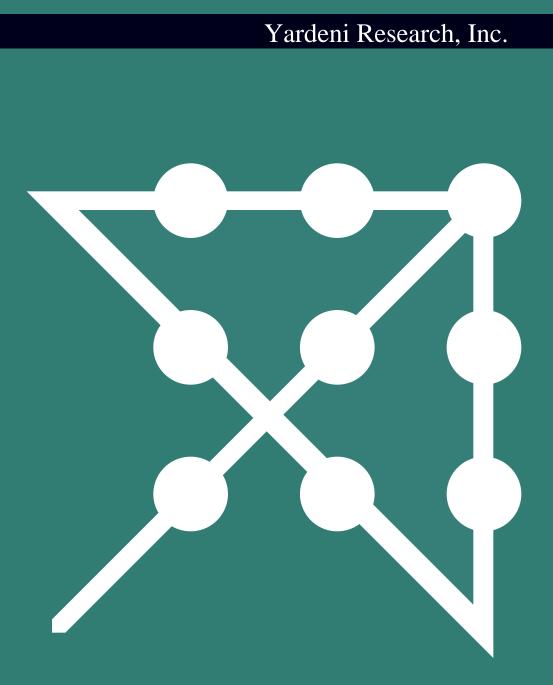
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thinking outside the box

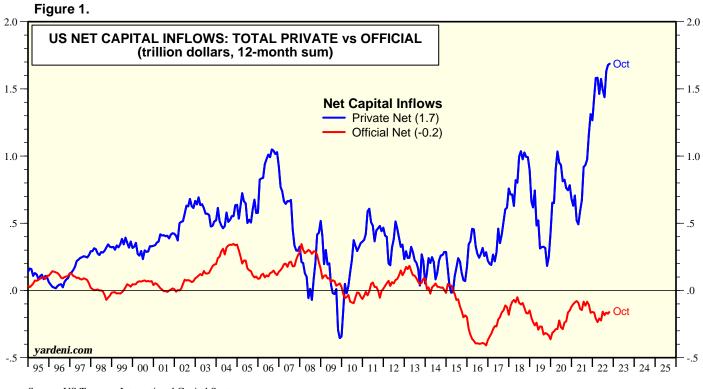
January 4, 2023

Dr. Edward Yardeni

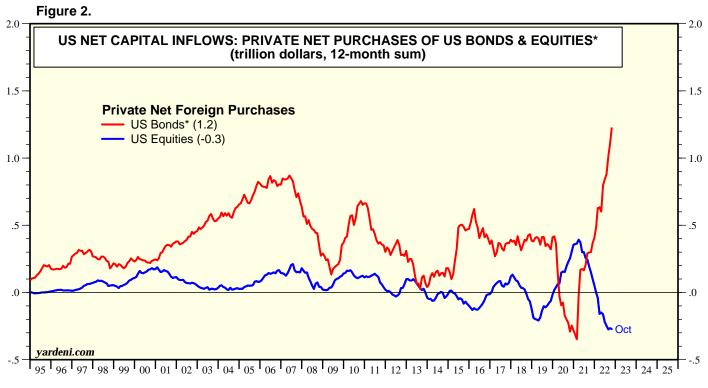
516-972-7683 eyardeni@yardeni.com

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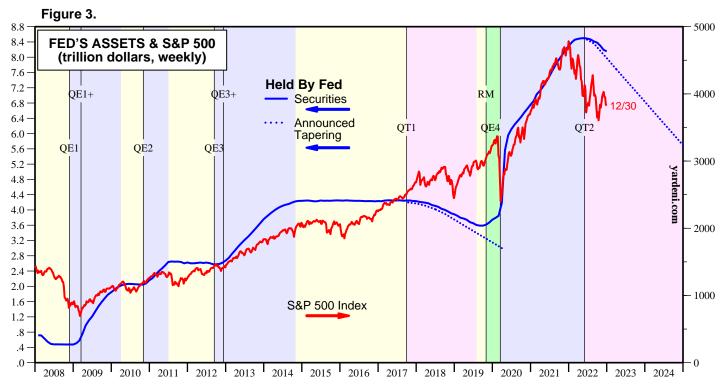
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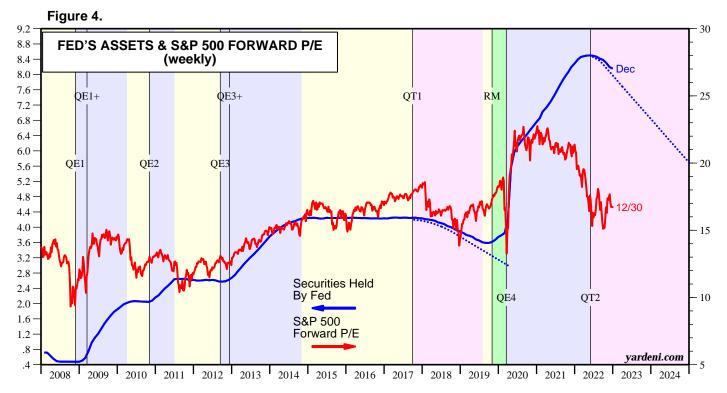
Source: US Treasury International Capital System.



