**Figure 1.**

**10-YEAR US TREASURY BOND & TIPS YIELDS**

(percent, daily)

**10-Year Treasury**

- Bond Yield (2.99)
- TIPS Yield (0.67)

Source: Federal Reserve Board.

**Figure 2.**

**WIDELY USED PROXY FOR 10-YEAR EXPECTED INFLATION RATE**

(percent, daily)

Expected Inflation Proxy (2.32)

Source: Federal Reserve Board.
**Nominal & Real Yields**

**Figure 3.**

US TREASURY BOND YIELD & CORE PCED INFLATION

- 10-Year US Treasury Bond Yield (percent) (3.14)
- Core PCED* (yearly percent change) (4.69)

* Excluding food & energy.

Source: Bureau of Economic Analysis, and Board of Governors of the Federal Reserve System.

**Figure 4.**

REAL 10-YEAR TREASURY BOND YIELD vs 10-YEAR TIPS YIELD (percent)

- Real Bond Yield* (-5.68)
- 10-Year TIPS Yield (percent) (0.67)

* 10-year Treasury yield less yearly percent change in CPI.

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

Source: Federal Reserve Board and Bureau of Labor Statistics.
Figure 5. 
FIVE-YEAR TREASURY NOTE YIELD MINUS YEARLY PERCENT CHANGE IN CORE PCED

Source: Federal Reserve Board and Bureau of Economic Analysis.

Figure 6. 
REAL 10-YEAR TREASURY BOND YIELD*
(percent)

Average = 3.04

* 10-year Treasury yield less yearly percent change in core PCED.
Source: Federal Reserve Board and Bureau of Economic Analysis.
Figure 7.
THIRTY-YEAR TREASURY BOND YIELD MINUS YEARLY PERCENT CHANGE IN CORE PCED

Source: Federal Reserve Board and Bureau of Economic Analysis.

Figure 8.
REAL 10-YEAR TREASURY BOND YIELD
(percentage)

Real 10-Year Yield
- Using PCED* (-1.79)
- Using TIPS (0.53)

* 10-year Treasury bond yield less yearly percent change in core PCED.
Source: Federal Reserve Board and Bureau of Economic Analysis.
**Figure 9.**

**REAL BOND YIELD & NOMINAL FEDERAL FUNDS RATE**

- Real 10-Year Treasury Yield* (0.34)
- Nominal Federal Funds Rate (1.21)

* US Treasury 10-year bond yield minus median forecast of year-over-year CPI inflation rate over the next 10 years using Philadelphia Fed Survey of Professional Forecasters data (monthly series interpolated from quarterly data starting as two quarters per year during Q4-1979 until Q4-1991 when the data continue with four quarters a year).


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**Figure 10.**

**REAL 10-YEAR TREASURY BOND YIELD & FEDERAL FUNDS RATE**

- Federal Funds Rate (1.2)
- Real Bond Yield* (-1.8)

* 10-year Treasury yield less yearly percent change in core PCED.

Source: Federal Reserve Board and Bureau of Economic Analysis.
**Government Bond Yields**

**Figure 11.**

REAL 10-YEAR TREASURY BOND YIELD (percent)

* Real Bond Yield\(^*\) (-3.1)  
** Real Bond Yield\(^**\) (-1.8)

- \(^*\) 10-year Treasury yield less yearly percent change in core PCED.
- \(^**\) 10-year Treasury yield less yearly percent change in core CPI.

Source: Federal Reserve Board and Bureau of Economic Analysis.

**Figure 12.**

NONFARM BUSINESS PRODUCTIVITY & REAL BOND YIELD

- Productivity (20-quarter percent change) (1.5)
- Real Bond Yield\(^*\) (-3.1)

- \(^*\) 10-year Treasury bond yield minus yearly percent change in core CPI.

Source: US Department of Commerce, Federal Reserve Board, and Bureau of Economic Analysis.
**Government Bond Yields**

**Figure 13.**

**REAL 10-YEAR US TREASURY BOND YIELD (percent)**

Real 10-Year Yield
- Using Core CPI* (-3.11)
- Using TIPS (0.53)

* 10-year US Treasury bond yield less yearly percent change in core CPI.
Source: Federal Reserve Board and Bureau of Economic Analysis.

