

# *U.S. ECONOMY UPDATE: DOES ANYONE HAVE ANY IDEA WHAT IS GOING ON?*

---

Michael A. Sadler, Ph.D.

Department of Economics & Department of Finance

University of Texas at Austin



# What's Going On?

Current Trends

The U.S. Economy Remains a Juggernaut

What Will Happen to Interest Rates?

Is the Yield Curve Predicting Recession?

Are We Going Broke?: The Sustainability of U.S. Government Debt

# What's Going On?

## Current Trends

The U.S. Economy Remains a Juggernaut

What Will Happen to Interest Rates?

Is the Yield Curve Predicting Recession?

Are We Going Broke?: The Sustainability of U.S. Government Debt

# Current Trends in the Global Economy

- Slowdown and deflation in the Chinese economy
  - Not having much effect on U.S. economy so far
    - We don't export much to China
    - U.S. imports from China are not affected
  - Prices for certain industrial materials and equipment should decline
    - Could be a net positive for U.S. economy performance
- Strong dollar
  - The dollar has weakened some in the past several months, but remains strong by historical standards
  - This is a drag on U.S. exports
- Continued turmoil and uncertainty
  - What will Russia do with respect to Ukraine/other former republics/NATO.
  - China's saber-rattling vis-à-vis Taiwan
- Oil prices
  - OPEC+ vs. U.S. Unconventional

# Current Trends in the U.S. Economy

- Consumer spending remains strong, boosted by growth in earnings and a strong labor market
- We have achieved the "soft landing!" Right?
  - Inflation has come down almost to Fed target. This has been accomplished without a corresponding increase in unemployment.
  - The Fed is taking credit for this, of course, but it could just be the effect of supply constraints being alleviated.
  - The Fed has influence on aggregate demand, or spending. While demand pressures have decline due to higher interest rates, supply sources of inflation have also come down substantially. That cannot be attributed to the Fed.
- Banking sector has been wobbly. Default in commercial real estate could lead to further trouble.
- Disruptions in the Treasury market are causing volatility and uncertainty. When this is taken into account along with questions on the credibility of the U.S. government to meet its obligations (due to shenanigans in Congress), future financial crises become a possibility.

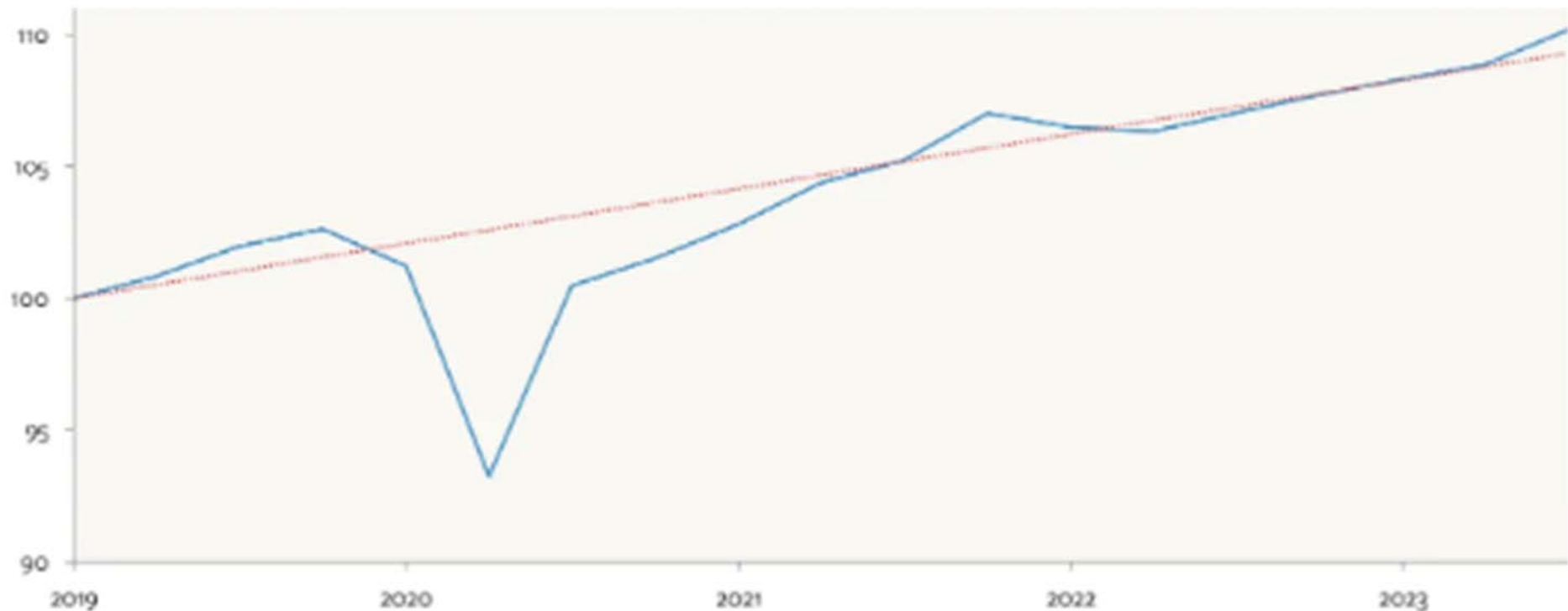
# Juggernaut!

Real GDP  
Q1 2019 – Q2 2023

## Unstoppable

Despite the death and disruption of the pandemic and Russia's war on Ukraine, American workers and businesses have been producing more goods and services than forecasters had been expecting on the eve of the viral outbreak. Will that continue?

U.S. real gross domestic product vs. pre-pandemic projections, 2019Q1 = 100 — Actual — January 2020 CBO forecast

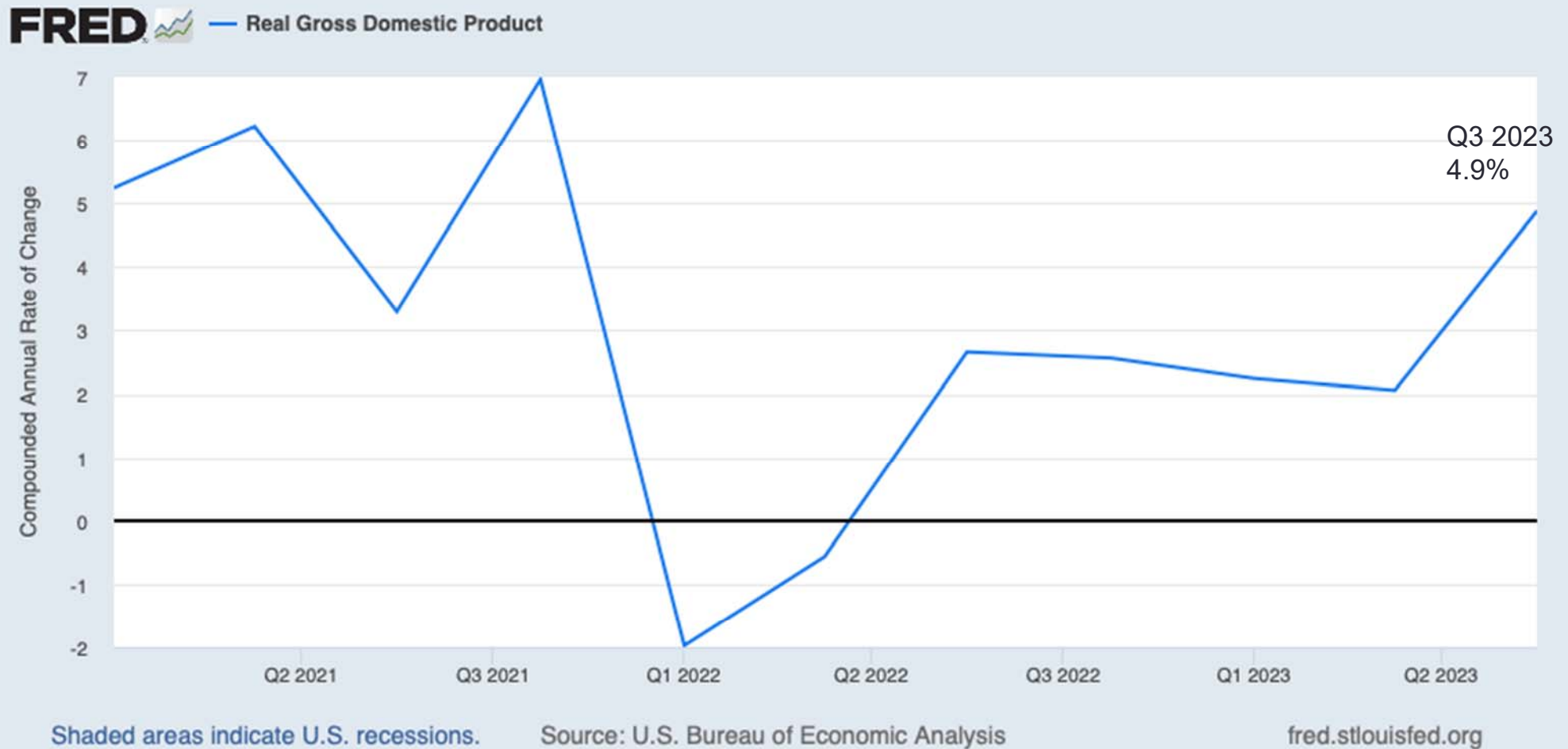


Source: Bureau of Economic Analysis, Congressional Budget Office, Matthew Klein's calculations

