



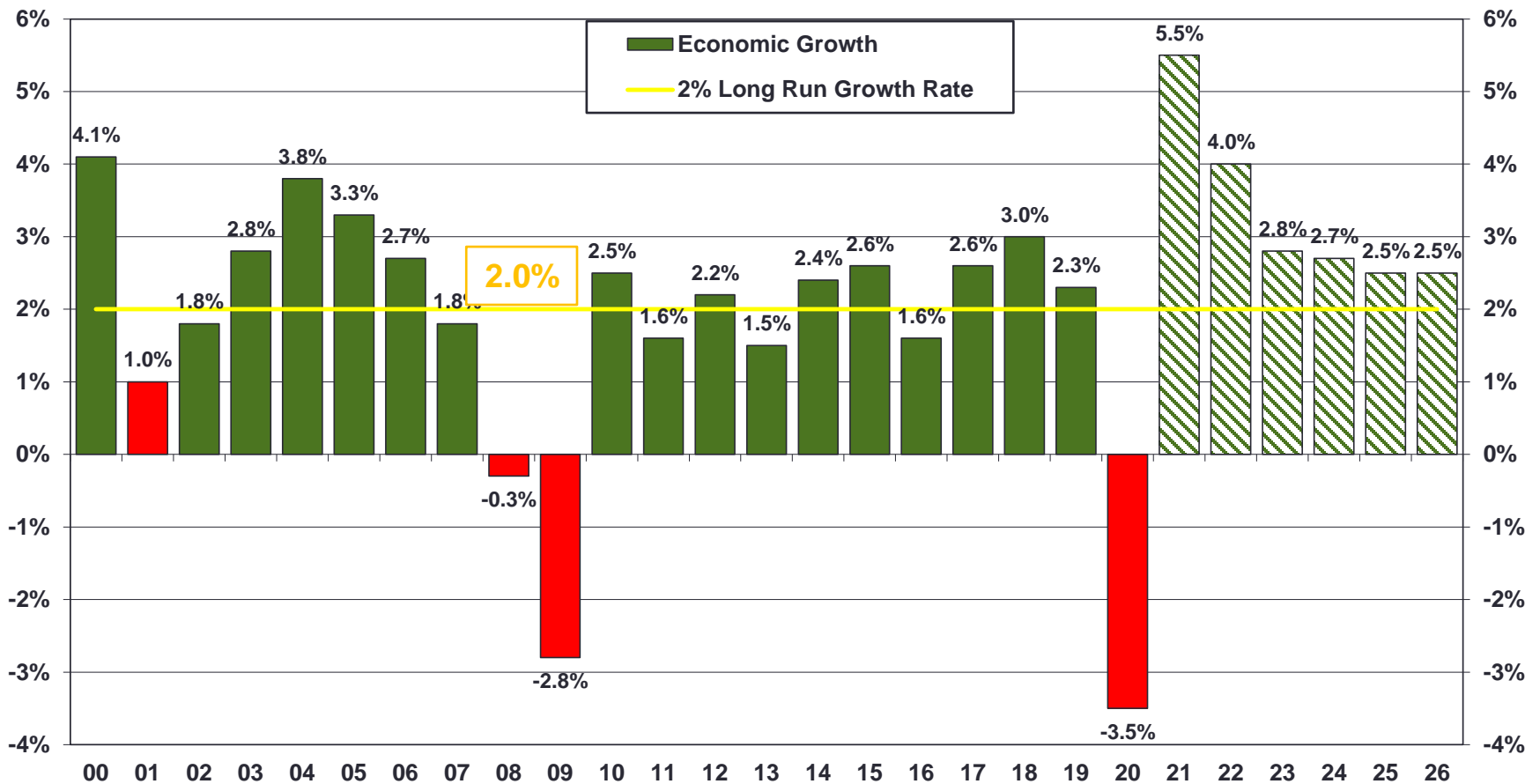
Economic Update

December 2021

If you have any questions or comments, please contact:
Steven Rick, Chief Economist
CUNA Mutual Group – Economics
800.356.2644, Ext. 665.5454
Steve.rick@cunamutual.com

Above Trend Economic Growth for Next 5 Years

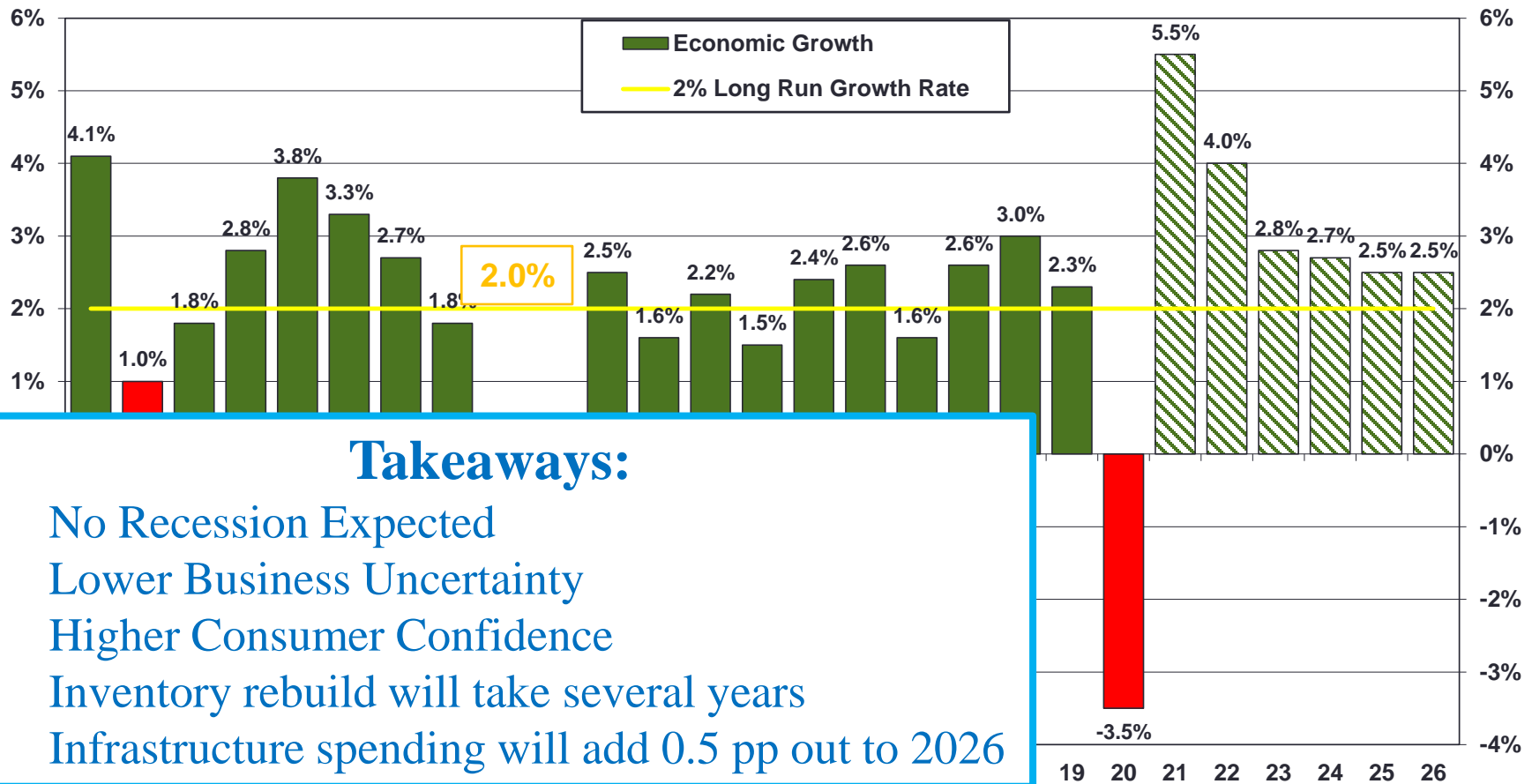
U.S. Economic Growth Rate



Source: Department of Commerce

Above Trend Economic Growth for Next 5 Years

U.S. Economic Growth Rate



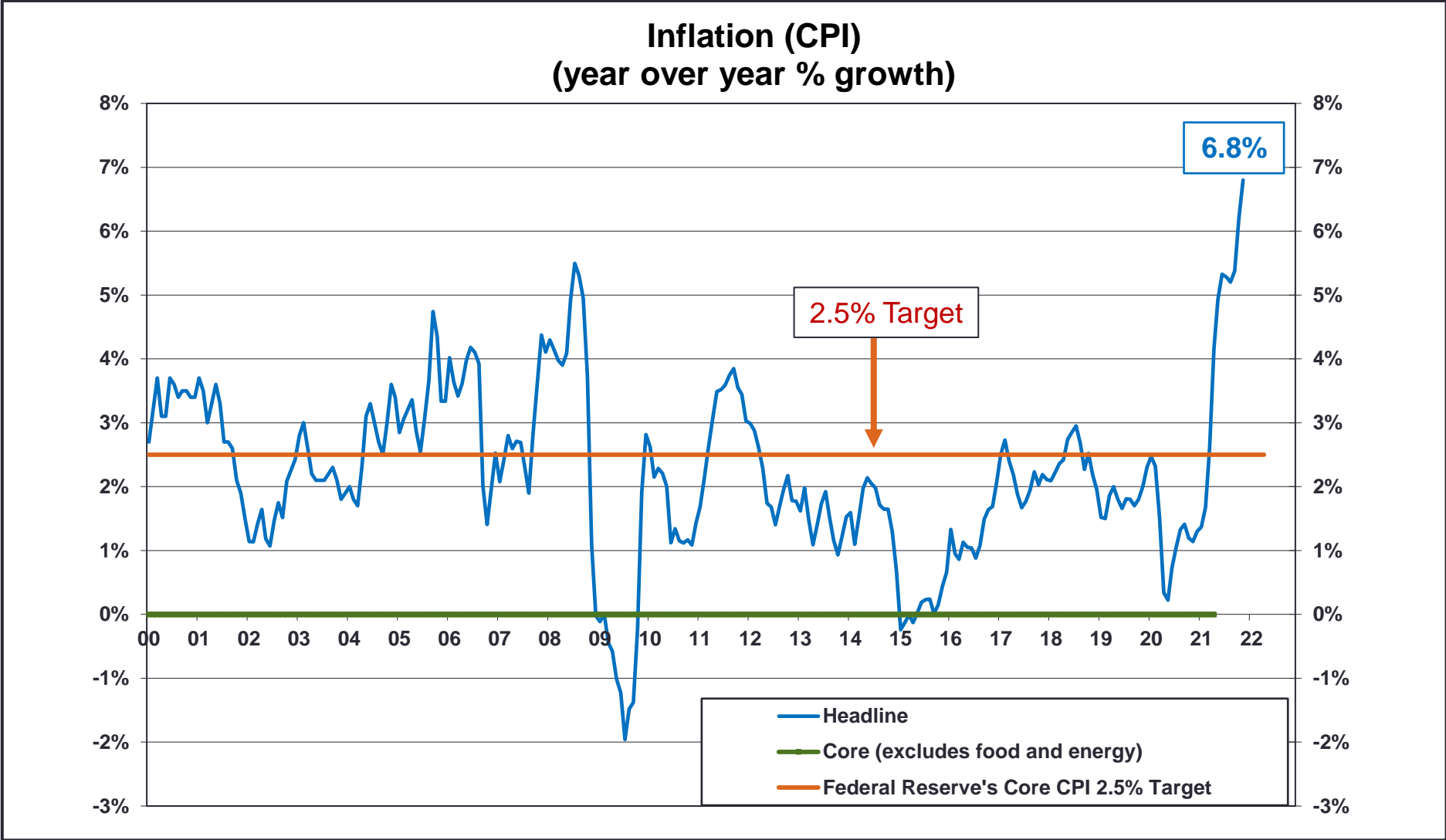
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The Big Question

The Big Question

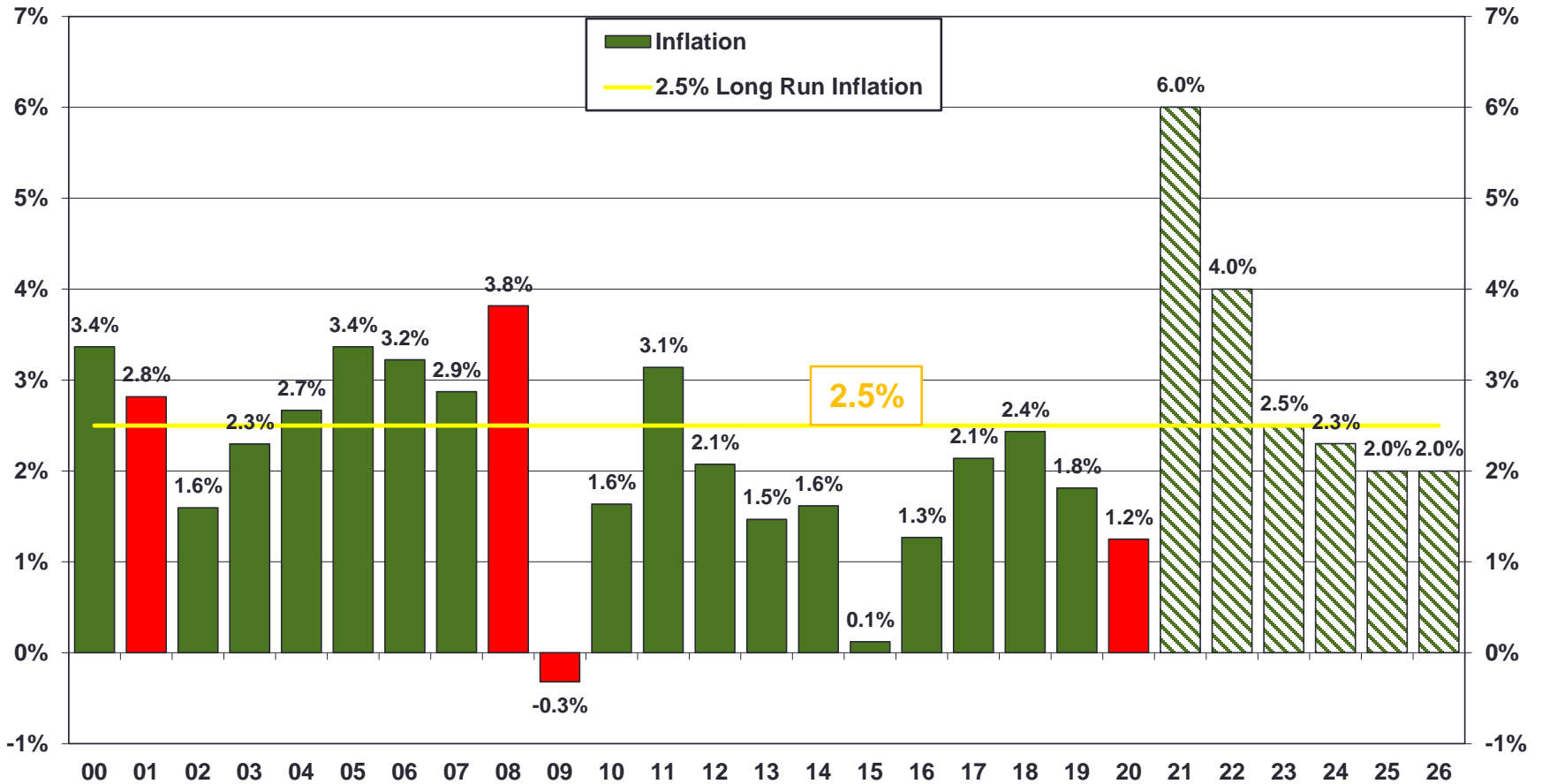
**Inflation or Deflation
tell me if you can
will we be Zimbabwe
or will we be Japan?**

High Inflation for the Next Year



Inflation Above Target Until 2024

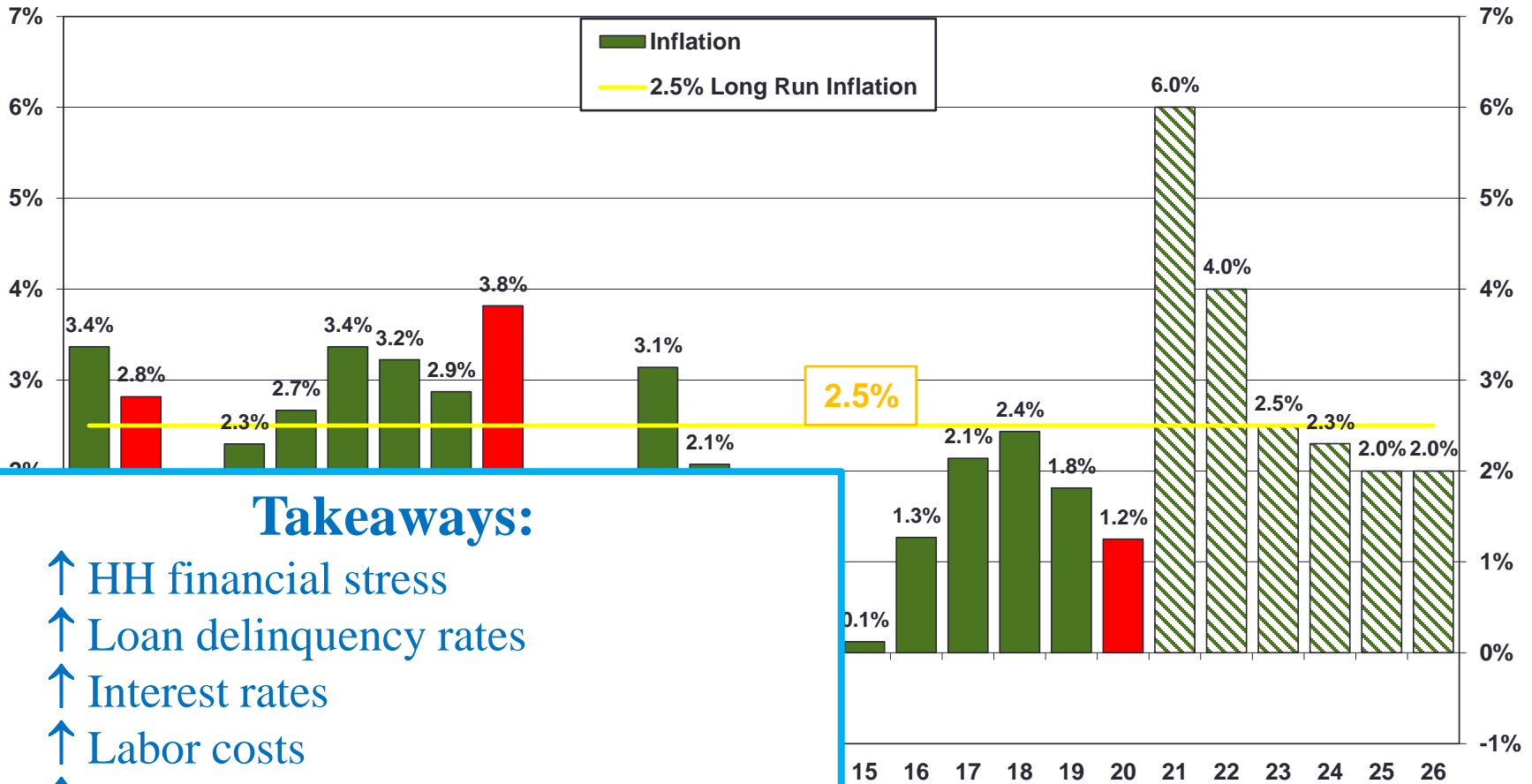
U.S. CPI Inflation



Source: Department of Commerce

Inflation Above Target Until 2024

U.S. CPI Inflation

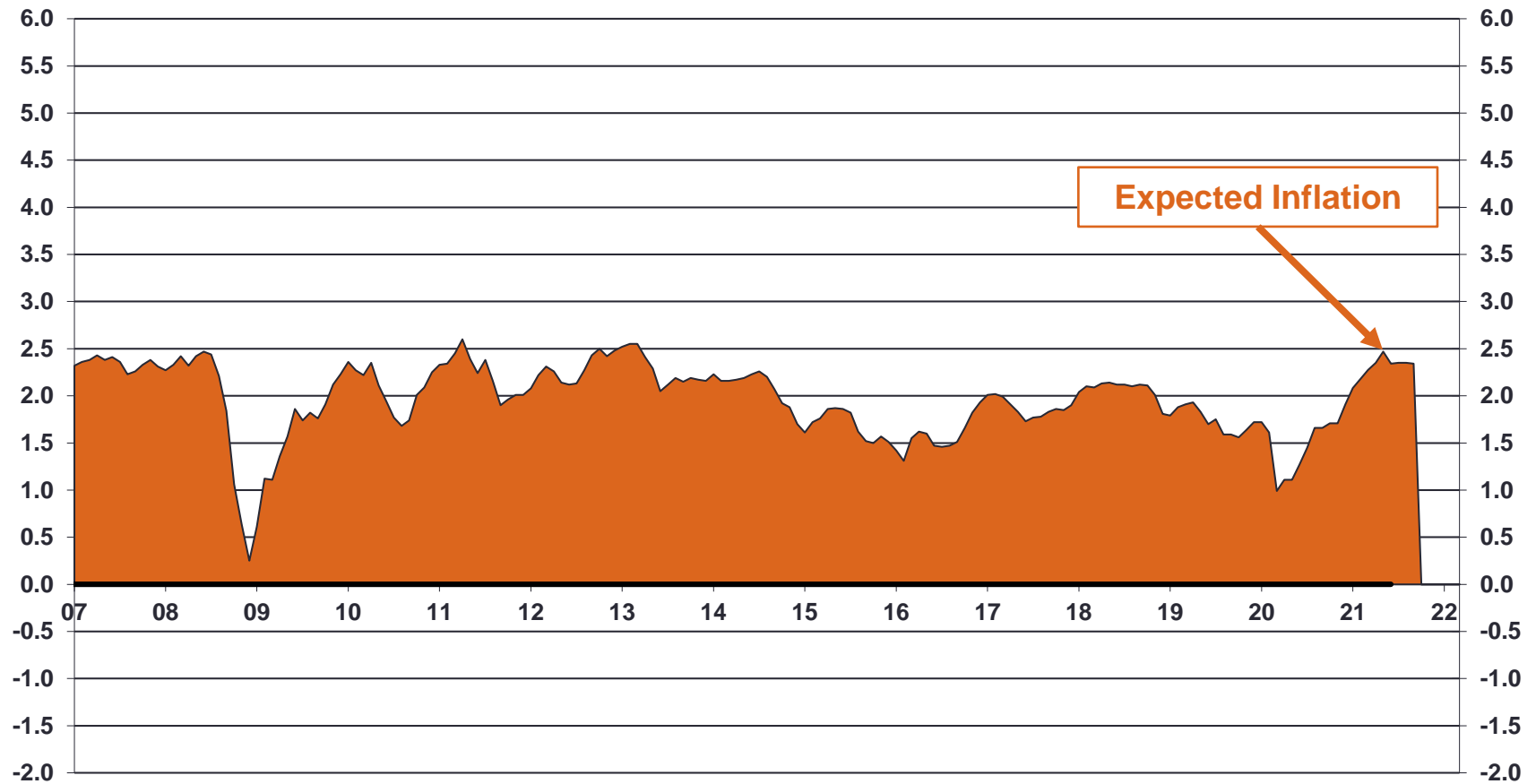


Takeaways:

1. ↑ HH financial stress
2. ↑ Loan delinquency rates
3. ↑ Interest rates
4. ↑ Labor costs
5. ↑ Operating expenses

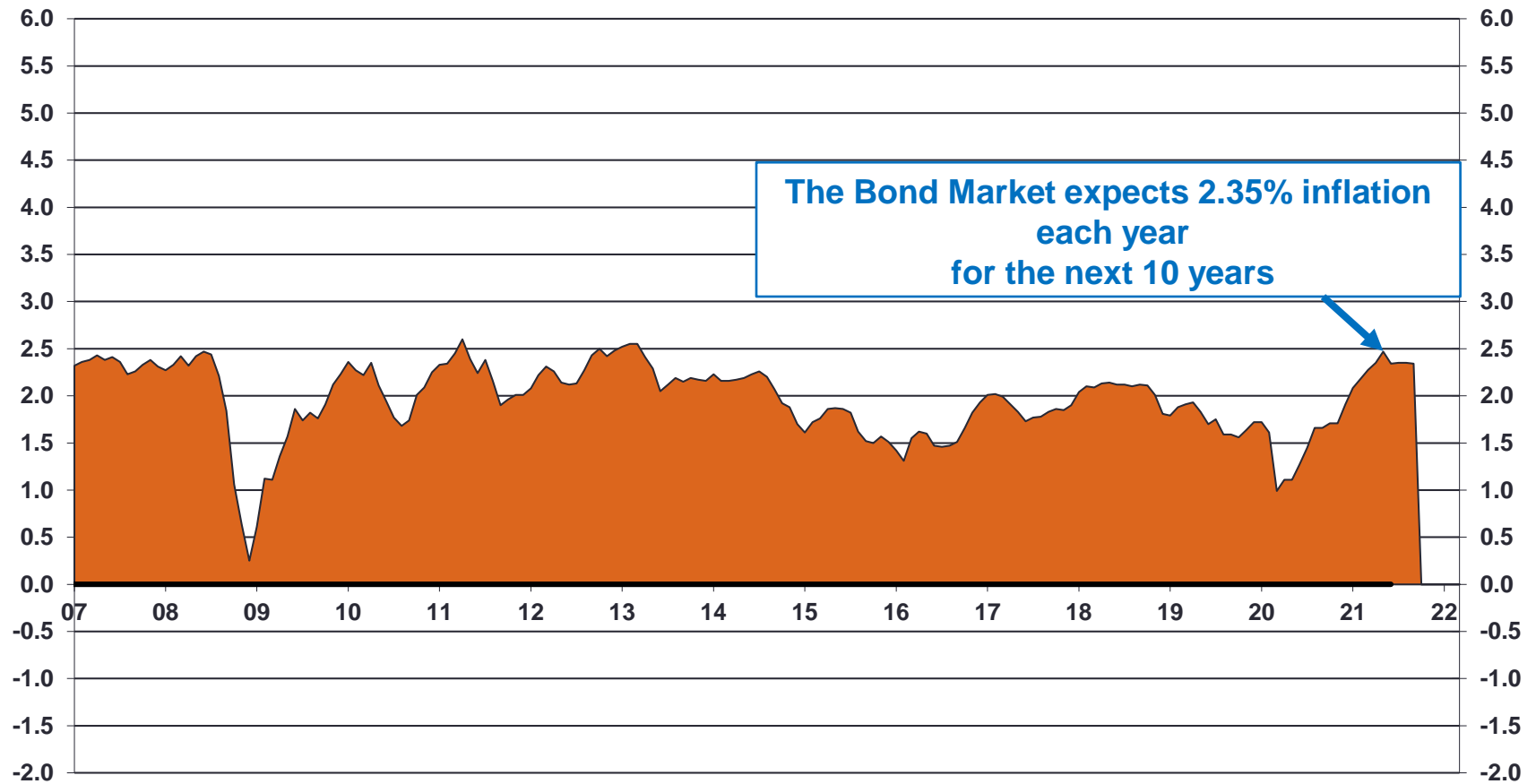
Inflation Expectations are Anchored Below 2.5%