* Treasury bonds, Agency bonds, and corporate bonds Source: US Treasury International Capital System.



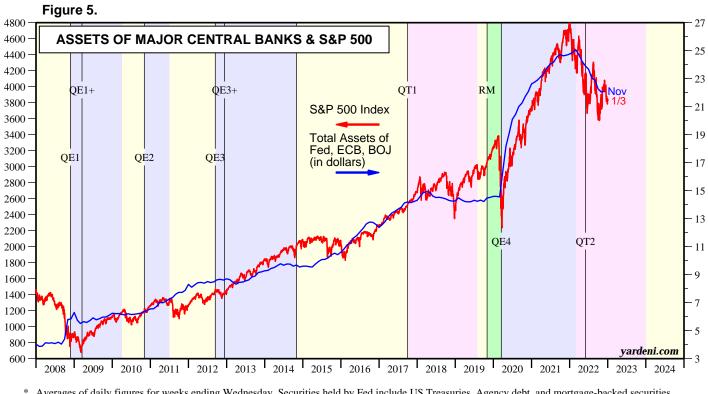
Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) =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 Standard & Poor's.



* 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.

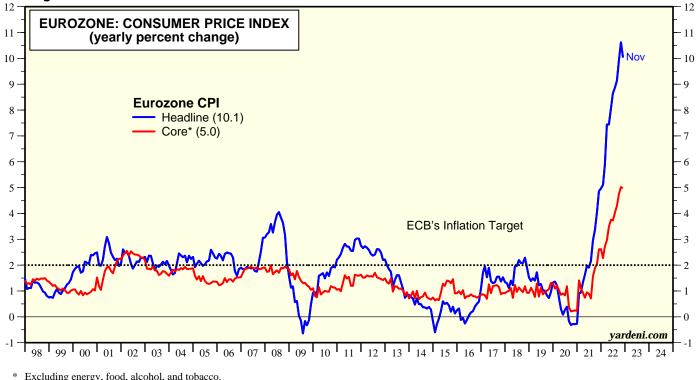
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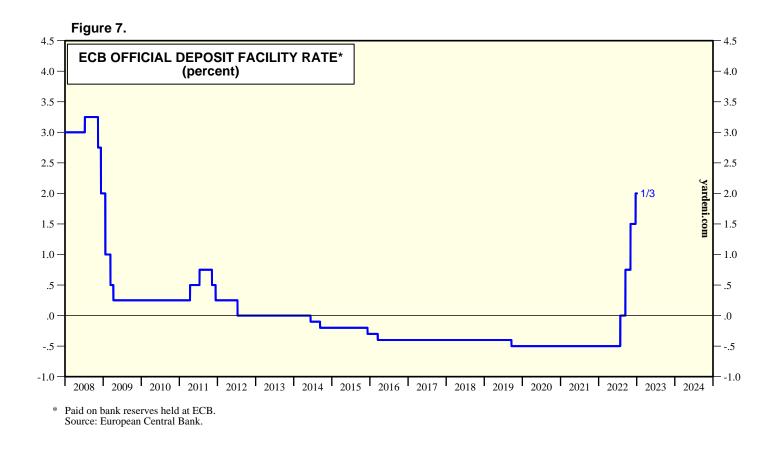


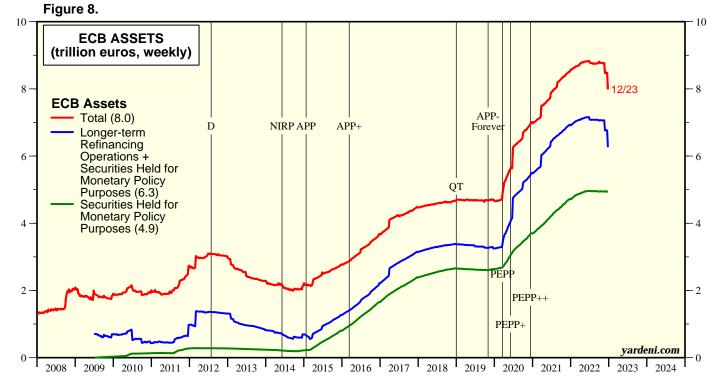
^k Averages of daily figures for weeks ending Wednesday. Securities held by Fed include US Treasuries, Agency debt, and mortgage-backed securities. Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. 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 6.



