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What Matters Now: Too Much Pessimism or Not Enough?

August 2, 2022

Zoom Charts

Yardeni Research, Inc.

July 31, 2022

Dr. Edward Yardeni

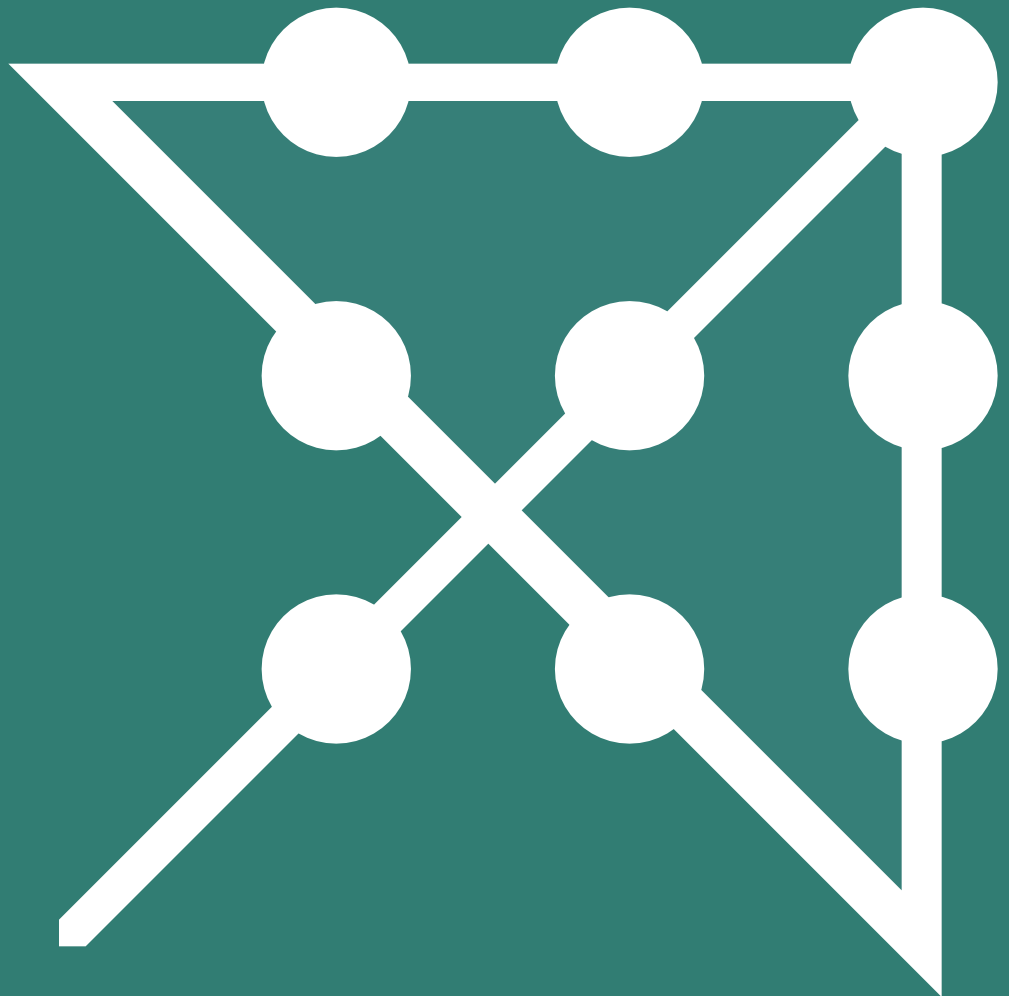
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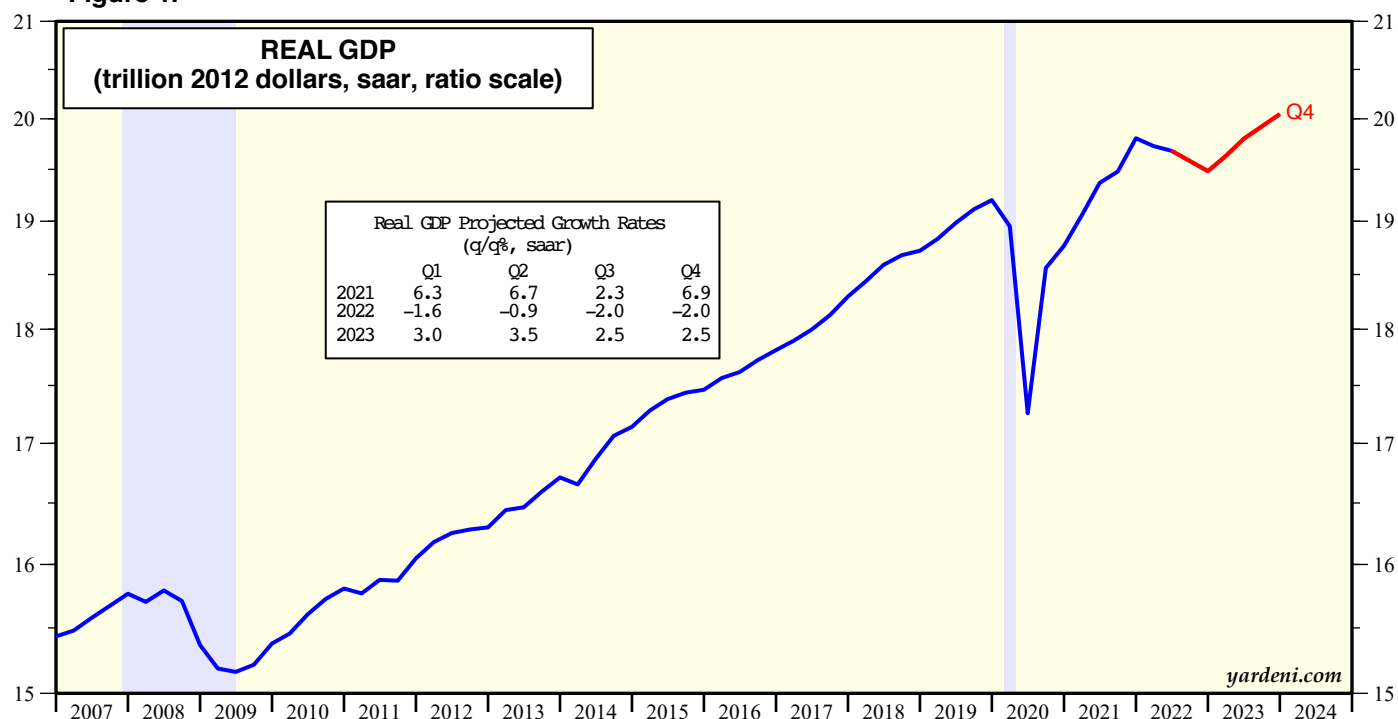
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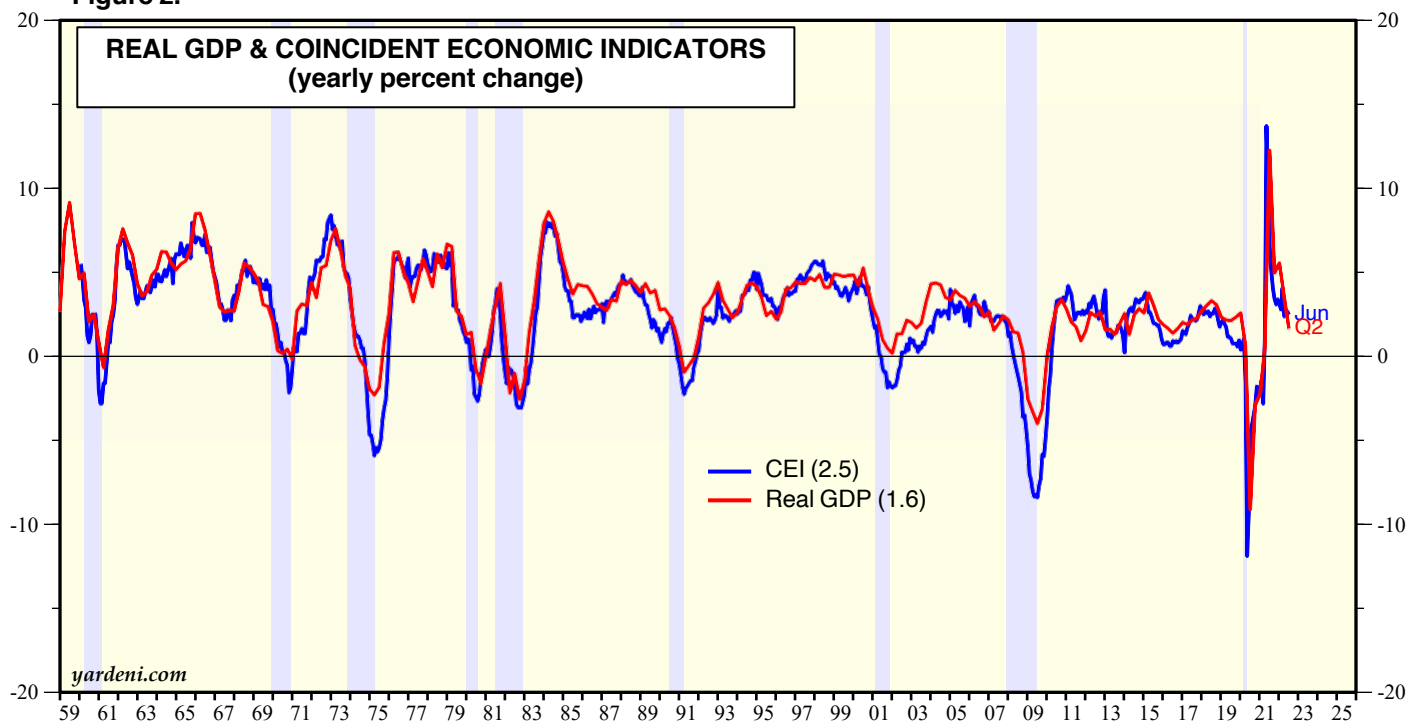
thinking outside the box

Figure 1.



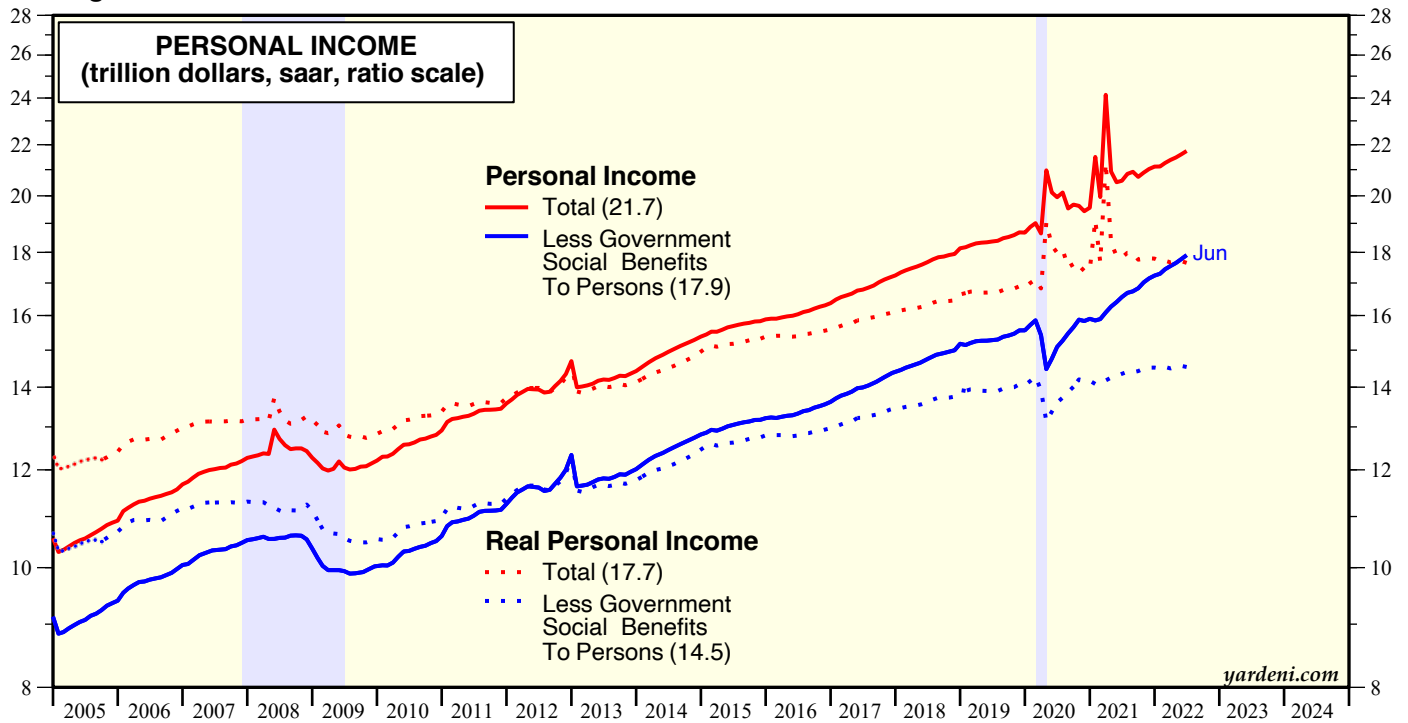
* Red line is YRI forecast for Q2-2022 through Q4-2023.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 2.



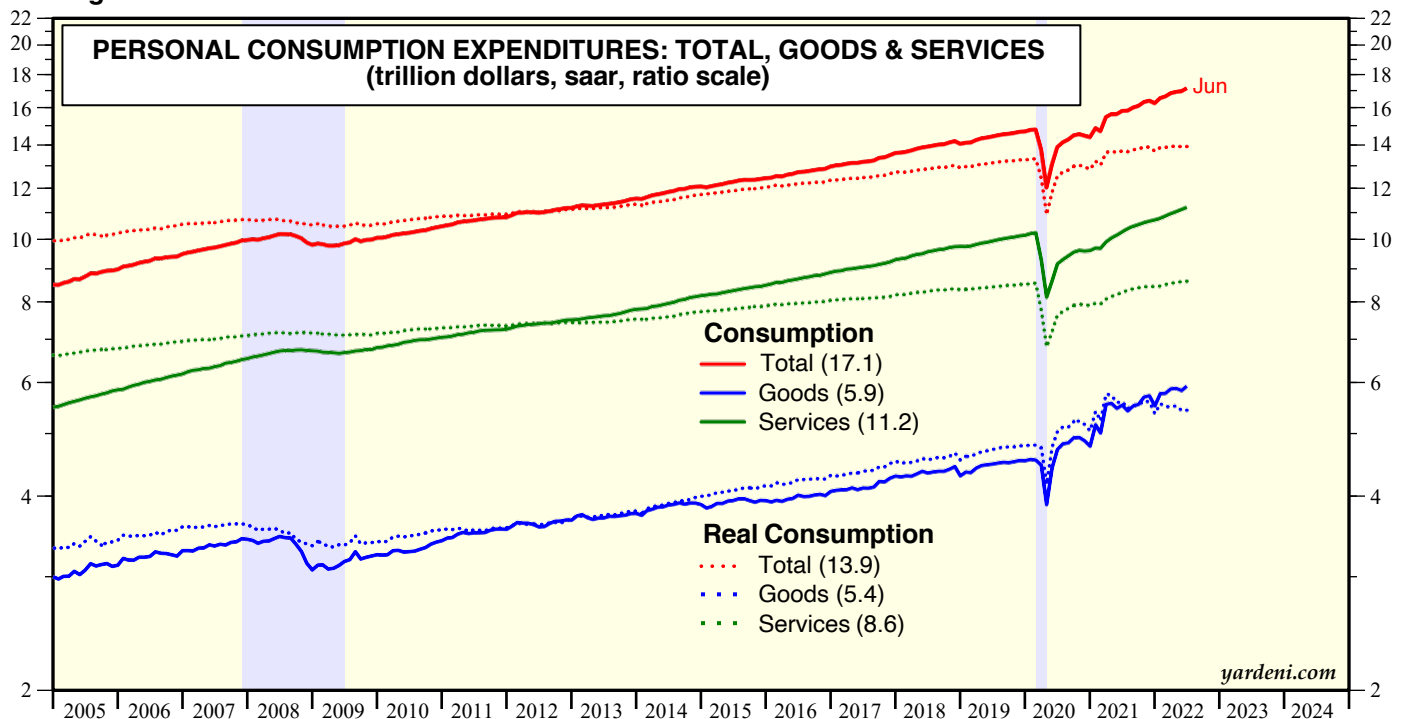
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis and Conference Board.

Figure 3.