Inflation Expectations



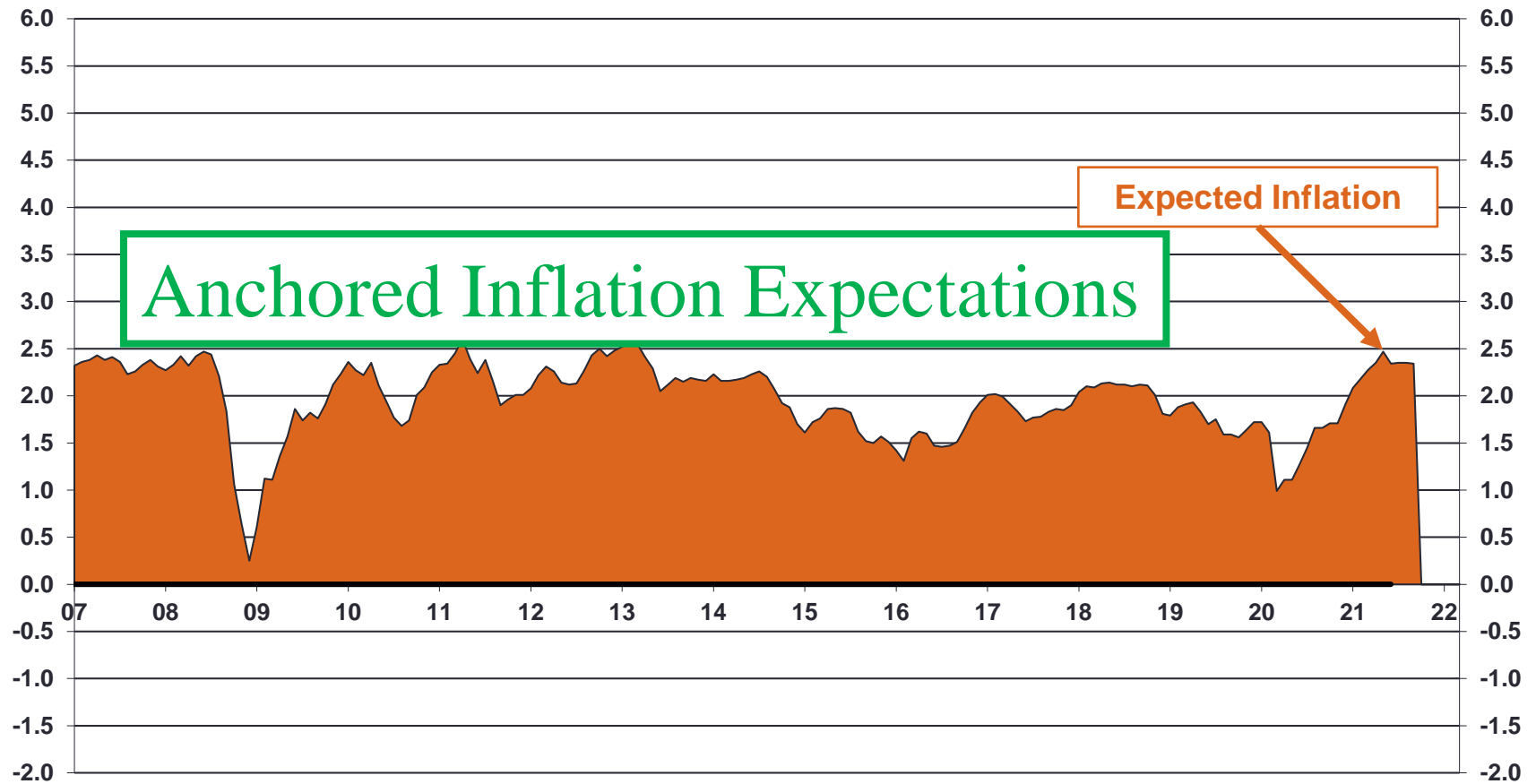
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Inflation Expectations



Inflation Expectations are Anchored Below 2.5%

Inflation Expectations



The Inflation Debate:

Higher Inflation Factors:

1. Pent up demand for goods and services
2. Rising energy & commodity prices
3. Massive monetary and fiscal stimulus
4. Lower dollar exchange rate => import prices
5. Rising housing and medical care costs
6. Rising Inflation Expectations

The Inflation Debate:

Higher Inflation Factors:

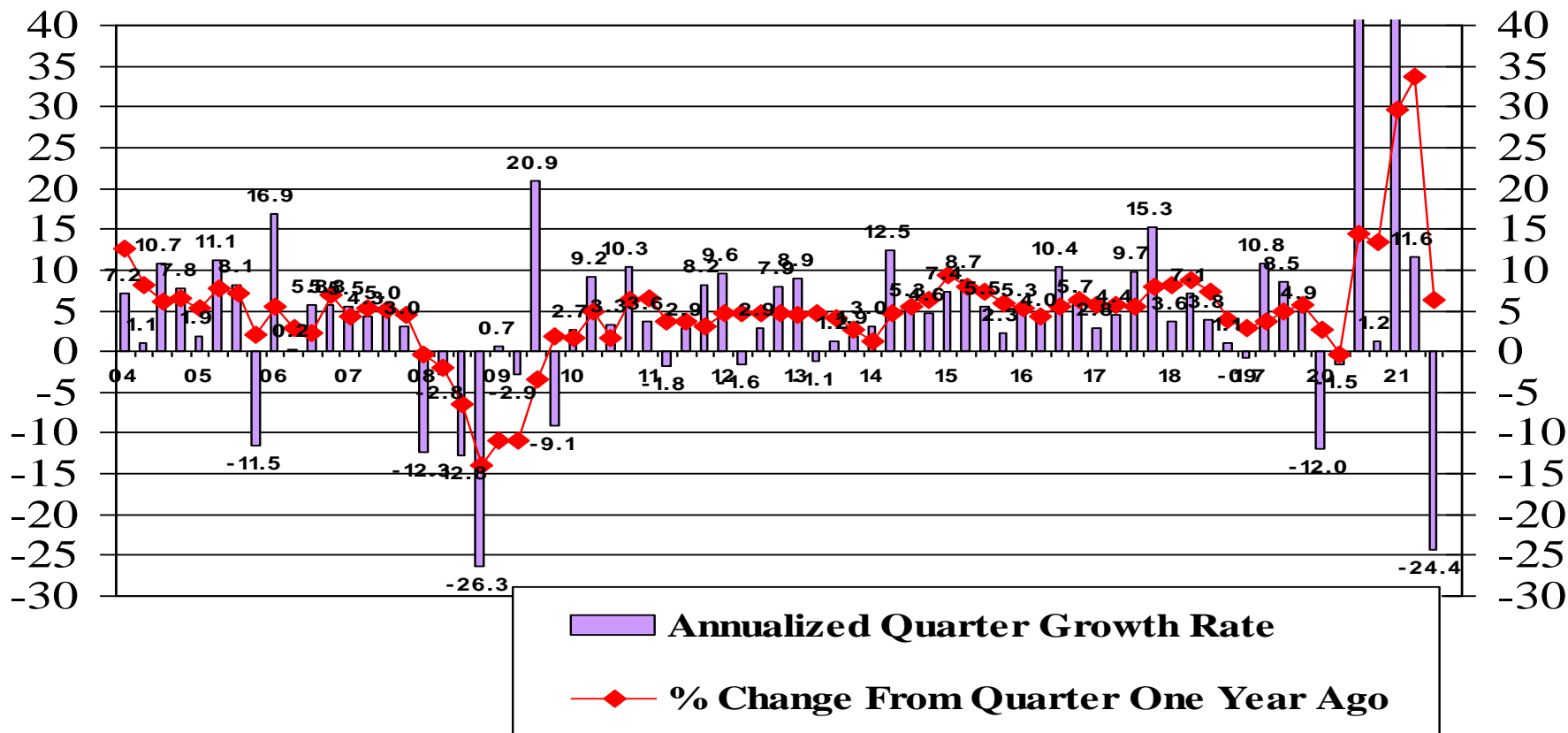
1. Pent up demand for goods and services
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3. Massive monetary and fiscal stimulus
4. Lower dollar exchange rate => import prices
5. Rising housing and medical care costs
6. Rising Inflation Expectations

Lower Inflation Factors:

1. eCommerce is a powerful deflationary force
2. Rising competition from globalization
3. Rising productivity => falling costs per unit
4. Low population growth
5. Negative output gap and excess production capacity
6. Excess supply of labor

Record Surge in Goods Spending Created Supply Chain Disruptions and Temporary Inflation

Real Personal Consumption Expenditures (Durable Goods)

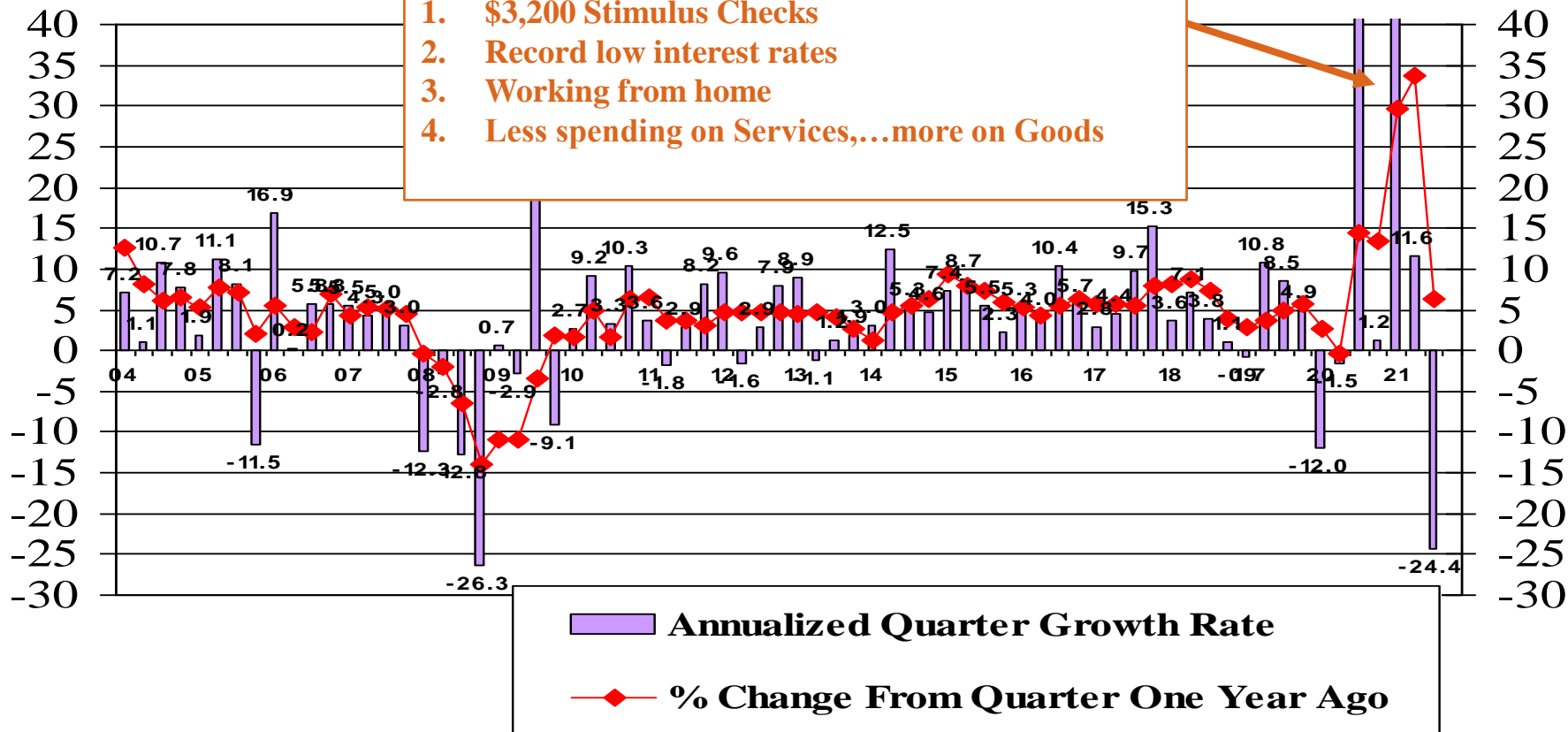


Record Surge in Goods Spending Created Supply Chain Disruptions and Temporary Inflation

Real Personal Consumption Expenditures (Durable Goods)

Record Surge in Durable Goods Spending,...Why?

1. \$3,200 Stimulus Checks
2. Record low interest rates
3. Working from home
4. Less spending on Services,...more on Goods



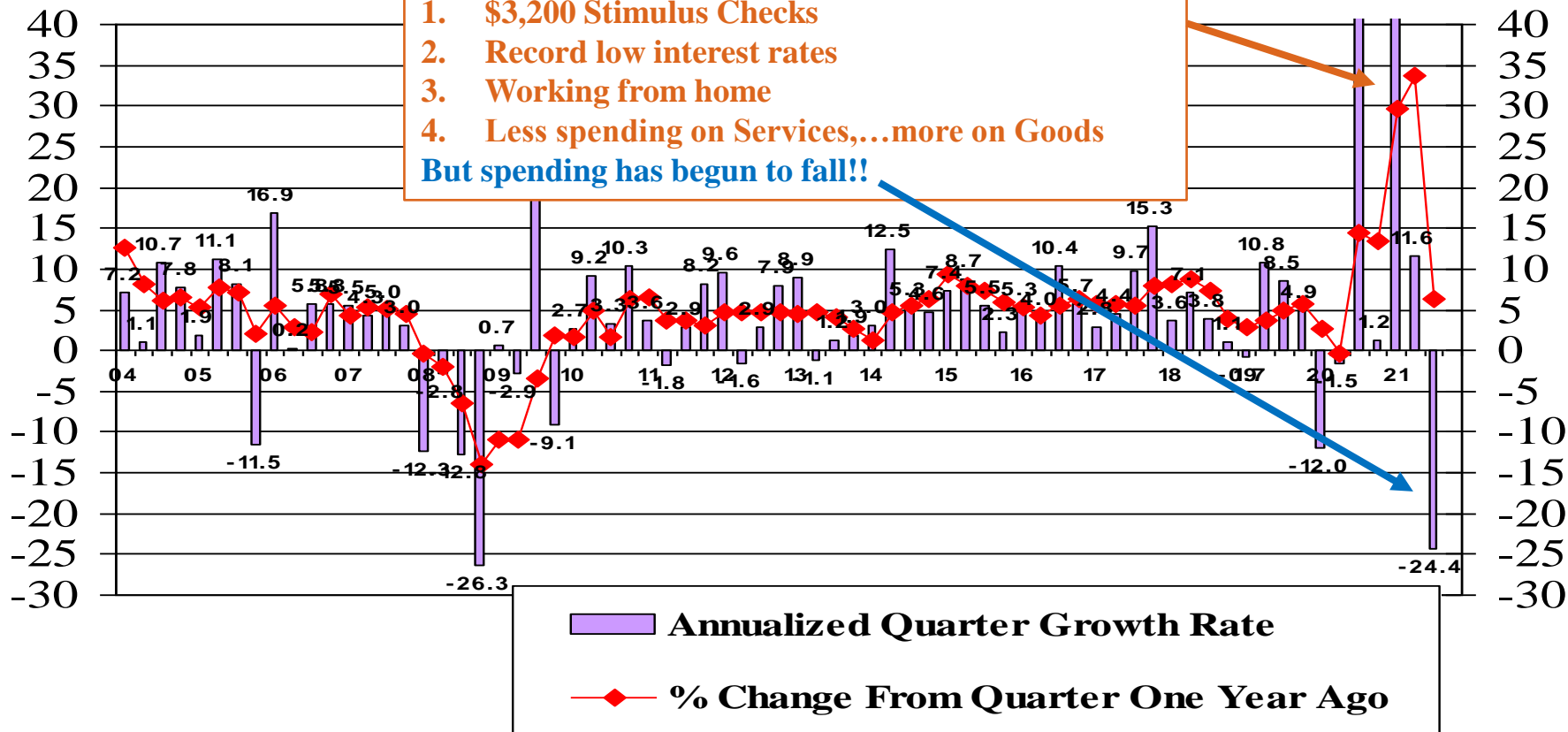
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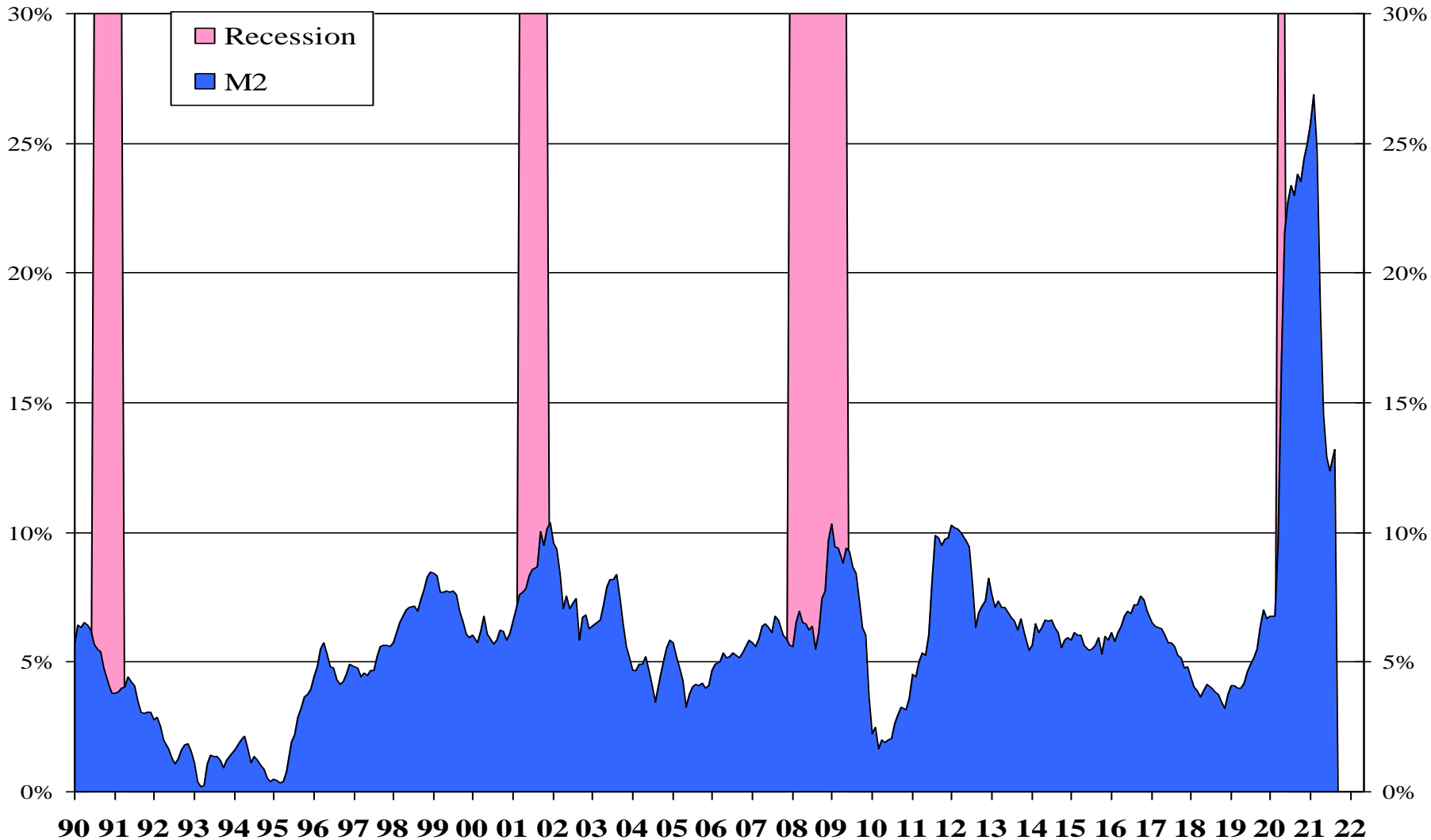
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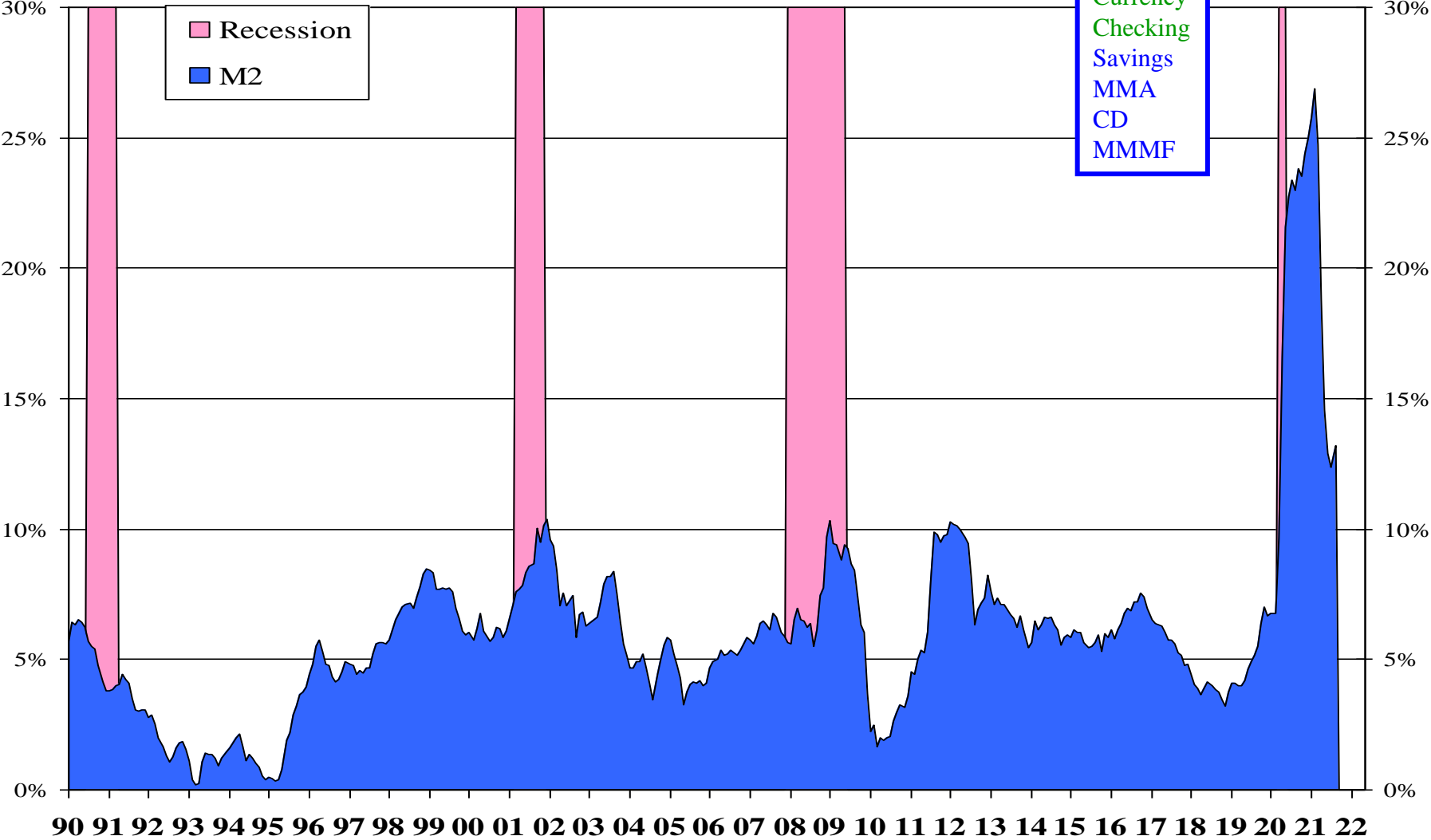
But spending has begun to fall!!