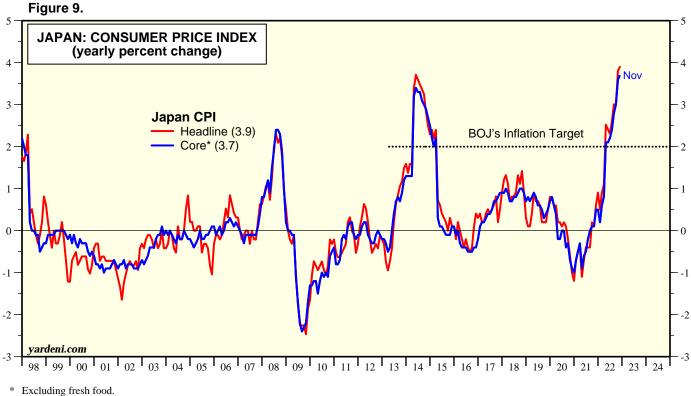
Excluding energy, food, alcohol, and tobacco. Source: Statistical Office of the European Communities.



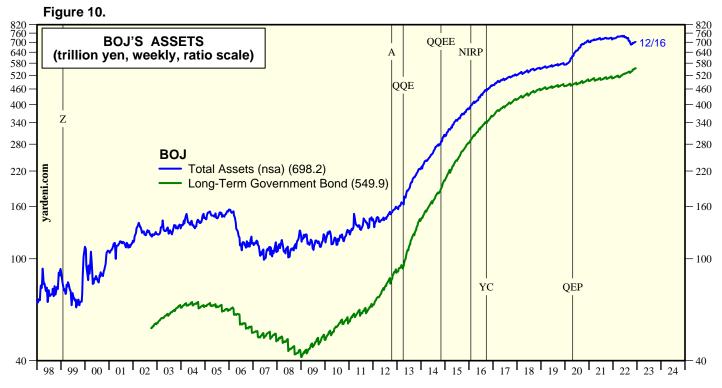


D = ECB President Mario Draghi pledged to do "whatever it takes" to defend the euro (7/26/12). NIRP = negative interest-rate policy (6/5/2014). APP (1/22/15). APP+ = expansion and extension of APP (3/10/16, corporate bond purchases started 6/1/16). QT (12/31/18). APP-Forever (11/1/19) 20 billion euros per month. PEPP (3/18/20) 750 billion euros open-ended asset purchases. PEPP+ (6/4/20) expanded by 600 billion euros. PEPP++ (12/10/20) another 500 billion euros in purchases. Source: European Central Bank.

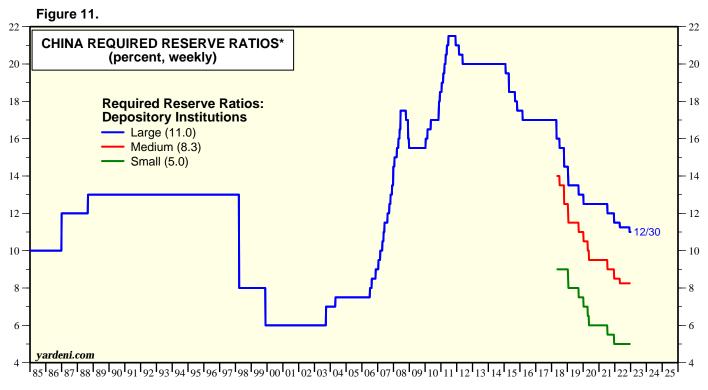
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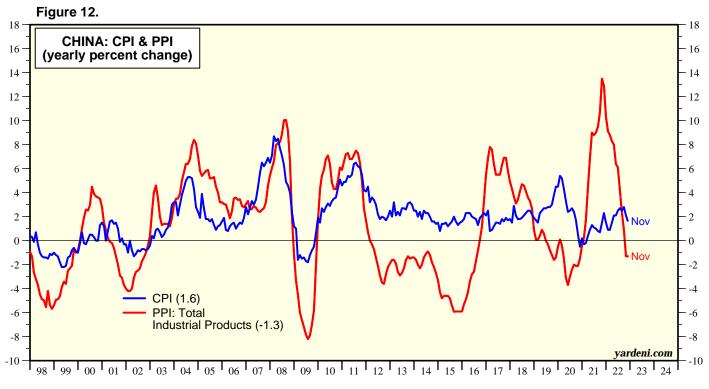
Source: Ministry of Internal Affairs and Communications.



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. QEP (4/27/20) = Unlimited QE during pandemic. Source: Bank of Japan.



* The PBOC announced a change in the Required Reserve Ratios in two steps and specified that it would drop 0.5% effective January 15, 2019 and to drop another 0.5% effective January 25, 2019. The rates were updated accordingly into the future. Source: People's Bank of China.



Source: China National Bureau of Statistics.

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