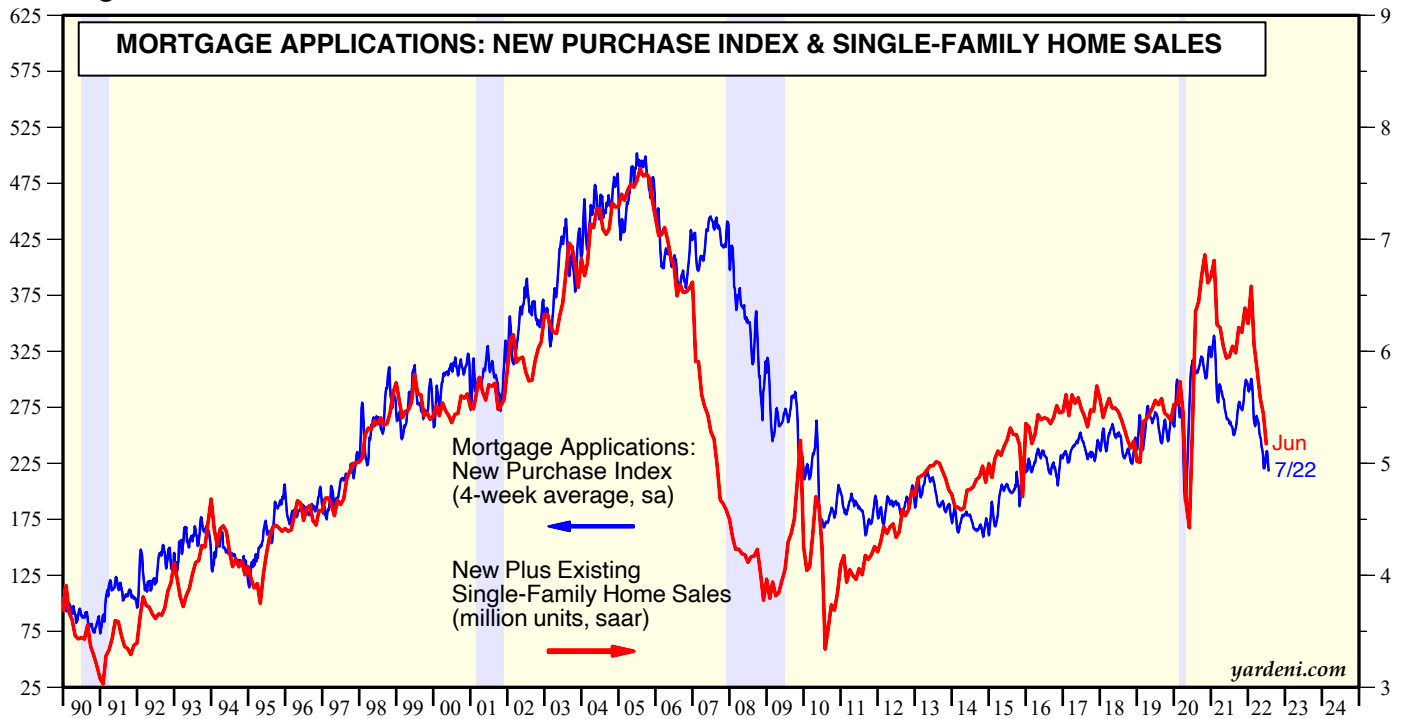
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 4.



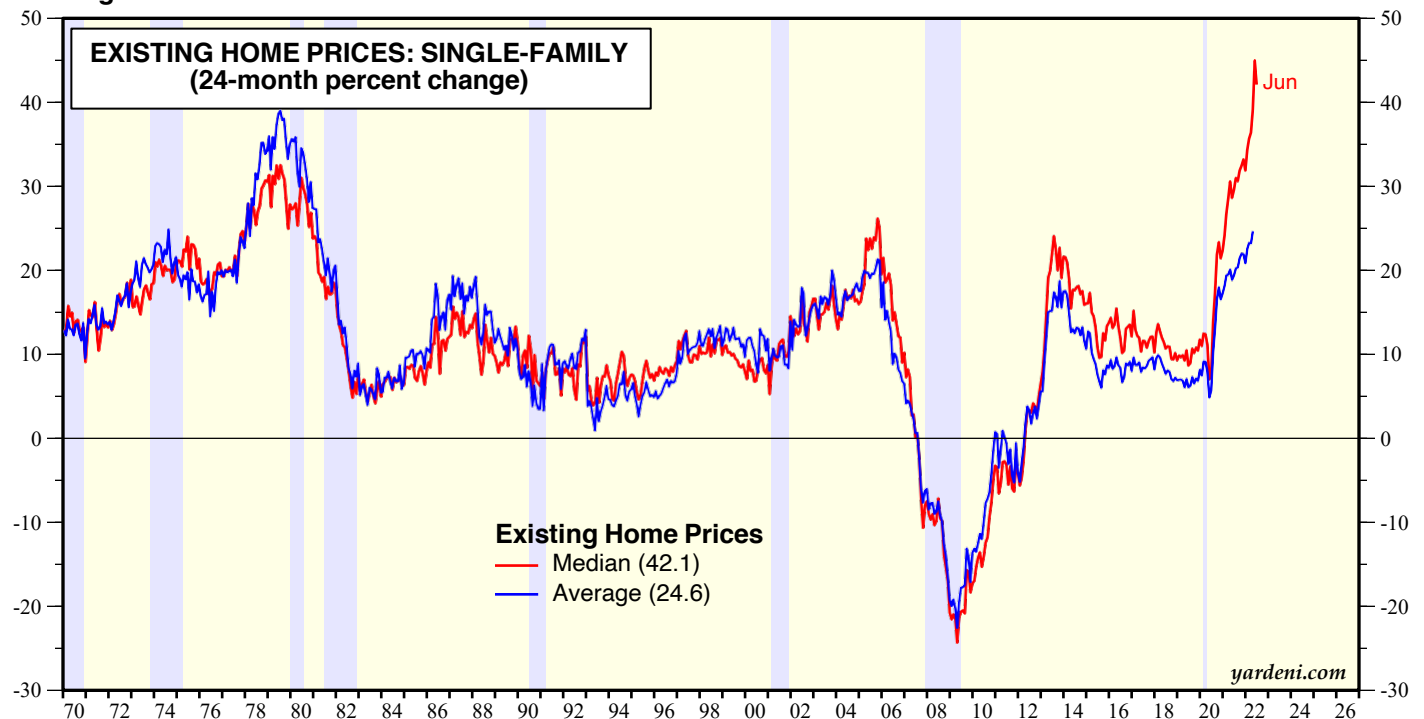
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 5.



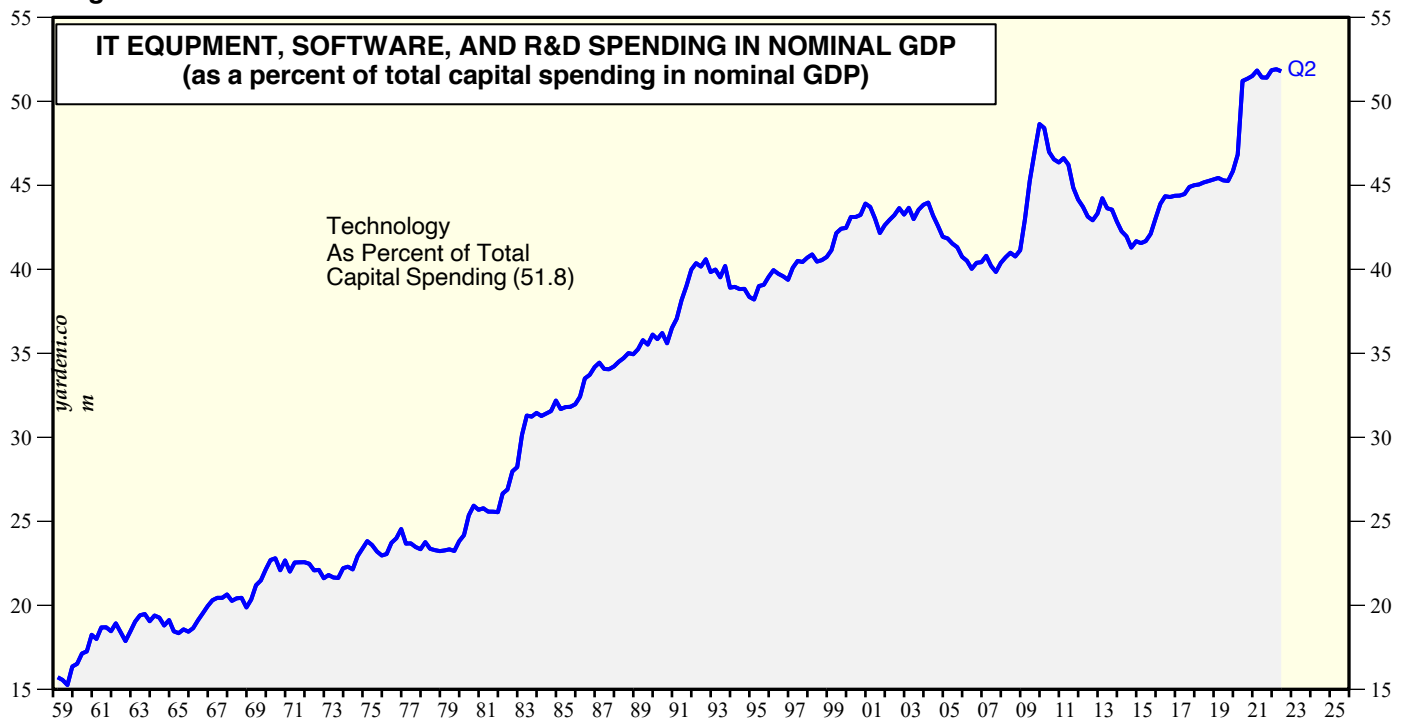
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Mortgage Bankers of America.

Figure 6.



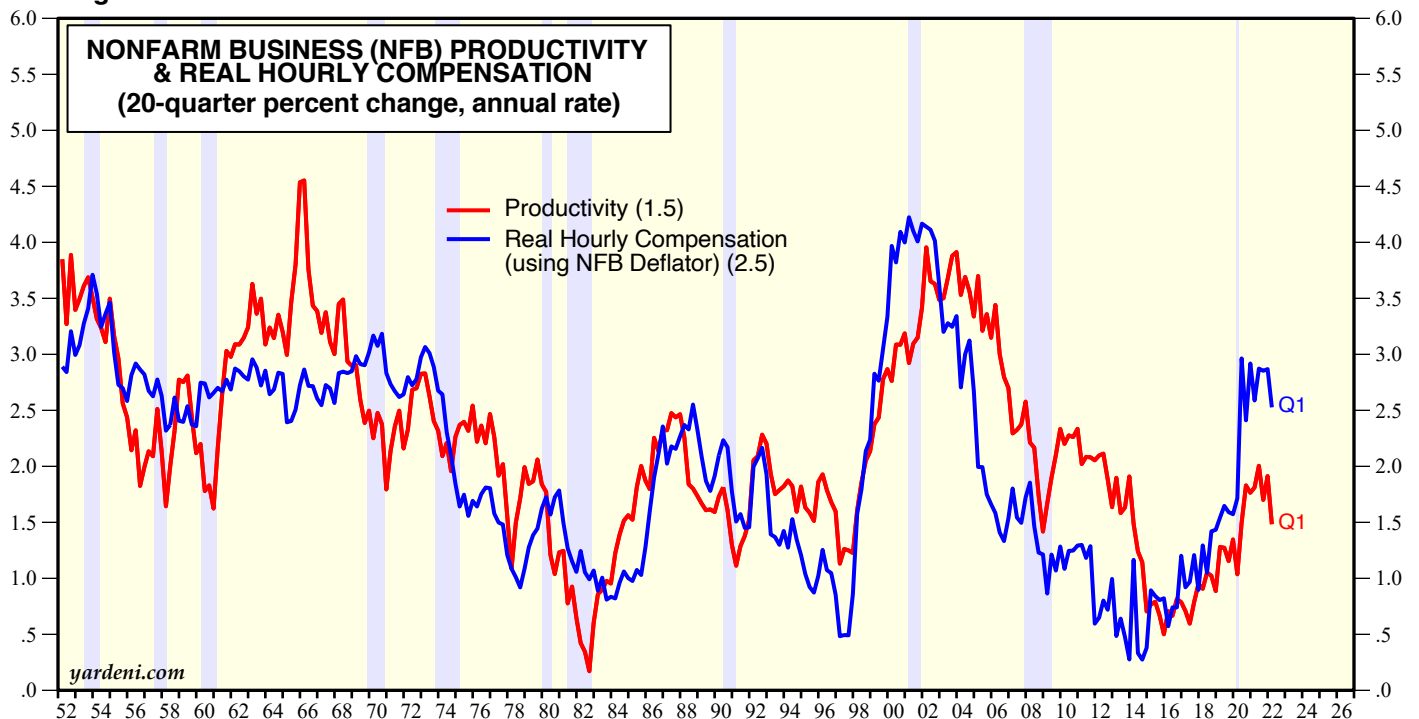
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: National Association of Realtors.

Figure 7.



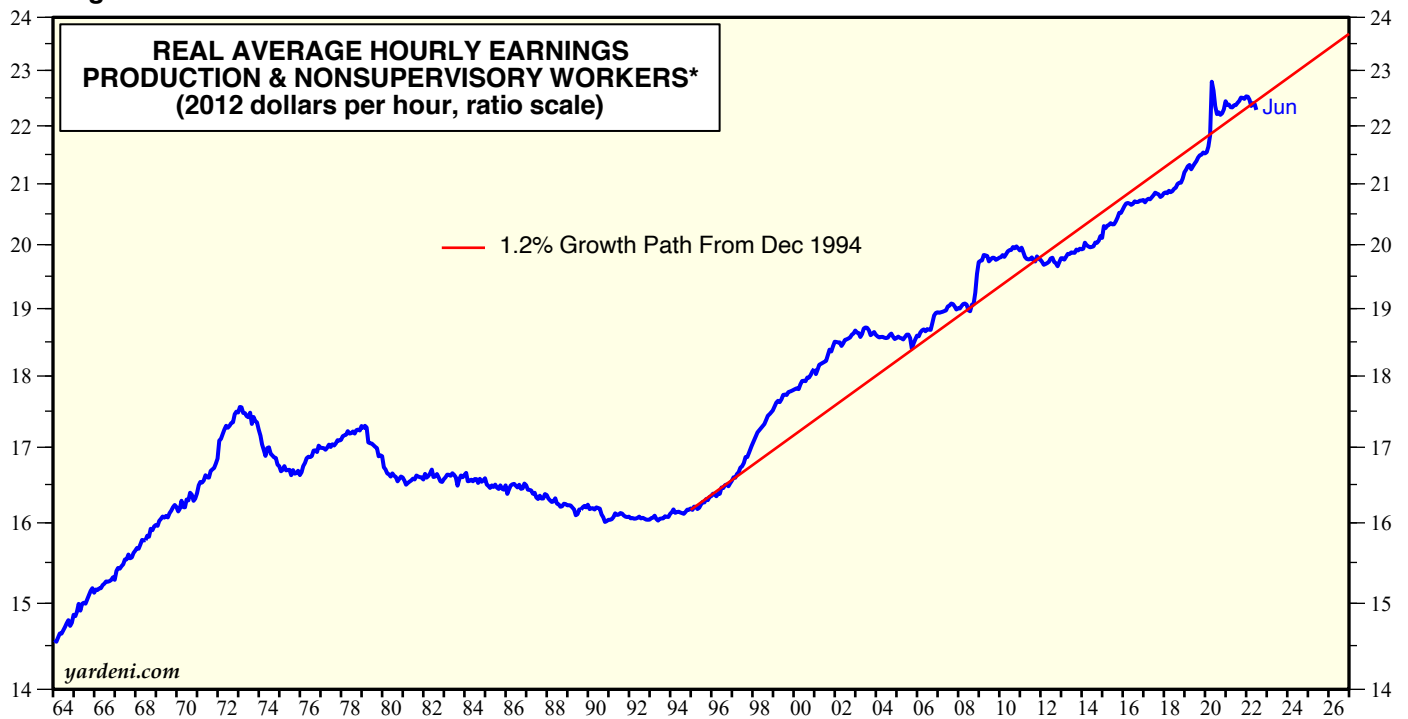
Source: Bureau of Economic Analysis.

Figure 8.