Source: Matthew Klein, *The Overshoot* (24 Oct 2023)

# Juggernaut!

## U.S. Real GDP Growth Q1 2021 – Q3 2023



# Juggernaut!

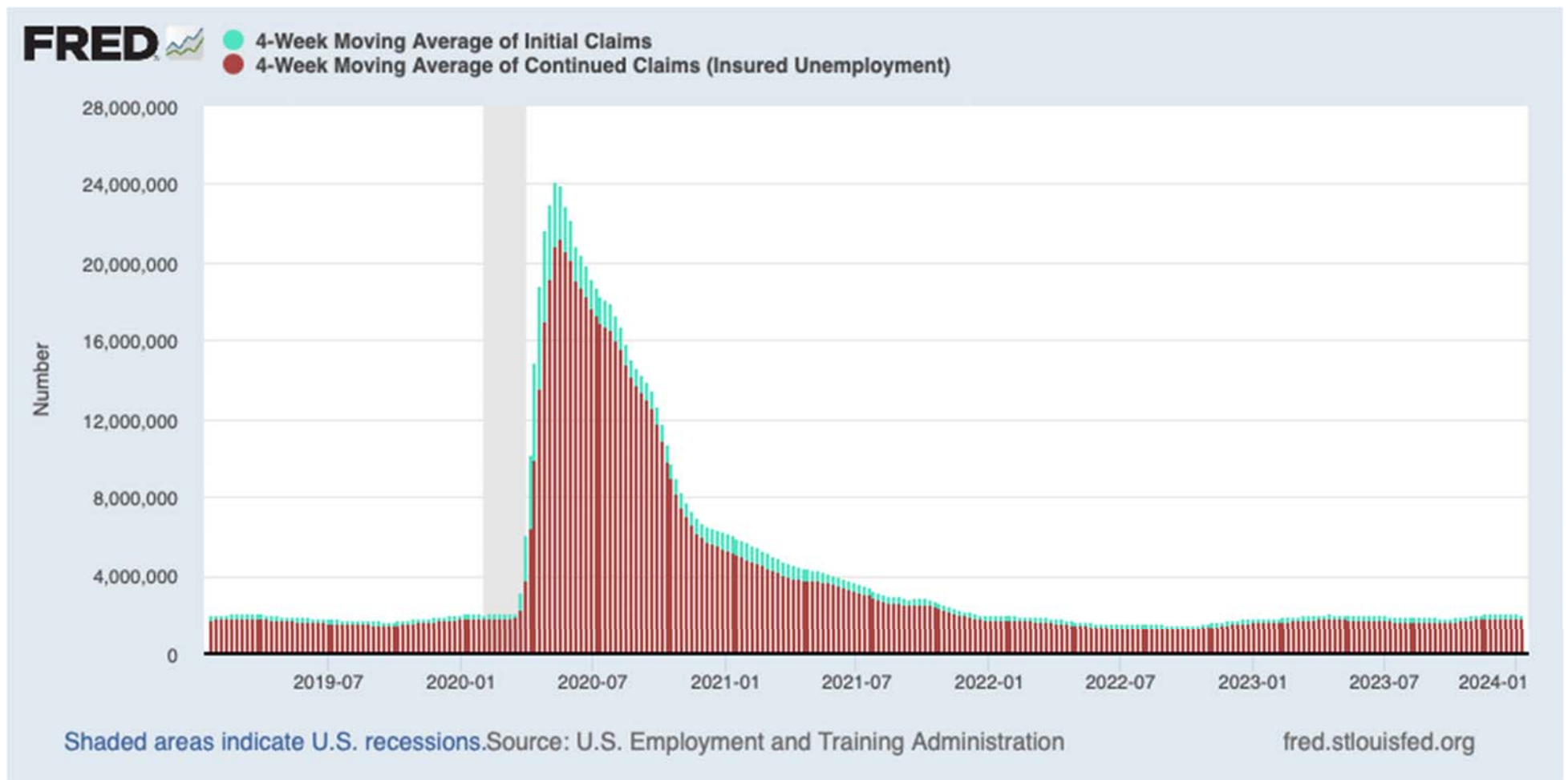
## Unemployment Rate 1968 - 2023





# Juggernaut!

## Initial and Continuing Unemployment Claims 2019 - 2024



# What's Going On?

## Current Trends

The U.S. Economy Remains a Juggernaut

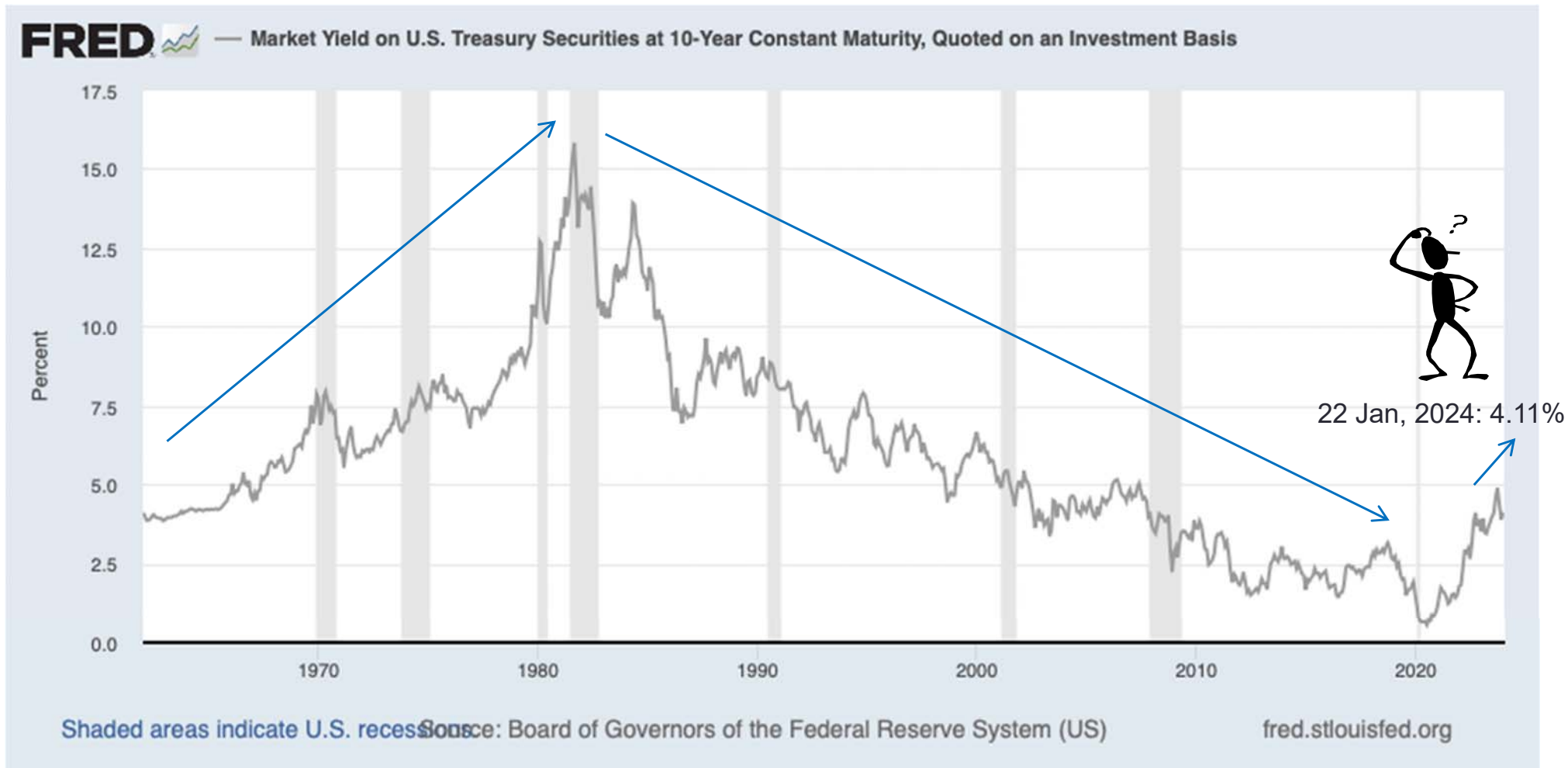
What Will Happen to Interest Rates?