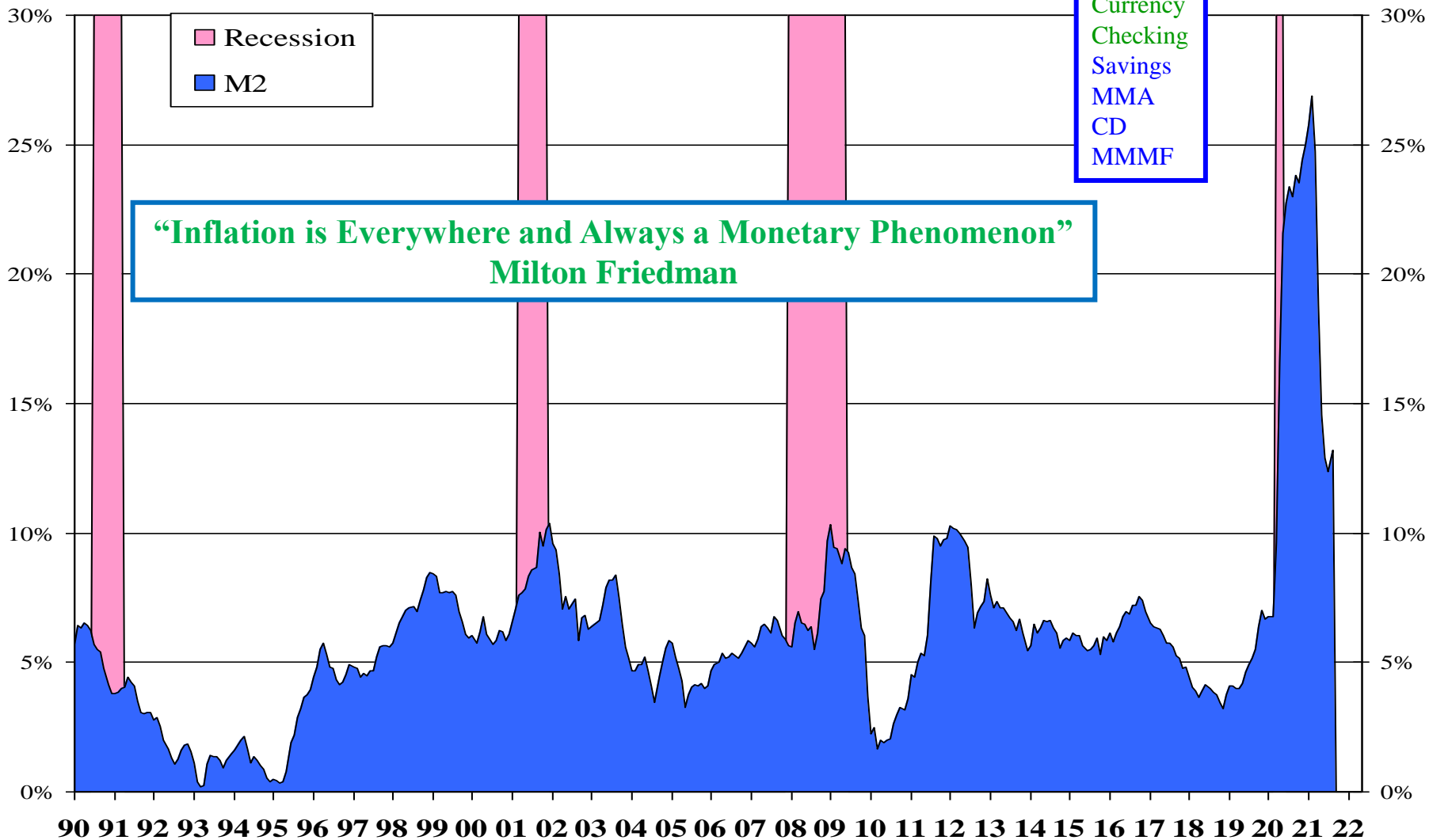
Money Supply Growth, M2



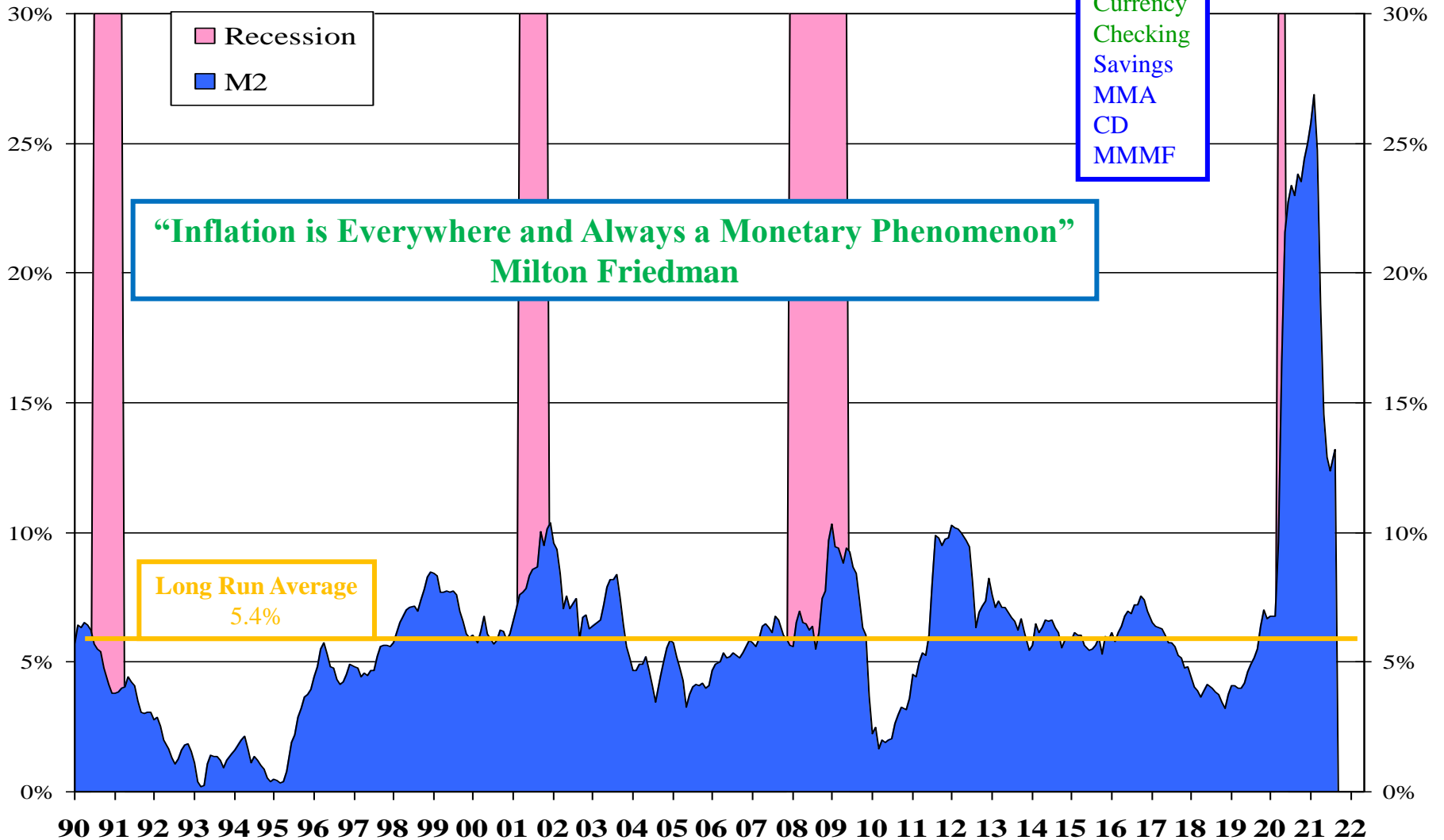
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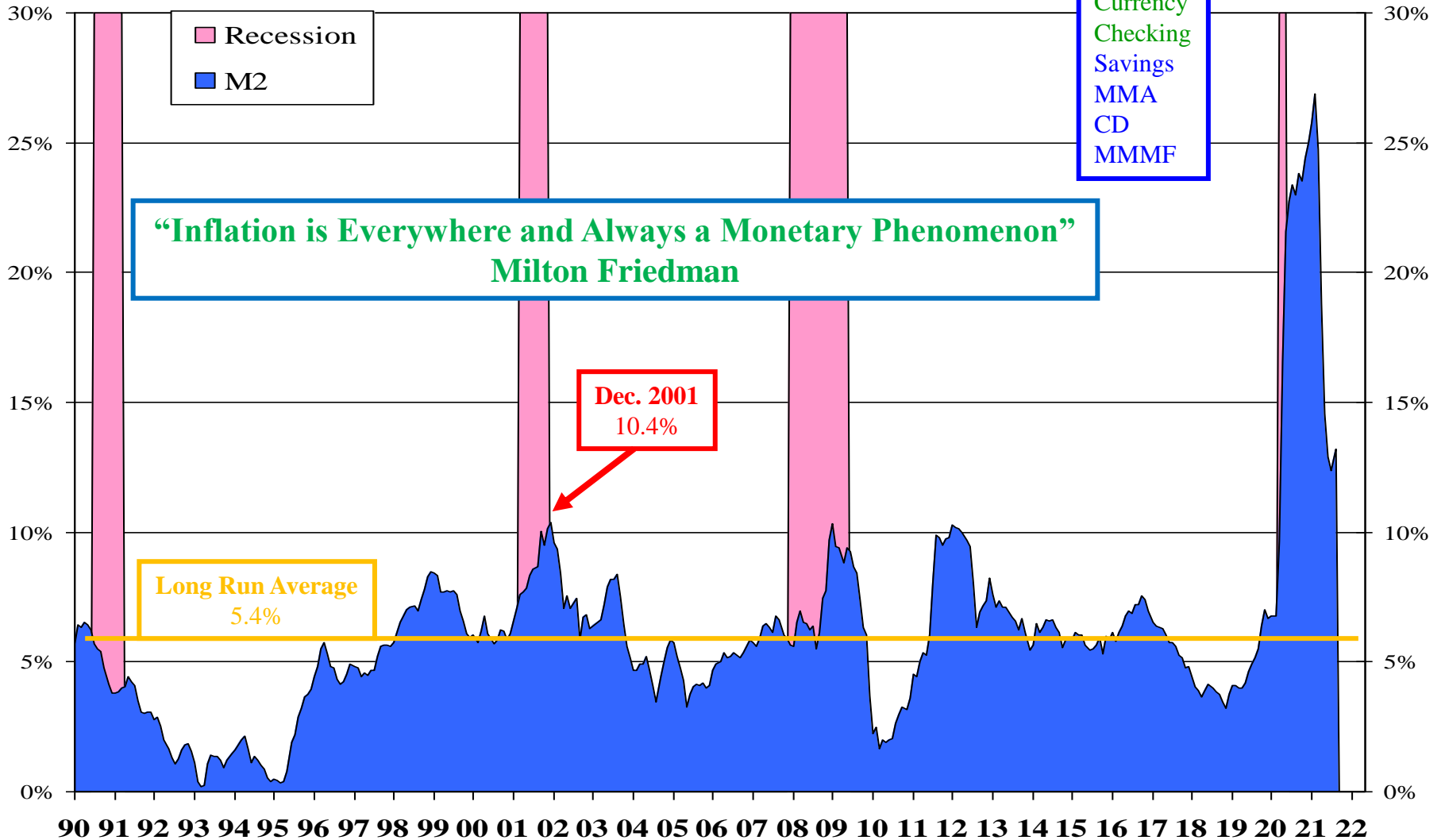
Money Supply Growth, M2



Money Supply Growth, M2



Money Supply Growth, M2



Recession

M2

- Currency
- Checking
- Savings
- MMA
- CD
- MMMF

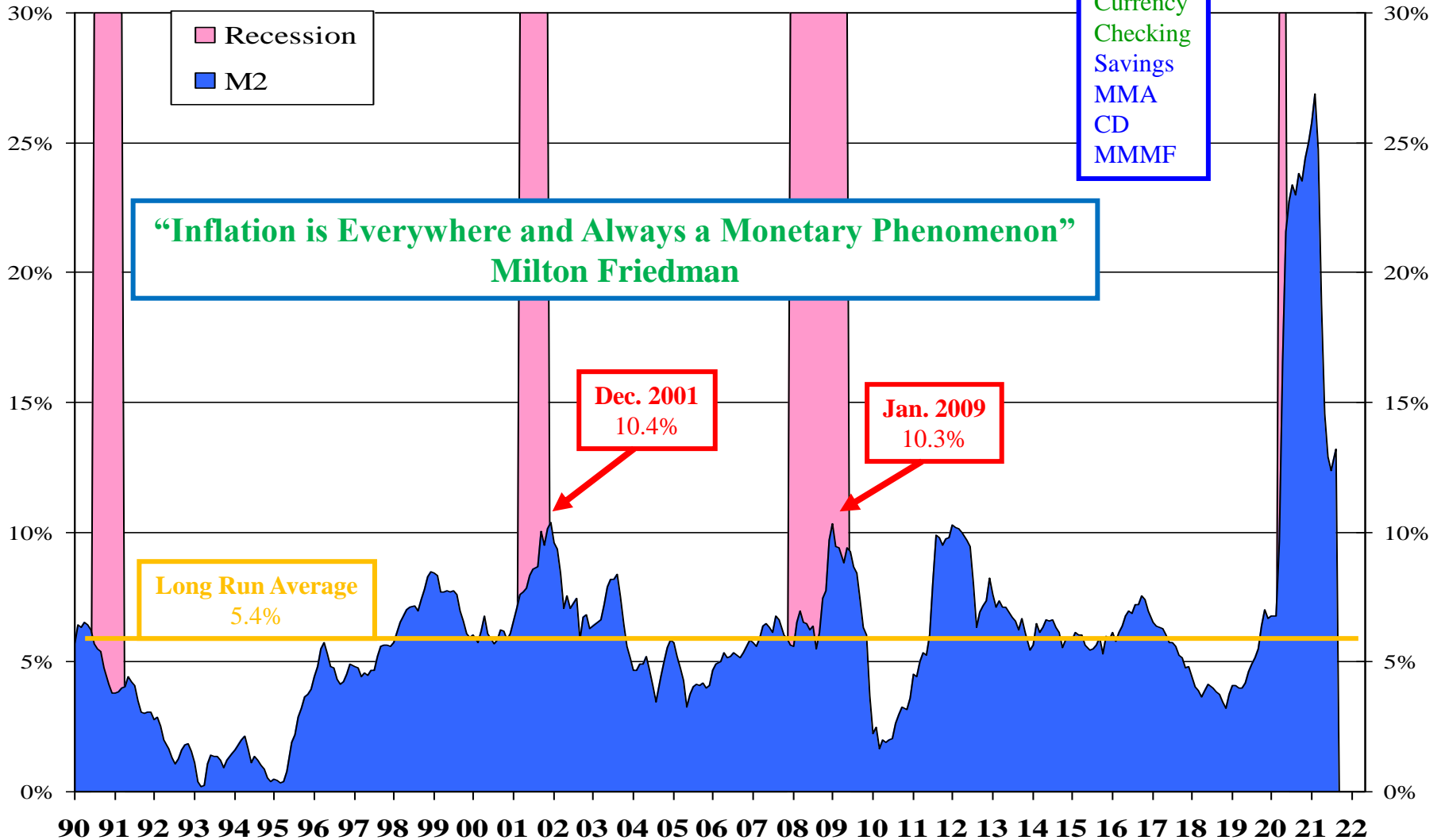
“Inflation is Everywhere and Always a Monetary Phenomenon”
Milton Friedman

Dec. 2001
10.4%

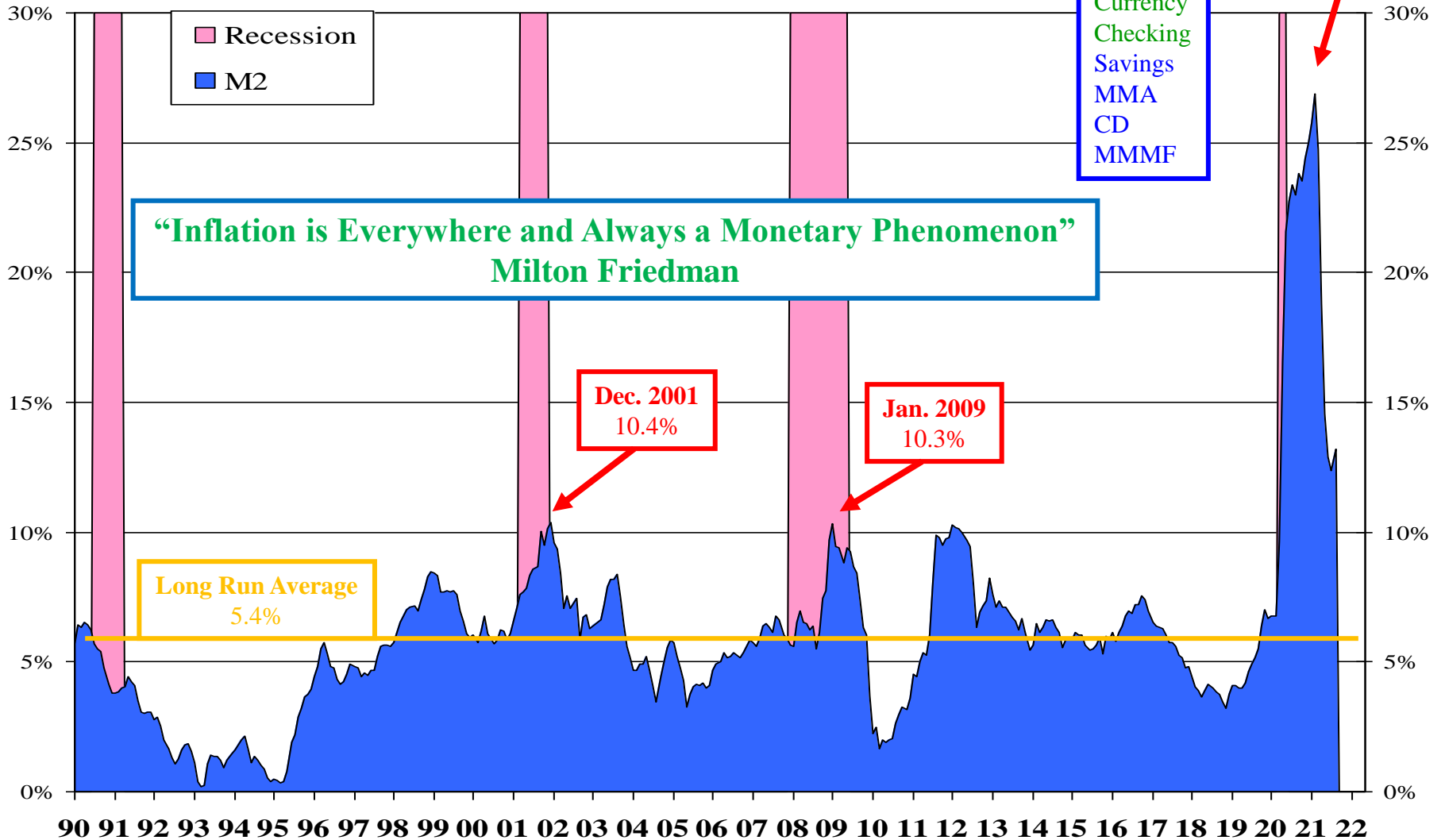
Long Run Average
5.4%

90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22

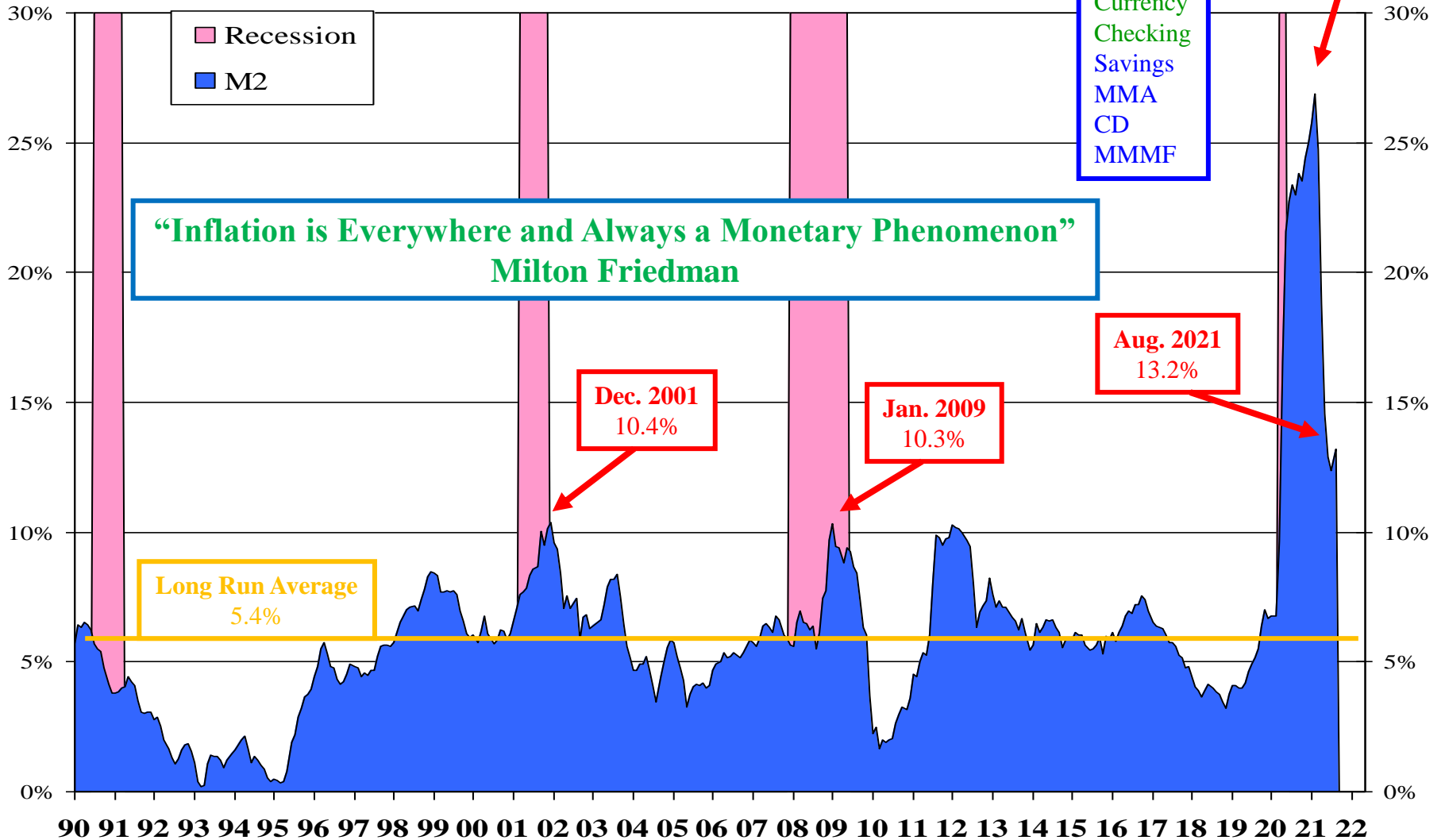
Money Supply Growth, M2



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Money Supply Growth, M2



Equation of Exchange

Equation of Exchange (identity)

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$$M2 \times V = P \times Y$$

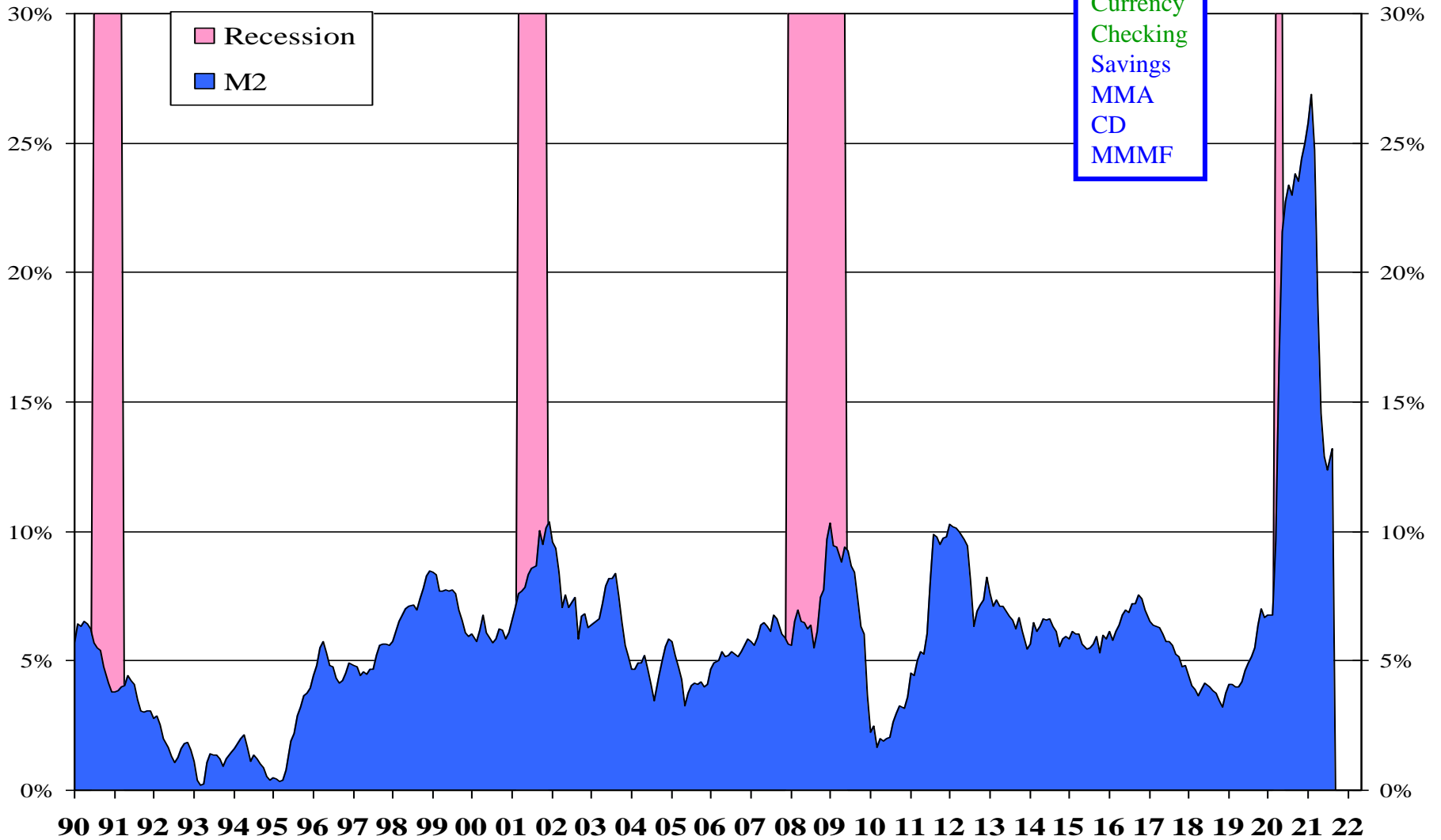
Equation of Exchange (identity)

$$M2 \times V = P \times Y$$

Money
Supply



Money Supply Growth, M2



$$M2 \times V = P \times Y$$

Money
Supply

Velocity

$$M2 \times V = P \times Y$$

Money
Supply



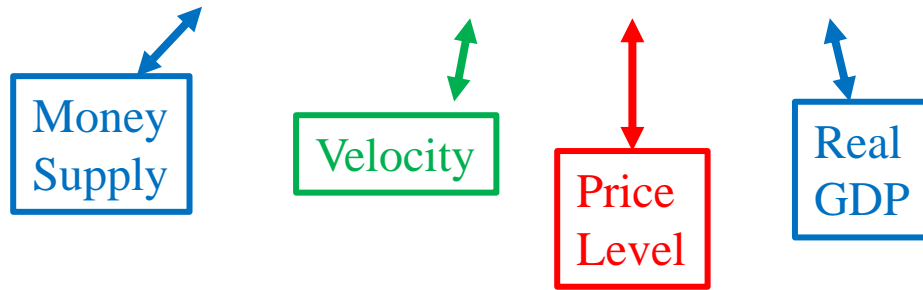
Velocity



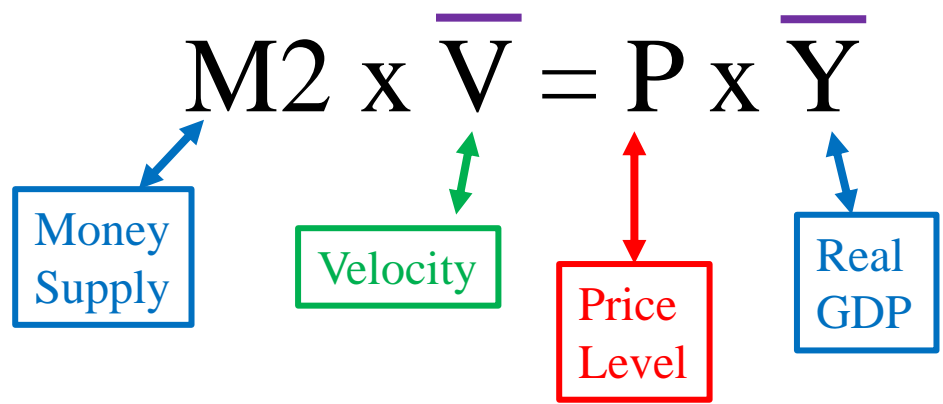
Price
Level



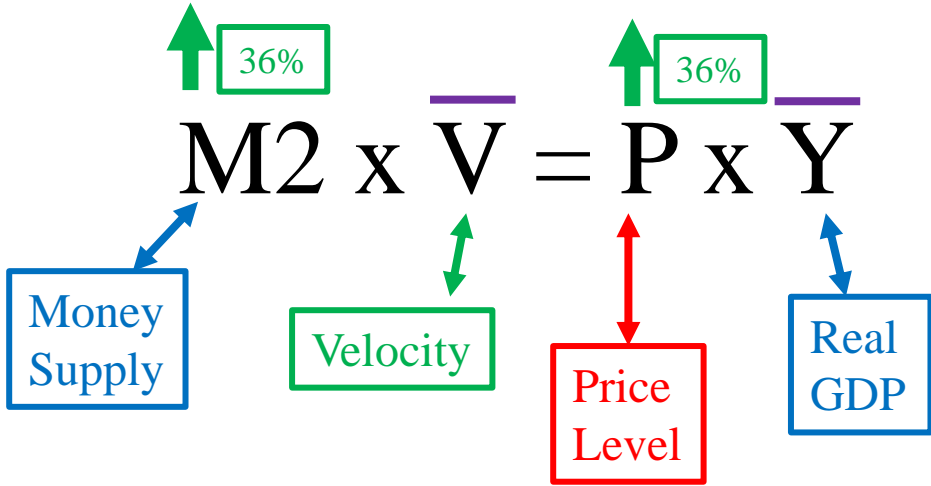
$$M2 \times V = P \times Y$$



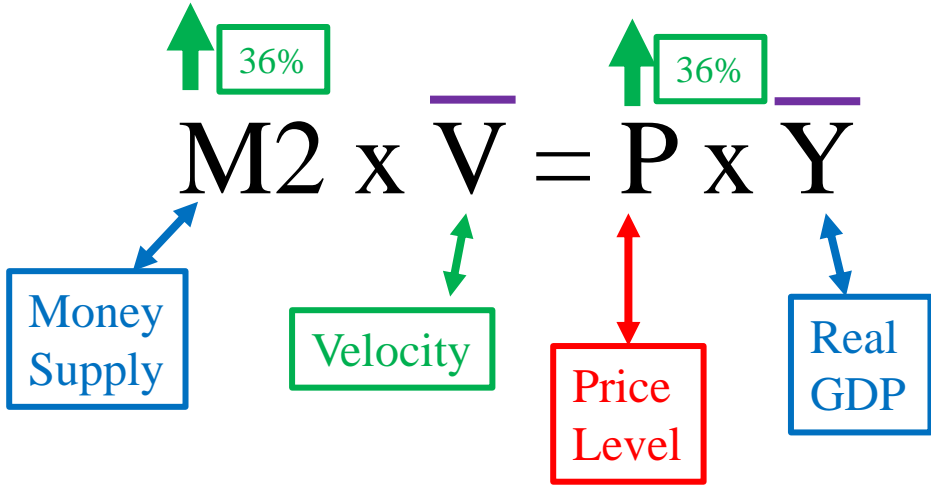
Assume V and Y
are Constant in
the Short Run