**Figure 14.**

**CORE CPI INFLATION RATES (yearly percent change)**

Core CPI Inflation
- US (May=6.0)
- Eurozone (Jun=3.7)
- Japan (May=0.2)

Source: Haver Analytics.
**Government Bond Yields**

**Figure 15.**

INFLATION-ADJUSTED INTEREST RATES IN THE US

(Percent)

US Real Rates*

- Federal Funds Rate (-5.2)
- 10-Year Treasury Yield (-3.1)

* Using core CPI inflation rate.


**Figure 16.**

INFLATION-ADJUSTED INTEREST RATES IN THE EUROZONE

(Percent)

Eurozone Real Rates*

- ECB Deposit Facility Rate (-4.25)
- German 10-Year Government Yield (-2.15)

* Using core CPI inflation rate.

Source: Haver Analytics.
Figure 17.

10-YEAR US TREASURY BOND YIELD (percent, daily)

Source: Federal Reserve Board.

Figure 18.

SPREAD BETWEEN US TREASURY BOND YIELD & GDP DEFLATOR* (percentage points)

* 10-year bond yield minus yearly percent change in GDP deflator.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: US Department of Commerce, Bureau of Economic Analysis, and Board of Governors of the Federal Reserve System.
Figure 19. YIELD ON US HIGH-YIELD CORPORATE BONDS vs CPI INFLATION RATE

- Blue line: High Yield Corporate Bonds (percent, weekly) (8.5)
- Red line: Consumer Price Index (yearly percent change) (8.6)

Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Bank of America Merrill Lynch.

Figure 20. US TREASURY INFLATION INDEXED NOTES & BONDS (billion dollars)

- Red line: Publicly Held Marketable Issues
- Blue line: Held by Fed

Source: Federal Reserve Board, Table H.4.1.
Figure 21.

FED'S HOLDINGS OF US TREASURY INFLATION Indexed Notes & Bonds
(percent of total outstanding)

Source: Federal Reserve Board, Table H.4.1 and US Treasury.

Figure 22.

FEDERAL FUNDS RATE & CPI INFLATION
(percent)

- Federal Funds Rate (1.2)
- Headline CPI (yearly percent change) (8.6)

Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Figure 23.

**FEDERAL FUNDS RATE MINUS CPI INFLATION***
(Percent)

* Yearly percent change in CPI.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.

Figure 24.

**US 10-YEAR TREASURY BOND YIELD & CPI INFLATION**
(Percent)

- Red: 10-Year Treasury Yield (3.1)
- Blue: Headline CPI (yearly percent change) (8.6)

Note: Shaded areas are recessions according to the National Bureau of Economic Research.
US 10-YEAR TREASURY BOND YIELD MINUS CPI INFLATION* (percent)

* Yearly percent change in CPI.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.

FEDERAL FUNDS RATE & 10-YEAR BOND YIELD MINUS CPI INFLATION* (percent)

Real Interest Rates
- Fed Funds Rate (-7.8)
- 10-Year Treasury (-5.7)

* Yearly percent change in CPI.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Figure 27.

US TREASURY BOND YIELD & GDP DEFLATOR INFLATION

- 10-Year US Treasury Yield (percent) (3.1)
- GDP Deflator (yearly percent change) (6.8)

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

Figure 28.

SPREAD BETWEEN US TREASURY BOND YIELD & GDP DEFLATOR*
(percentage points)

* 10-year bond yield minus yearly percent change in GDP deflator.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: US Department of Commerce, Bureau of Economic Analysis, and Board of Governors of the Federal Reserve System.
Government Bond Yields

Figure 29.

US TREASURY BOND YIELD & CONSUMER PRICE INDEX

- 10-Year US Treasury Yield (percent) (3.1)
- Consumer Price Index (yearly percent change) (8.6)

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

Figure 30.

SPREAD BETWEEN US TREASURY BOND YIELD & CONSUMER PRICE INDEX*
(percentage points)

* 10-year bond yield minus yearly percent change in Consumer Price Index.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: US Department of Commerce, Bureau of Economic Analysis, and Board of Governors of the Federal Reserve System.