Is the Yield Curve Predicting Recession?

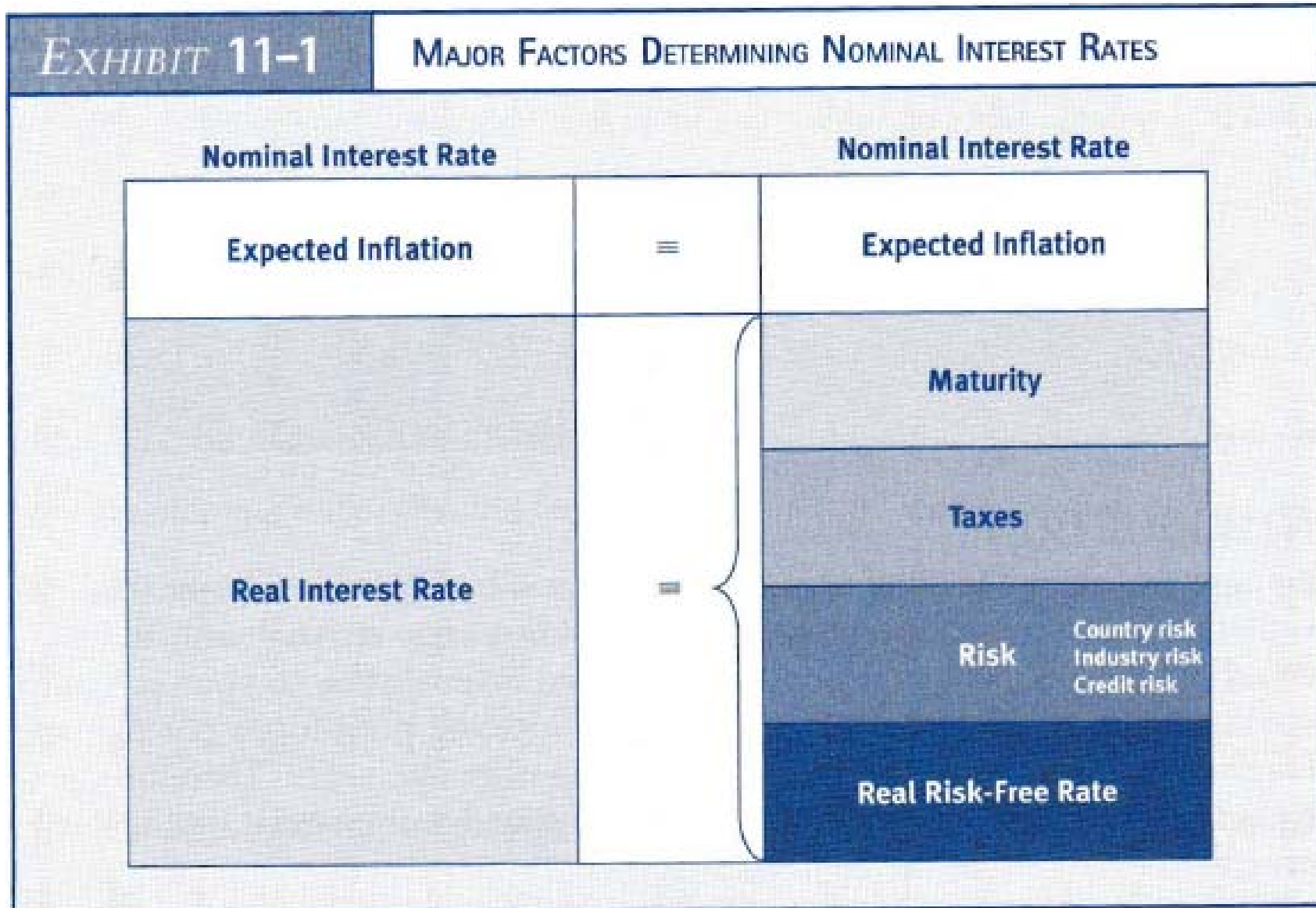
Are We Going Broke?: The Sustainability of U.S. Government Debt

# 10 – Year Treasury Yield

1962 – 2024

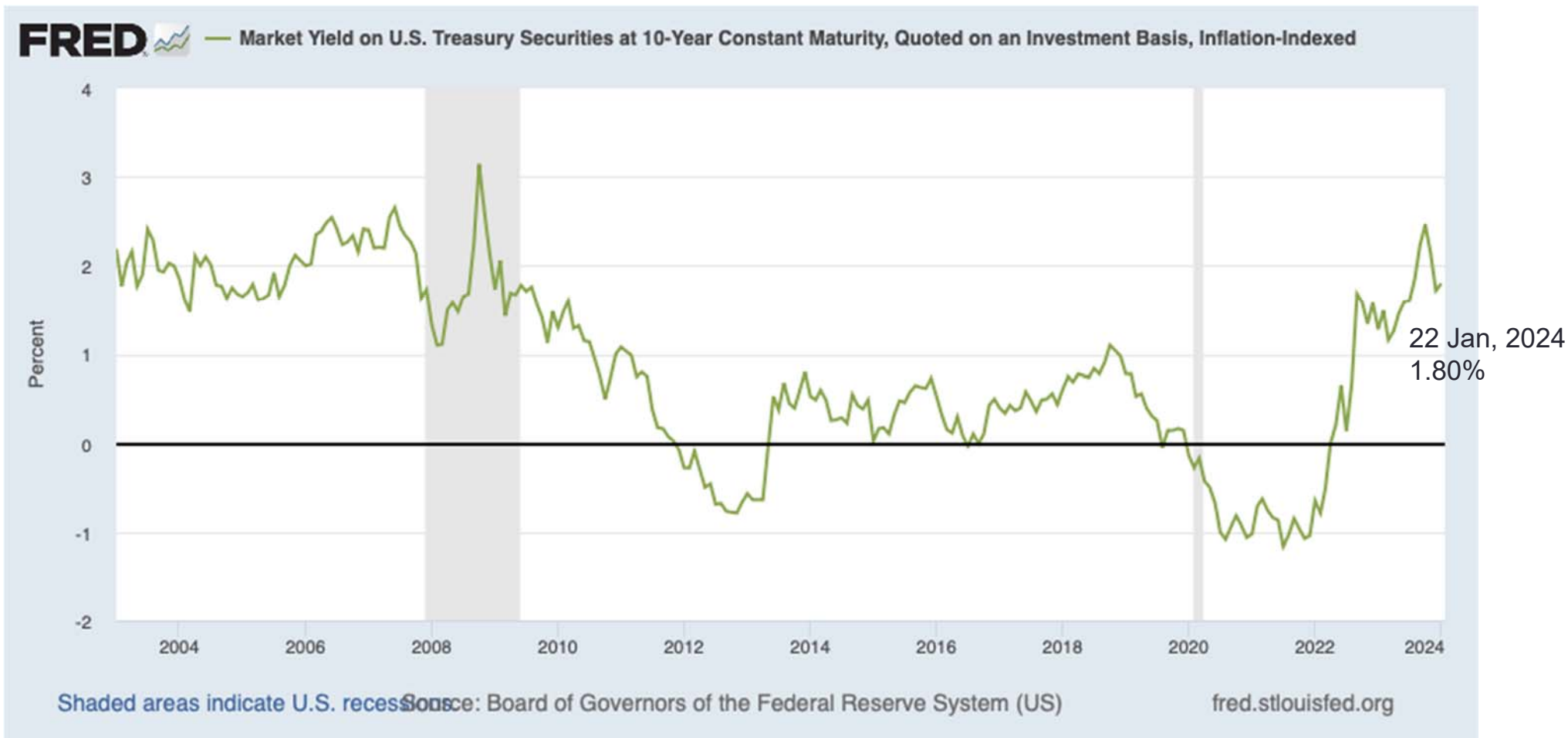


# Decomposing Nominal Rates



# Ex Ante Risk-Free, Real Interest Rate

## 10-Year TIPS Yield 2003-2024



TIPS yields are a measure of *the real interest rate*, since principal (and therefore coupon payments) are *indexed* to the CPI inflation rate.