Assume V and Y
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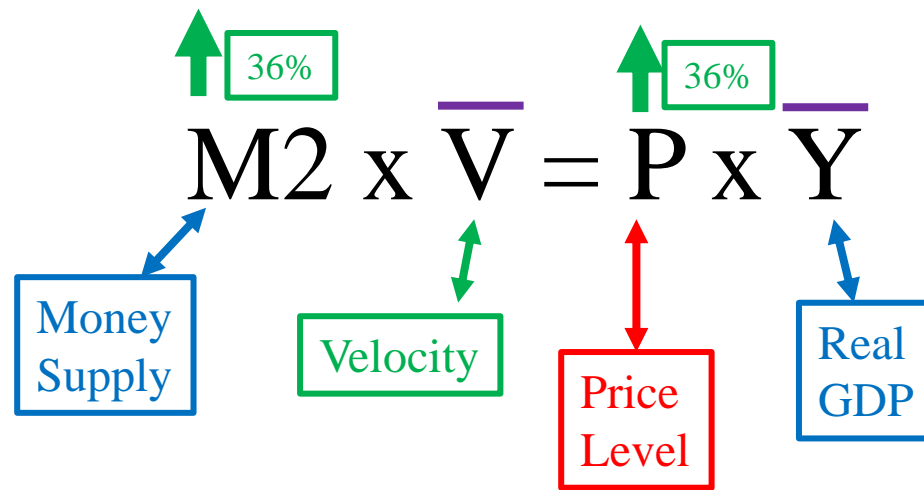


Assume V and Y
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“Inflation is Everywhere and Always a Monetary Phenomenon”
Milton Friedman

Assume V and Y
are Constant in
the Short Run



“Inflation is Everywhere and Always a Monetary Phenomenon”
Milton Friedman

**But Velocity
is not Constant
in the Short Run!**

Move From
Levels
to
Growth Rates

$$M2 \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

$$M2 \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

4th quarter 2019,... to 3rd quarter 2021

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4th quarter 2019,... to 3rd quarter 2021

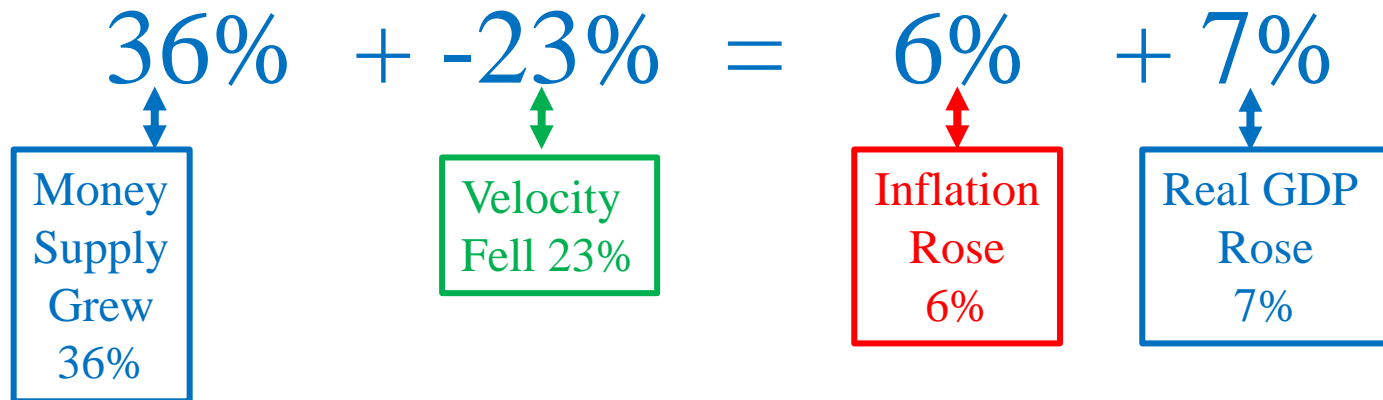
$$36\% + -23\% = \dots\dots\dots$$

The diagram illustrates the calculation of the sum of percentage changes in money supply and velocity. It features a blue box on the left containing the text "Money Supply Grew 36%", with a blue double-headed arrow pointing from the box to the "36%" term in the equation above. To the right is a green box containing the text "Velocity Fell 23%", with a green double-headed arrow pointing from the box to the "-23%" term in the equation. The equation itself is "36% + -23% =", where the result is represented by a series of dots.

$$M2 \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

4th quarter 2019,... to 3rd quarter 2021



$$M2 \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

4th quarter 2019,... to 3rd quarter 2021

$$36\% + -23\% = 6\% + 7\%$$

Rewrite
“Equation of Exchange”

$$\longleftrightarrow V = \frac{P * Y}{M}$$

$$M \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

4th quarter 2019,... to 3rd quarter 2021

$$36\% + -23\% = 6\% + 7\%$$

$$V = \frac{P * Y}{M}$$

M

↑ 36%

$$M \times V = P \times Y$$

$$\Delta M/M + \Delta V/V = \Delta P/P + \Delta Y/Y$$

4th quarter 2019,... to 3rd quarter 2021

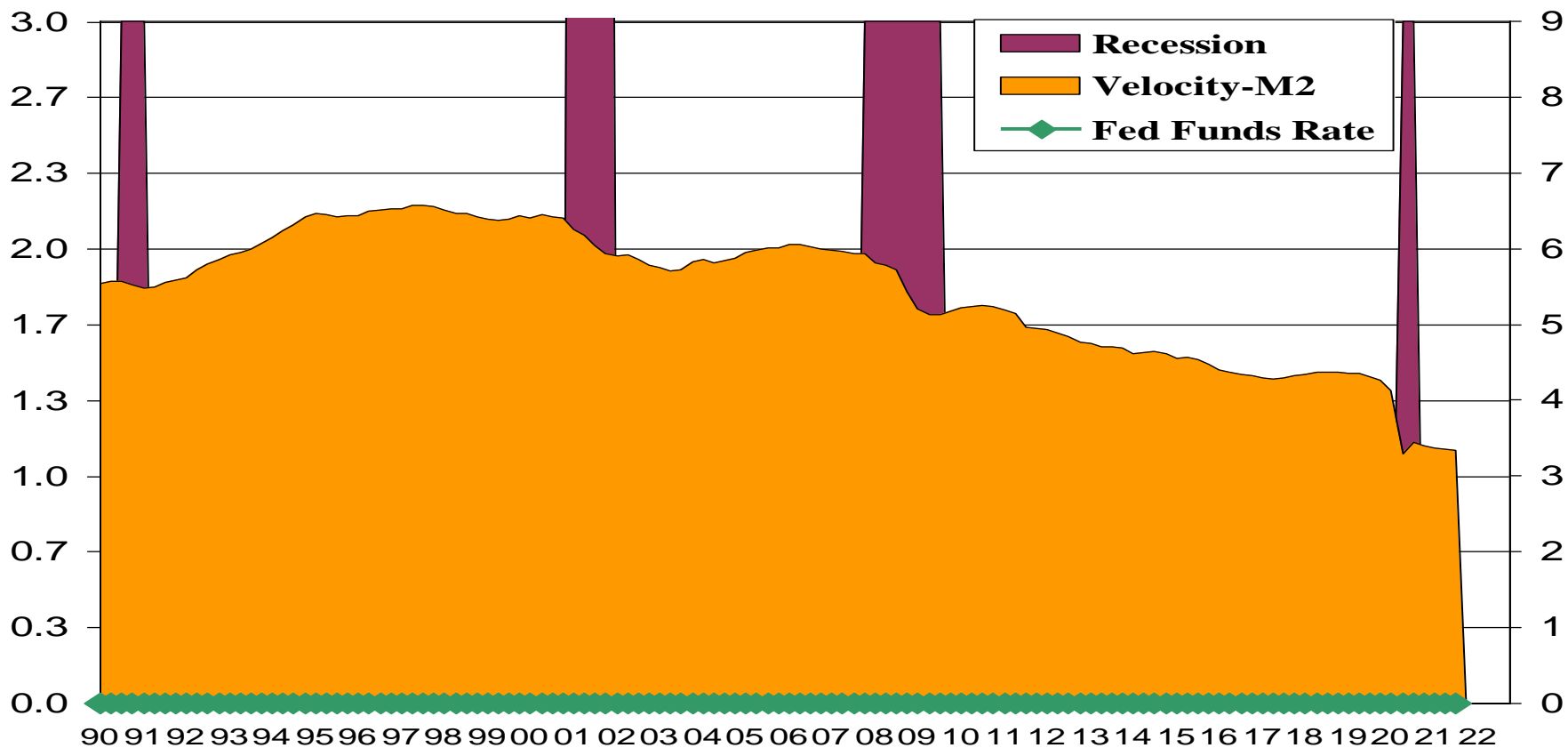
$$36\% + -23\% = 6\% + 7\%$$

$$V = \frac{P * Y}{M}$$

↑ 13%

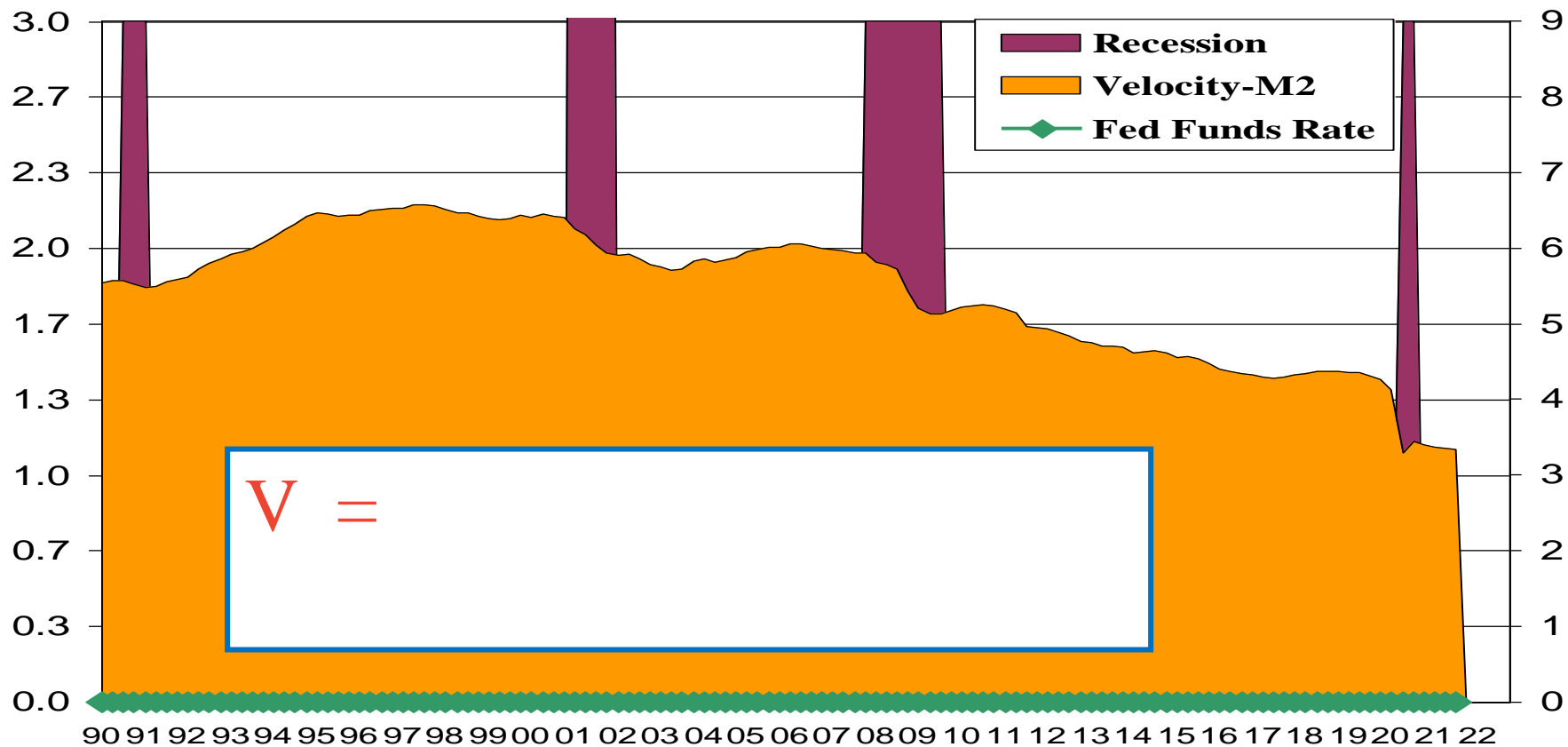
↑ 36%

Velocity of Circulation vs. Federal Funds Rate



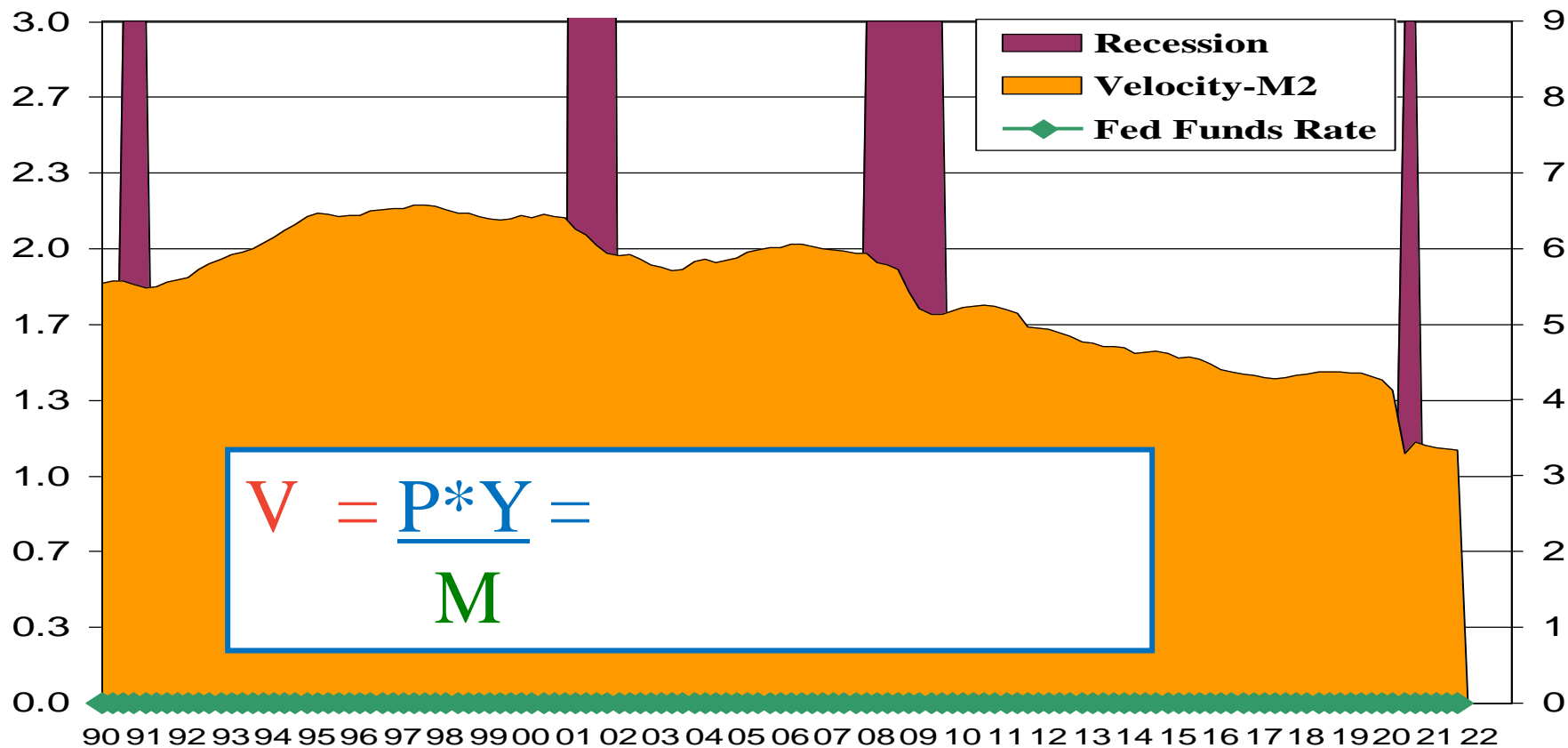
Source: CBO & Federal Reserve.

Velocity of Circulation vs. Federal Funds Rate



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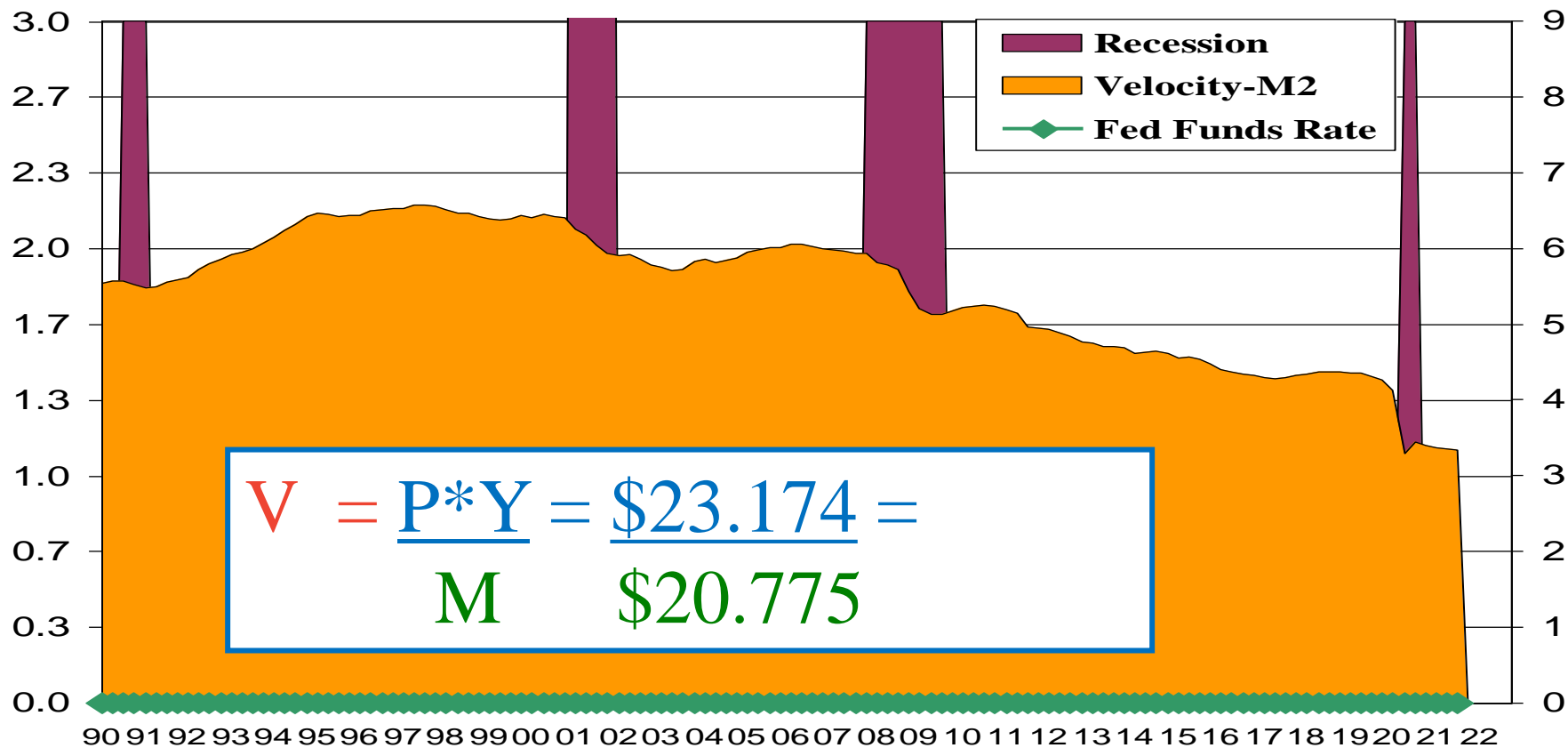
Velocity of Circulation vs. Federal Funds Rate



$$V = \frac{P * Y}{M}$$

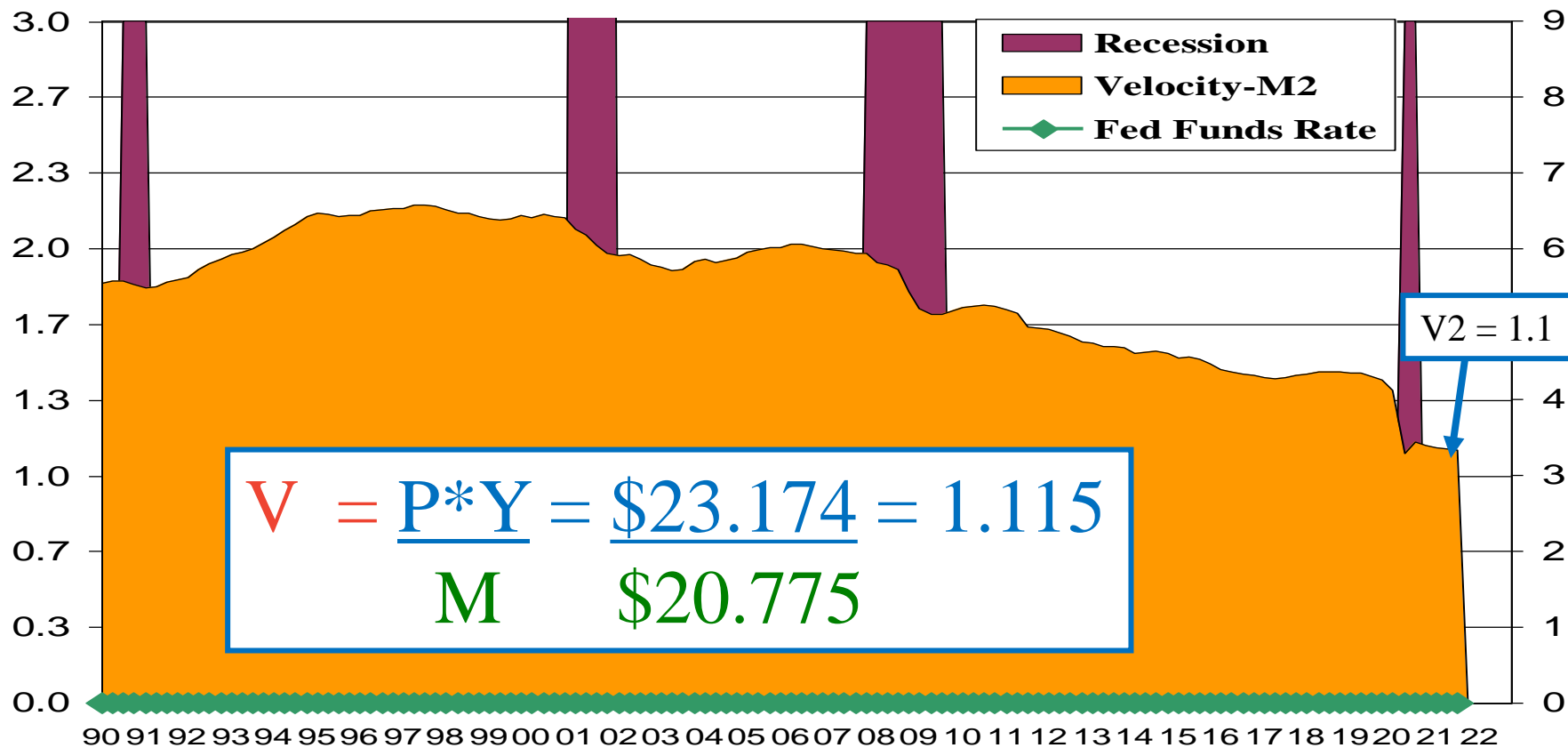
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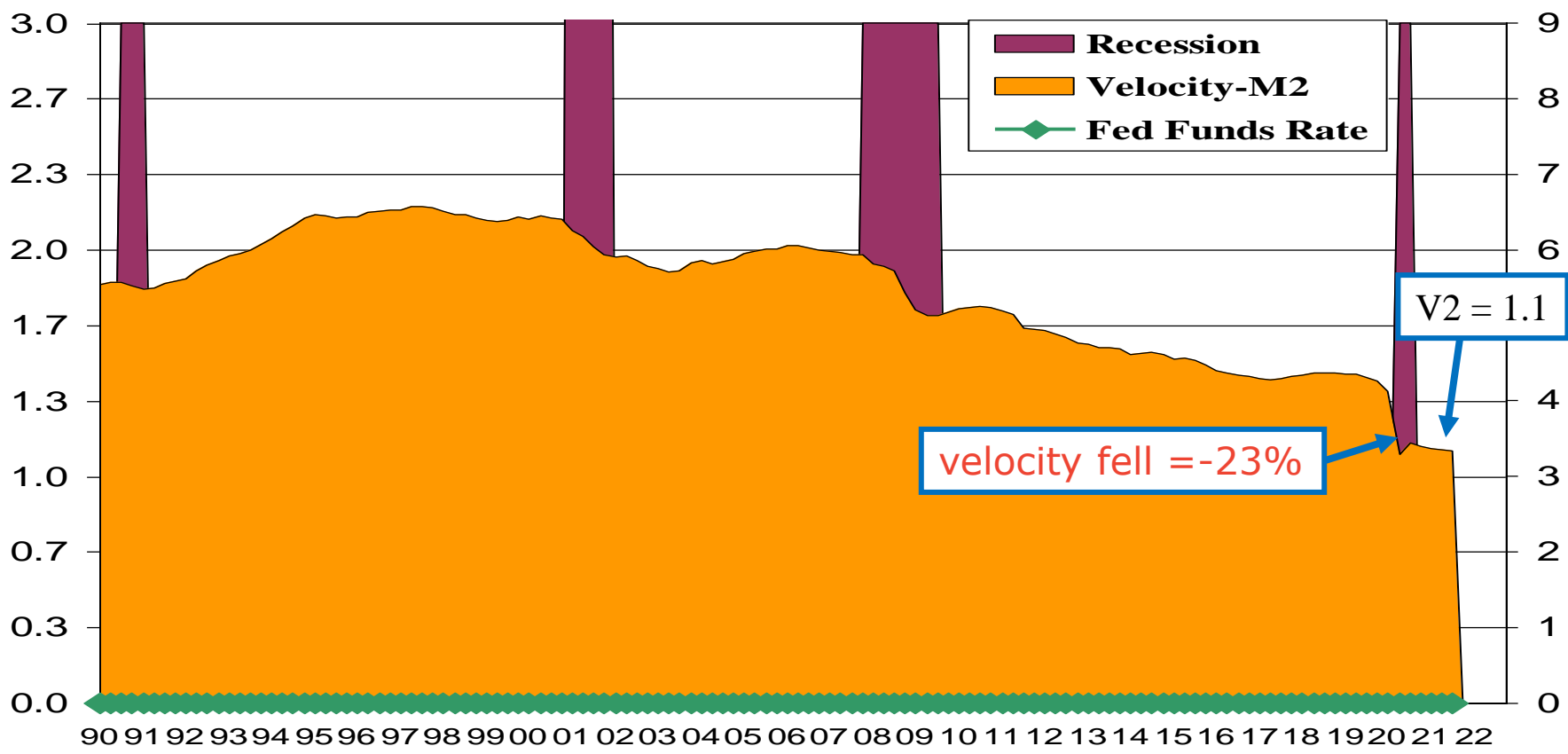
Source: CBO & Federal Reserve.