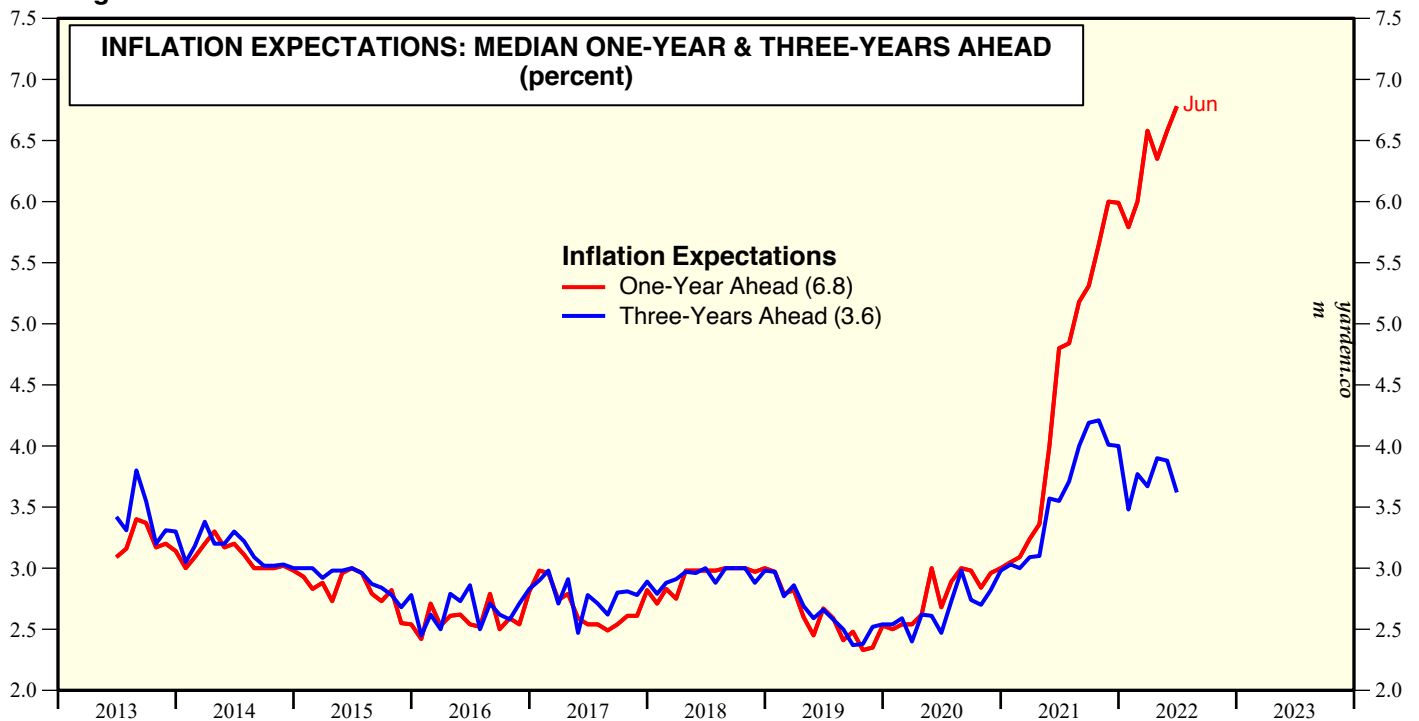
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Labor Statistics.

Figure 9.



* Average hourly earnings deflated by personal consumption expenditures deflator.
Source: Bureau of Labor Statistics, Bureau of Economic Analysis, and Haver Analytics.

Figure 10.



Source: Federal Reserve Bank of New York.

Figure 11.

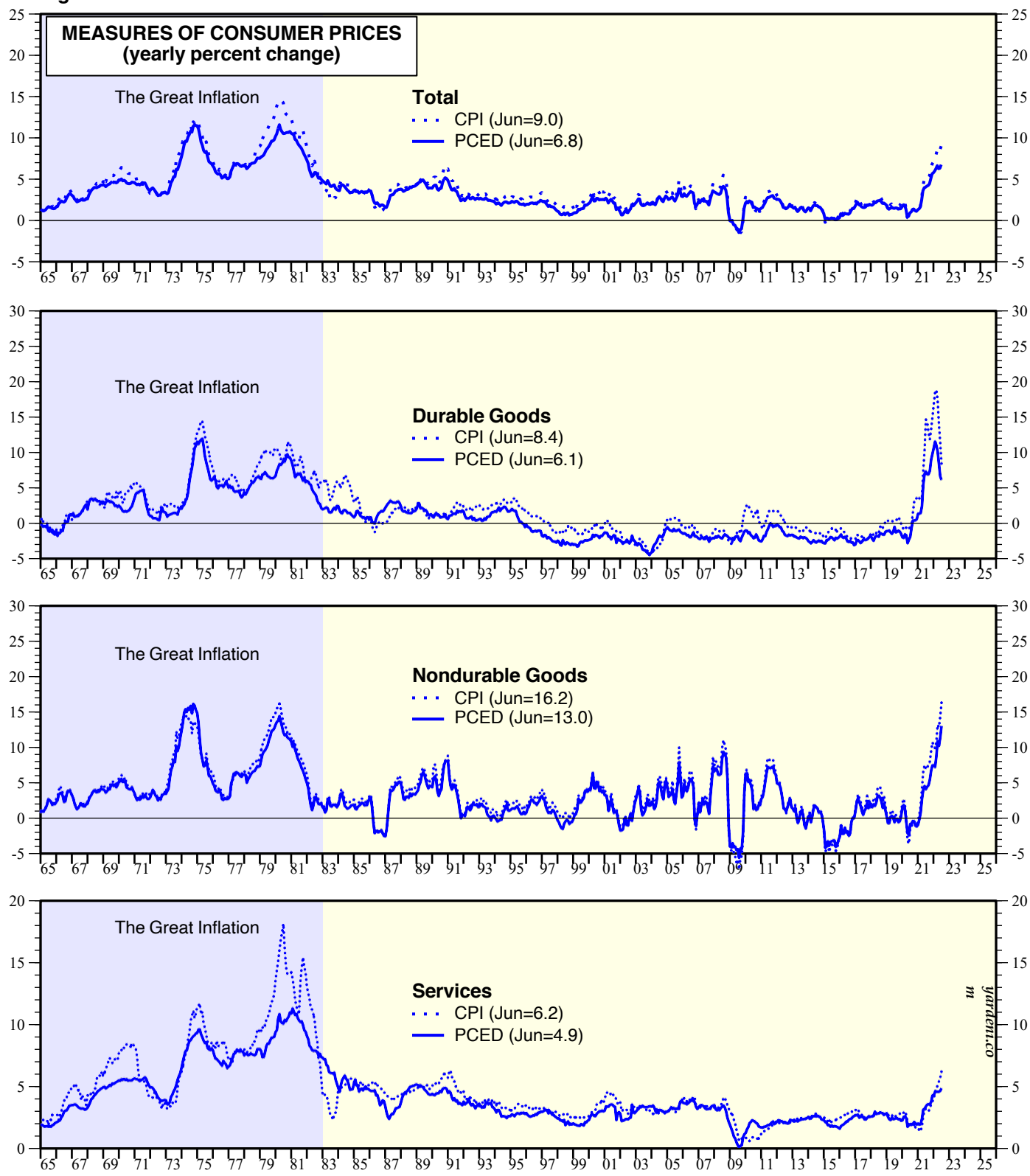
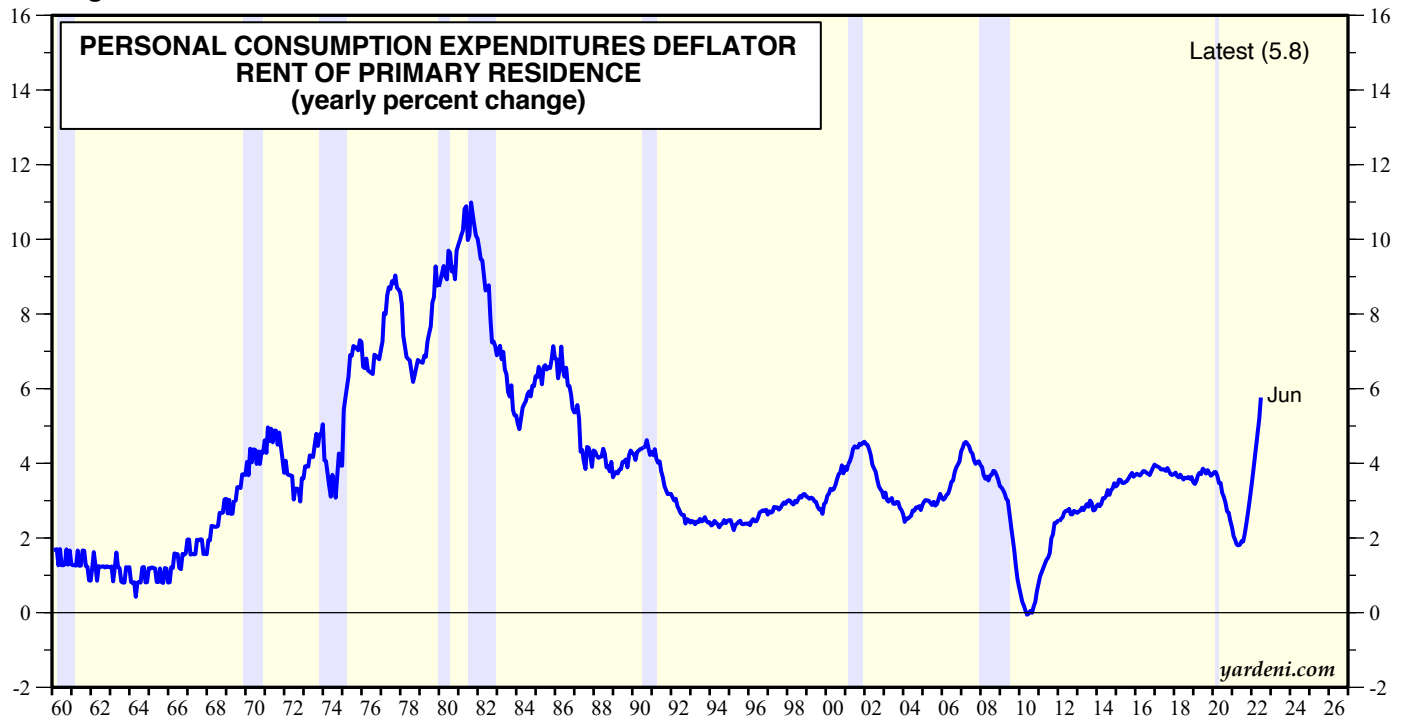
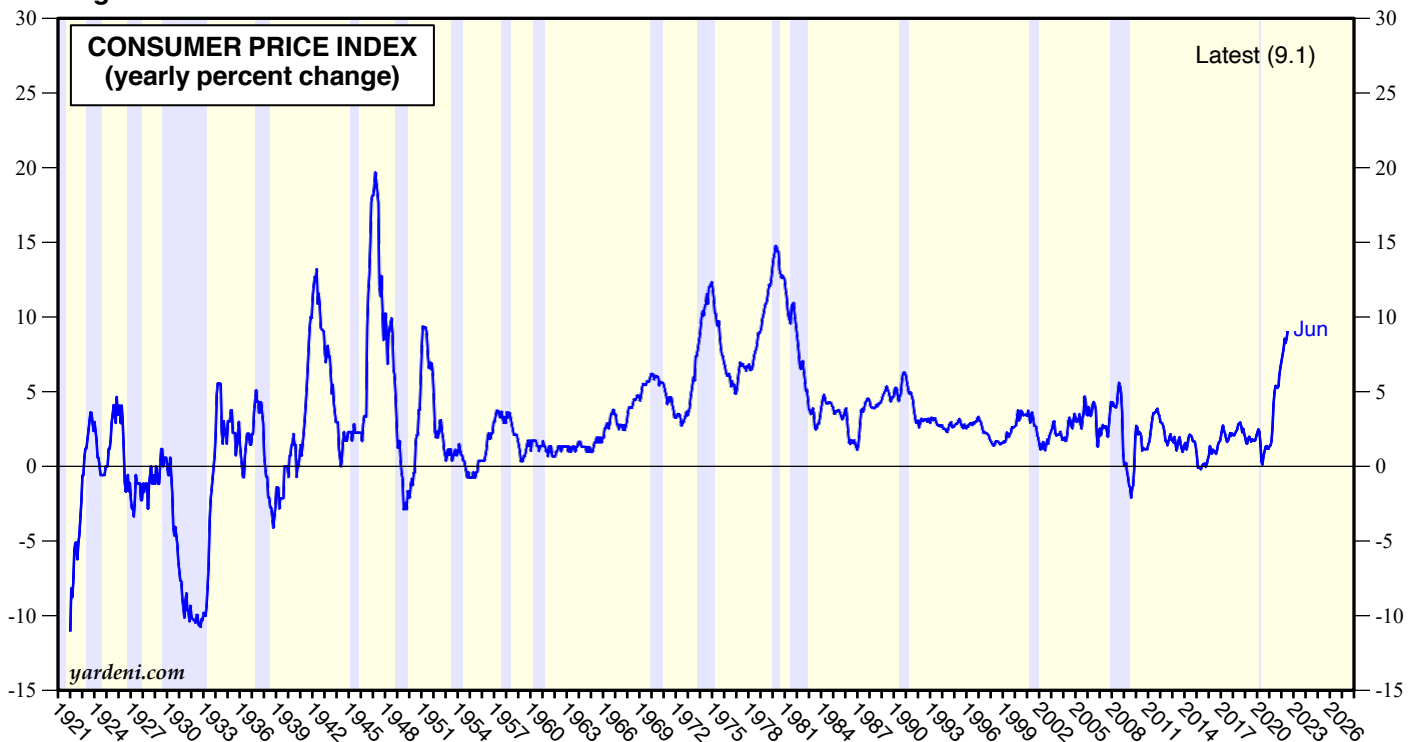


Figure 12.



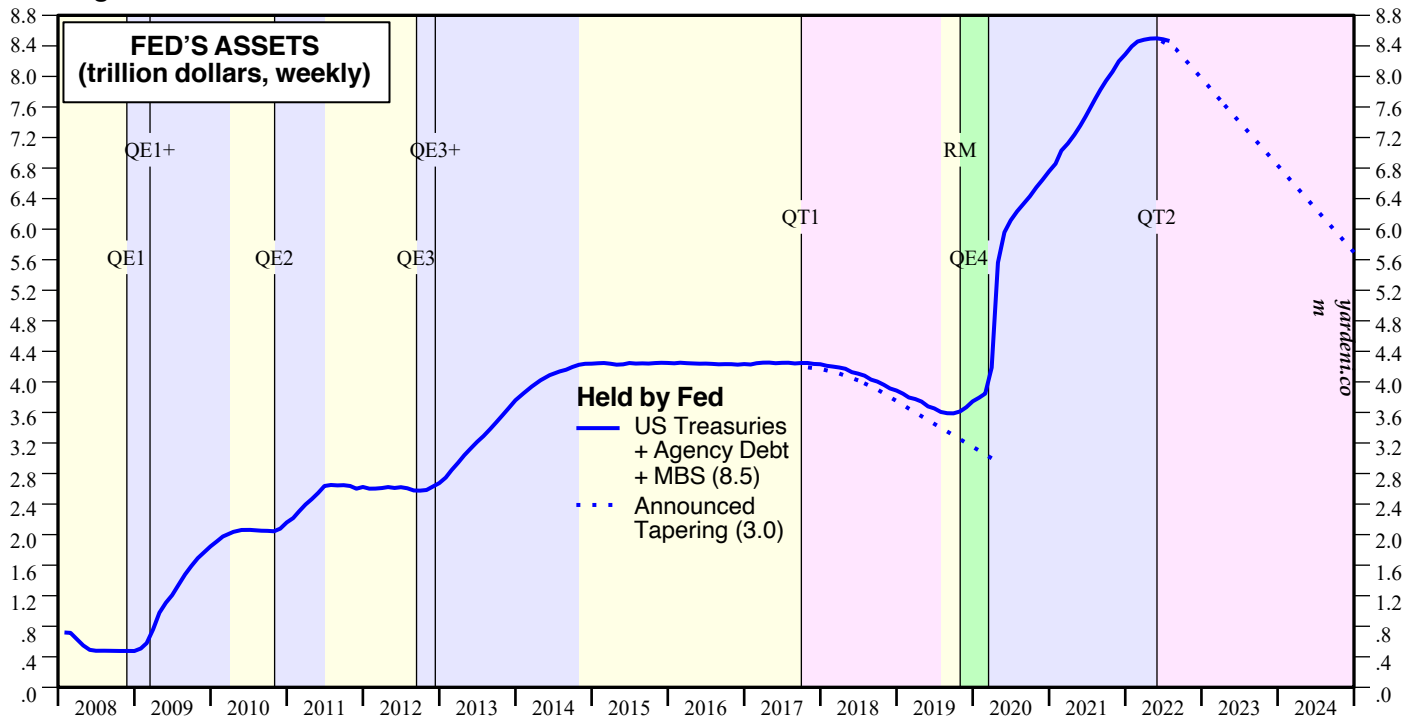
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 13.