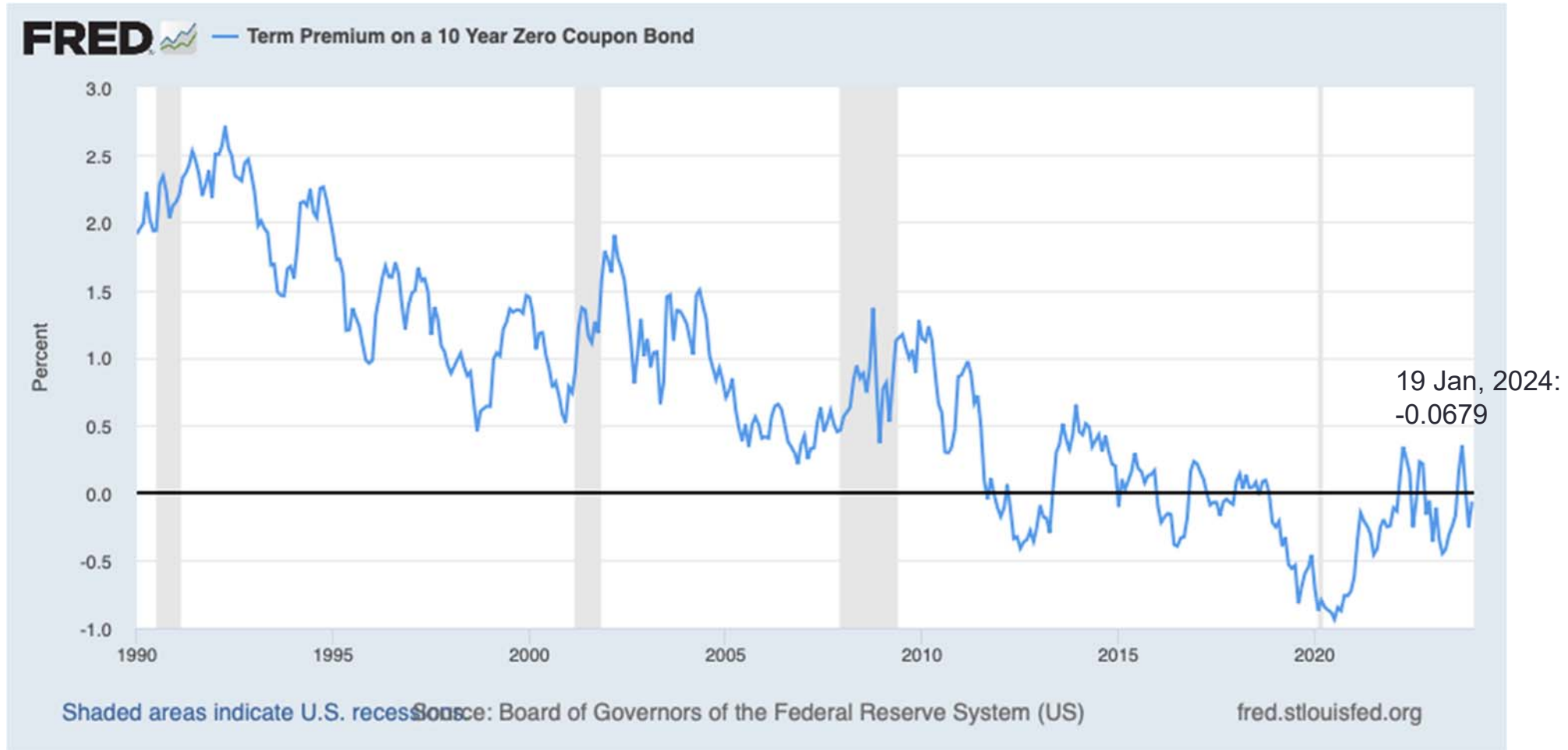
# Expected Inflation

## 10-Year Breakeven Inflation Rate 2003 – 2024



# Empirical Term Premium

## 10-Year Term Premium (Zero Coupon) 1990 - 2024



# Determinants of the 10-year Treasury Yield





# What's Going On?

Current Trends

The U.S. Economy Remains a Juggernaut

What Will Happen to Interest Rates?

Is the Yield Curve Predicting Recession?

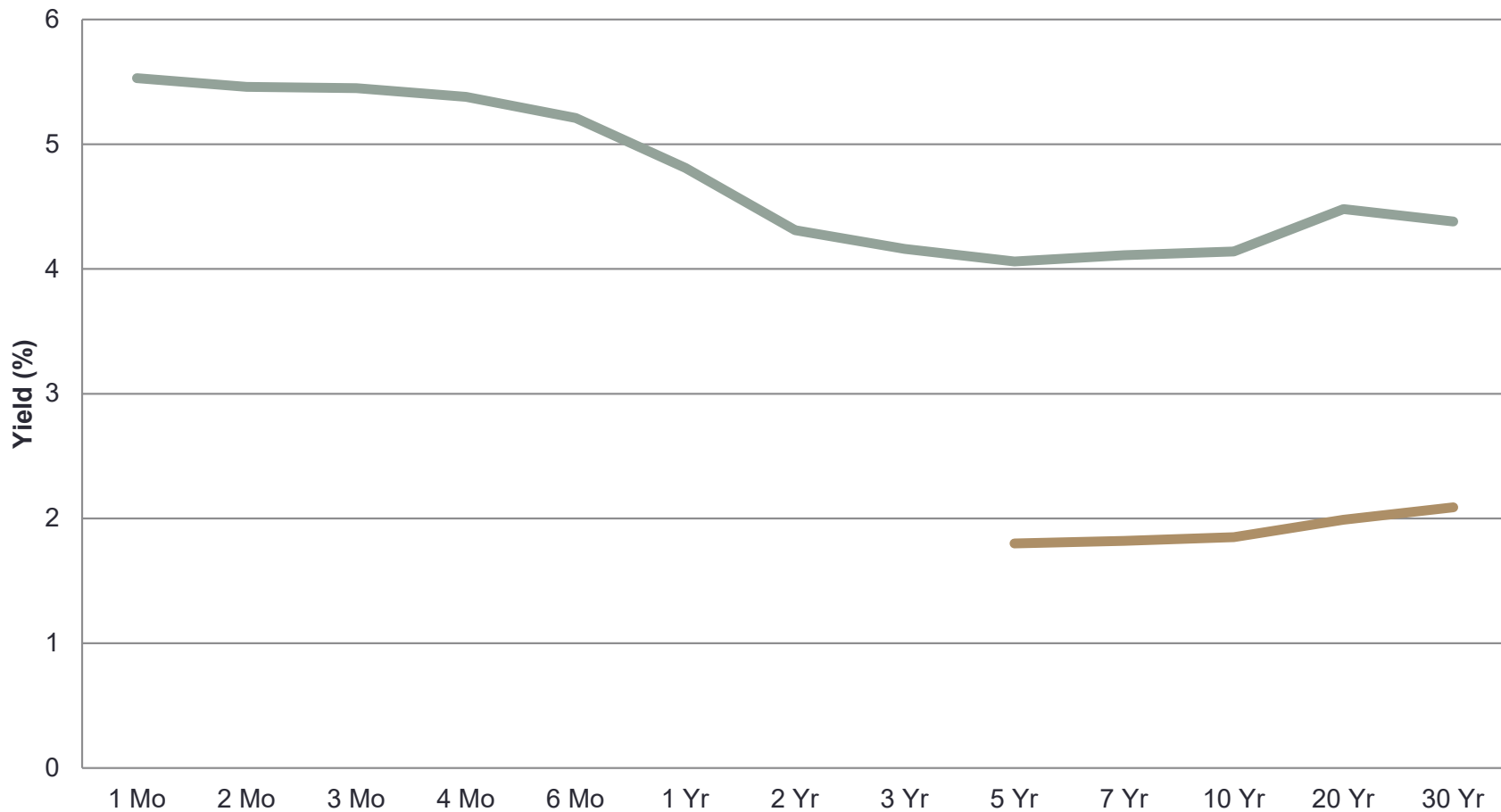
Are We Going Broke?: The Sustainability of U.S.  
Government Debt

# Theories of the Term Structure

- **Yield Curve:** shows the relationship between maturity and yield.
  - That is what we mean by “term structure.”
  - Most common yield curves are for government bonds. In the U.S., the “Treasury yield curve.”
  - Stylized facts of the term structure
    - The yield curve is normally upward-sloping: long-term yields are normally higher than short-term yields
    - When interest rates change, the yield curve shifts up and down, it does not normally pivot over itself: this means that changes in short-term interest rates are typically positively correlated with changes in long-term interest rates.
    - Short-term yields are more variable than long-term yields
- Theories of the Term Structure
  - Modern theories of the term structure of interest rates are based on the idea that long term rates are an average of the short term rates expected to prevail over the longer-term horizon.
    - So the yield on a 10-year bond is based on the short-term yields expected to prevail over that 10-year horizon.