Velocity of Circulation vs. Federal Funds Rate



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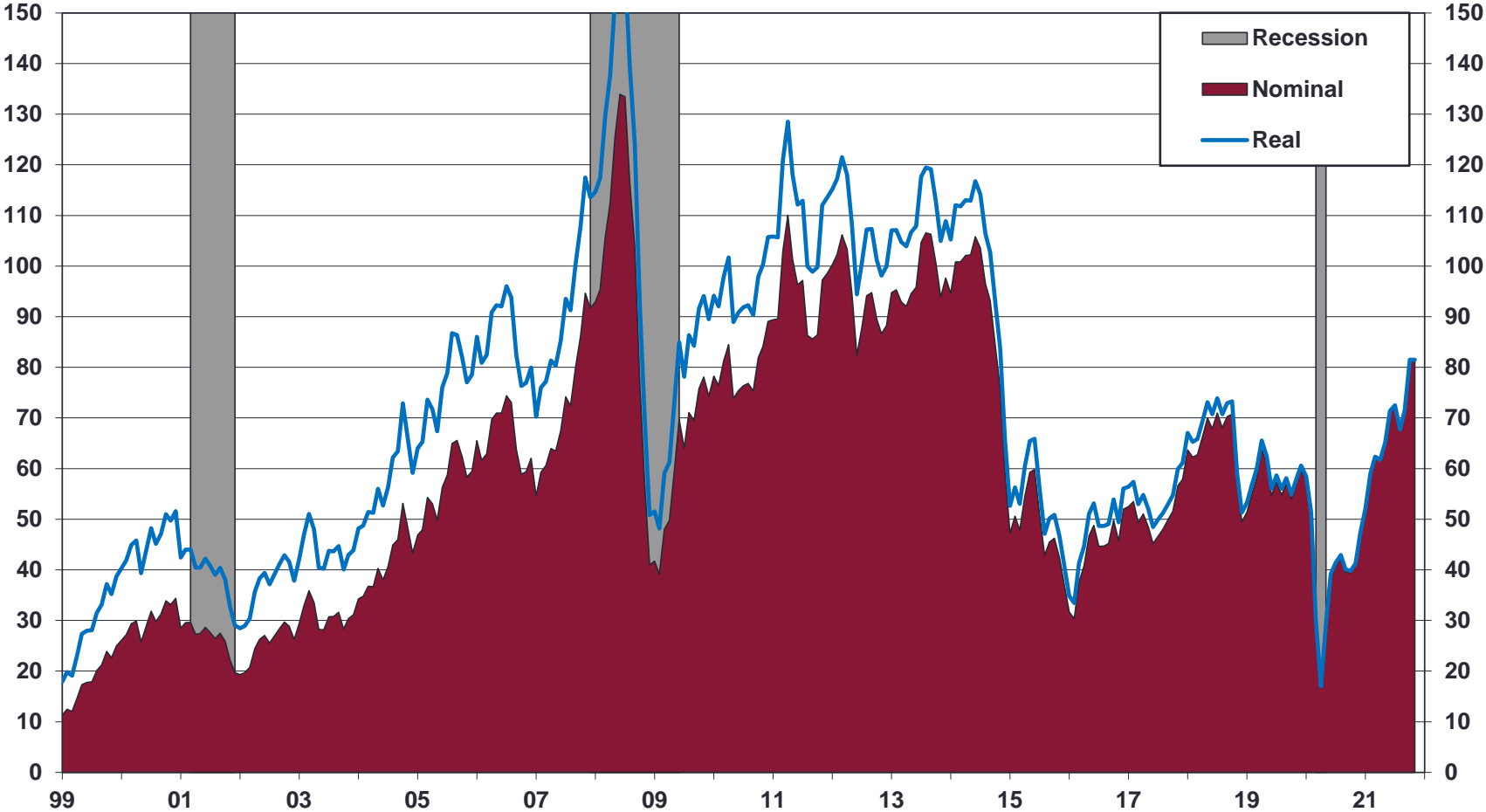
Velocity of Circulation vs. Federal Funds Rate



Source: CBO & Federal Reserve.

Rising Oil Prices are Leading to Higher Inflation

Oil Price per Barrel
(West Texas Intermediate Crude)



U.S. Oil Market

Supply Side Effects:

1. U.S. crude oil production = 12.1 m bpd (world's biggest)
2. OPEC supply constraints => ↓ output
3. ↑ price of natural gas => utilities substitute oil for natural gas
4. Tight absolute and relative inventory => ↑ oil prices
5. Strategic Petroleum Reserve = 600 million barrels

Demand Side Effects:

1. U.S. crude oil consumption = 19.7 m bpd
2. COVID-19 Recession ending => swift increase oil demand
3. ↑ Dollar => ↑ P_{oil} for overseas buyers => ↓ D_{oil}

U.S. Shale Oil Revolution => Hedged Economy

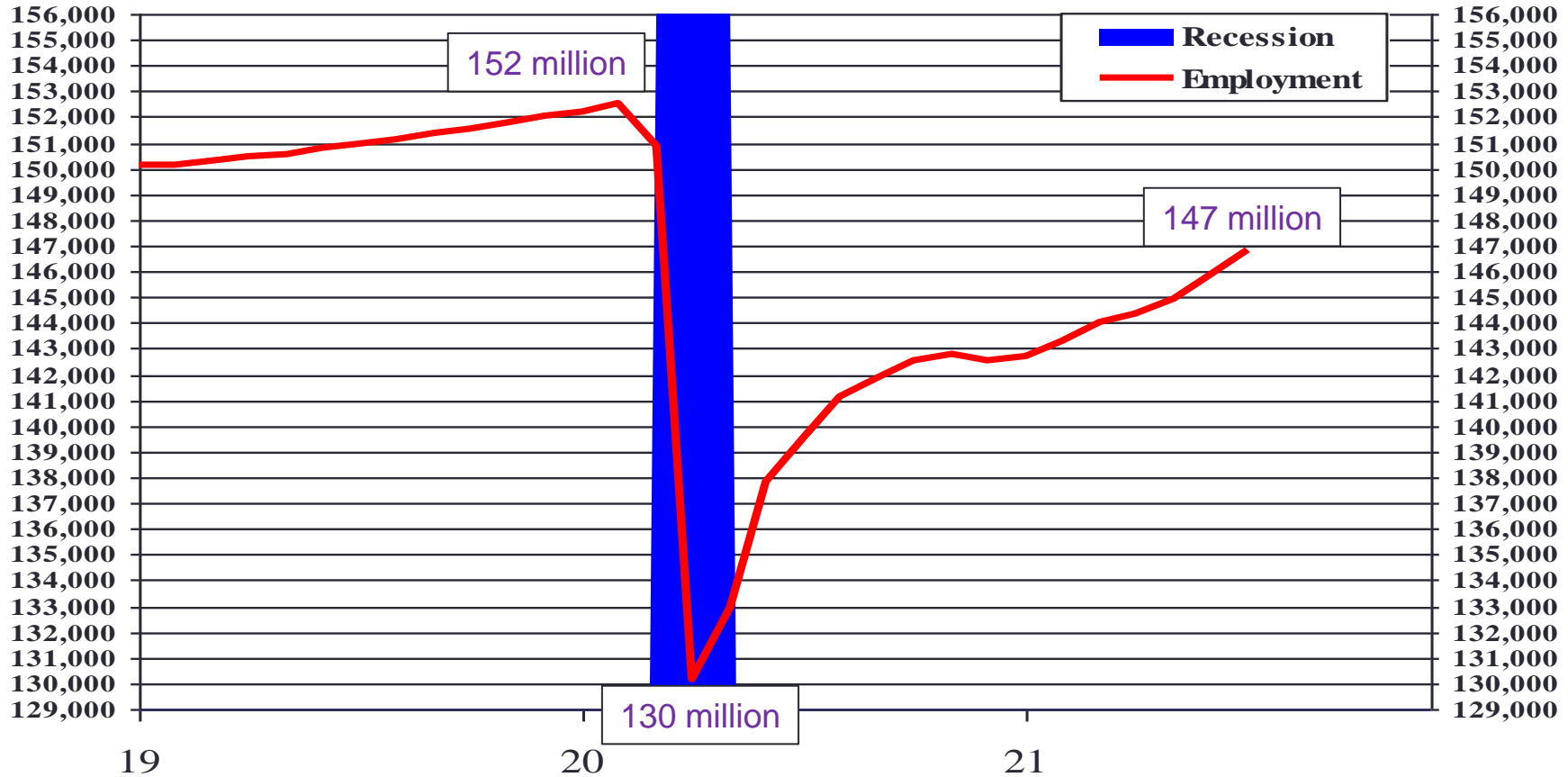
↑ price oil => Benefit oil Producers,....but hurt oil Consumers

Higher oil prices:

1. Slows global economic growth
2. Increase the incentive to conserve
3. Increase energy exploration => ↑ oil rig count by 10 to 543
4. Increase inflationary pressure => accelerate Fed. Res. rate increases

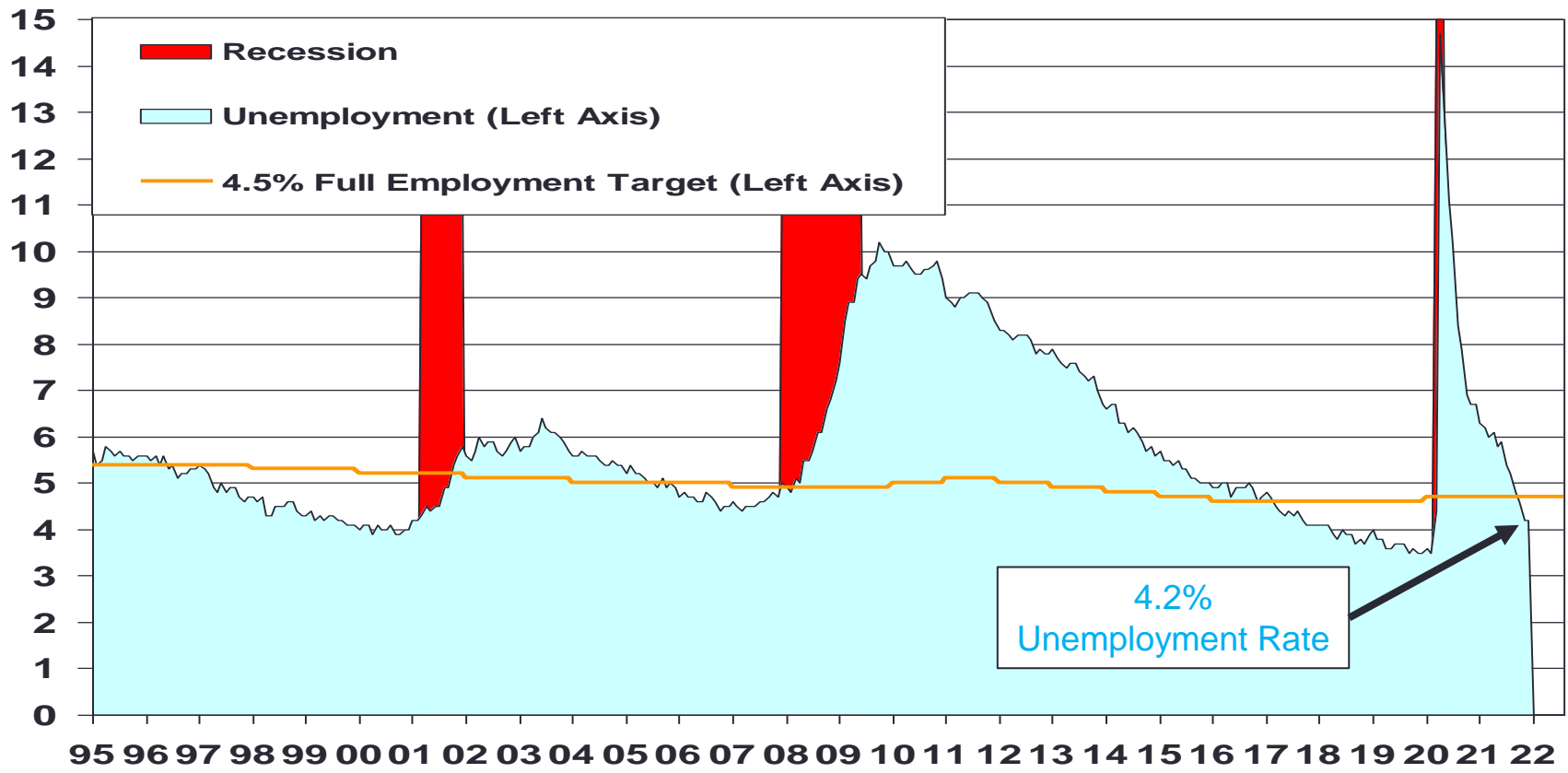
5 million Few Americans Working Today Compared to February 2020's 152.5 million

Total Nonfarm Employment (Thousands, SA)



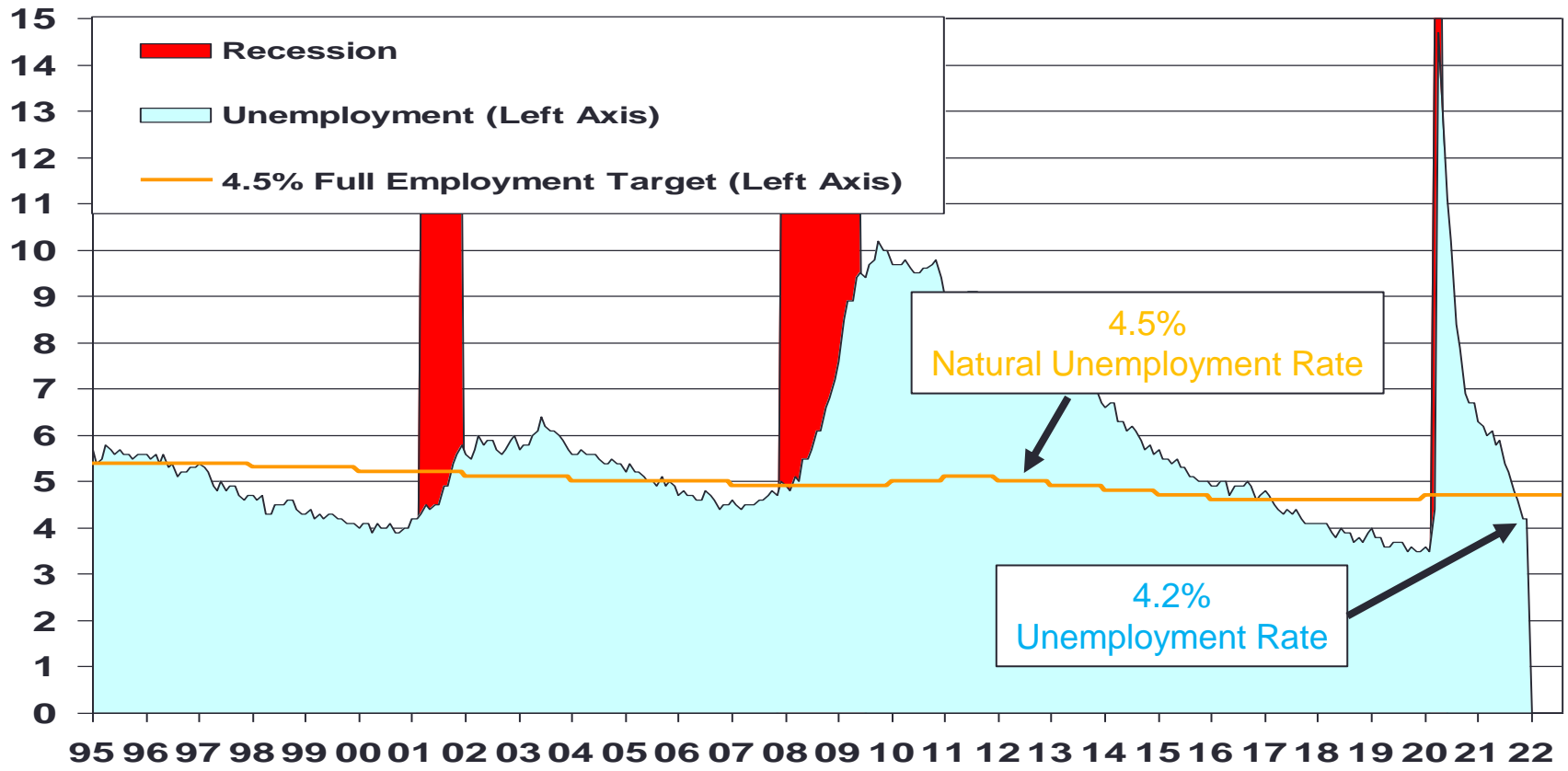
Unemployment Rate Below Natural Unemployment Rate

CU Delinquency Rate Versus Unemployment Rate



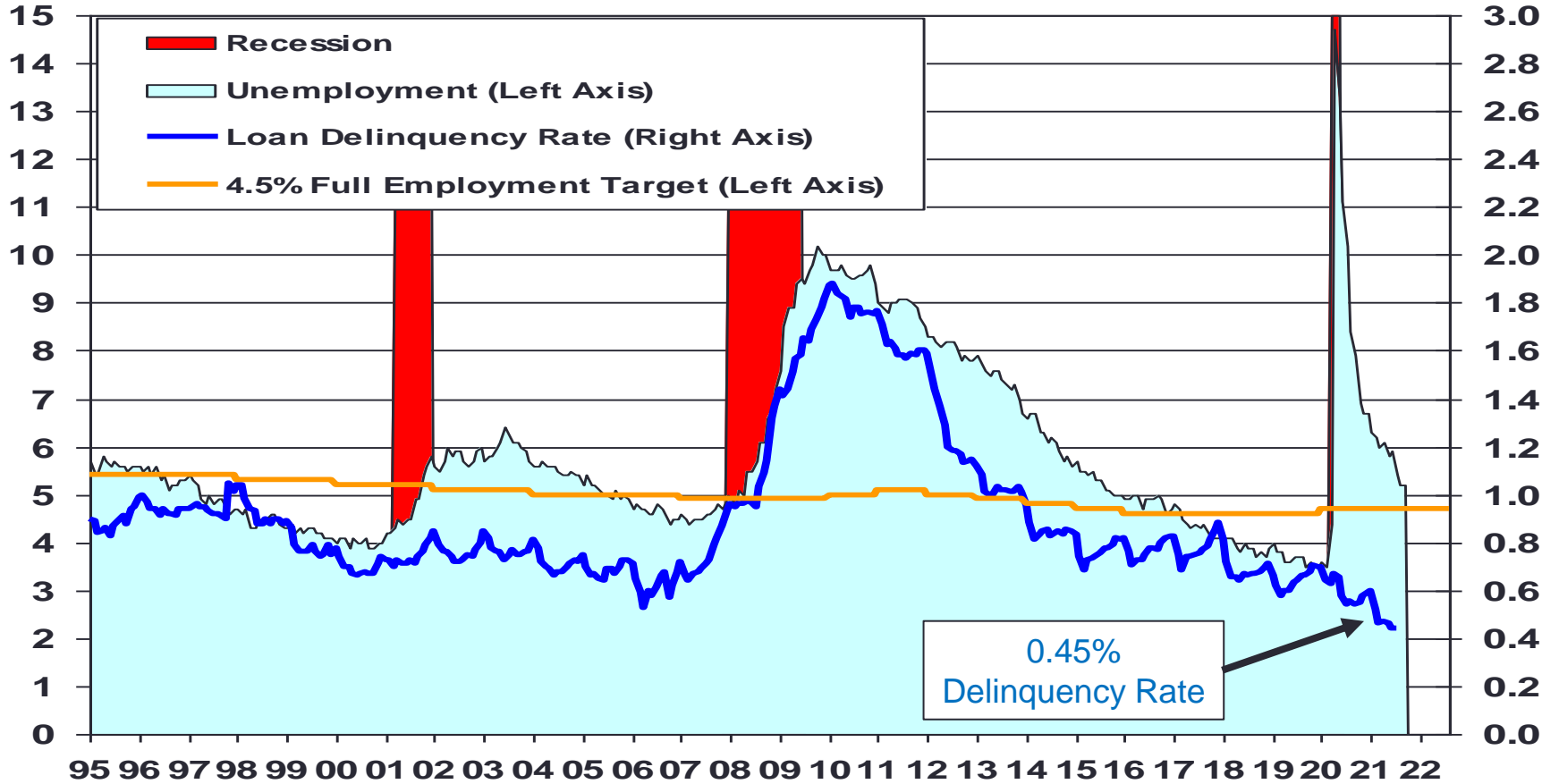
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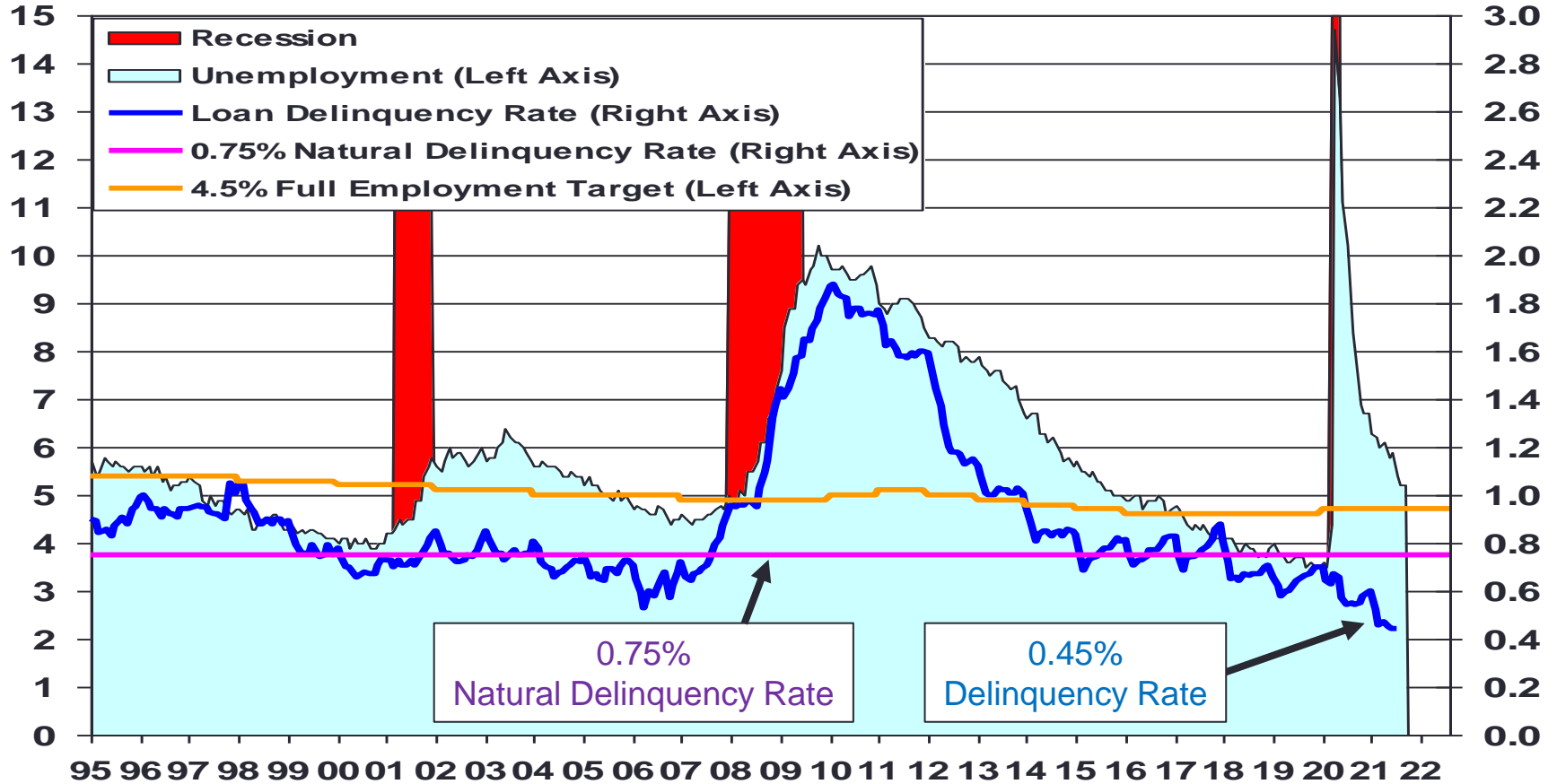
CU Loan Delinquency Rates at Record Lows