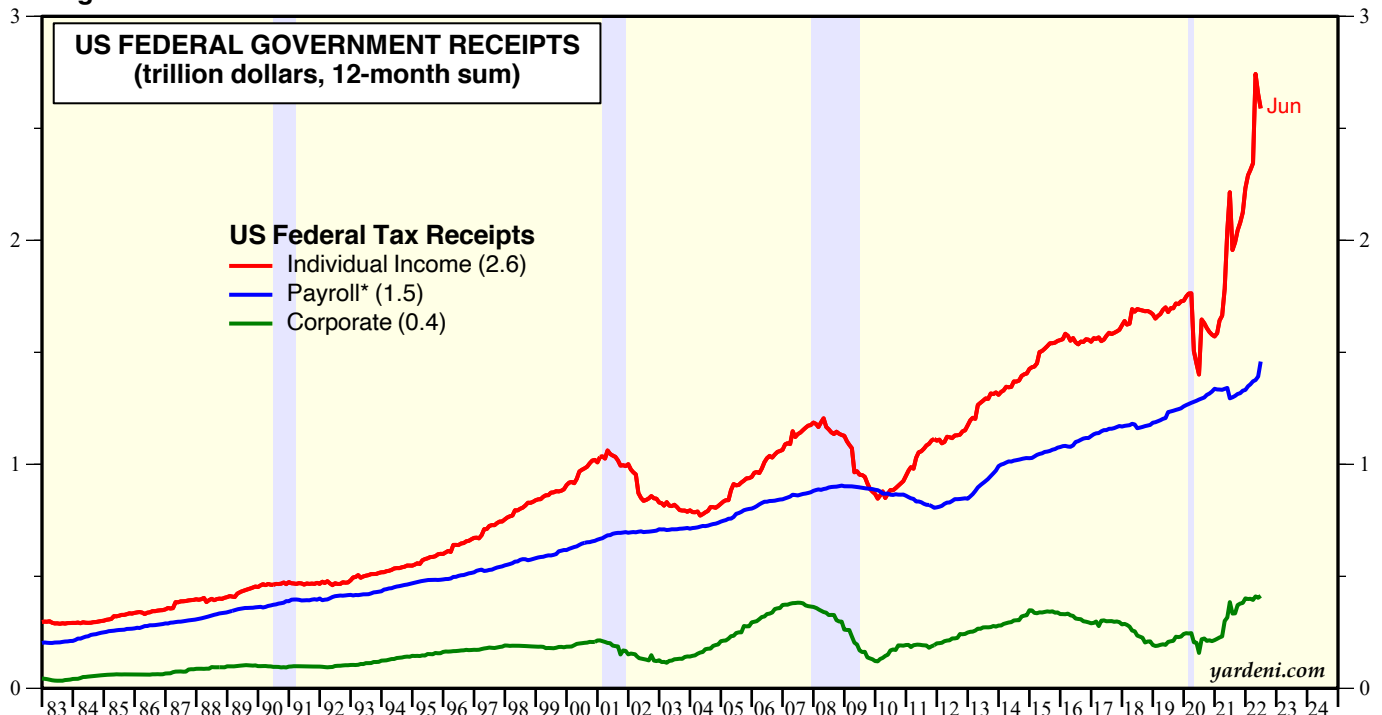
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bureau of Labor Statistics.

Figure 14.



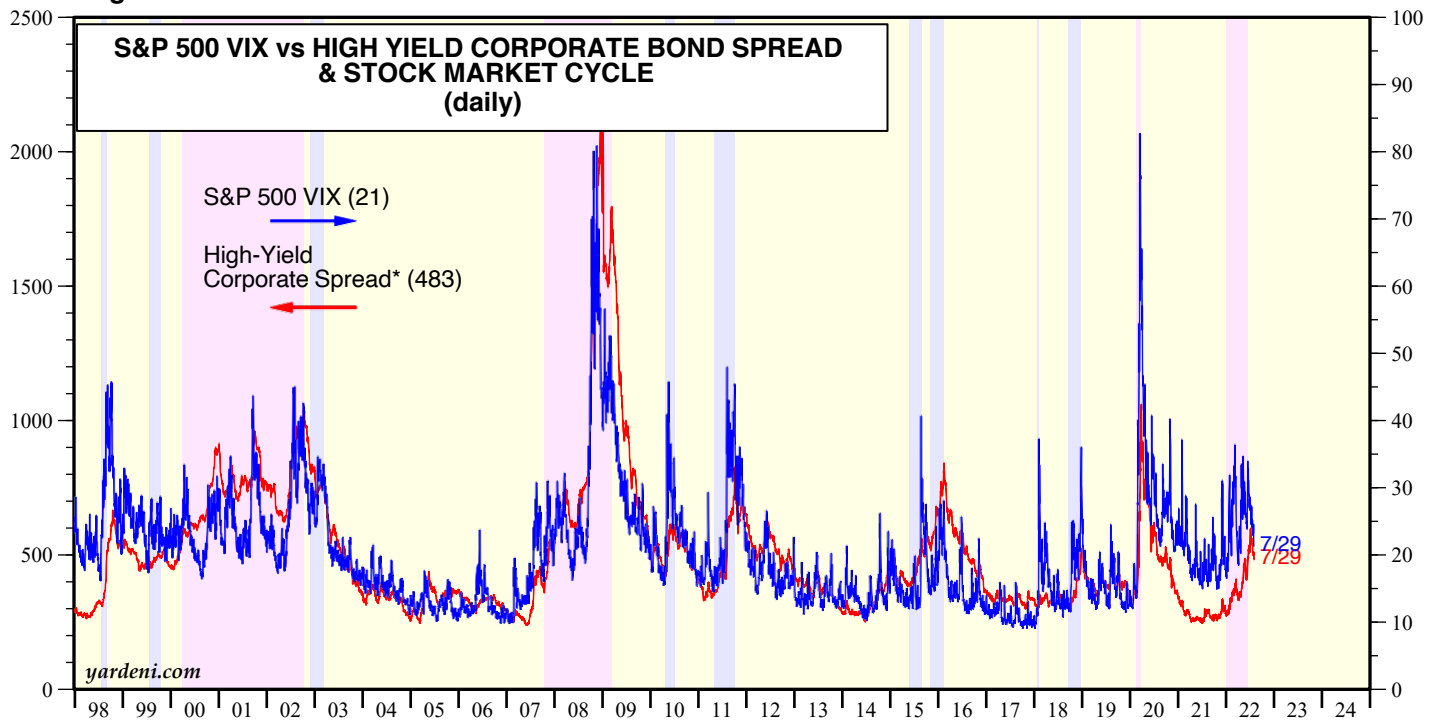
Note: QE1 (11/25/08-3/31/10) = \$1.24tn in mortgage securities; expanded (3/16/09-3/31/10) = \$300bn in Treasuries. QE2 (11/3/10-6/30/11) = \$600bn in Treasuries. QE3 (9/13/12-10/29/14) = \$40bn/month in mortgage securities (open ended); expanded (12/12/12-10/1/14) = \$45bn/month in Treasuries. QT1 (10/1/17-7/31/19) = 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 15.



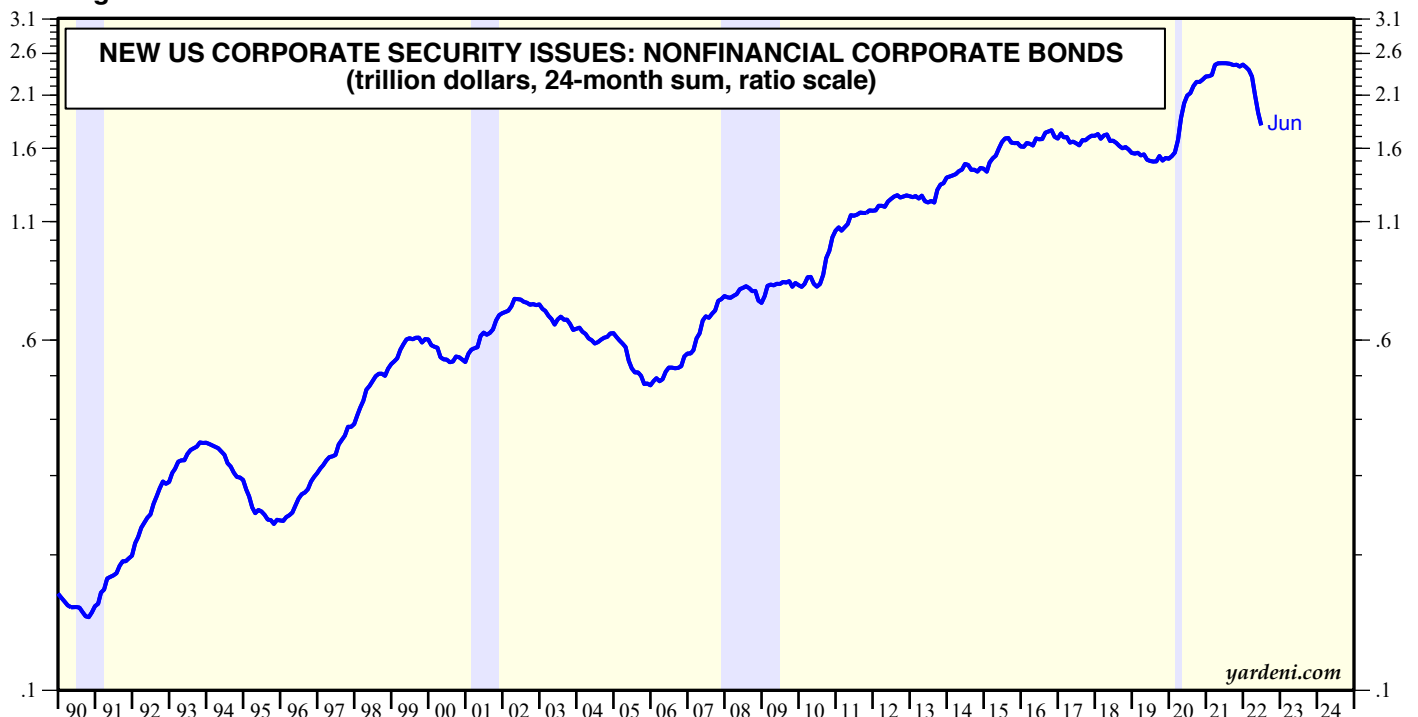
* Employment and general retirement, unemployment insurance, and other retirement.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: US Treasury.

Figure 16.



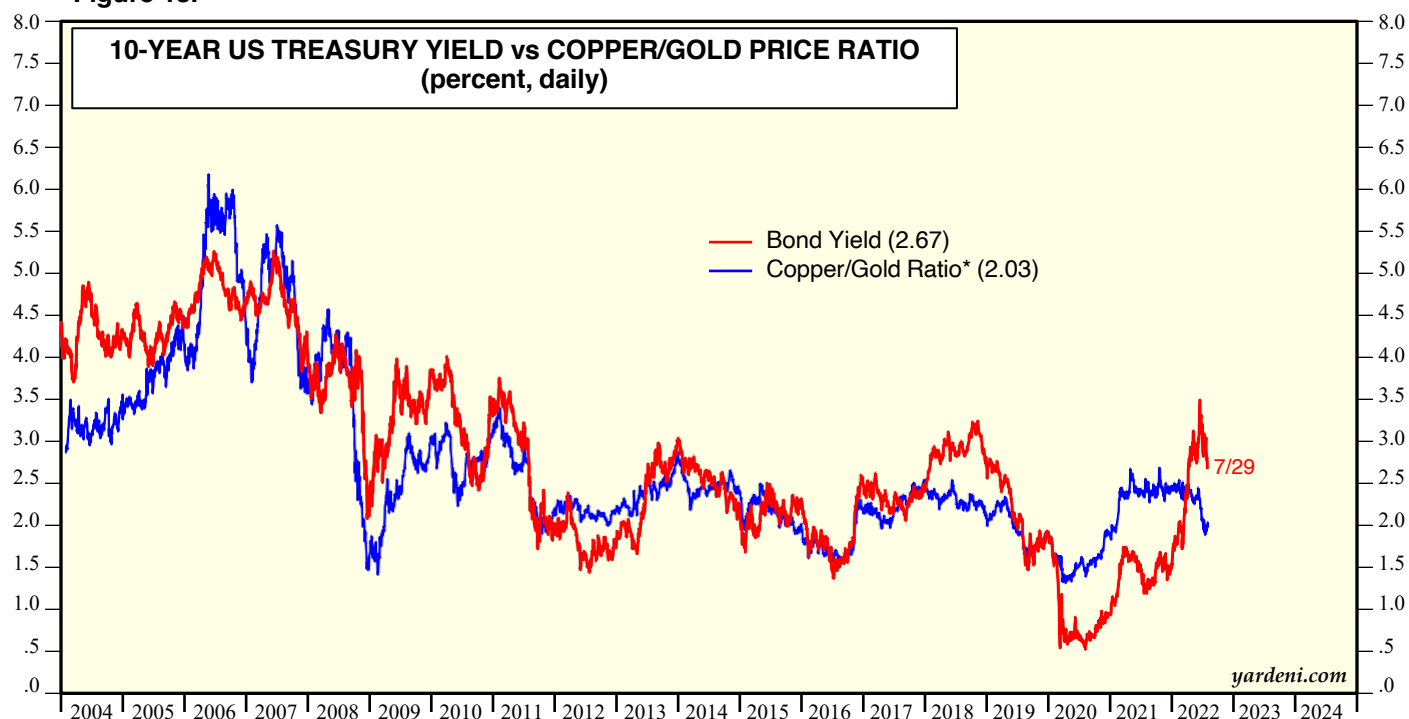
* US high-yield corporate bond yield less 10-year Treasury bond yield (basis points).
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Blue shaded areas are correction declines of 10% to less than 20%. Yellow areas are bull markets.
Source: Chicago Board Options Exchange, Bank of America Merrill Lynch, and Federal Reserve Board.

Figure 17.



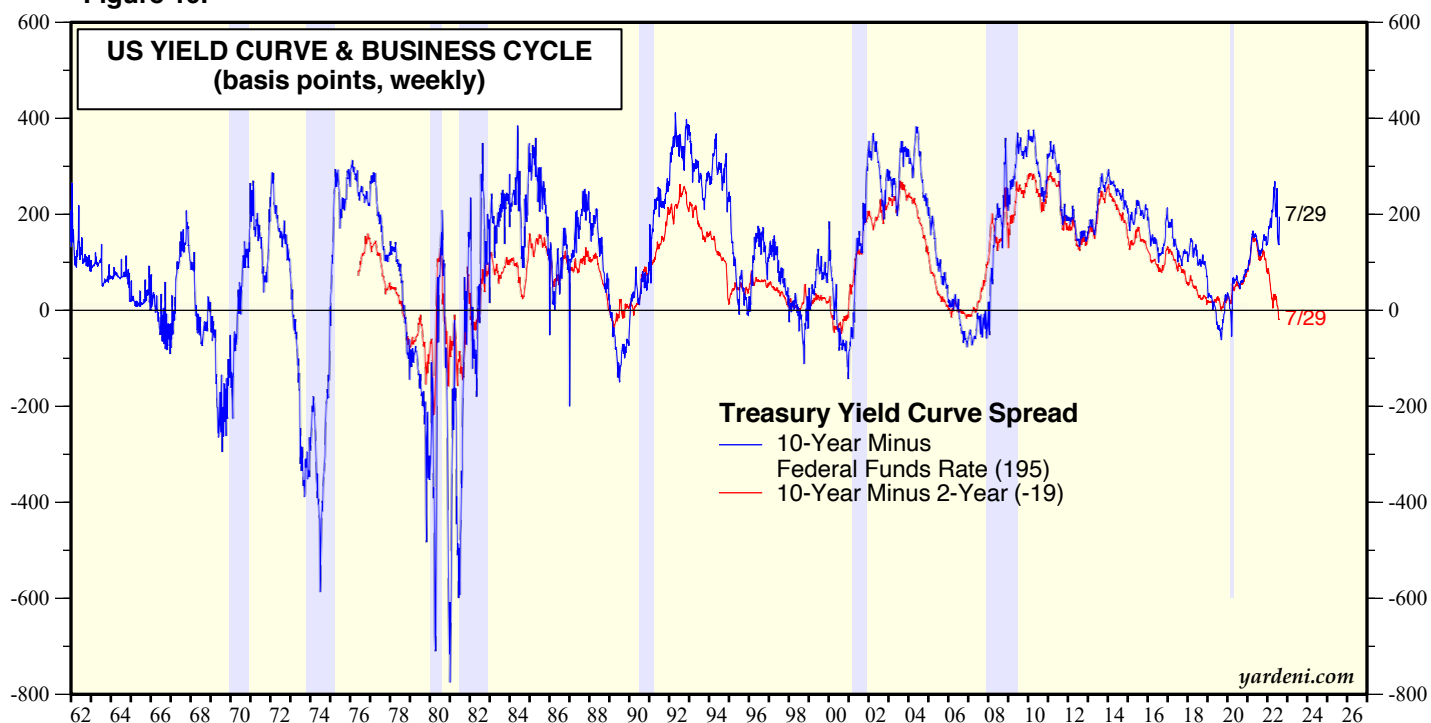
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board.