# The Treasury Yield Curves

**Nominal and Real Treasury Yield Curve**  
January 23, 2024

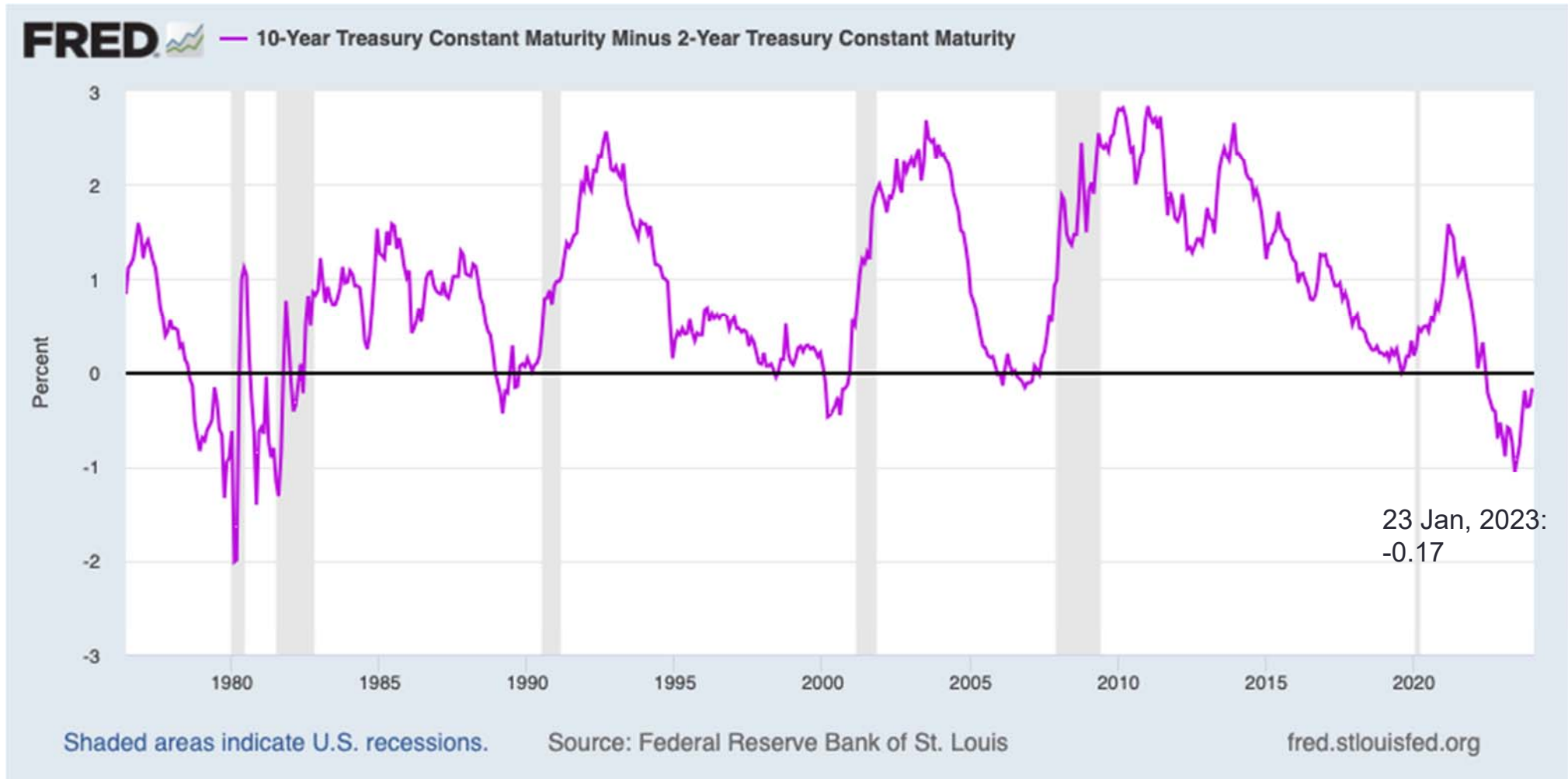


# Liquidity Premium Theory

- LPT predicts that the yield curve will normally be upward-sloping, since we are adding something positive to each yield predicted by the Pure Expectations Hypothesis, and that something increases with longer maturities.
  - Year 1:  $i_{1t}$  (known)
  - Year 2:  $i_{2t} = \sqrt{(1 + i_{1t})(1 + i_{1t+1}^e)} - 1 + TP_2$
  - Year 3:  $i_{3t} = \sqrt[3]{(1 + i_{1t})(1 + i_{1t+1}^e)(1 + i_{1t+2}^e)} - 1 + TP_3$
  - And so on, where  $TP_2 < TP_3$ , etc. under "normal conditions."
- How large are term premia? What is the actual magnitude? How much does it vary over time?
  - Empirically, very difficult to identify and estimate
  - Deviations from predictions of expectations hypothesis could be due to other factors (e.g., Preferred Habitat Theory)
  - Note that the estimated term premium can be *negative*
    - Some investors will accept this to avoid short-term debt rollover costs and risks

# Summarizing Yield Curve Slope

10-Year Yield Minus 2 Year Yield  
1982 - 2024



# What's Going On?

Current Trends

The U.S. Economy Remains a Juggernaut

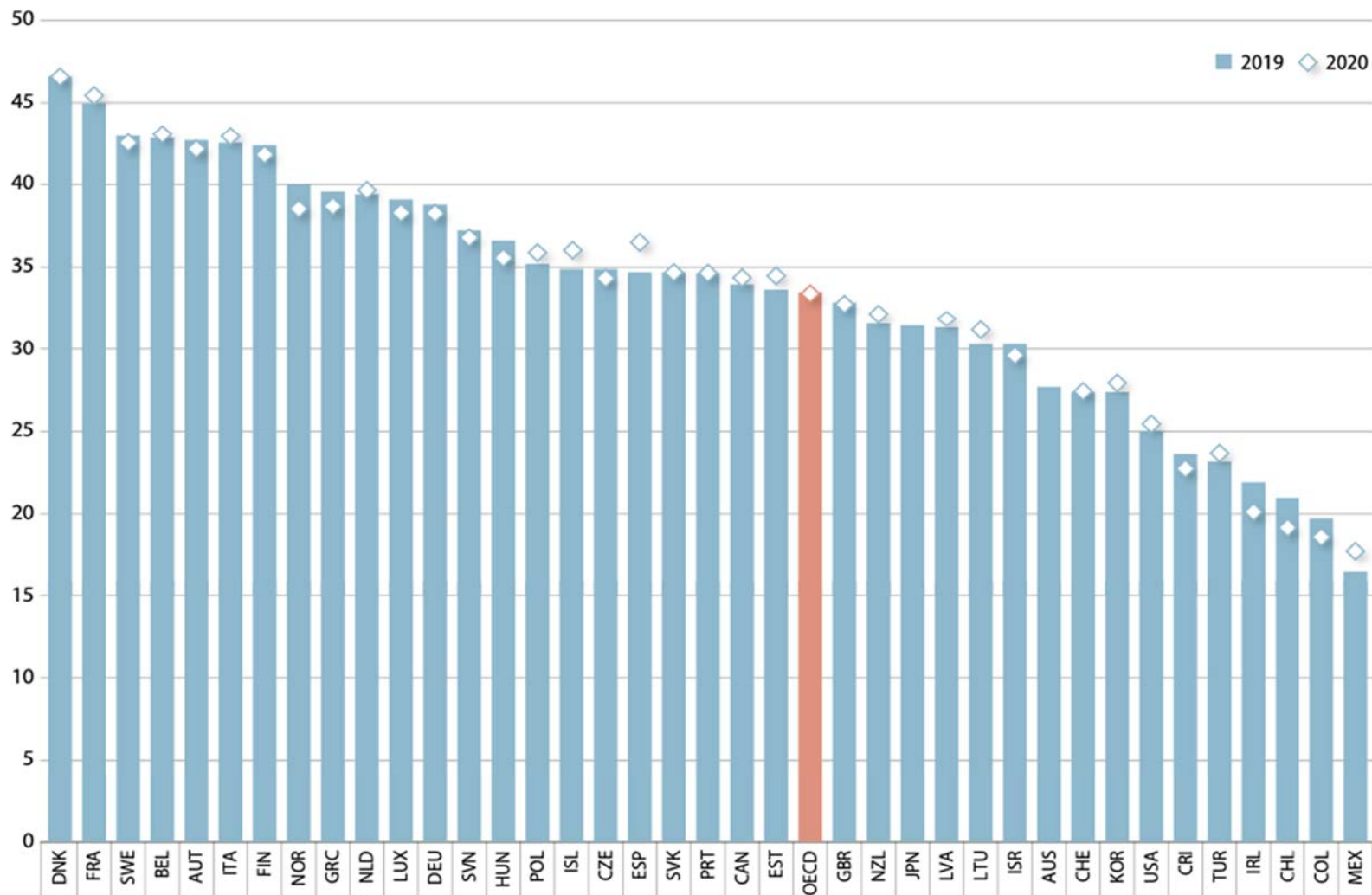
What Will Happen to Interest Rates?

