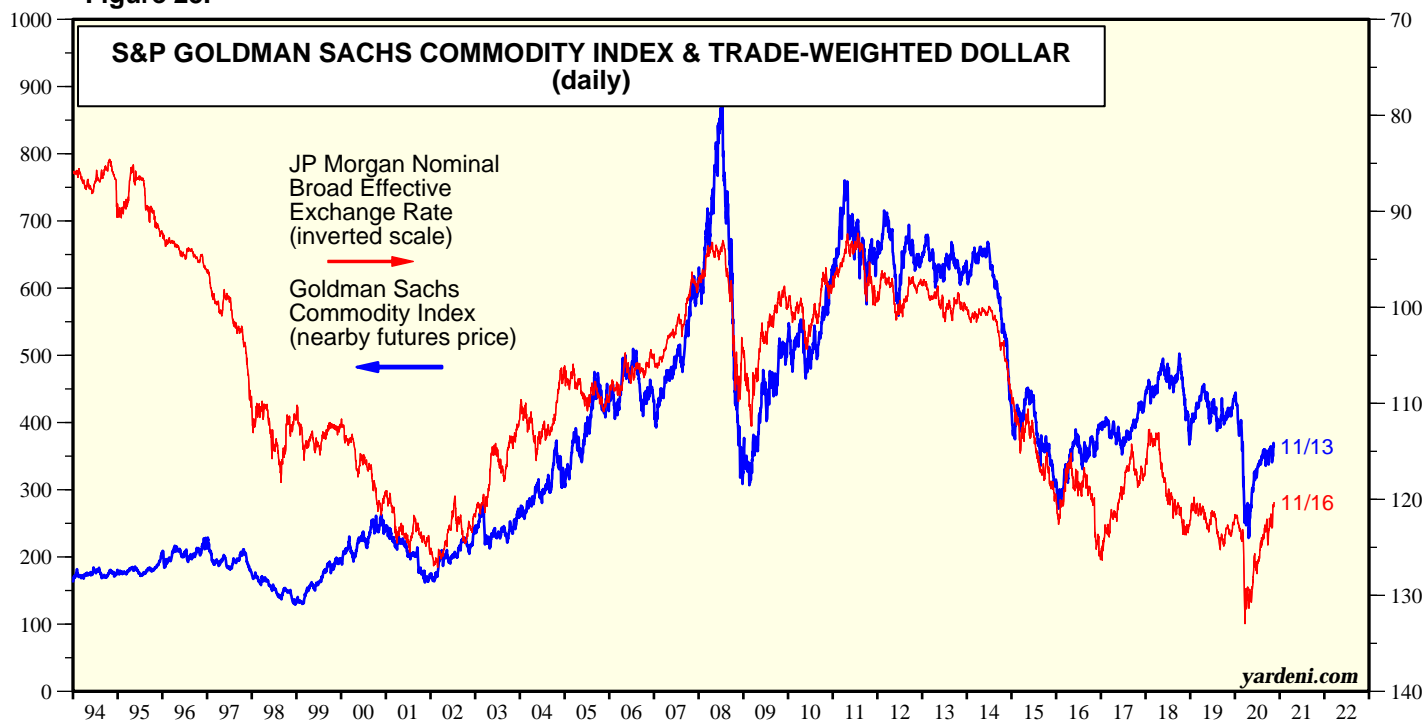
Source: Haver Analytics.

**Figure 24.**



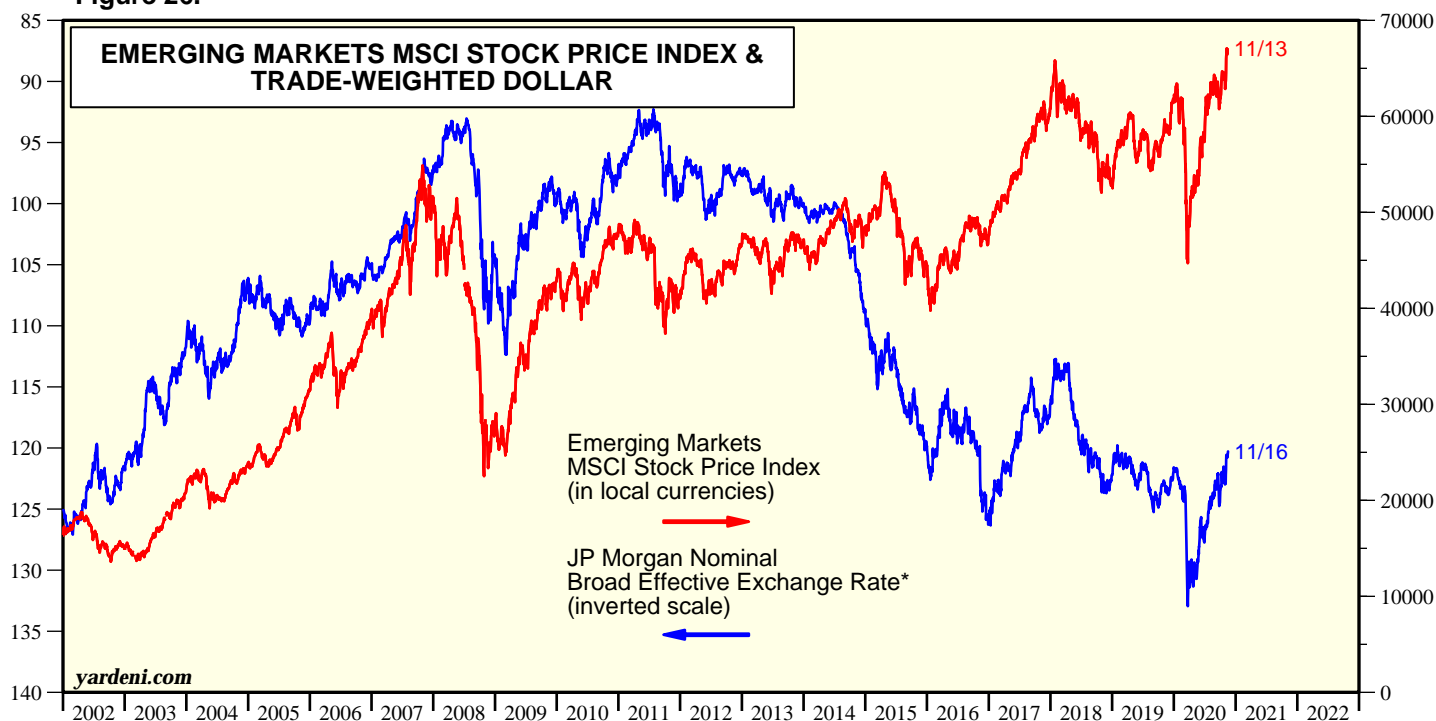
Source: Federal Reserve Board, Wall Street Journal, and Haver Analytics.

Figure 25.



Source: Standard & Poor's, JP Morgan, and Haver Analytics.

Figure 26.



\* Argentina, Australia, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Czech Republic, Denmark, Ecuador, Egypt, France, Germany, Hong Kong, Hungary, Japan, India, Indonesia, Israel, Italy, Korea, Kuwait, Malaysia, Mexico, Morocco, New Zealand, Nigeria, Norway, Pakistan, Panama, Peru, Philippines, Poland, Romania, Russia Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, Ukraine, Uruguay, Venezuela, Vietnam, and United States. Source: JP Morgan and Morgan Stanley Capital International.

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