Figure 18.



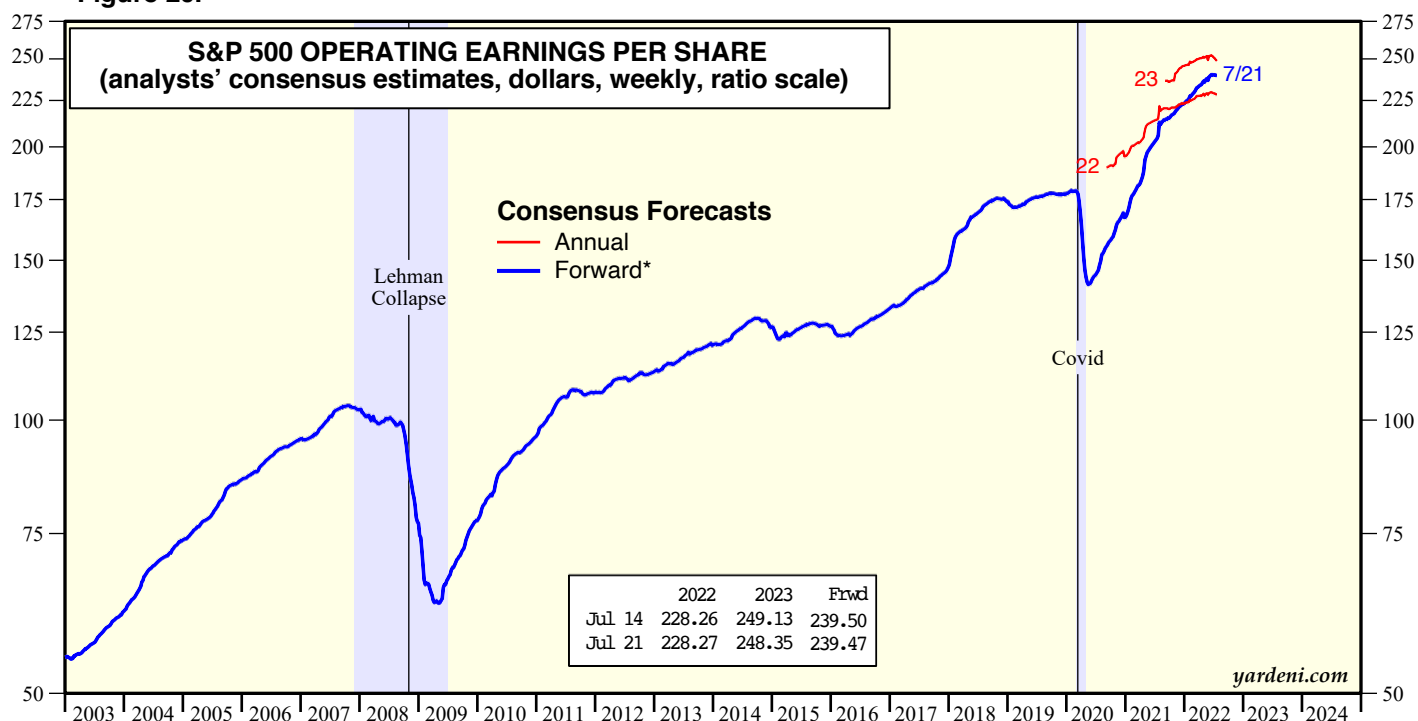
* Nearby futures price of copper (in dollars, not cents) divided by nearby futures price of gold multiplied by 1000.
Source: Federal Reserve Board and Haver Analytics.

Figure 19.



Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board.

Figure 20.



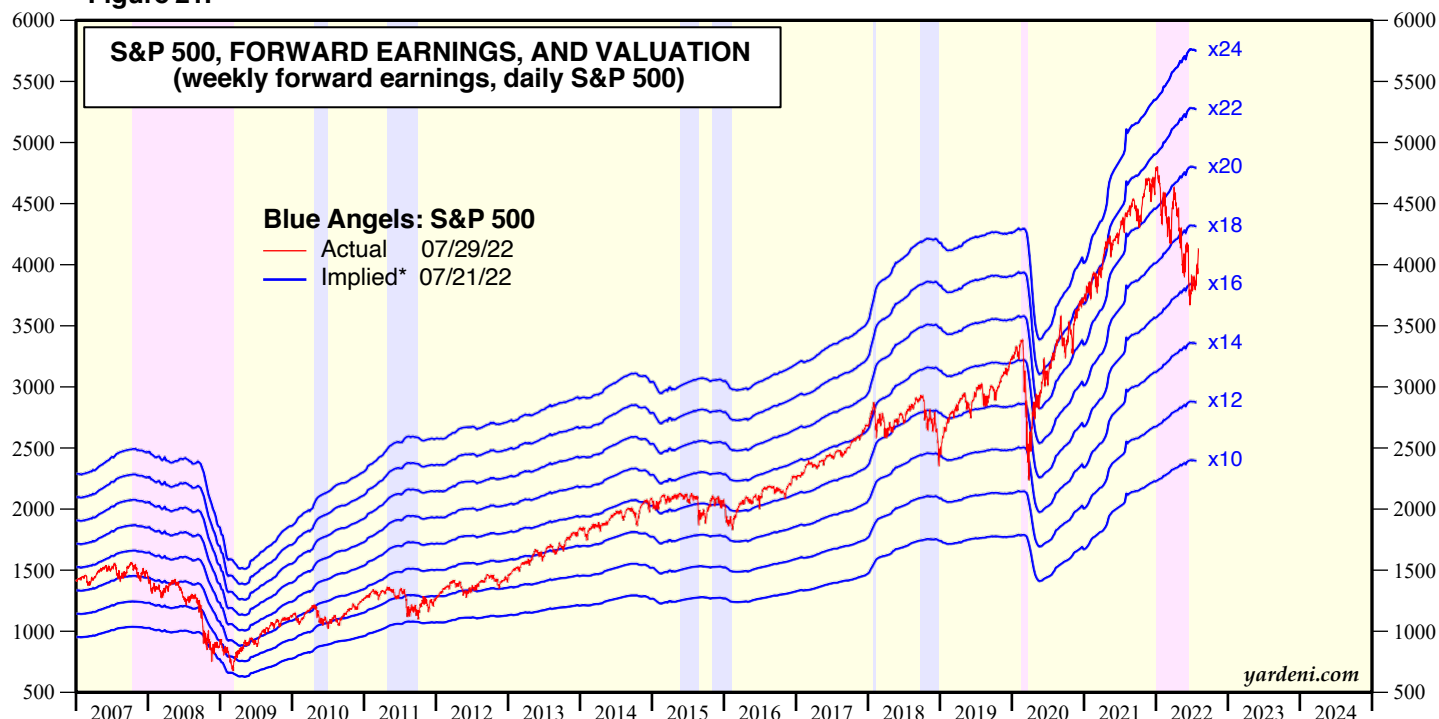
* Time-weighted average of analysts' consensus estimates for S&P 500 operating earnings for current year and next year.

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

Note: Lehman collapsed 9/15/2008. COVID-19 = WHO declares global pandemic on 3/11/2020.

Source: I/B/E/S data by Refinitiv.

Figure 21.

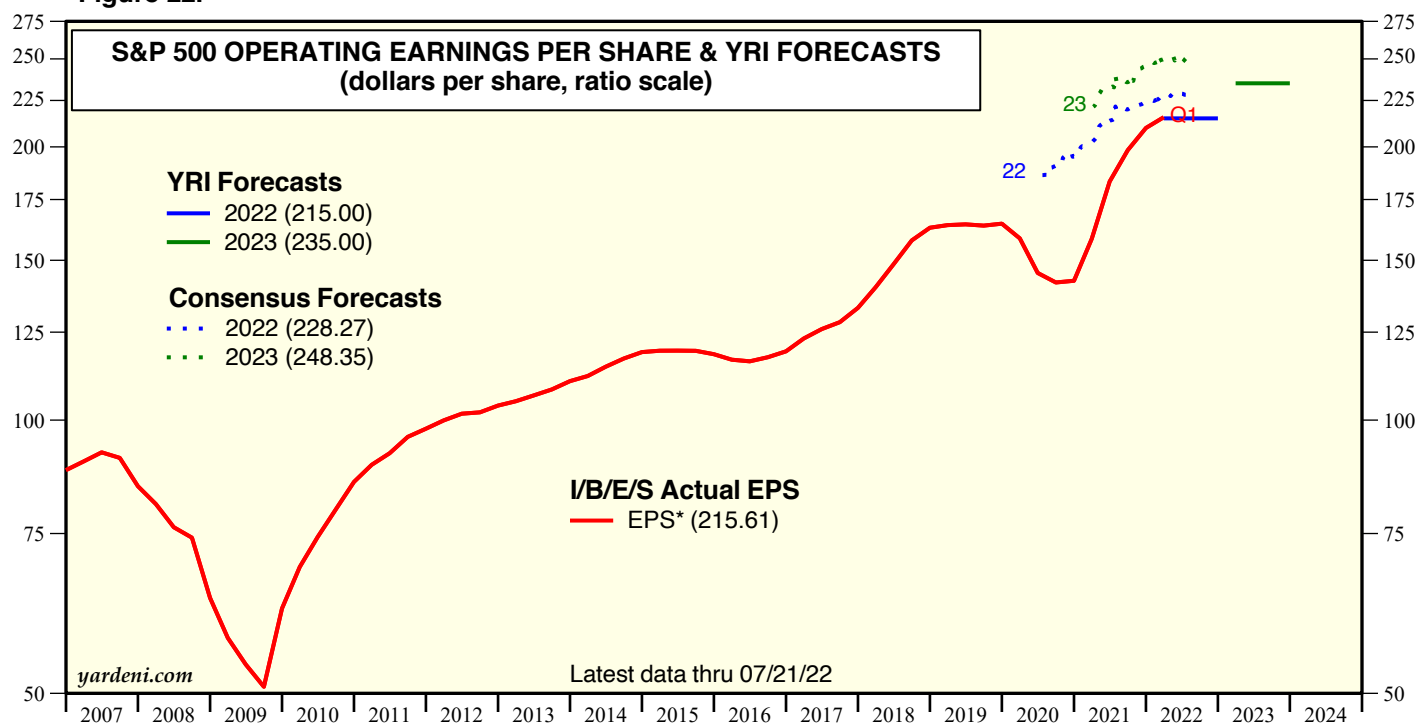


* Implied price index calculated using forward earnings times forward P/Es. Weekly data start January 2007.

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%.

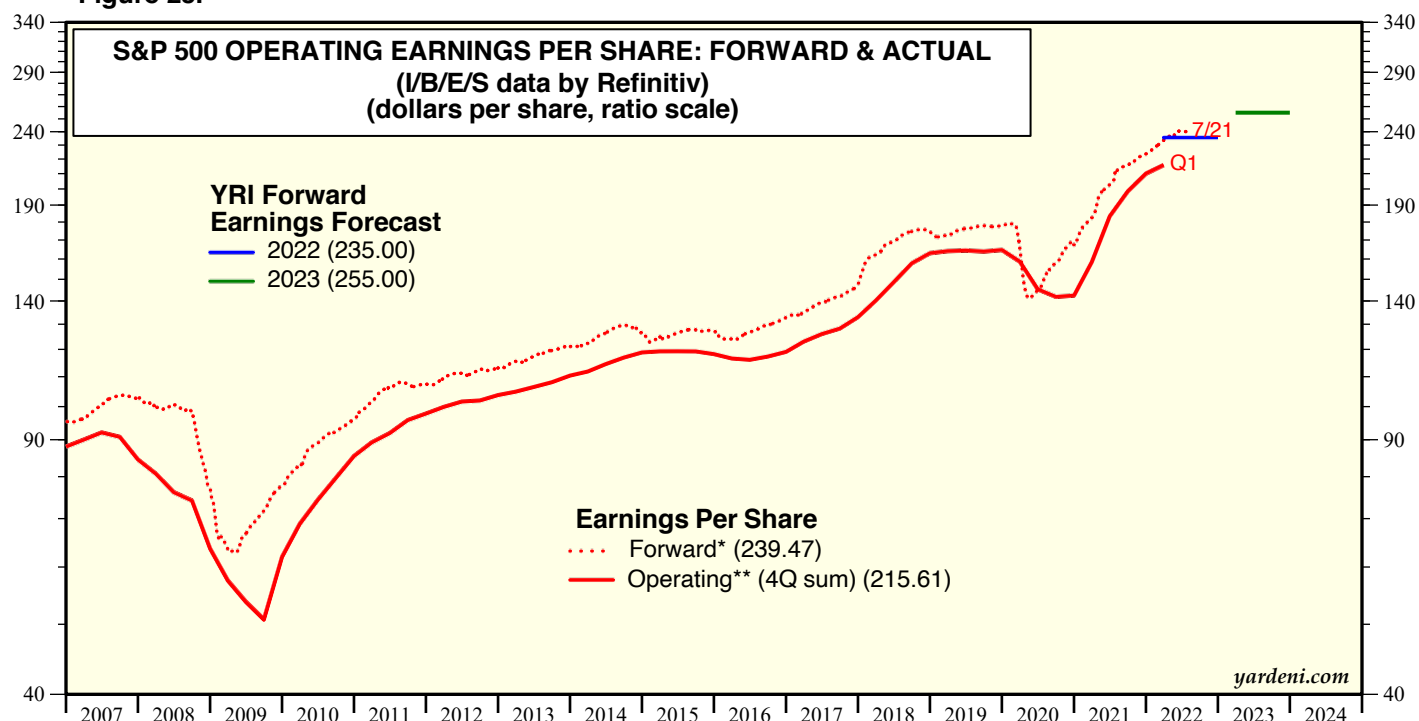
Source: Standard & Poor's and I/B/E/S data by Refinitiv.

Figure 22.



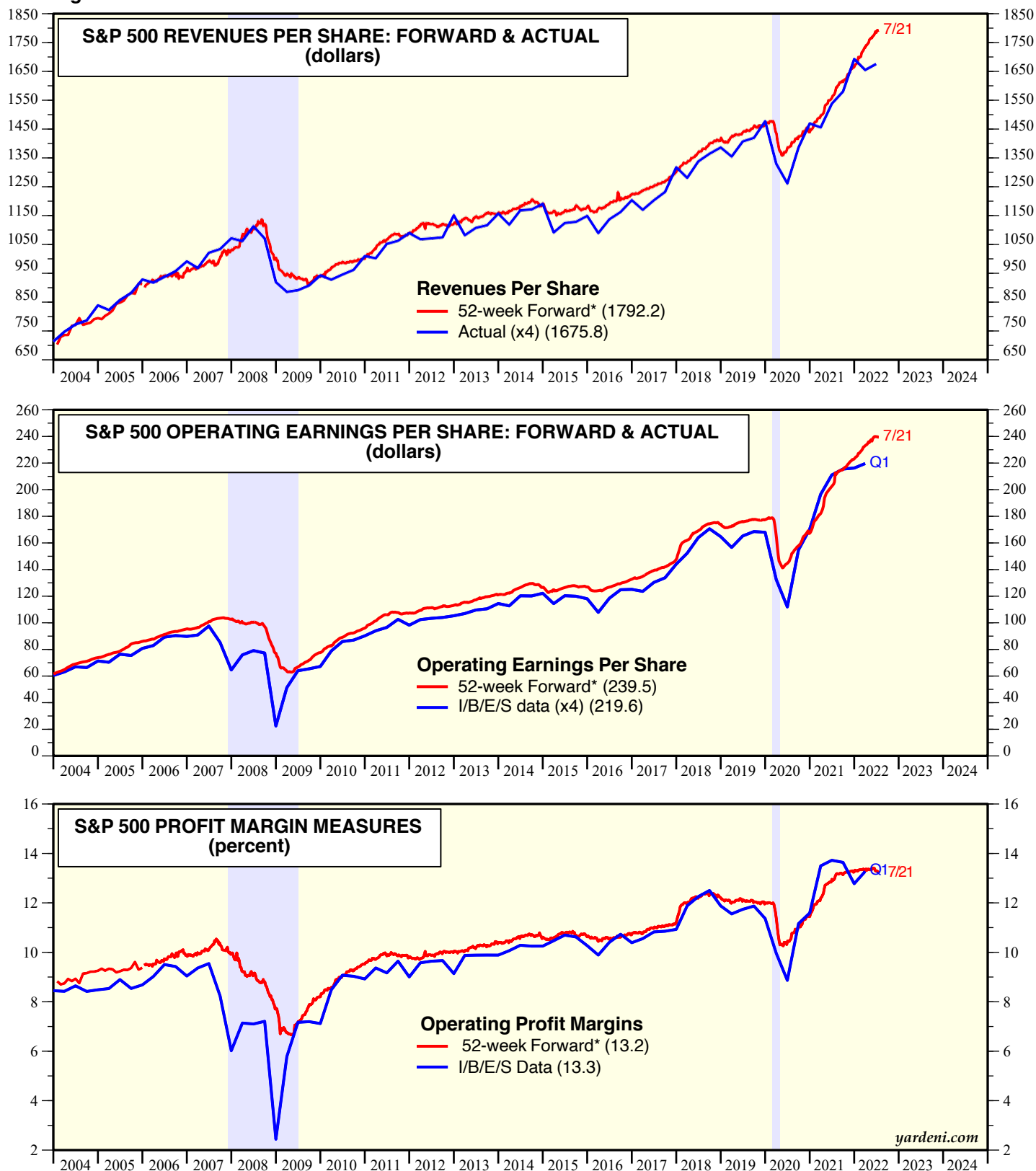
* Four-quarter trailing sum of operating earnings per share.
Source: I/B/E/S data by Refinitiv.