Is the Yield Curve Predicting Recession?

Are We Going Broke?: The Sustainability of U.S. Government Debt

# Tax Revenue - Global Comparison

Figure 4. Tax-to-GDP ratios, 2019 and 2020p (% of GDP)



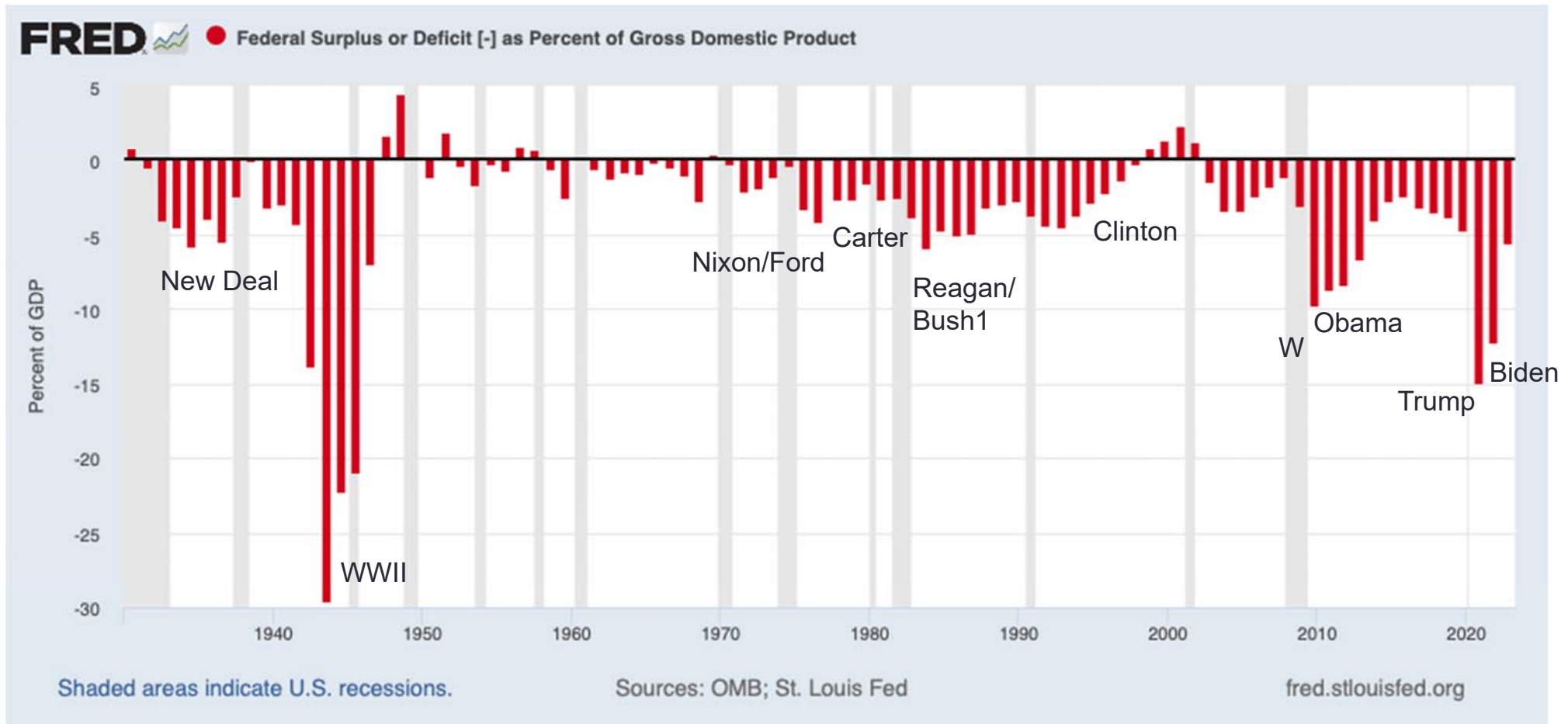
Note: Preliminary data for 2020 were not available for Australia and Japan.

Source: Data from Revenue Statistics 2021, <https://oe.cd/revenue-statistics>

Source: OECD, Revenue Statistics 2021: Initial Impact of Covid-19 on OECD Tax Revenues