CU Delinquency Rate Versus Unemployment Rate



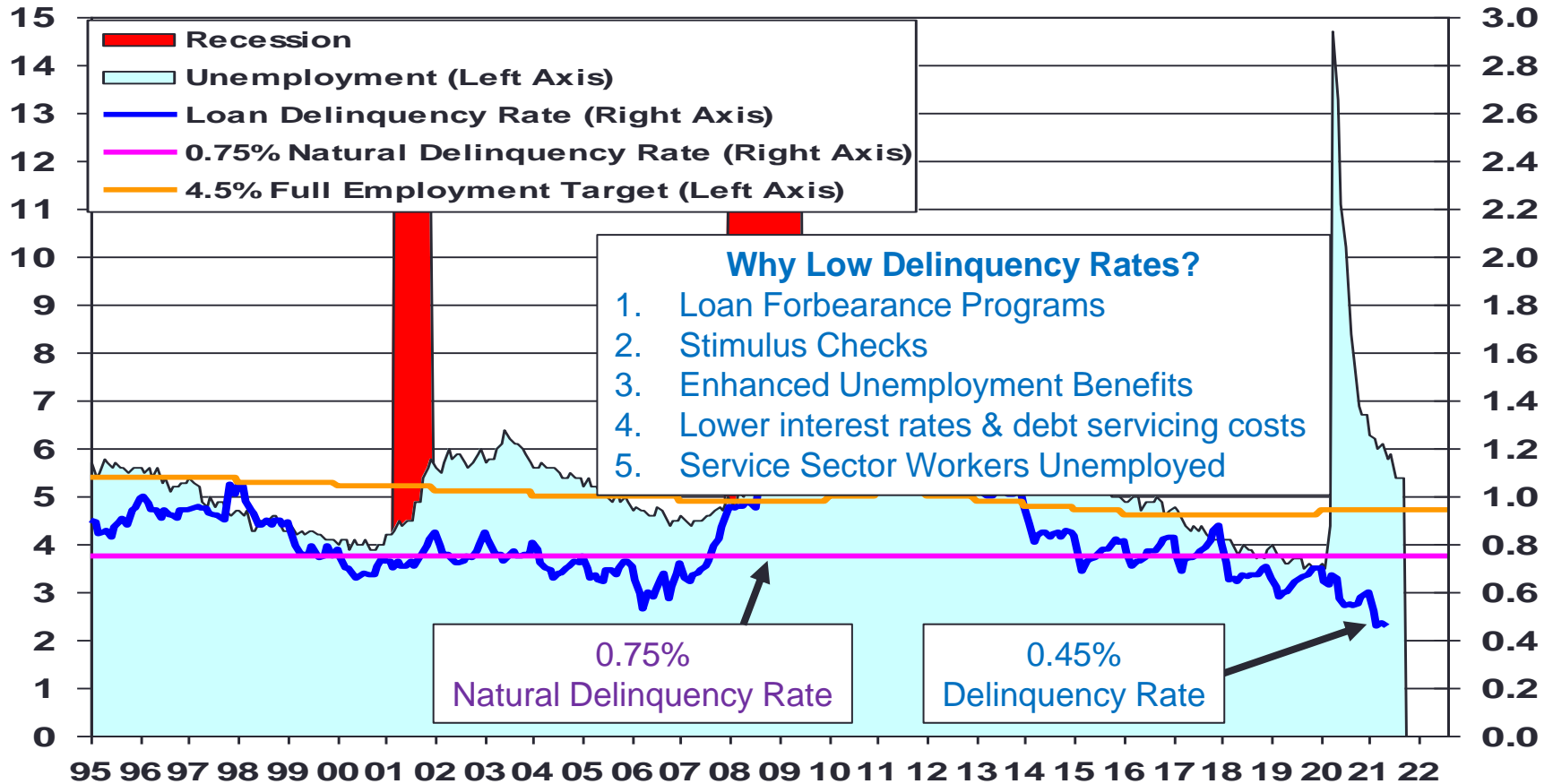
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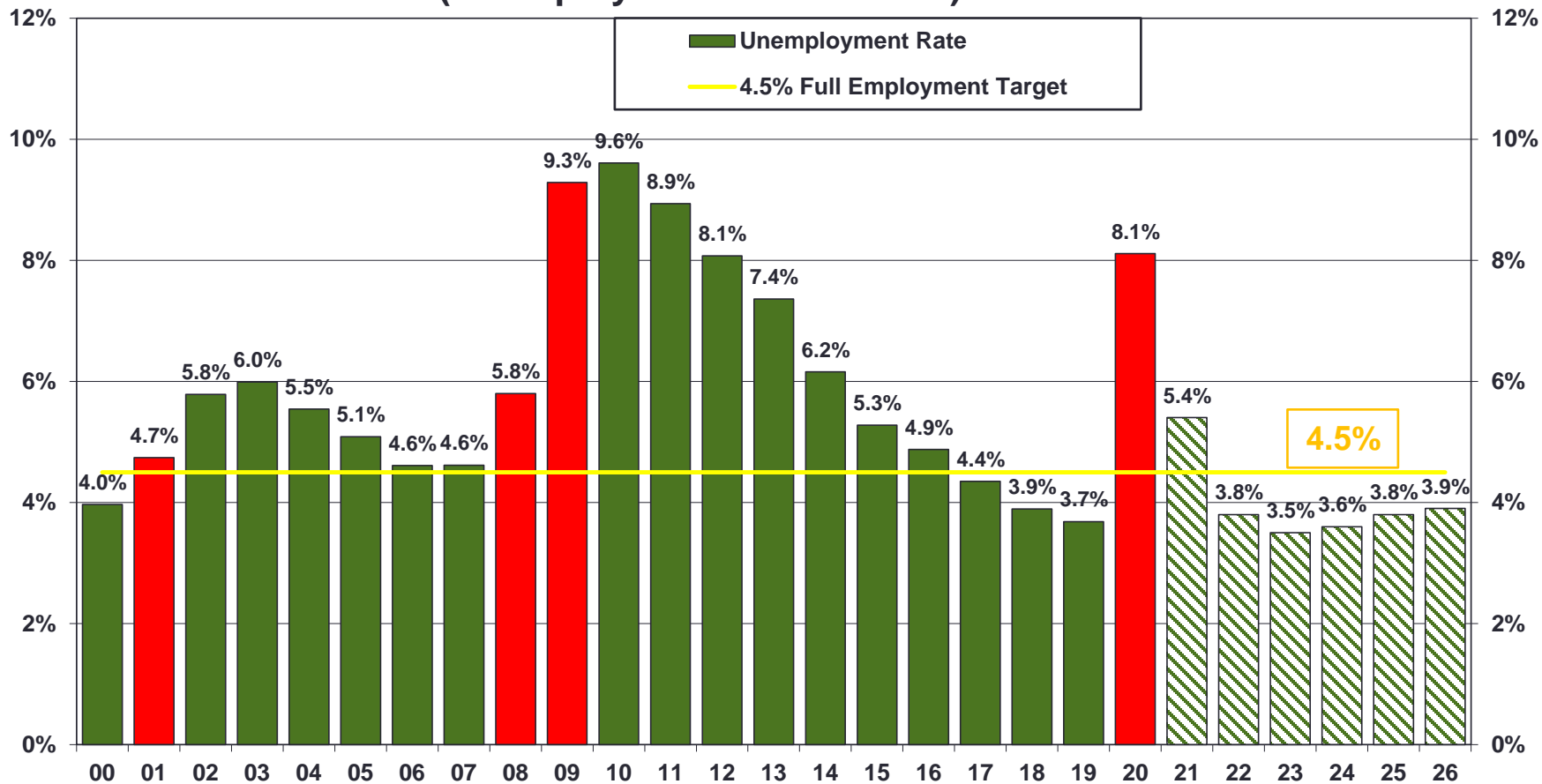
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CU Delinquency Rate Versus Unemployment Rate



Unemployment Rate Below Normal for Next 5 Years

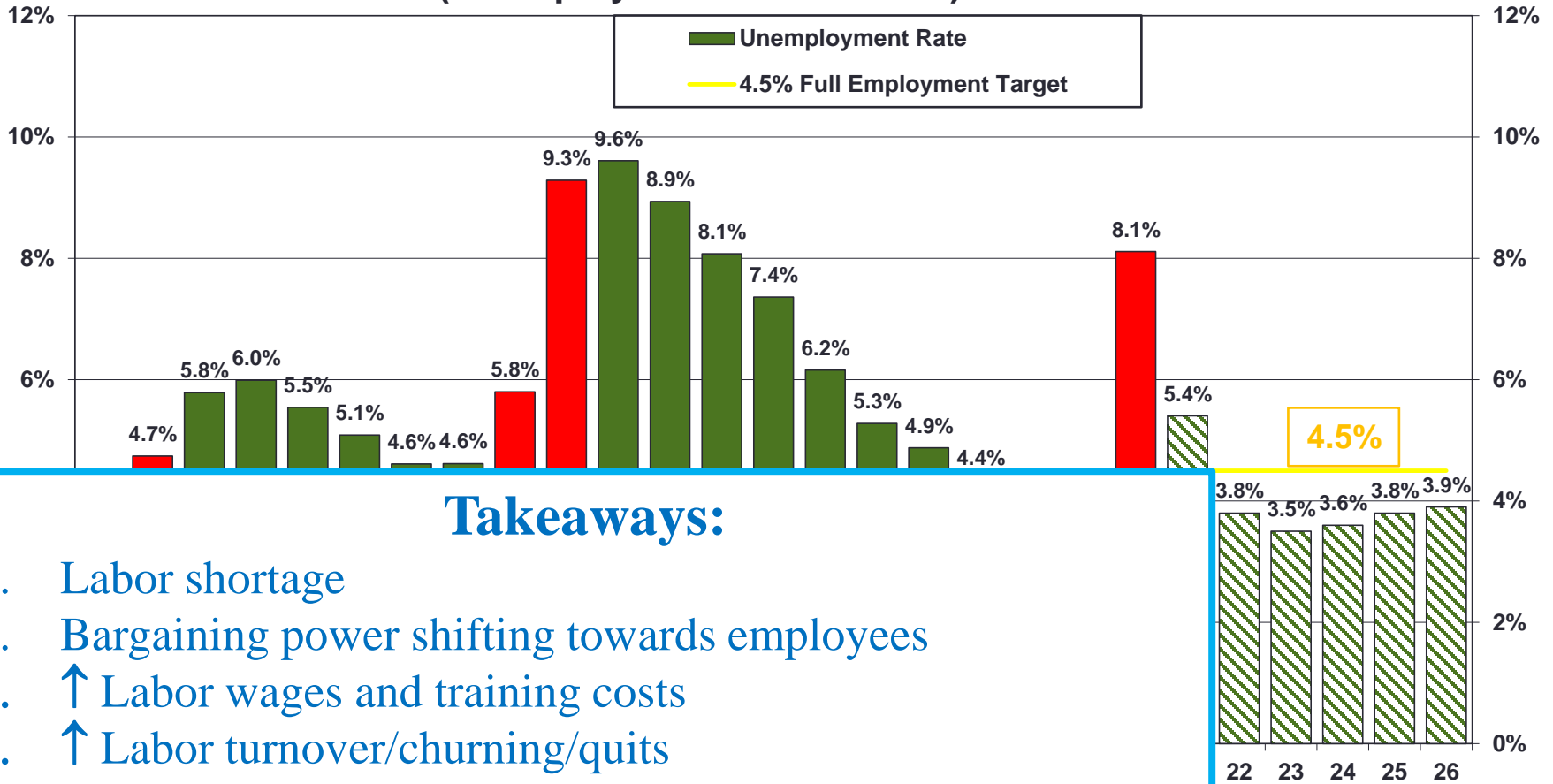
Unemployment Rate (Unemployed to Labor Force)



Source: Department of Commerce

Unemployment Rate Below Normal for Next 5 Years

Unemployment Rate (Unemployed to Labor Force)



Takeaways:

1. Labor shortage
2. Bargaining power shifting towards employees
3. ↑ Labor wages and training costs
4. ↑ Labor turnover/churning/quits
5. Record low bankruptcy filings
6. Two years for Labor Force participation rate to bounce back

**What is the most important
price in any economy?**

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price in any economy?**

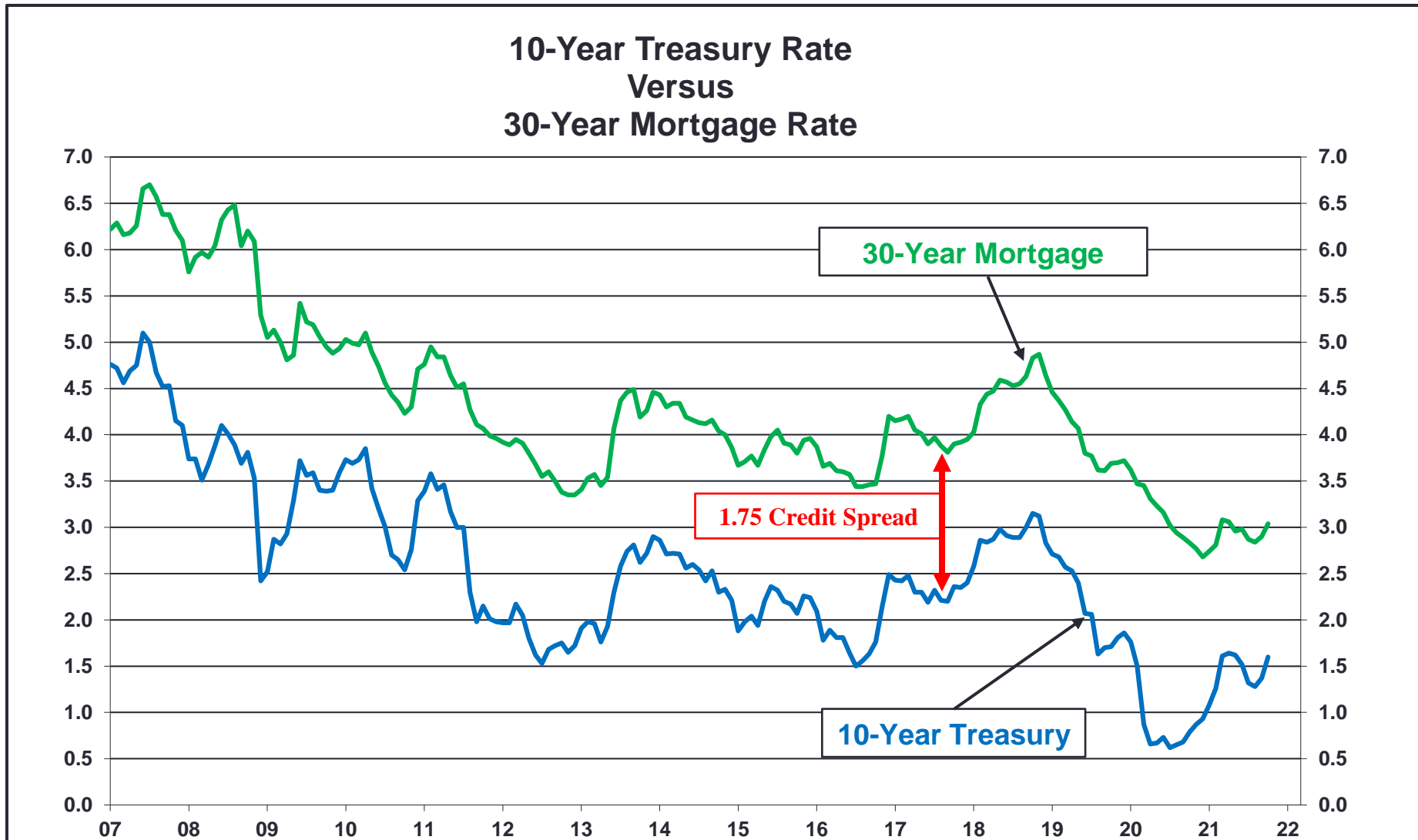
The Price of Money

**What is the most important
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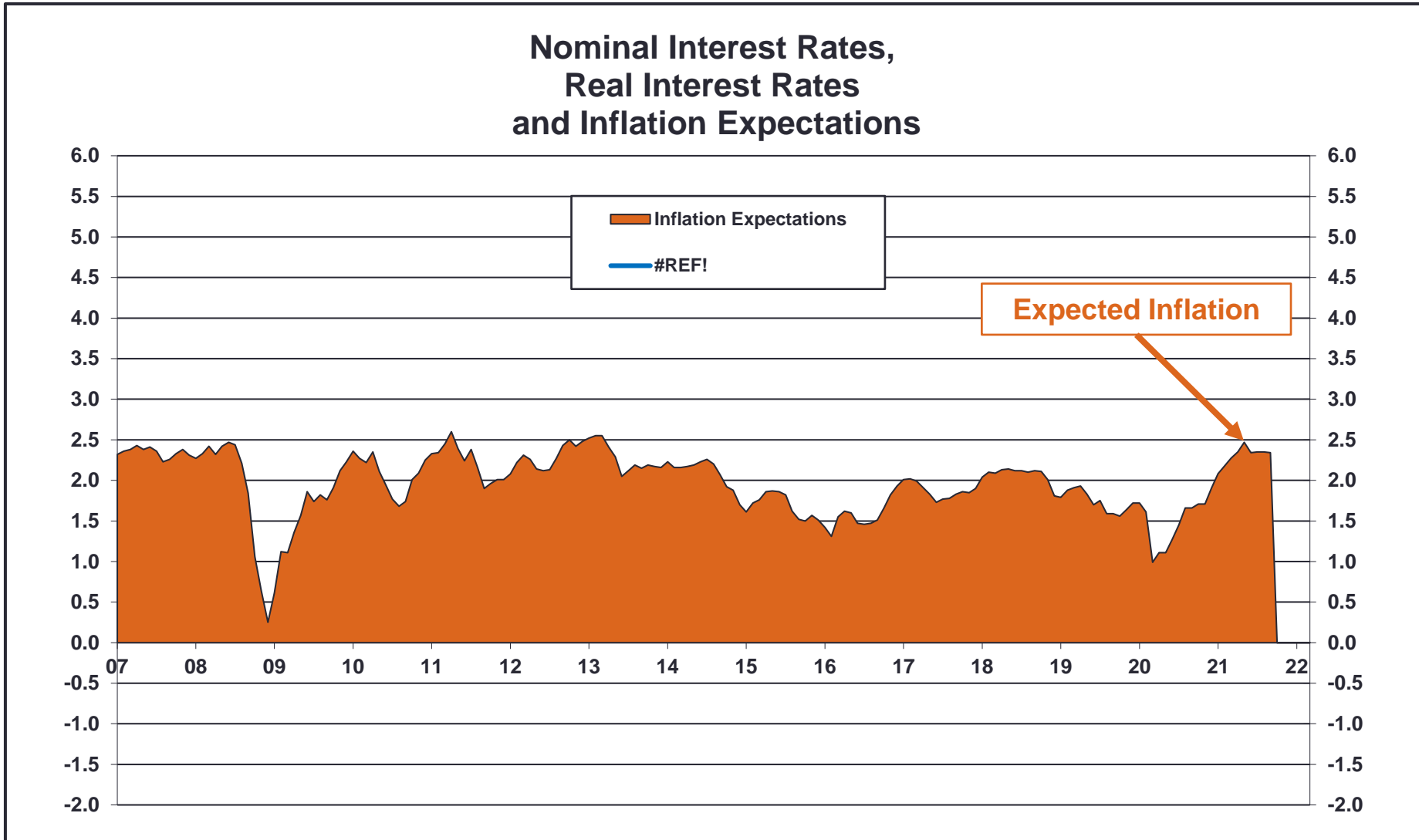
The Price of Money

Interest Rates

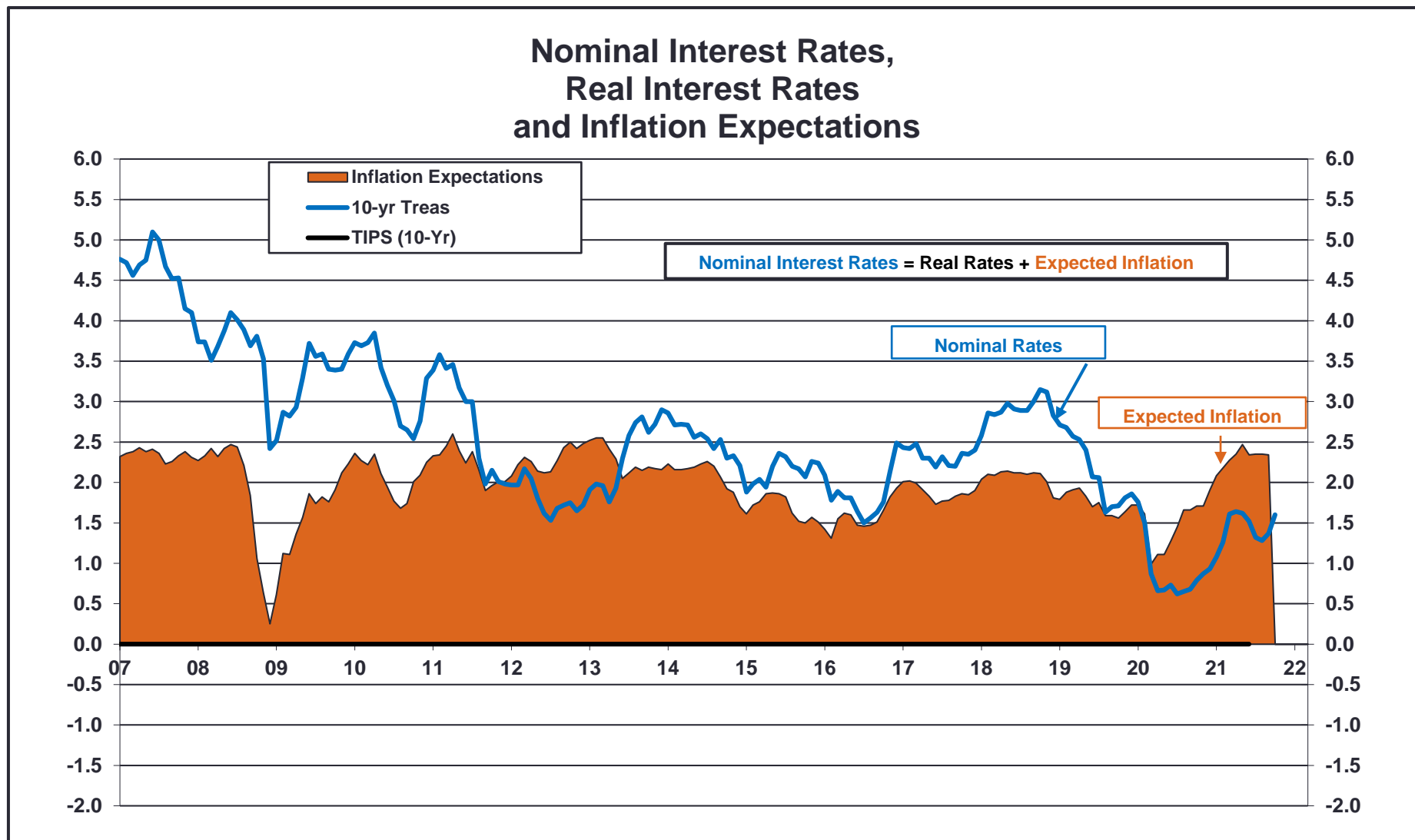
Rising Real Interest Rates, and Rising Inflation Expectations will Push Up Nominal Interest Rates



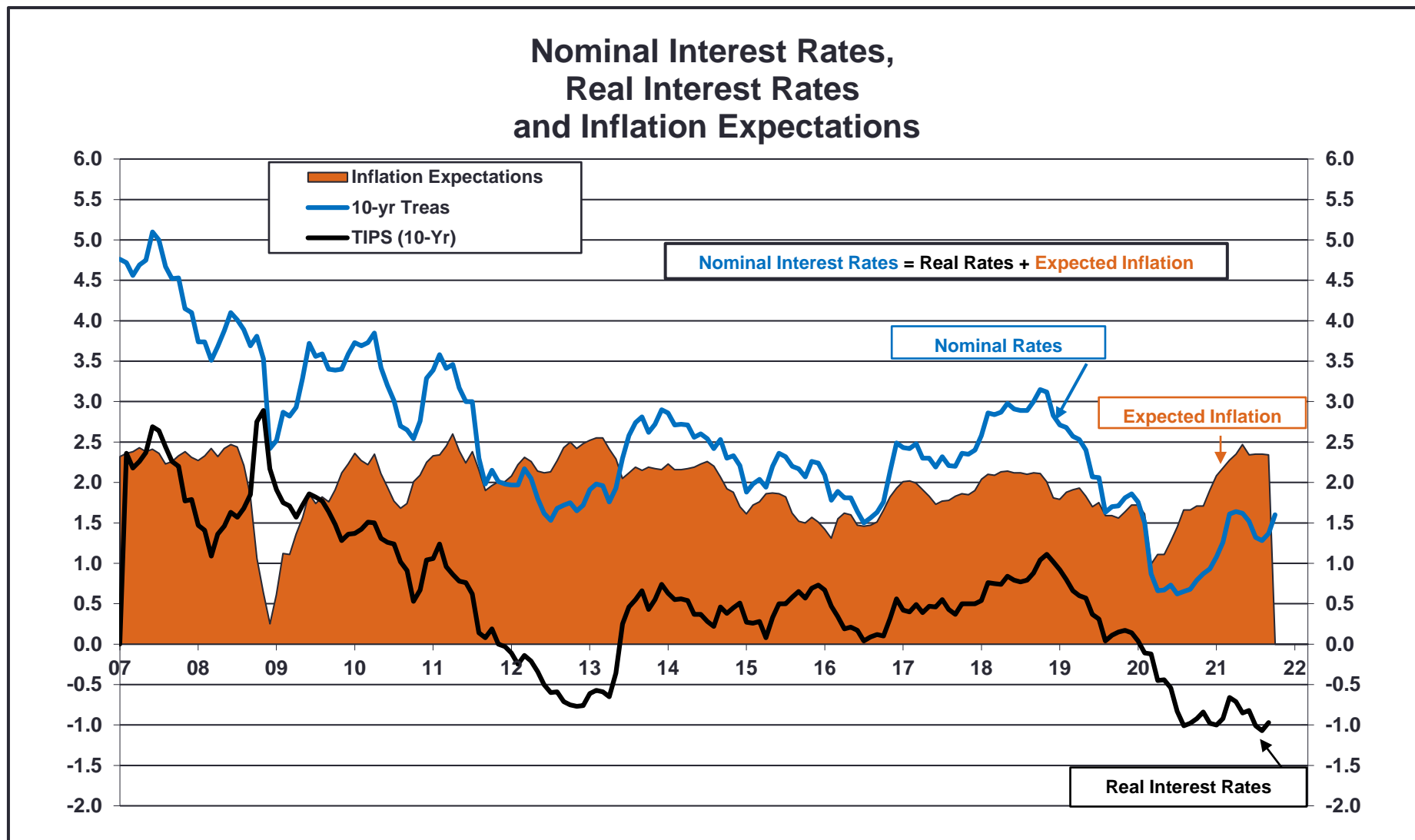
Rising Inflation Expectations are Pushing Up Nominal Interest Rates