Figure 23.



* Time-weighted average of consensus operating earnings estimates for current and next year. Monthly through March 1994, then weekly.
 ** From S&P until Q4-1993, then from I/B/E/S data by Refinitiv.
 Source: I/B/E/S data by Refinitiv.

Figure 24.

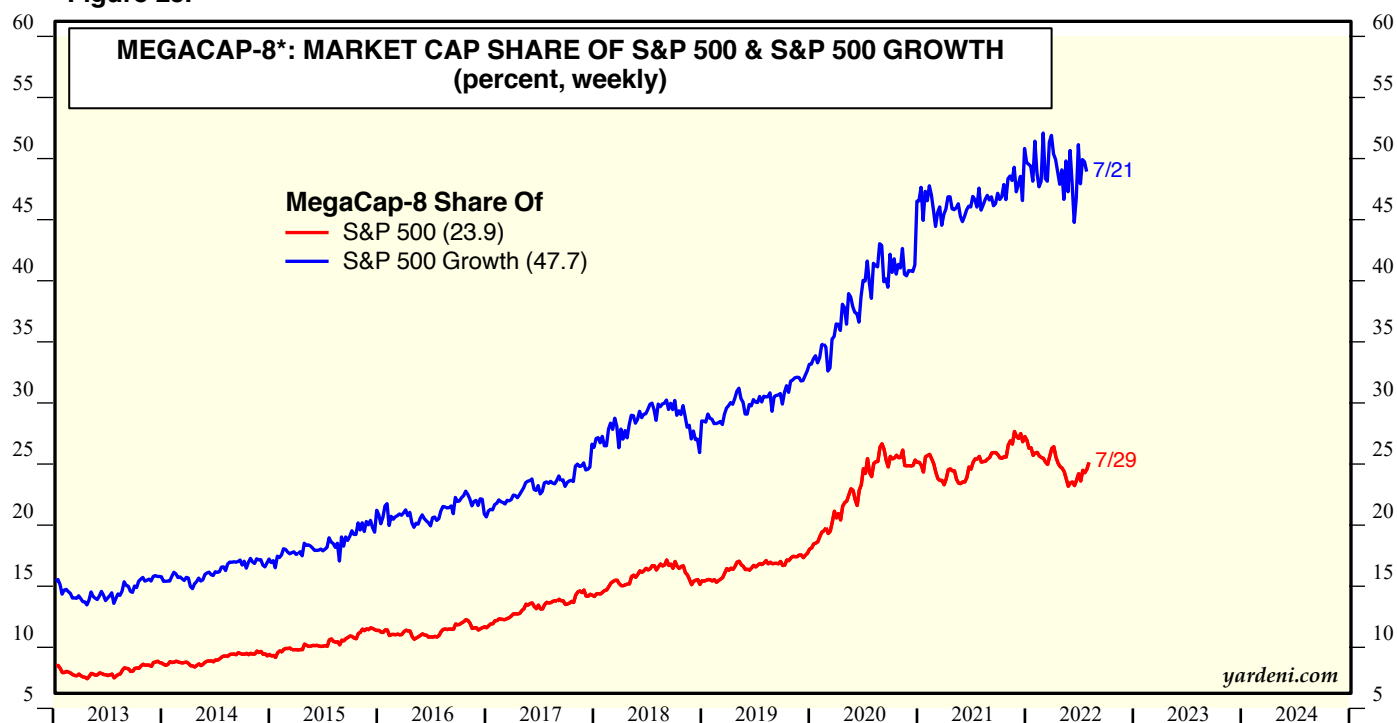


* Time-weighted average of consensus estimates for current and next years.

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

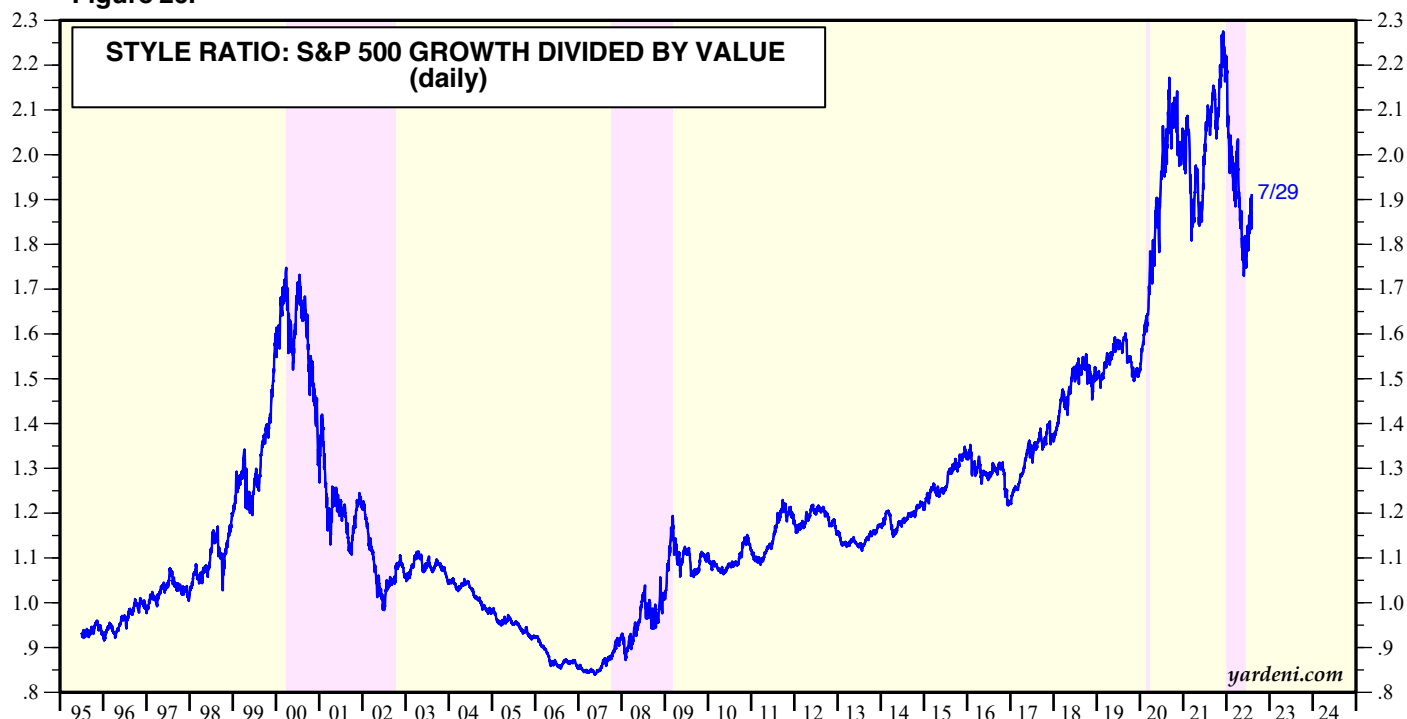
Source: Standard & Poor's and I/B/E/S data by Refinitiv.

Figure 25.



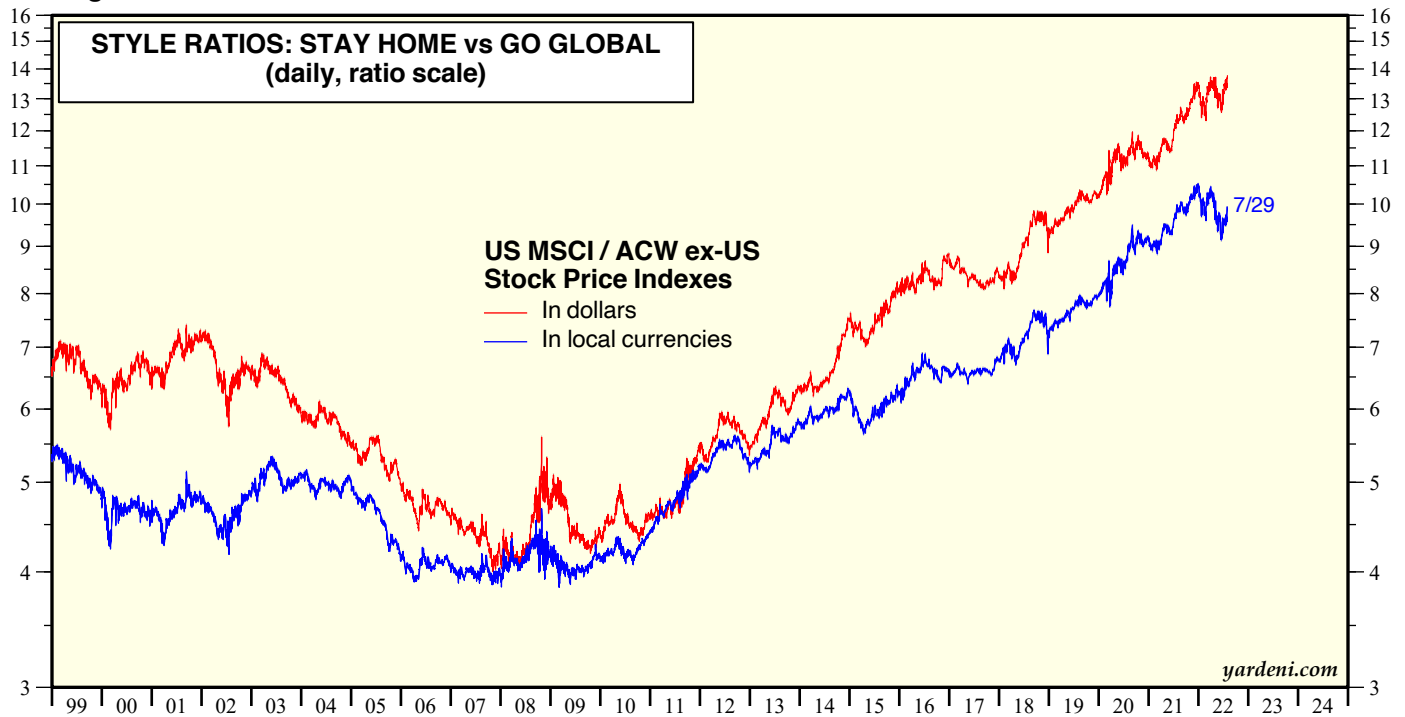
* MegaCap-8 stocks include Alphabet (Google), Amazon, Apple, Meta (Facebook), Microsoft, Netflix, NVIDIA, and Tesla. Both classes of Alphabet are included
 Source: Standard & Poor's and I/B/E/S data by Refinitiv.

Figure 26.



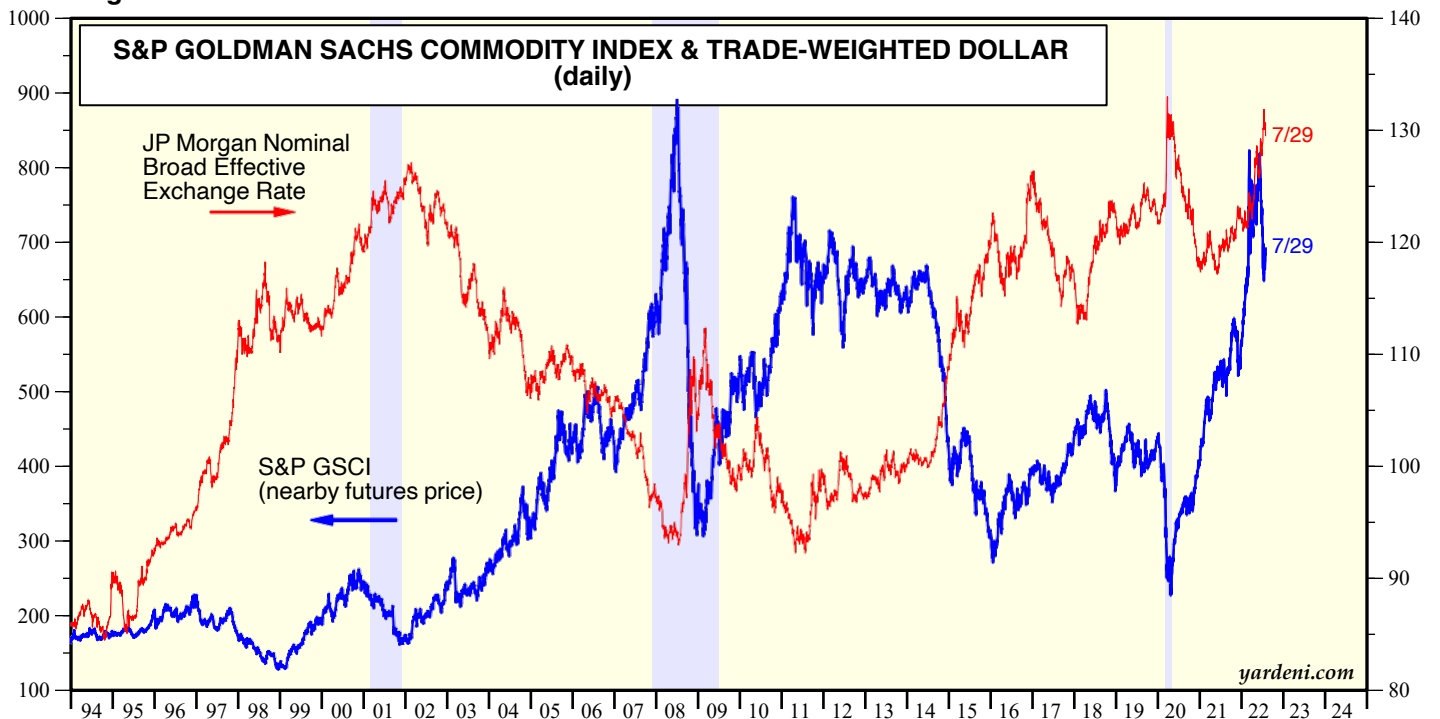
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
 Source: Standard & Poor's and Haver Analytics.

Figure 27.



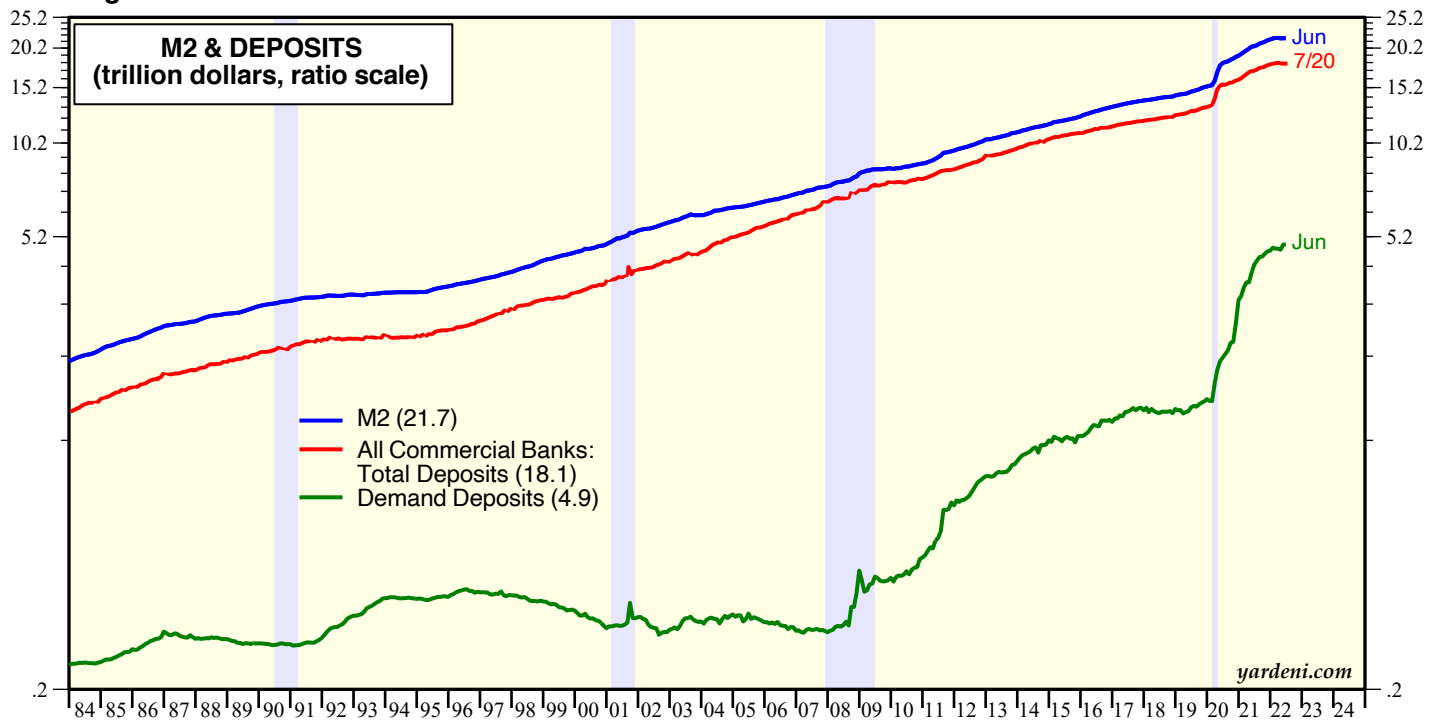
Source: MSCI.