# U.S. Federal Government Deficit

1930 – 2022

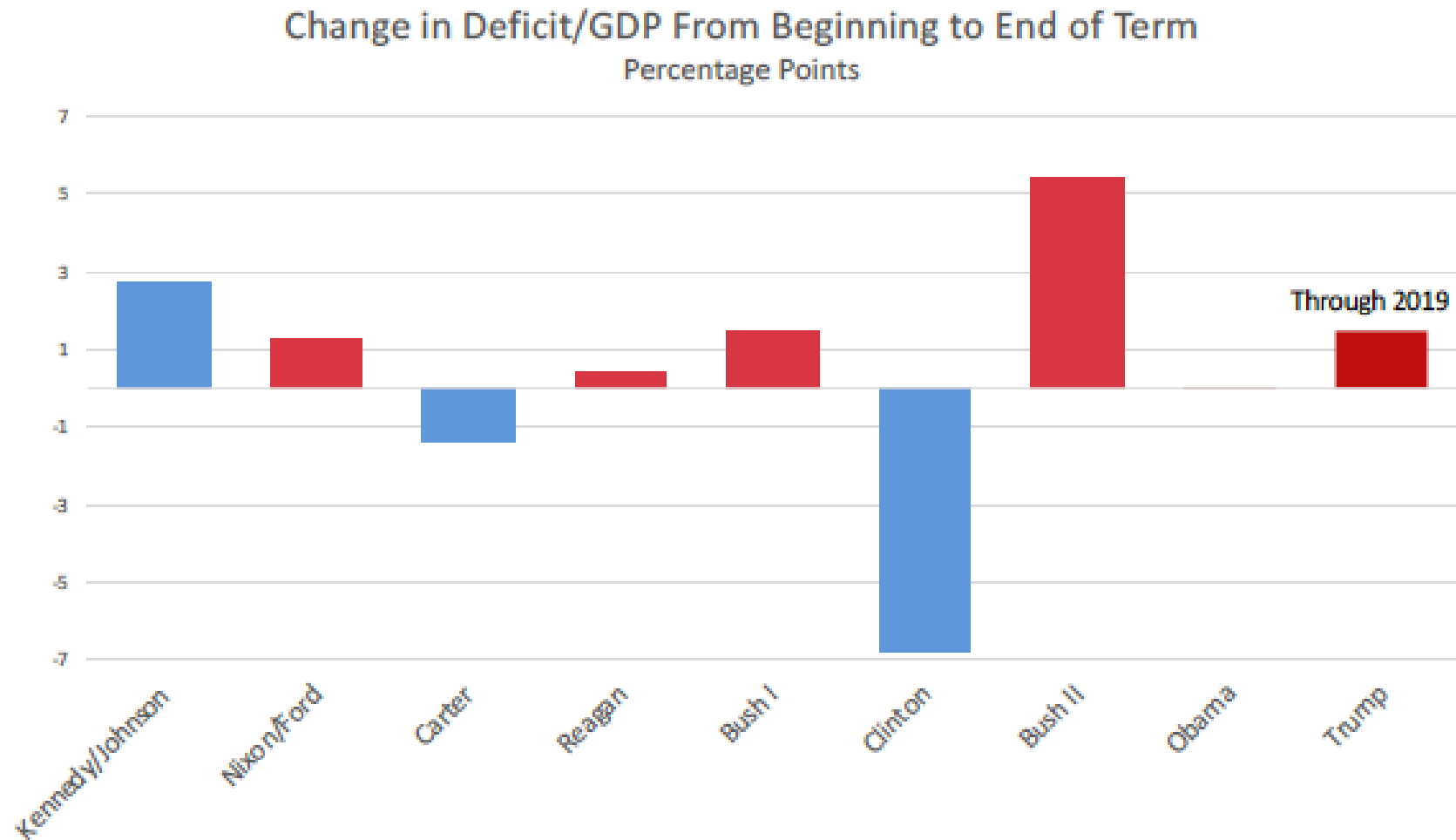




# Fiscal Space for Successor Admin

1960 – 2019

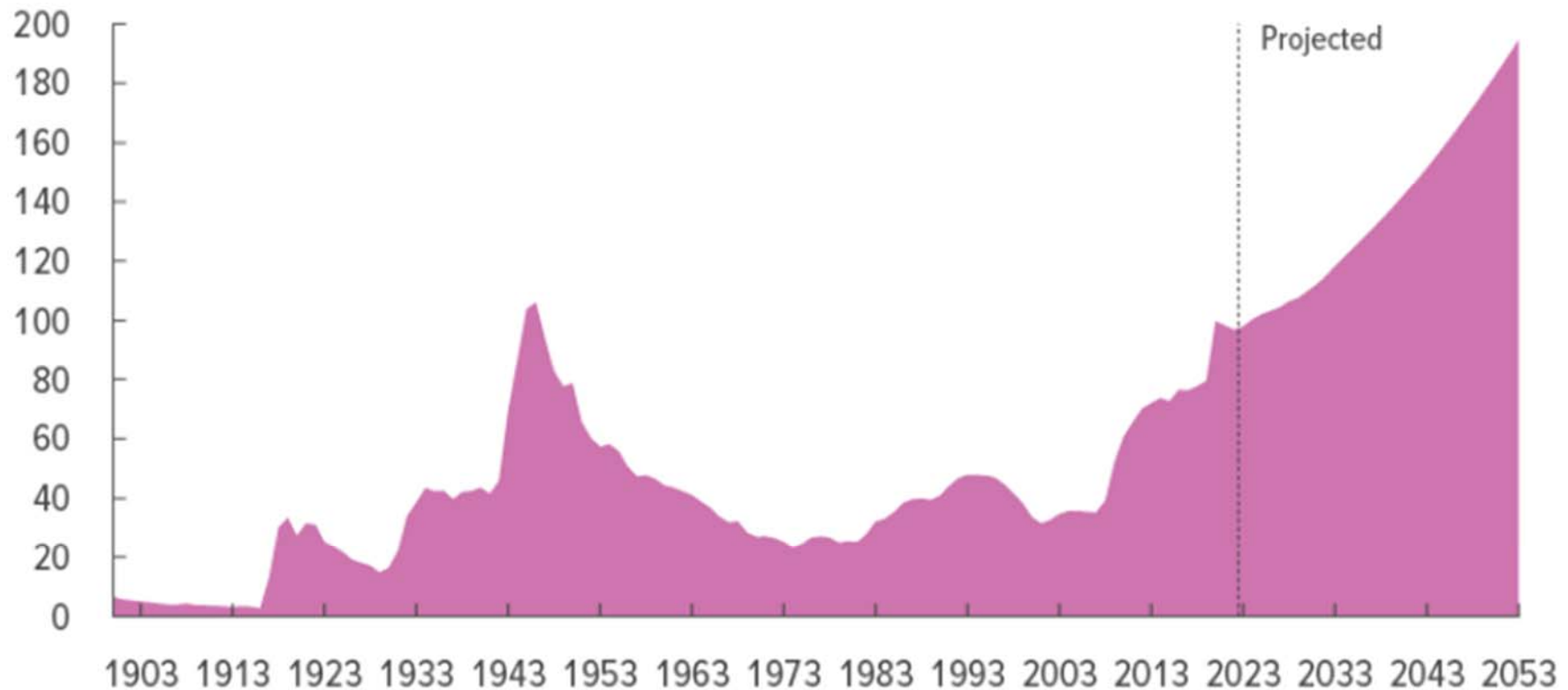
## Change in Deficit/GDP by Admin



# U.S. Federal Government Debt/GDP Ratio

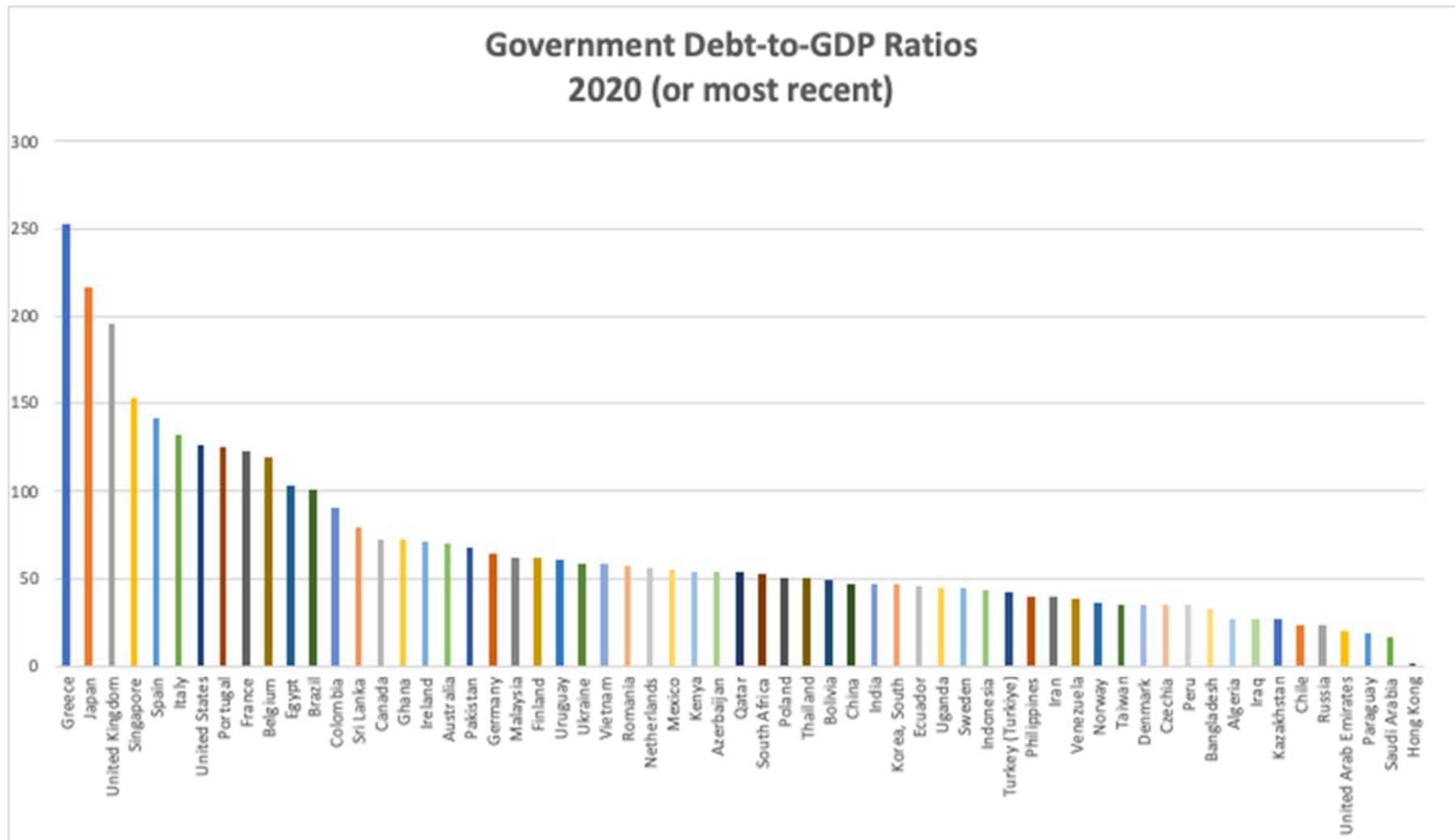
## Federal Debt Held by the Public, 1900 to 2053

Percentage of Gross Domestic Product



Source: Congressional Budget Office, *An Update to the Budget Outlook, 2023 to 2033* (May 2023)

# Debt/GDP Ratio by Country



Source: *World Population Review*

# The Sustainability of Government Debt

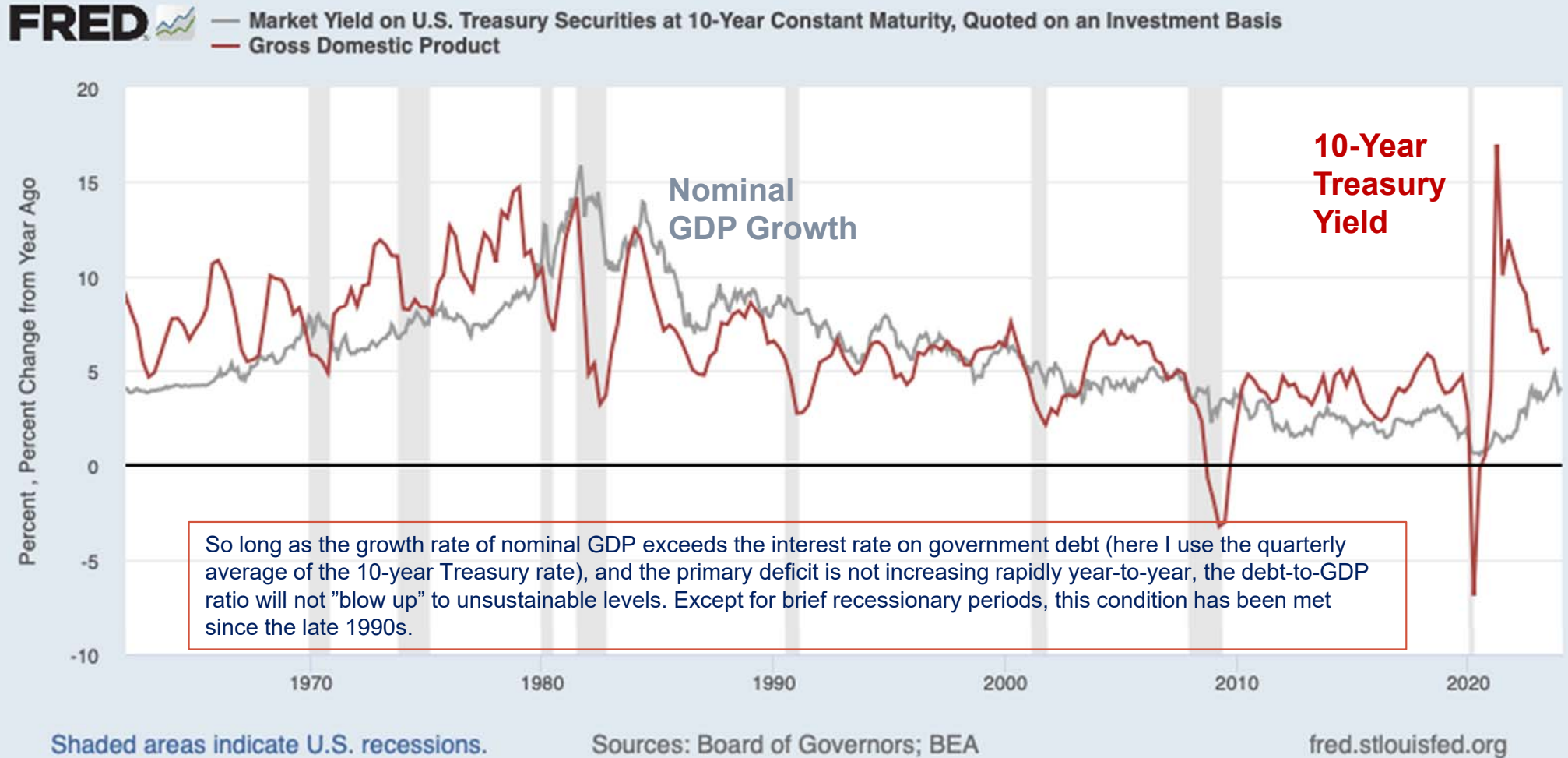
- The U.S. economy, and many other countries, run budget deficits every year.
  - This means that new government debt (Treasury securities), is issued every year.
  - Is this sustainable?
  - More fundamentally, can a government run a deficit every year, as we do, without government debt “blowing up,” requiring growing interest payments that the government cannot afford?
  - And when this happens, won’t we experience a “sovereign debt crisis,” as so many countries around the world have experienced, most recently Greece, Portugal, Italy and Spain during the “European Debt Crisis”?
    - Once investors get the idea that a government cannot pay back the debt they owe, that debt will fall in value, and interest rates for further borrowing will increase, sometimes dramatically.
    - This leads to a crisis whereby the country is essentially bankrupt, and to pay back its debt, it will need some sort of a “bailout” in the form of loans from international organizations like the IMF with low interest rates and favorable loan terms. This will allow them to pay back the debt they owe to private investors, but it always comes with conditions mandated by the agency offering the bailout (again, normally the IMF).
    - Won’t that happen here, eventually, since we run deficits every year?

# The Sustainability of Government Debt

- What do we need to know to answer this question?
- Key Question: Do tax revenues grow at least as fast as the interest obligation on previously issued government debt.
  - If so, then the federal government will always be able to meet its obligations to investors that own Treasury securities.
  - Tax revenues are a function of nominal GDP
    - At the end of the year, in the U.S., we get a W-2 form from the IRS that tells how much you earned that year. For the whole country, that is nominal GDP.
    - Taxes are a percentage of those earnings.
    - So the growth rate of nominal GDP tells us how fast tax revenues change.
  - Interest on government debt represents the government's obligation to those who own Treasury securities.
- ***So long as the growth rate of nominal GDP exceeds the interest rate paid on outstanding government debt (Treasury securities) by a sufficient amount, then government debt is sustainable.***
  - Even if the debt-to-GDP ratio is increasing over time due to increasing government deficits (as it is now in the U.S. and just about every other country due to the pandemic), that debt is still sustainable (won't blow up to infinity) so long as this condition is met.

# Debt Sustainability Condition

1962 - 2023



# Takeaways

- ***We may have achieved the proverbial soft landing (maybe just by getting lucky). But macro policy is currently unmoored, which makes it almost impossible to understand where we are headed.***
  - Existing theory has not been helpful in understanding economic trends (for quite a while, now)
  - The U.S. economy has exhibited strength that no one expected a year or two ago. Will this continue? Or is it another bubble that cannot be sustained?
- There are strains in the system (banking, Treasuries) that could foment the next crisis.
- Around the world, most countries are struggling and lagging behind the U.S. Will this continue? What will be the effect here?
- Interest rates should be coming down, but all of this depends on the resolution of the uncertainty that I keep mentioning. Do we know that inflation will continue to fall?

# Takeaways

- ***We may have achieved the proverbial soft landing (maybe just by getting lucky). But macro policy is currently unmoored, which makes it almost impossible to understand where we are headed.***
  - Existing theory has not been helpful in understanding economic trends (for quite a while, now)
  - The U.S. economy has exhibited strength that no one expected a year or two ago. Will this continue? Or is it another bubble that cannot be sustained?
- There are strains in the system (banking, Treasuries) that could foment the next crisis.
- Around the world, most countries are struggling and lagging behind the U.S. Will this continue? What will be the effect here?
- Interest rates should be coming down, but all of this depends on the resolution of the uncertainty that I keep mentioning. Do we know that inflation will continue to fall?



# Takeaways

- ***We are not going broke as a country. We have substantial resources at our disposal. Politics determines its uses. The idea that we “can’t afford” policies like social security is patently ridiculous and motivated entirely by ideology, not economics.***