Figure 28.



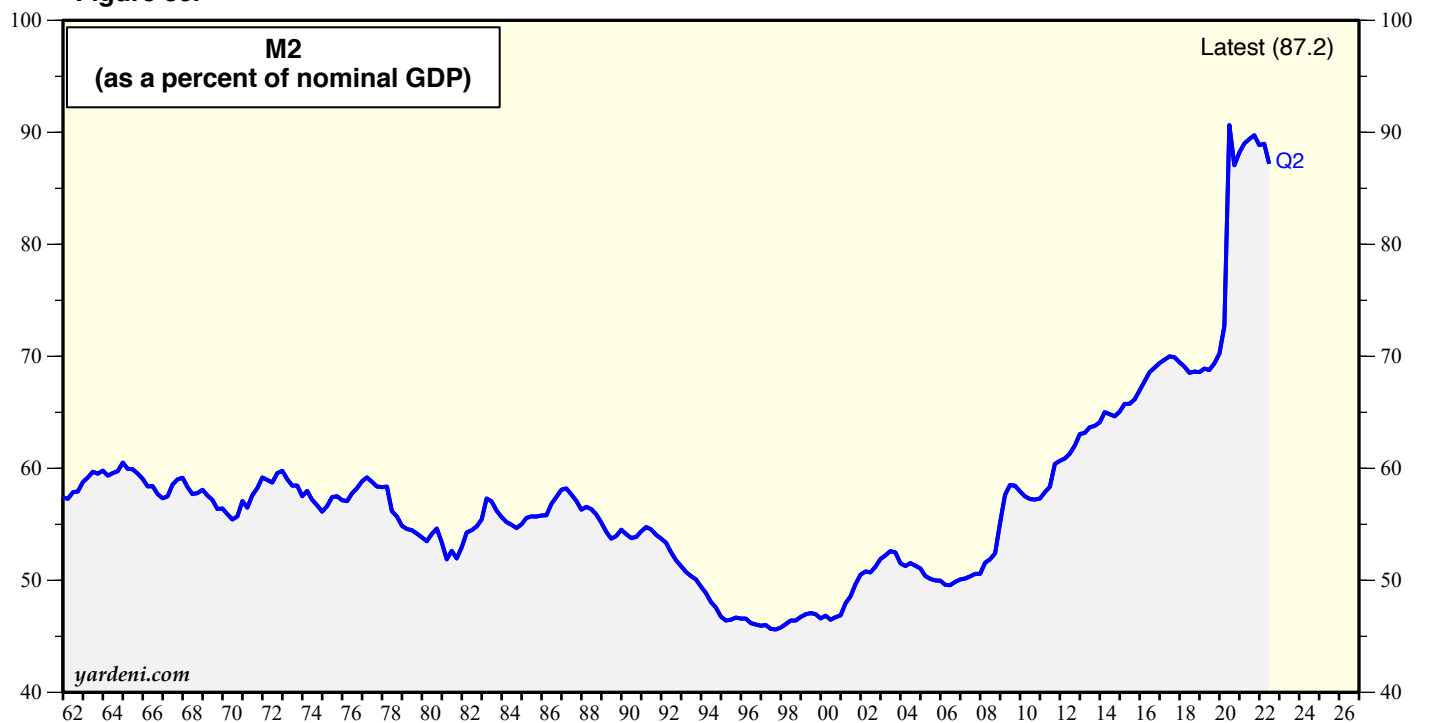
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Standard & Poor's, JP Morgan, and Haver Analytics.

Figure 29.



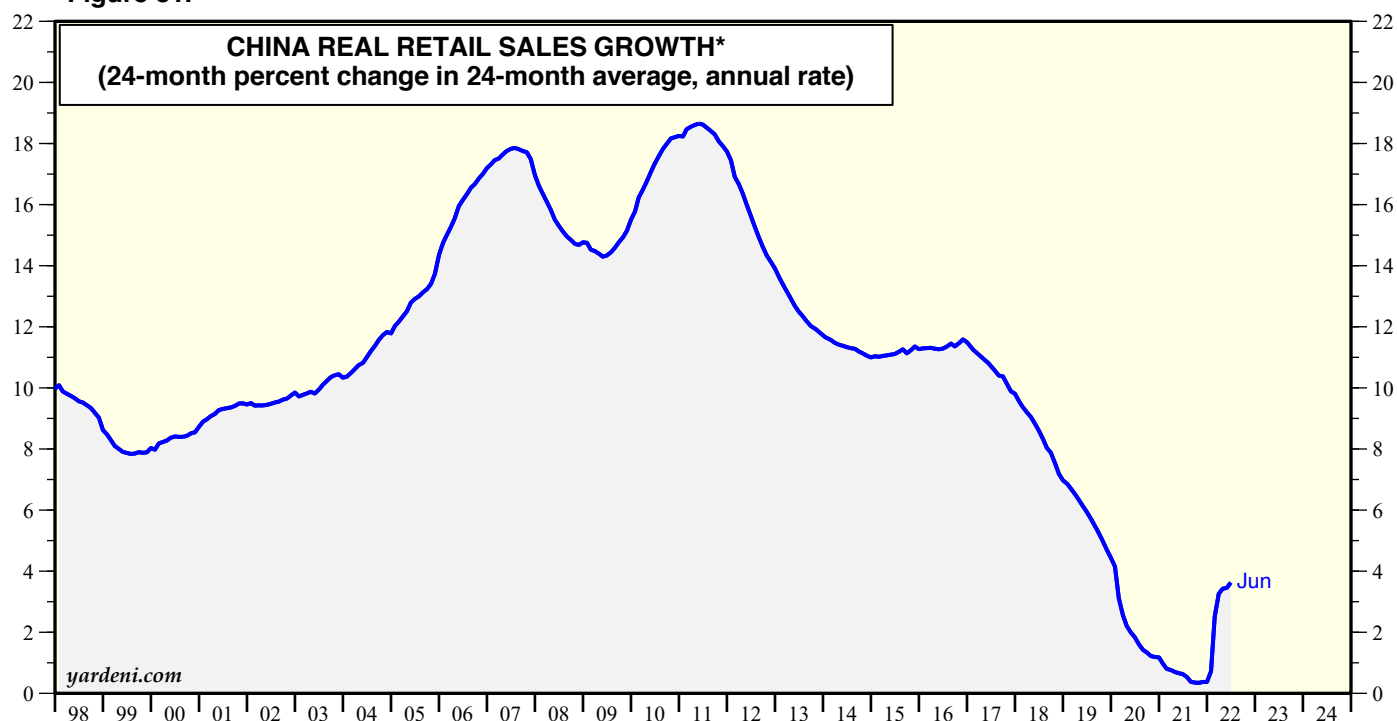
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Board of Governors of the Federal Reserve System.

Figure 30.



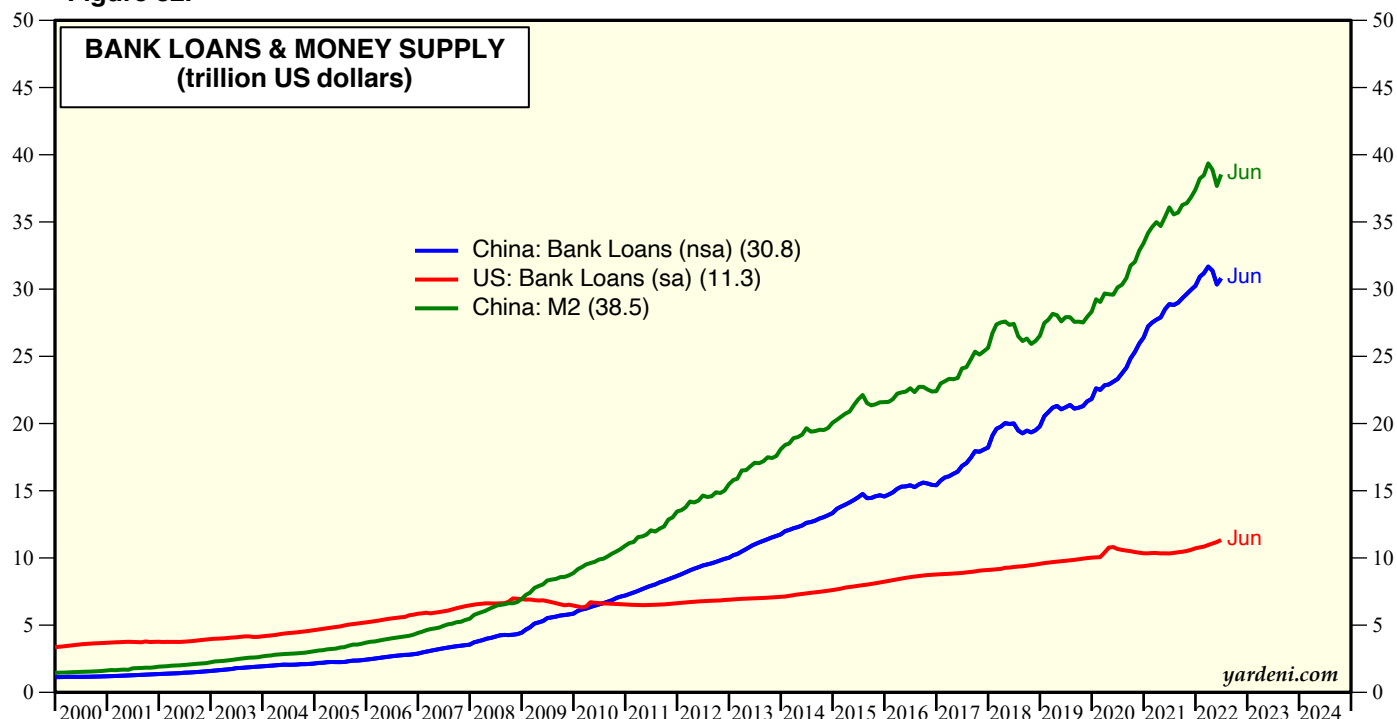
Source: Federal Reserve Board.

Figure 31.



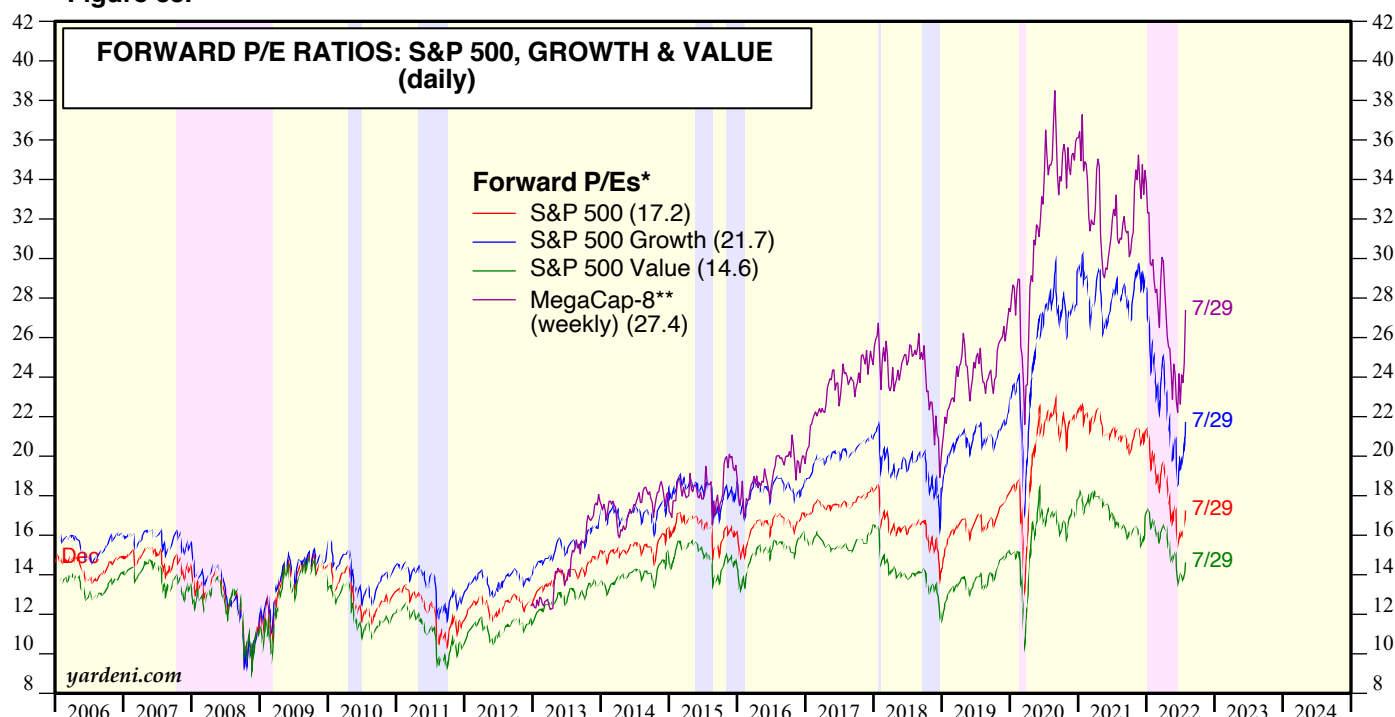
* Using nominal retail sales divided by CPI.
Source: China National Bureau of Statistics.

Figure 32.



Source: Federal Reserve Board and People's Bank of China.

Figure 33.



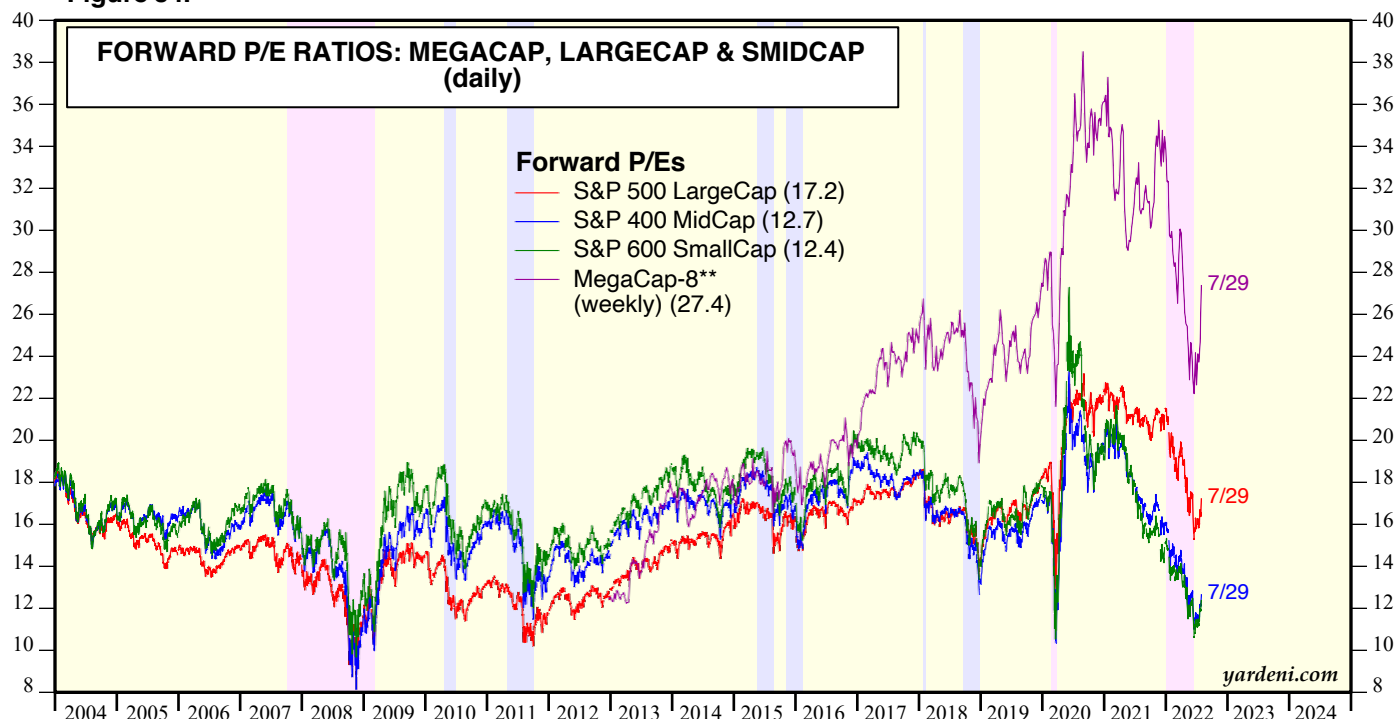
* Price divided by 12-month forward consensus expected operating earnings per share. Monthly through December 2005, weekly and daily thereafter.

** MegaCap-8 stocks include Alphabet (Google), Amazon, Apple, Meta (Facebook), Microsoft, Netflix, NVIDIA, and Tesla. Both classes of Alphabet are included.

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%.

Source: I/B/E/S data by Refinitiv and Standard & Poors.

Figure 34.



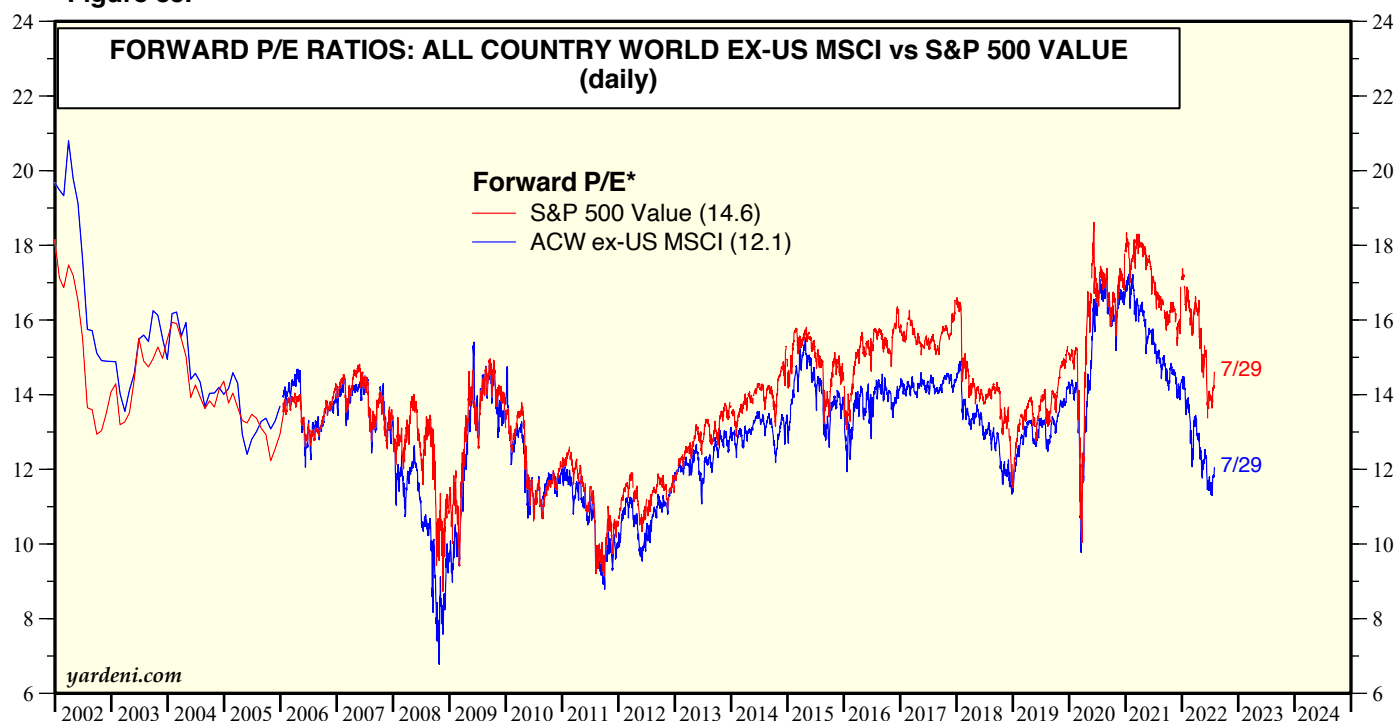
* Daily stock price index divided by 52-week forward consensus expected operating earnings per share.

** MegaCap-8 stocks include Alphabet (Google), Amazon, Apple, Meta (Facebook), Microsoft, Netflix, NVIDIA, and Tesla. Both classes of Alphabet are included.

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%.

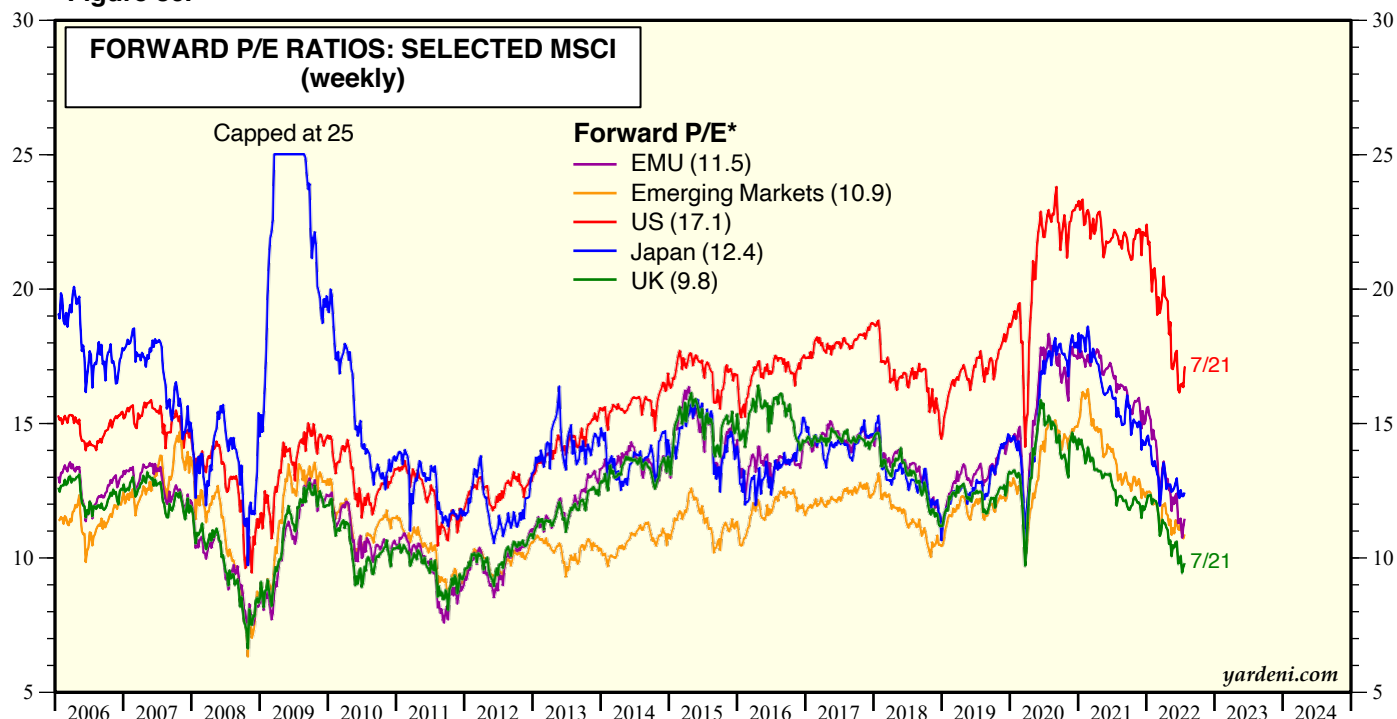
Yellow areas are bull markets. Source: I/B/E/S data by Refinitiv and Standard & Poors.

Figure 35.



* Price divided by 12-month forward consensus expected operating earnings per share. Monthly through December 2005, daily thereafter.
Source: I/B/E/S data by Refinitiv and MSCI.

Figure 36.



* Price divided by 12-month forward consensus expected operating earnings per share.
Source: I/B/E/S data by Refinitiv.

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DISCLOSURE NOTES

Past performance is not indicative of future results.

Definition of the Firm – ARS Investment Partners, LLC (“ARS”) was originally founded as A.R. Schmeidler & Co., Inc. in 1971 and is majority-owned by Artemis US Corporation. Artemis US Corporation is 100% owned by Artemis Corporation, an Ontario, Canada entity, which is in turn 100% owned by Artemis Investment Management Corporation, a financial services firm headquartered in Toronto, Ontario, Canada. Mr. Miles Nadal is the controlling shareholder of Artemis Investment Management Corporation. ARS is a registered investment adviser under the Investment Advisers Act of 1940. ARS Investment Partners, LLC claims compliance with the Global Investment Performance Standards (GIPS) and has prepared and presented this report in compliance with the GIPS Standards. ARS Investment Partners, LLC has been independently verified for the periods 1/1/2000 through 12/31/20. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. Benchmark returns are not covered by the report of independent verifiers.

Benchmark Definitions – The Russell 1000® Value measures the performance of the large-cap value segment of the US equity universe. It includes those Russell 1000® companies with lower price-to-book ratios and lower expected growth values. The Russell 1000® Value Index is constructed to provide a comprehensive and unbiased barometer for the large-cap value segment. The Russell 3000® measures the performance of the largest 3,000 US companies representing approximately 98% of the investable US equity market. The Russell 3000® is constructed to provide a comprehensive, unbiased and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are included. The S&P 500® includes 500 leading companies and covers approximately 80% of available market capitalization. The S&P Mid Cap 400® is designed to measure the performance of 400 mid-sized companies, reflecting the distinctive risk and return characteristics of this market segment. The S&P Small Cap 600® seeks to measure the small-cap segment of the U.S. equity market. The index is designed to track companies that meet specific inclusion criteria to ensure that they are liquid and financially viable. The Russell 2000® includes approximately 2,000 of the smallest securities based on a combination of their market capitalization and current index membership. The Russell 2000® is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set. The MSCI All Country World Index (ACWI) ex US® is designed to represent performance of the full opportunity set of large- and mid-cap stocks across 23 developed (ex. US) and 26 emerging markets. It

covers more than 3,000 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market. The index is built using MSCI's Global Investable Market Index (GIMI) methodology, which is designed to take into account variations reflecting conditions across regions, market capitalization sizes, sectors, style segments and combinations. The Bloomberg Barclays Intermediate US Government/Credit Bond® is a broad-based flagship benchmark that measures the non-securitized component of the Bloomberg Barclays US Aggregate Index with less than 10 years to maturity. The index includes investment grade, US dollar-denominated, fixed-rate treasuries, government-related, and corporate securities. All Custom Blended Benchmarks are calculated by weighting the respective index returns on a monthly basis.

Composite Definitions – ARS Focused All Cap includes all fee-paying, discretionary institutional portfolios managed by ARS in a Focused All Cap strategy with an absolute return-oriented focus having a minimum initial portfolio size of \$5 million (amount lowered from \$10 million on 7/1/2010). The Focused All Cap strategy requires that equity, equity-like securities, and cash represent a target of 90% of the portfolio value. If a portfolio does not have at least 90% of its value in these assets, the portfolio will be removed from the composite for the entire period and will be included in the composite again if its allocation is aligned with the above parameters for one full period. The composite was created in January 2007. Effective 7/1/2010, the composite was redefined to include taxable accounts which had previously been excluded. Effective 1/1/17 a model fee of 1.05% was used to calculate net returns. Inception Date is 1/21/93. Management believes that the returns prior to 2000 are accurate, but due to a lack of firmwide client data, GIPS compliance cannot be claimed prior to 1/1/2000. ARS Core Equity includes discretionary institutional portfolios managed by the Firm and invests in companies with above-average dividend yields and strong balance sheets, typically with clear prospects for dividend growth. For periods prior to 1/1/17, the composite is made up of 100% wrap portfolios, which may include, but is not limited to broker, investment advisory, custodial, and administrative fees. As of 1/1/17, the composite began using non-wrap accounts. Also, as of 1/1/17, we no longer had any wrap accounts. The composite was created in October 2011. Effective 1/1/17 a model fee of 1.25% was used to calculate net returns. Inception Date is 3/7/11. ARS Focused Small Cap invests in companies with market capitalizations typically ranging from \$100 million to \$2.5 billion. The portfolio is long biased, aiming to control risk via cash levels, prudent shorts, inverse ETFs and option strategies. This composite was created in July 2018. Net returns are calculated using a 1.25% model fee. Inception Date is 3/31/17. ARS Focused ETF leverages our macro outlook by constructing a portfolio that utilizes ETFs to express our views. The strategy concentrates on sector, industry, and subindustry ETFs that we feel provide the greatest exposure to our highest conviction secular trends. A model fee of 0.70% is used to calculate net returns. Inception Date is 6/30/17. ARS Tactical Sector ETF Strategy: Balanced Composite leverages our investment philosophy and process, while providing a strategy that more closely tracks the benchmarks with limited turnover. This composite was created in December 2016..

DISCLOSURE NOTES

The Strategy seeks a balance of current income and capital growth. The strategy strives for a 60/40 balance between equity and fixed income ETFs with a 25% variance. A model fee of 0.70% is used to calculate net returns. Inception Date is 1/31/14. ARS Tactical Sector Allocation Growth ETF leverages our investment philosophy and process, while providing a strategy that more closely tracks the benchmarks with limited turnover. The primary objective is capital appreciation and growth. This composite was created in December 2016. A model fee of 0.70% is used to calculate net returns. Inception Date is 1/31/14.

Investment Management Fees – The investment management fees that apply to the portfolio composites are as follows: Equity Accounts which include the ARS Core Equity, ARS Focused All Cap, ARS Focused Small Cap & ARS Tactical Asset Allocation (ARS Balanced Strategy & ARS Equity Strategy) – 1.25% per annum of the first \$1 million and 1.00% per annum of the next \$20 million and to be discussed thereafter; ARS Core Equity Account – 1.00% per annum, ETF Accounts which include the ARS Tactical Sector Allocation ETF Strategy: Growth Composite, ARS Tactical Sector ETF Strategy: Balanced Composite & ARS Focused ETF Strategy, ARS Fixed Income ETF Strategy & 0.70% per annum of the first \$5 million and 0.50% per annum of the next \$20 million and to be discussed thereafter; Institutional Accounts which include the ARS Tactical Asset (Balanced) Strategy– 0.80% per annum of the first \$25 million and 0.70% per annum of the next \$25 million and to be discussed thereafter. Fixed Income Accounts which include the ARS Core Fixed Income Strategy– 0.50% per annum of the first \$15 million and 0.35% per annum of the next \$15 million and to be discussed thereafter. The management fees for certain clients may differ from the above schedule because those clients' fees are grandfathered or because of relationships with the applicant or other accounts. For institutional accounts, certain asset or fee minimums may apply.

Internal Dispersion – Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of all portfolios in the composite for the entire year. Dispersion is not presented for periods less than one year or when there were five or fewer portfolios in the composite for the entire year. The Annualized 3-Year Standard Deviation is calculated using gross returns and not presented for composites with less than a 36-month return. Also, the standard deviation is not presented and not is required, for periods prior to 2011.

Basis of Presentation – Rates of return presented are computed using a time-weighted rate of return methodology that adjusts for external cash flows. Total rate of return calculations includes realized and unrealized gains and losses, plus income, and cash and cash equivalents held. Gross performance returns are presented after transaction costs and before investment management fees and all operating costs. Net performance returns are presented after transaction costs and investment management fees that are reduced by a model management fee and before all operating costs. However, gross performance prior to 2017 for the ARS Core Equity Composite is presented as gross and net performance is actual investment management fees and after all operating costs and the gross returns are presented as supplemental information.

Operating costs include custodian and administrative fees. Additional information regarding policies for valuating investments, calculating performance, and preparing GIPS reports are available upon request. Performance results for periods of less than a year are not annualized.

Performance returns are in U.S. Dollars. Periodic returns are geometrically linked. The composite rates of return have been calculated within ARS Investment Partners, LLC. A complete list and description of the composites managed by ARS is available upon request.

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