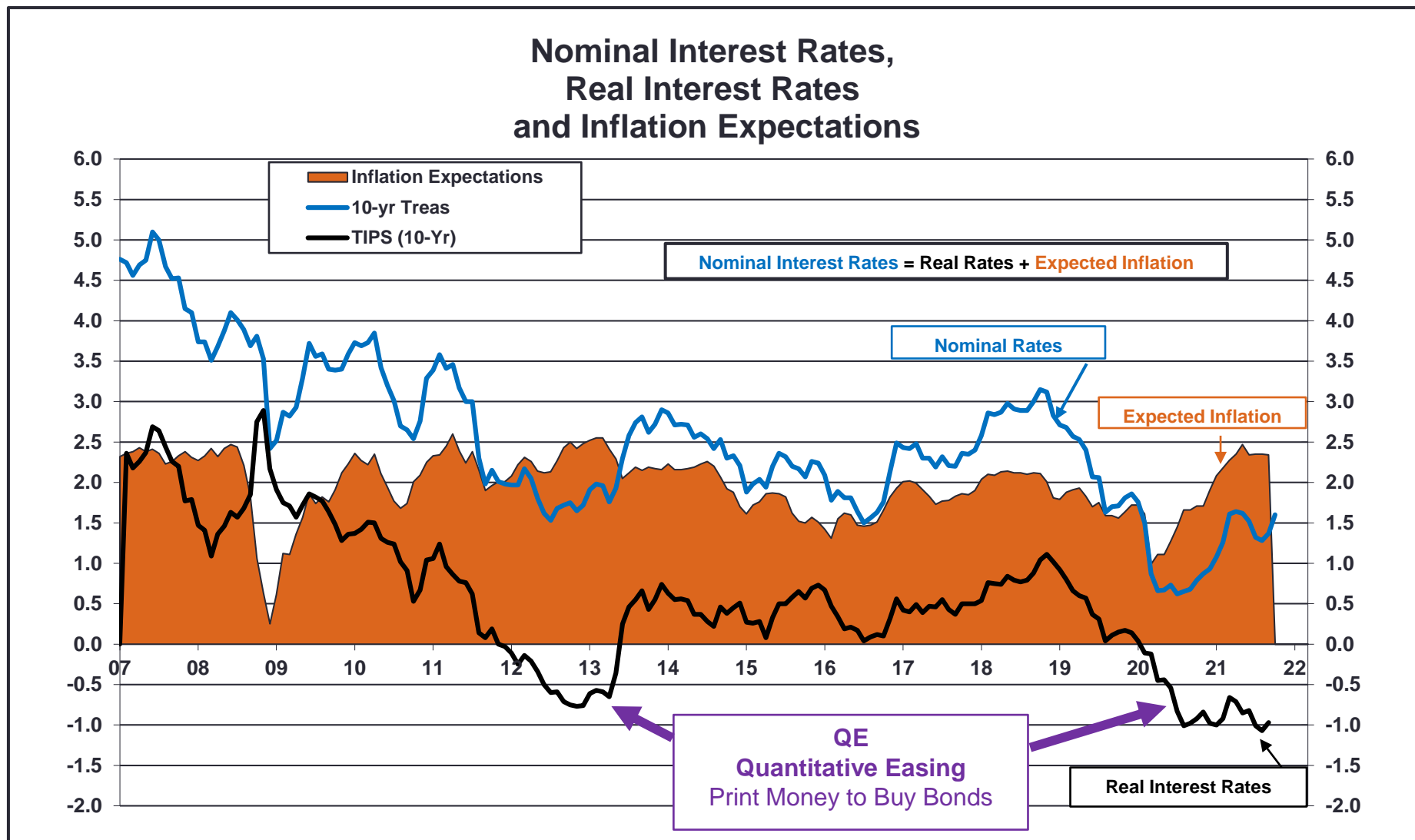
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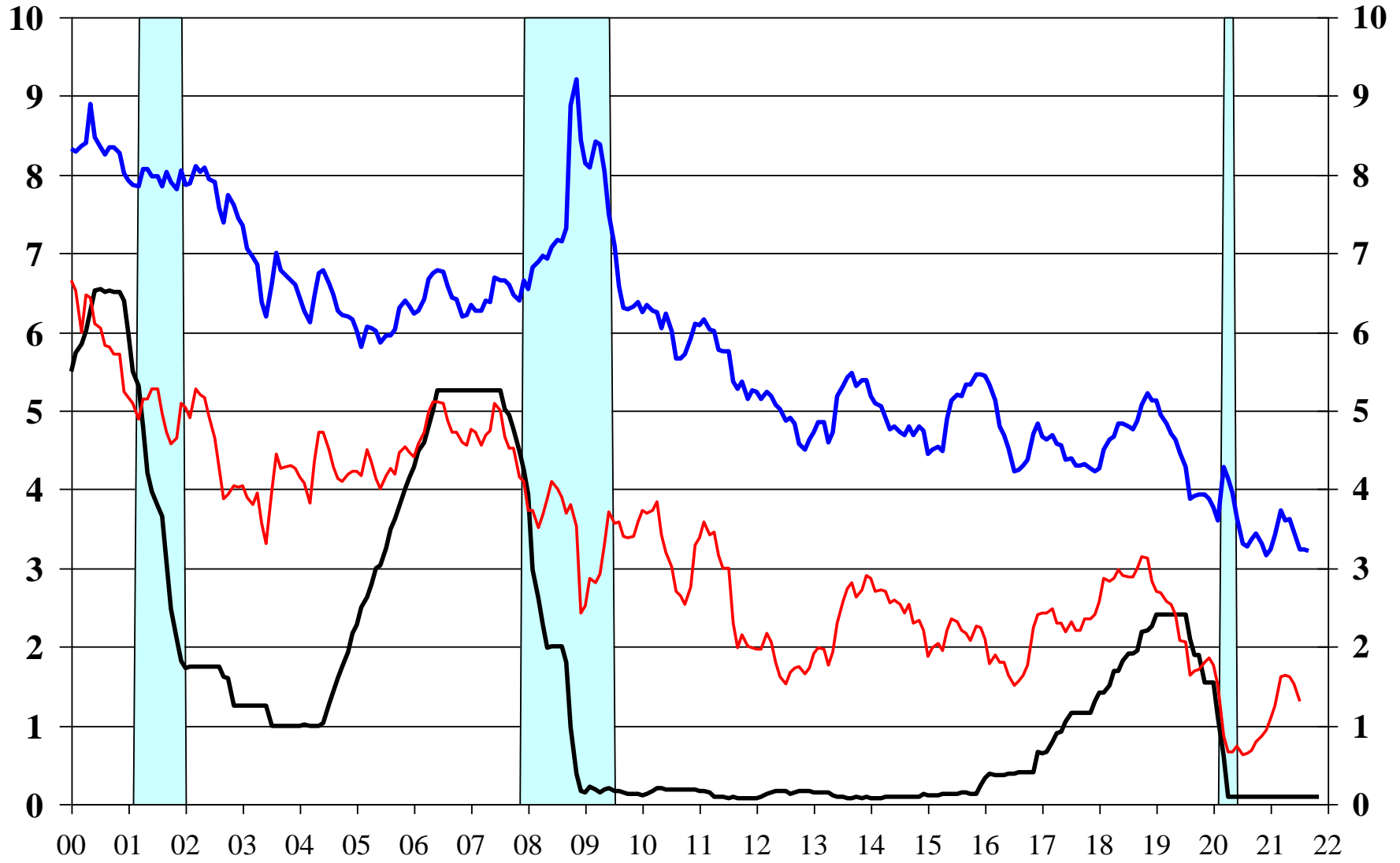
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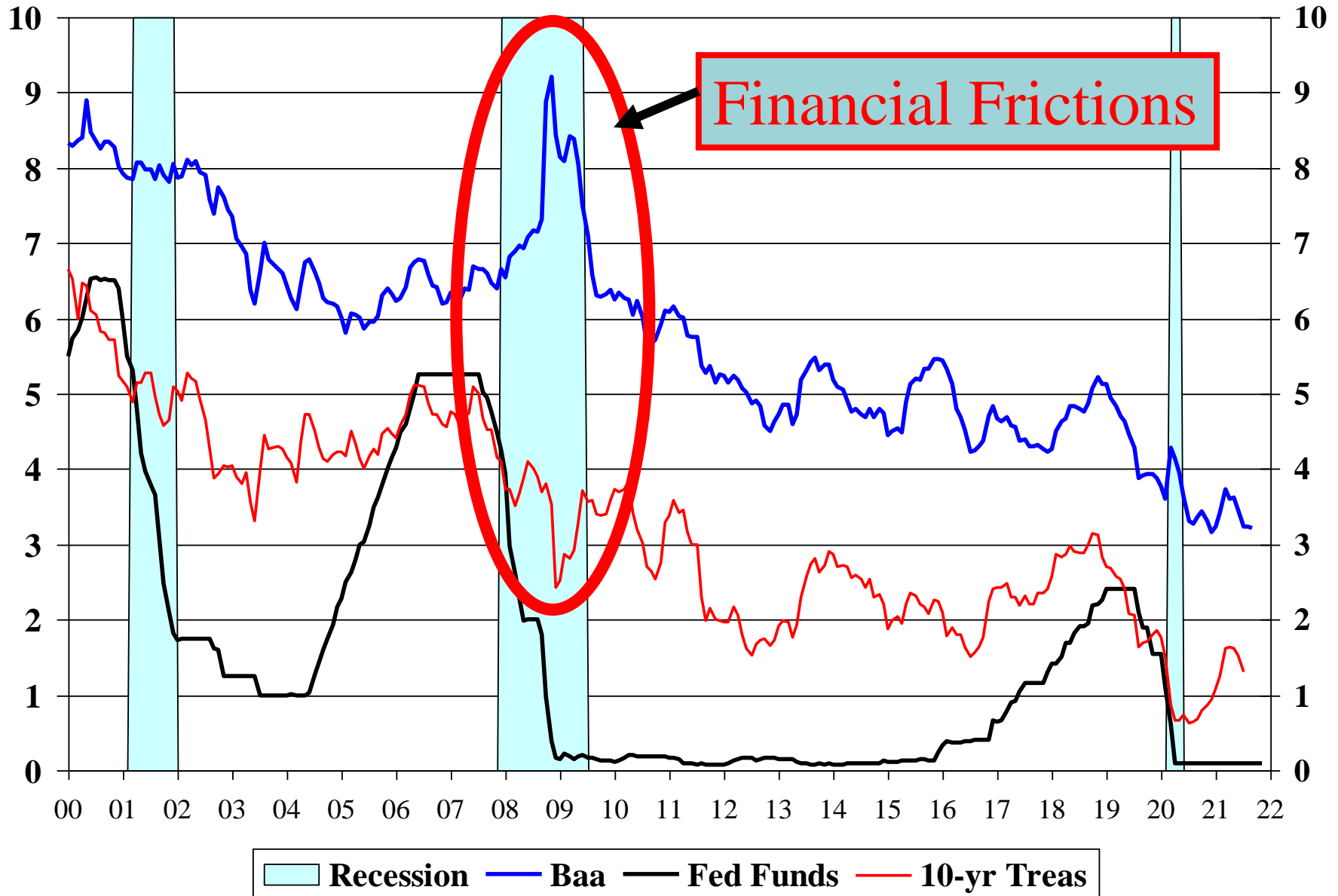


Interest Rates and Recessions

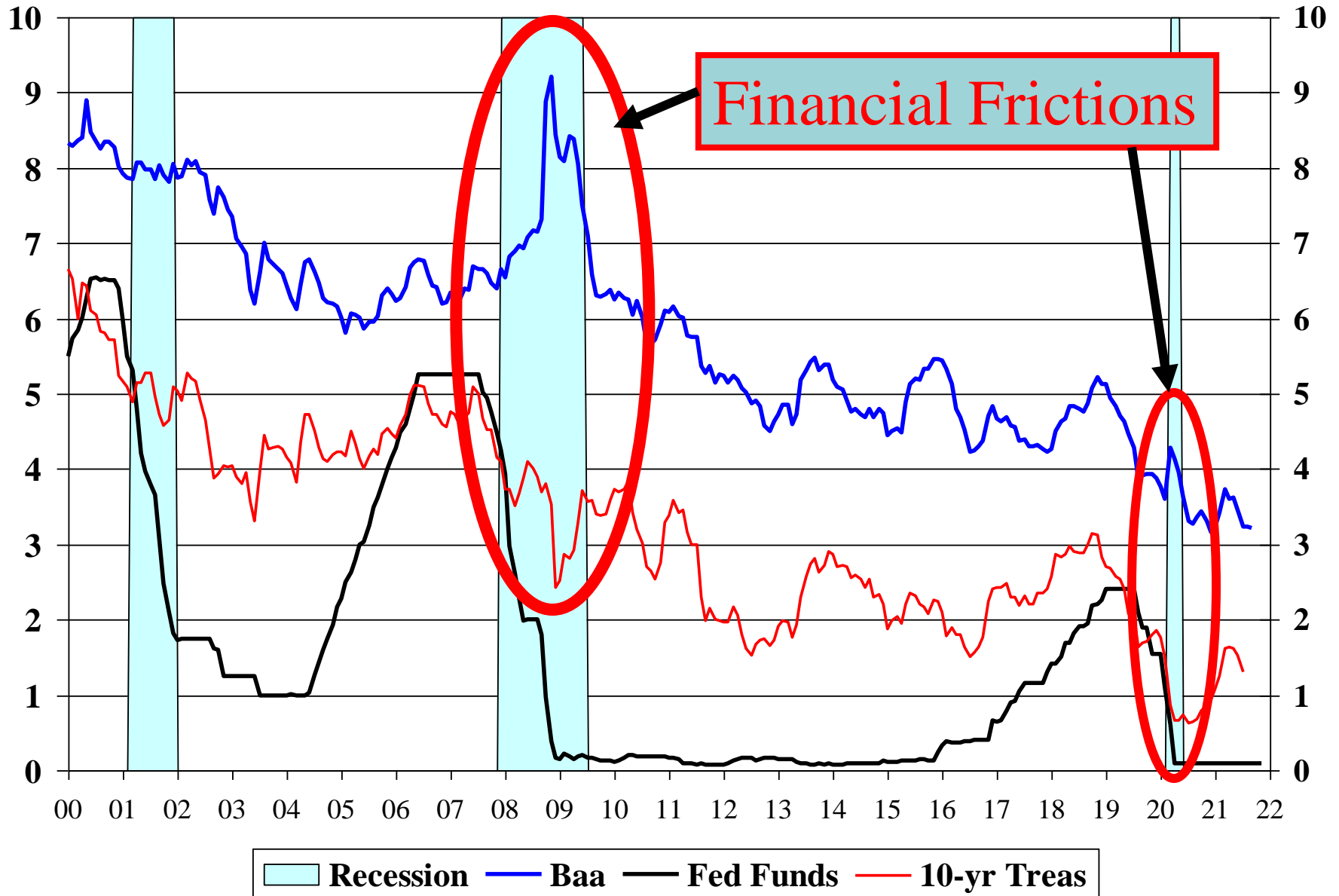


Recession Baa Fed Funds 10-yr Treas

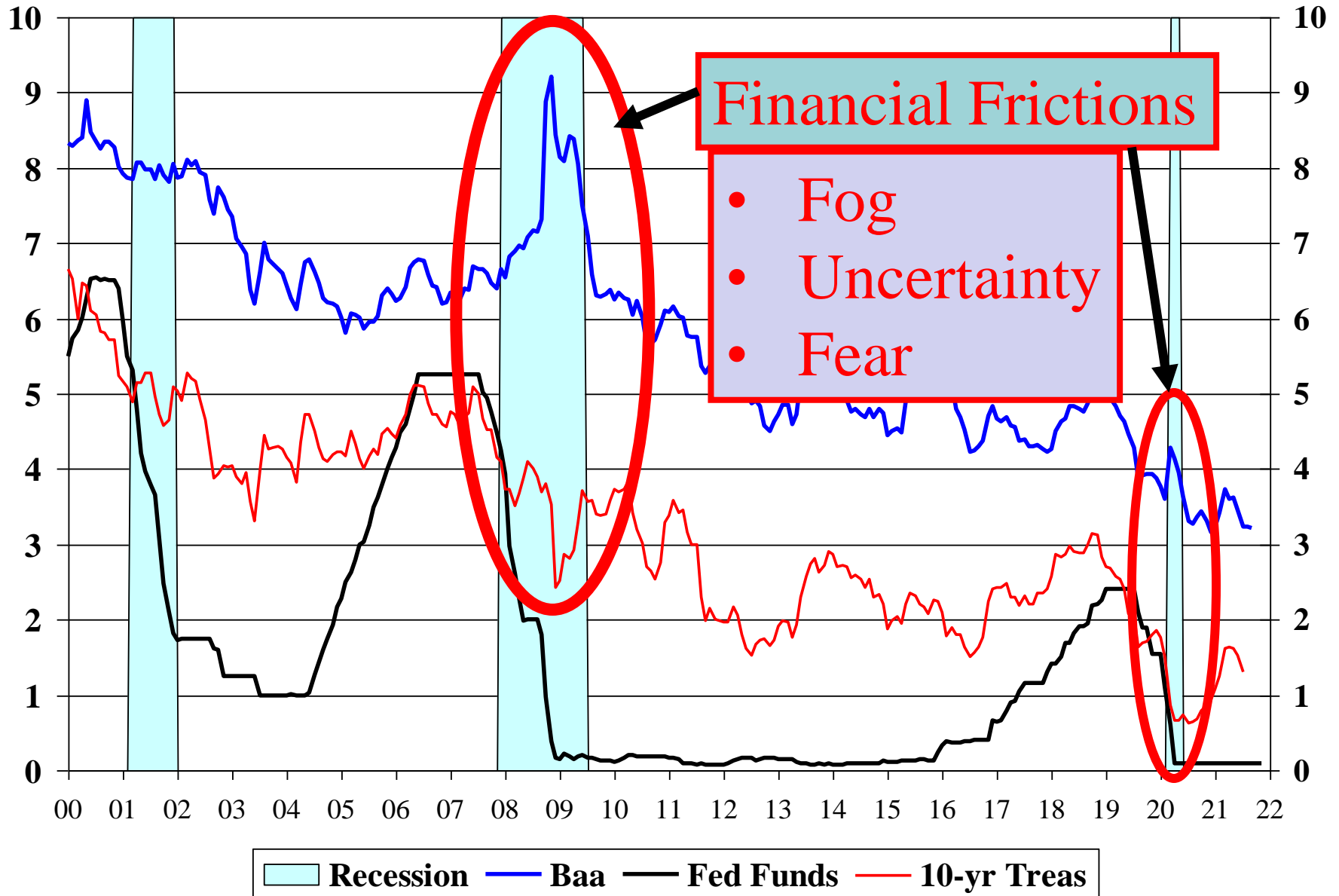
Interest Rates and Recessions



Interest Rates and Recessions

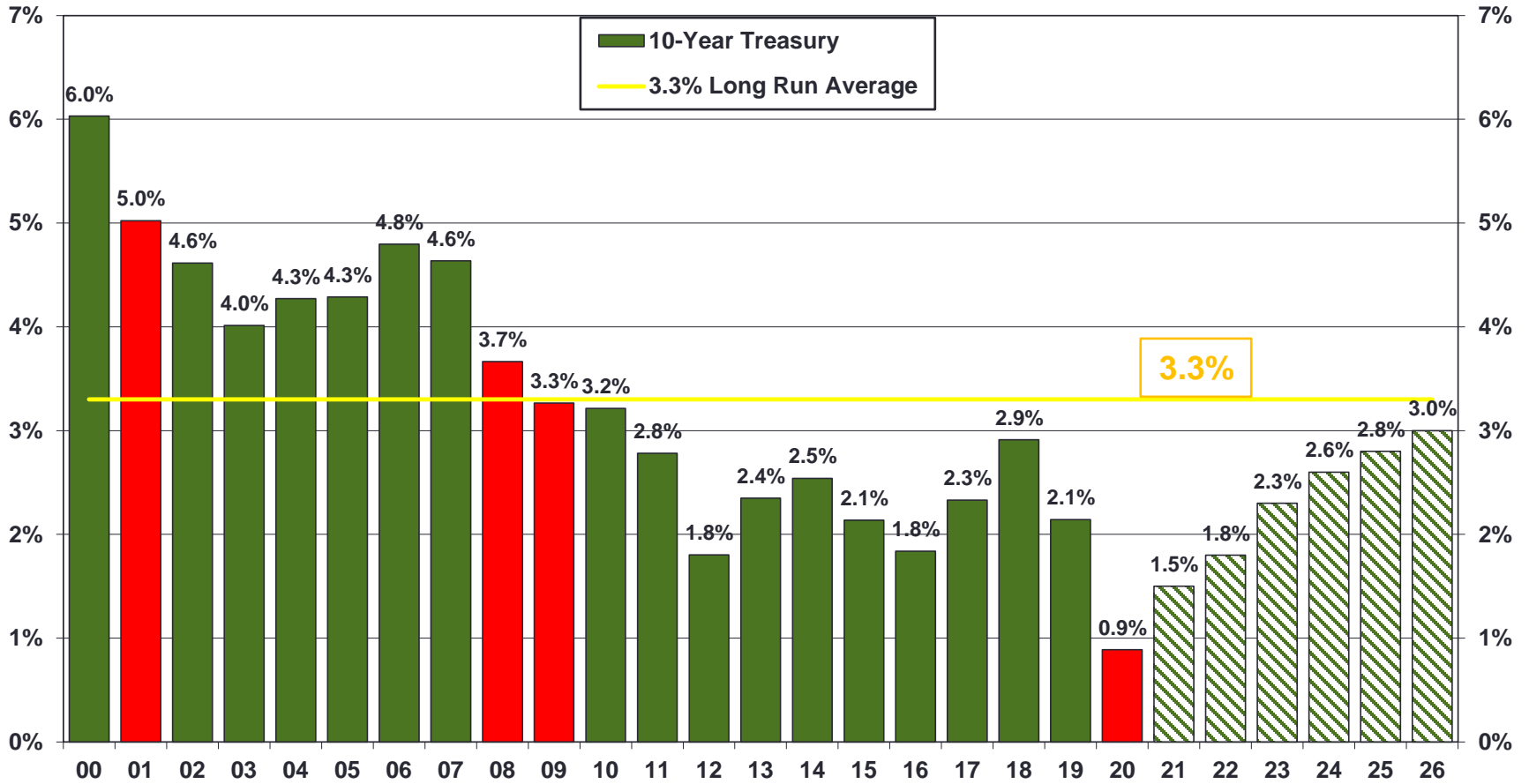


Interest Rates and Recessions



Long-term Interest Rates Rising but Still Low

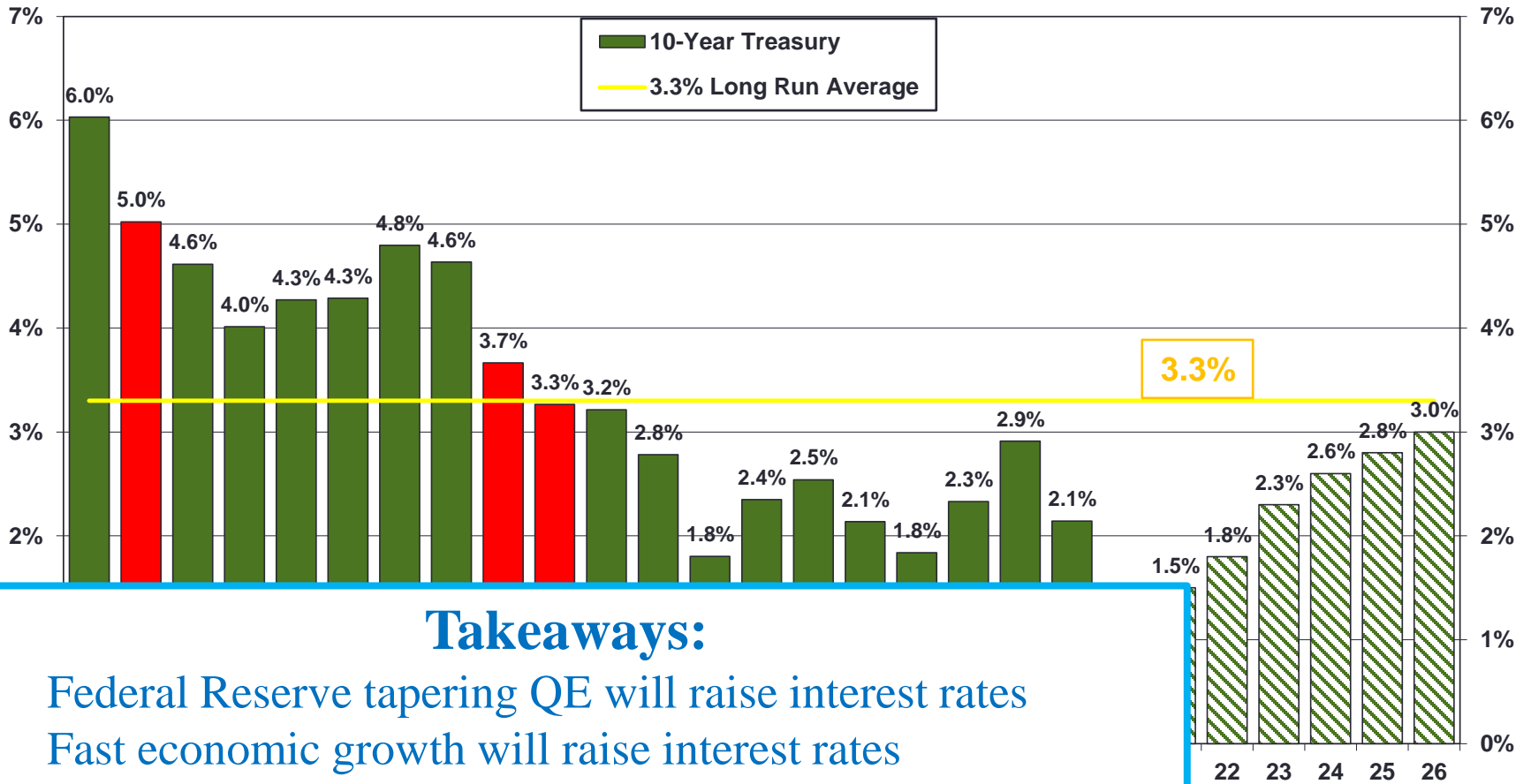
10-Year Treasury Interest Rates



Source: Department of Commerce

Long-term Interest Rates Rising but Still Low

10-Year Treasury Interest Rates

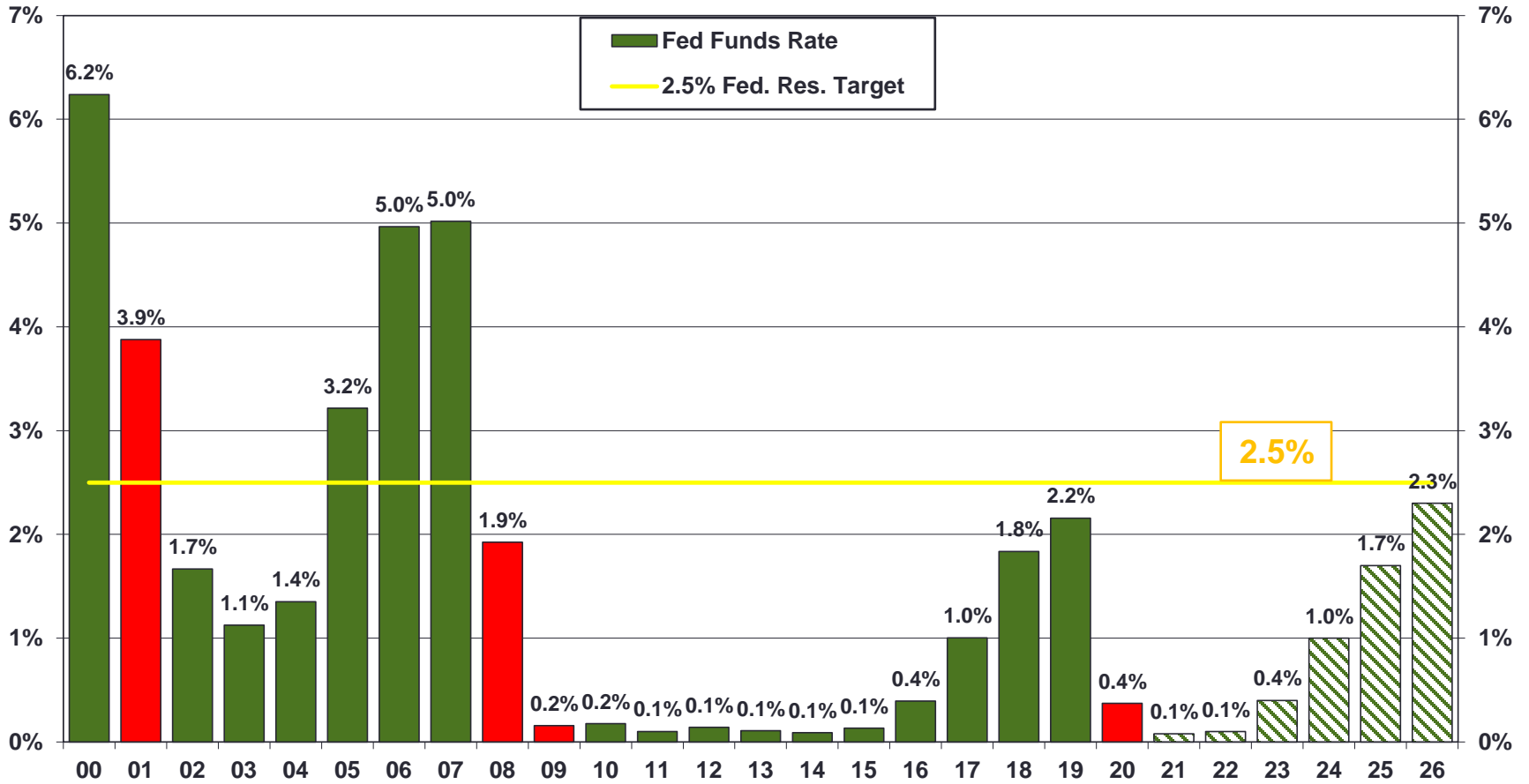


Takeaways:

1. Federal Reserve tapering QE will raise interest rates
2. Fast economic growth will raise interest rates
3. Interest rates below normal during the 5-year horizon

Short-term Interest Rates Rising but Still Low

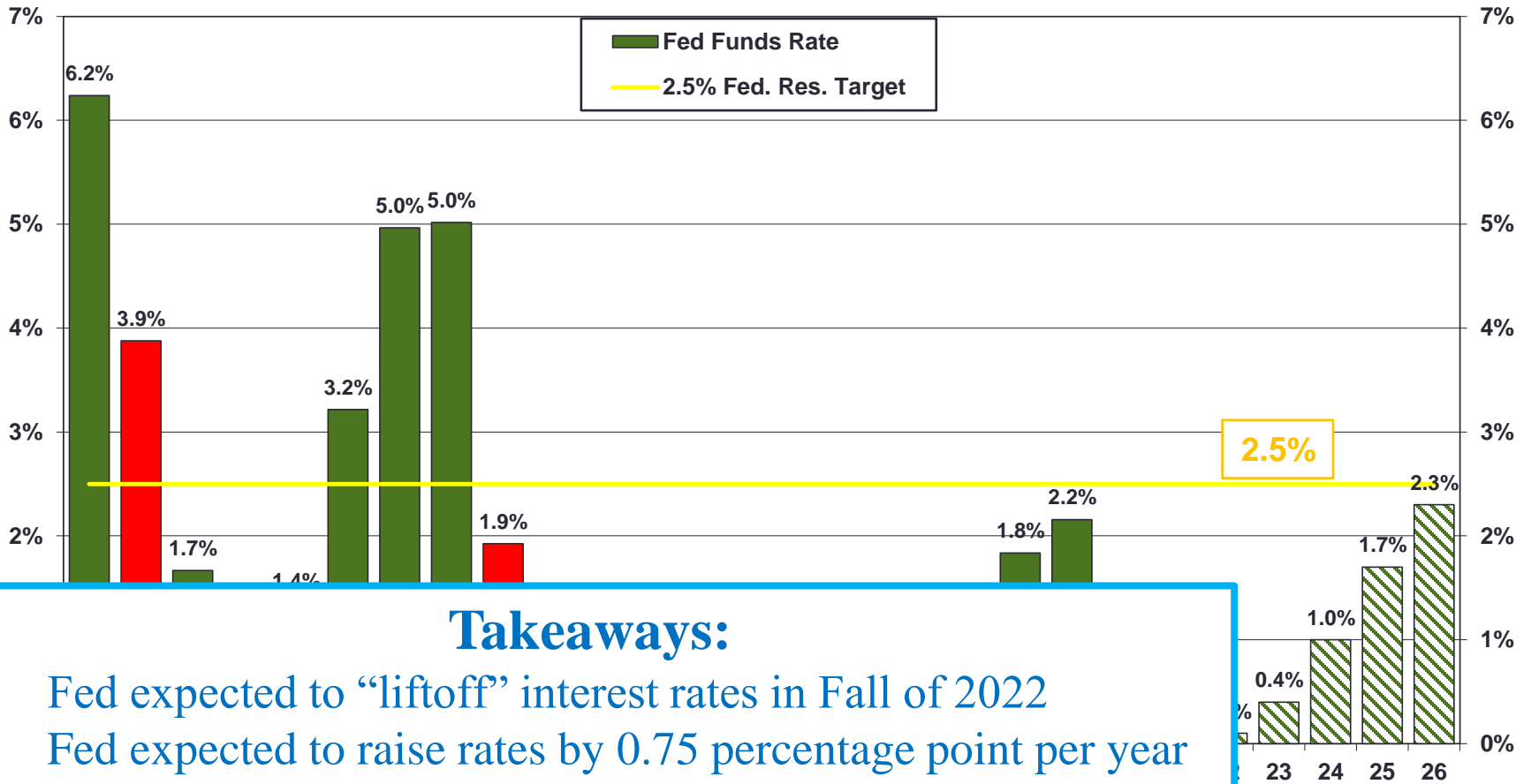
Fed Funds Interest Rate



Source: Department of Commerce

Short-term Interest Rates Rising but Still Low

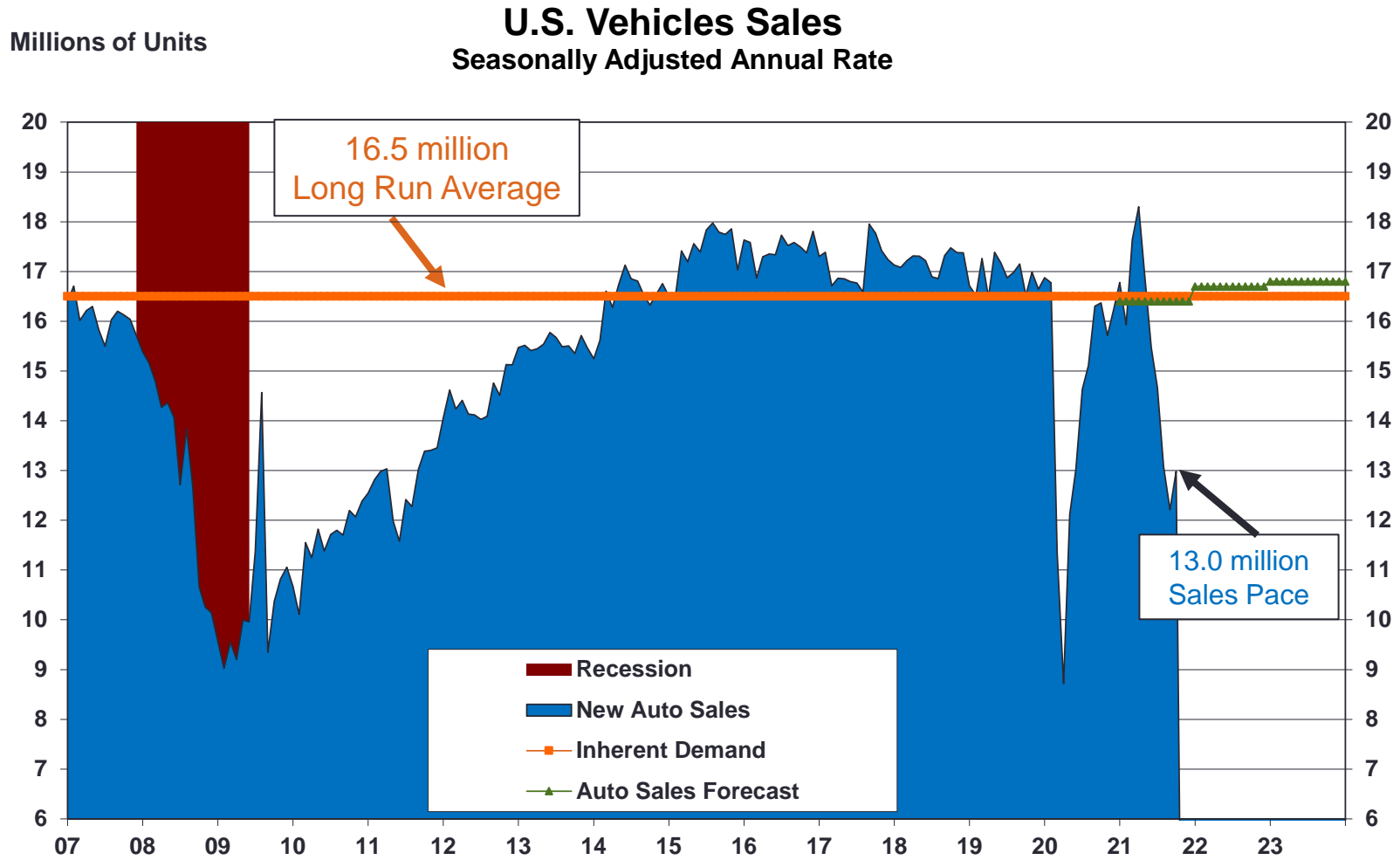
Fed Funds Interest Rate



Takeaways:

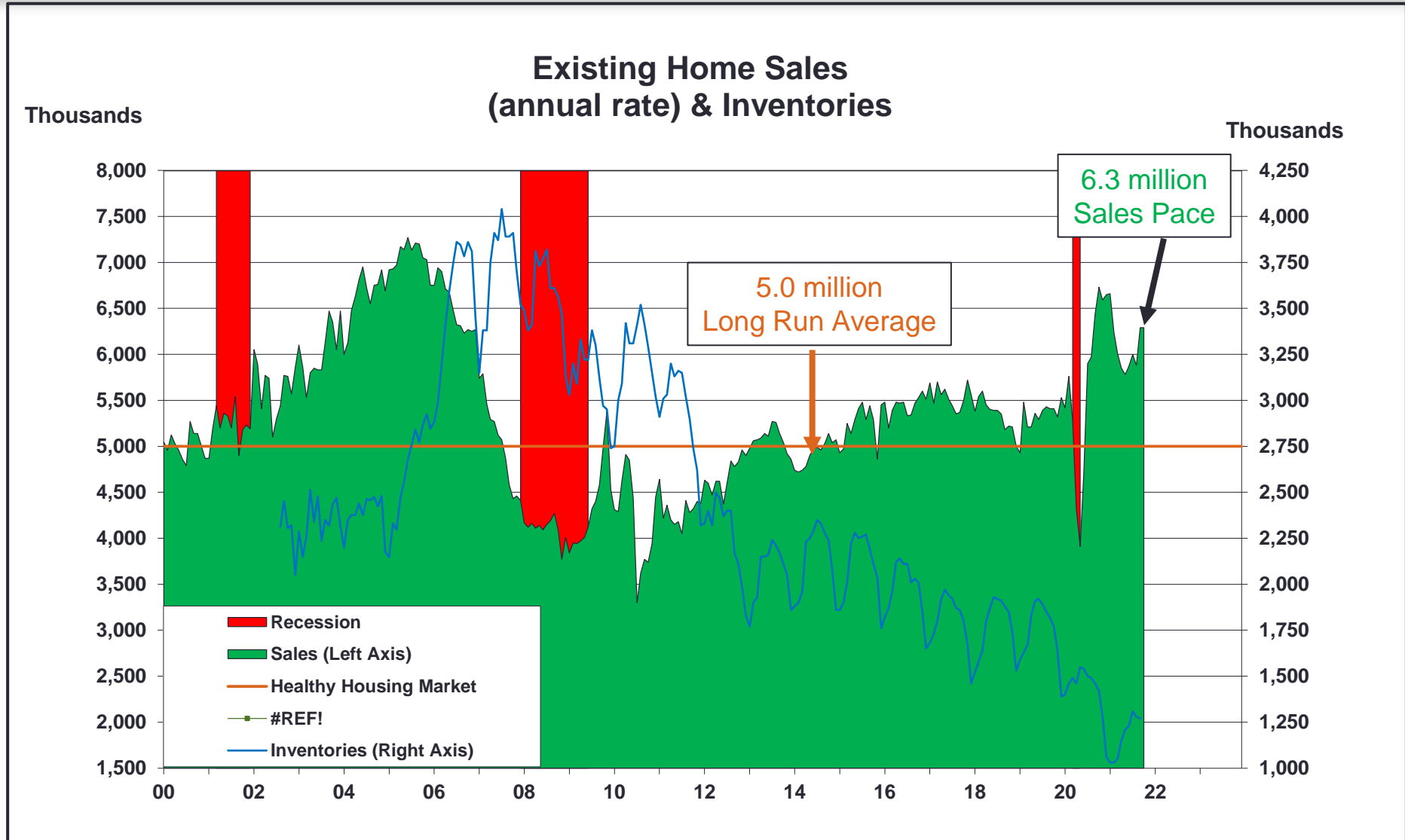
1. Fed expected to “liftoff” interest rates in Fall of 2022
2. Fed expected to raise rates by 0.75 percentage point per year
3. Goal is to reach 2.5% by 2026

Low Auto Sales Below Long-term Trend

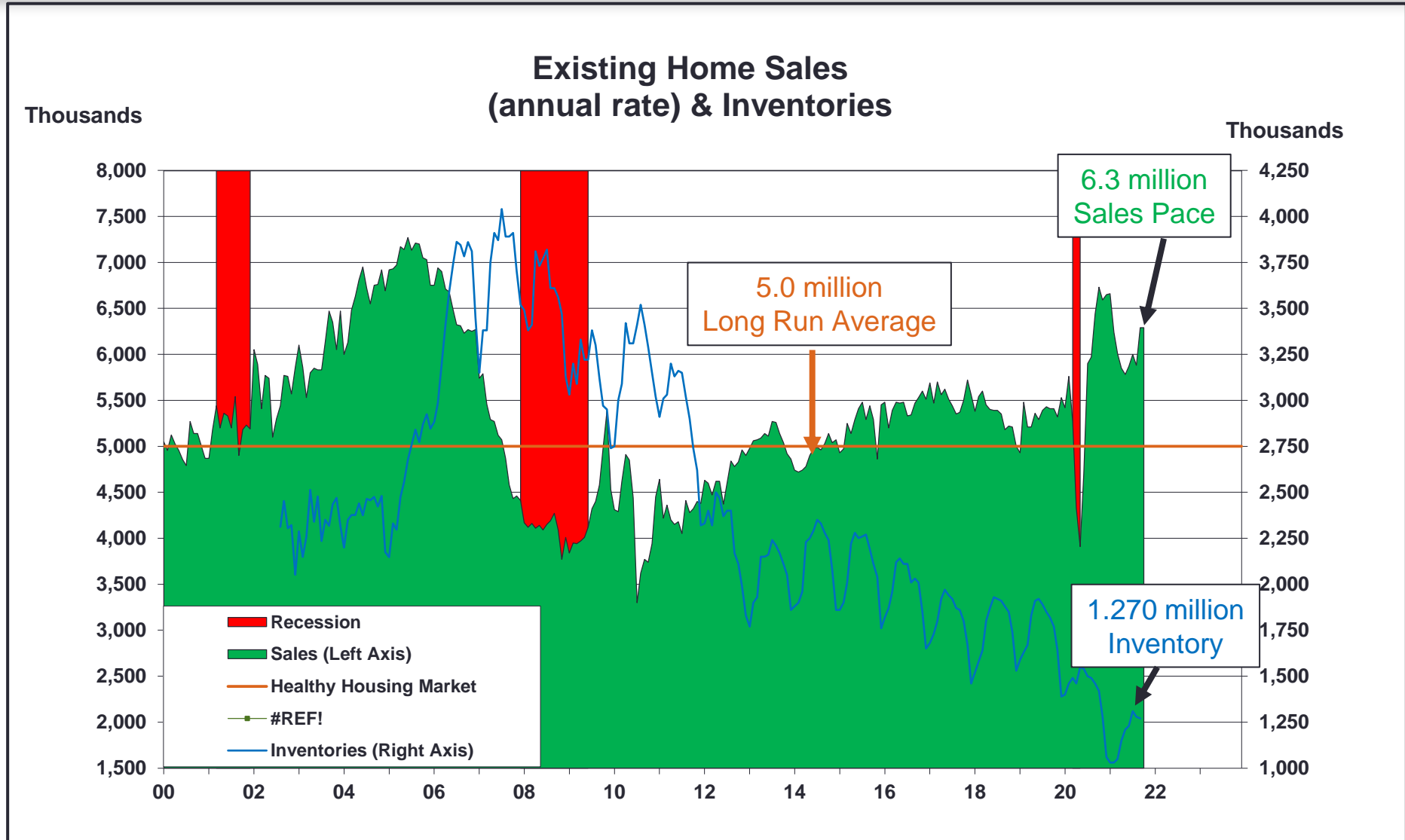


Source: Autodata Corp.

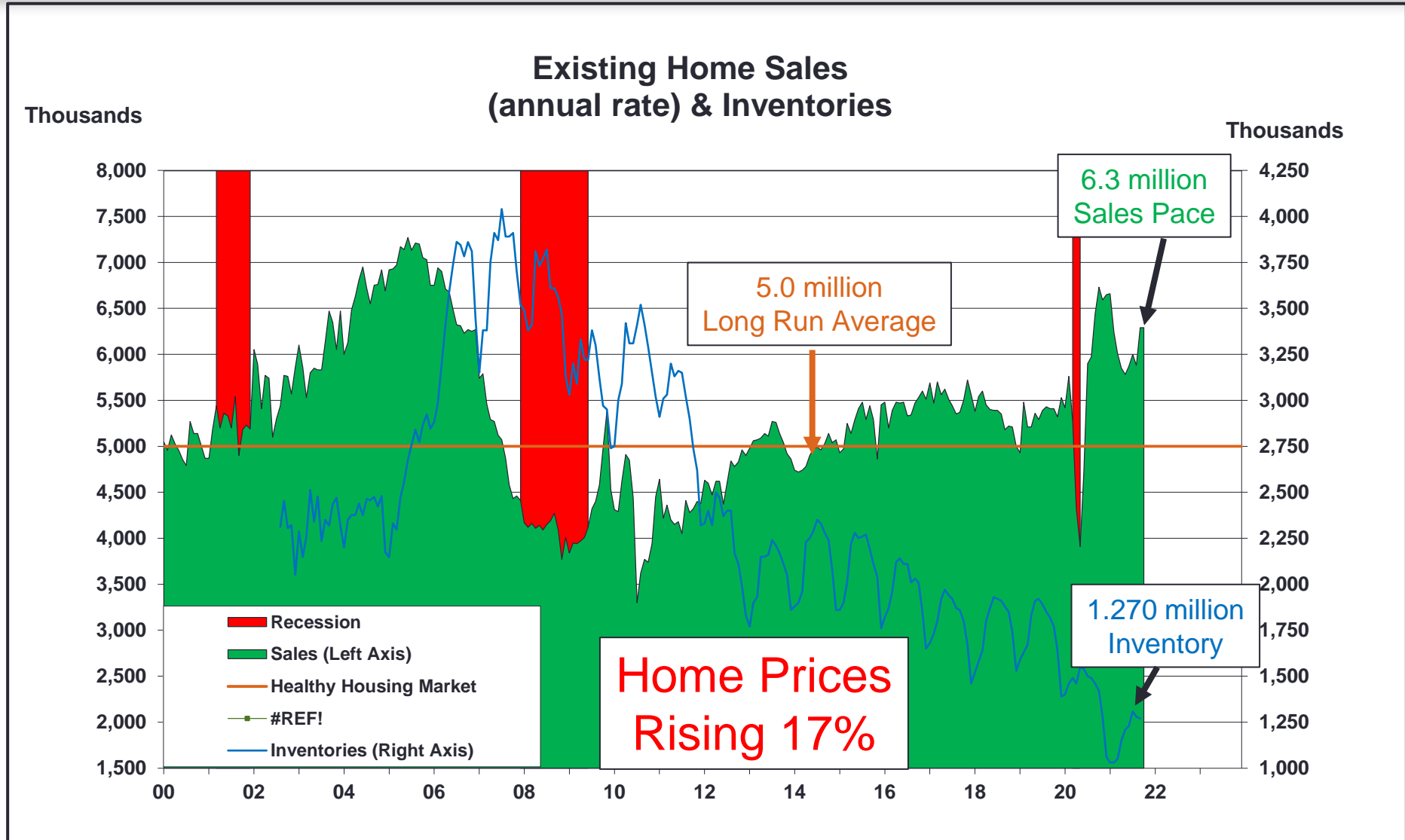
Home Sales are Strong, but Inventories are Low



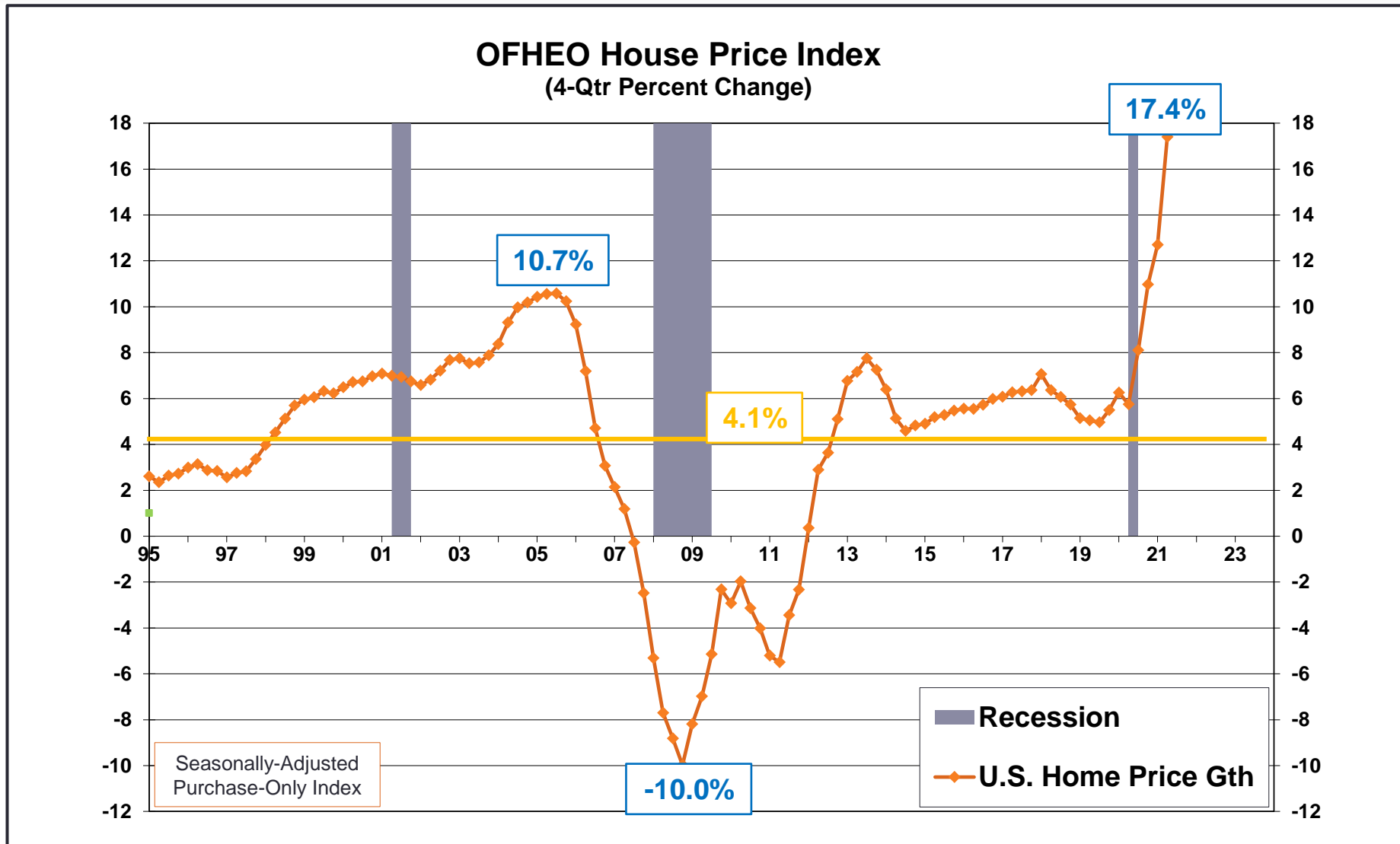
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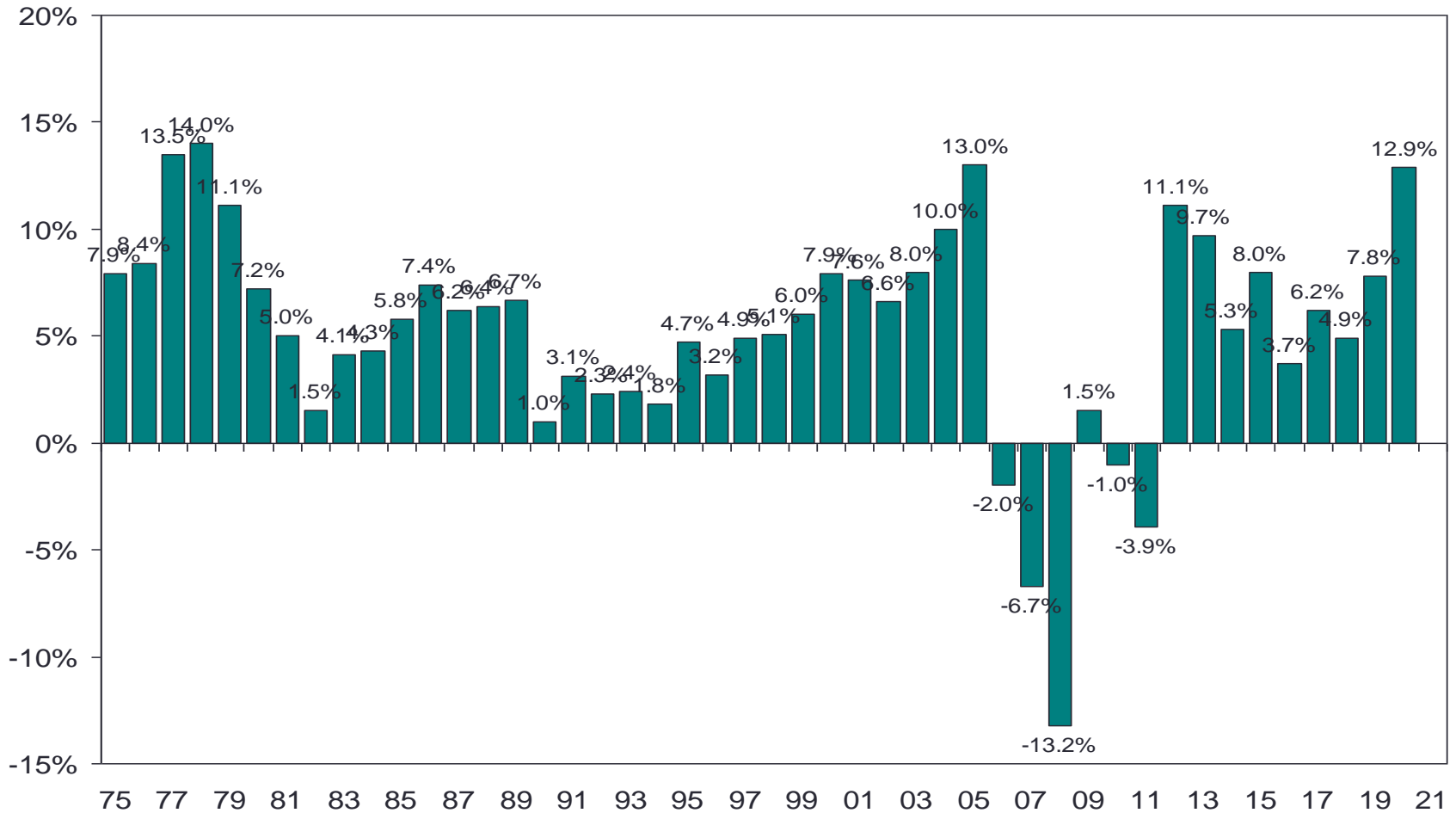


Faster Home Price Growth Rates will Boost Household Wealth and Consumer Spending



Median Existing Home Prices

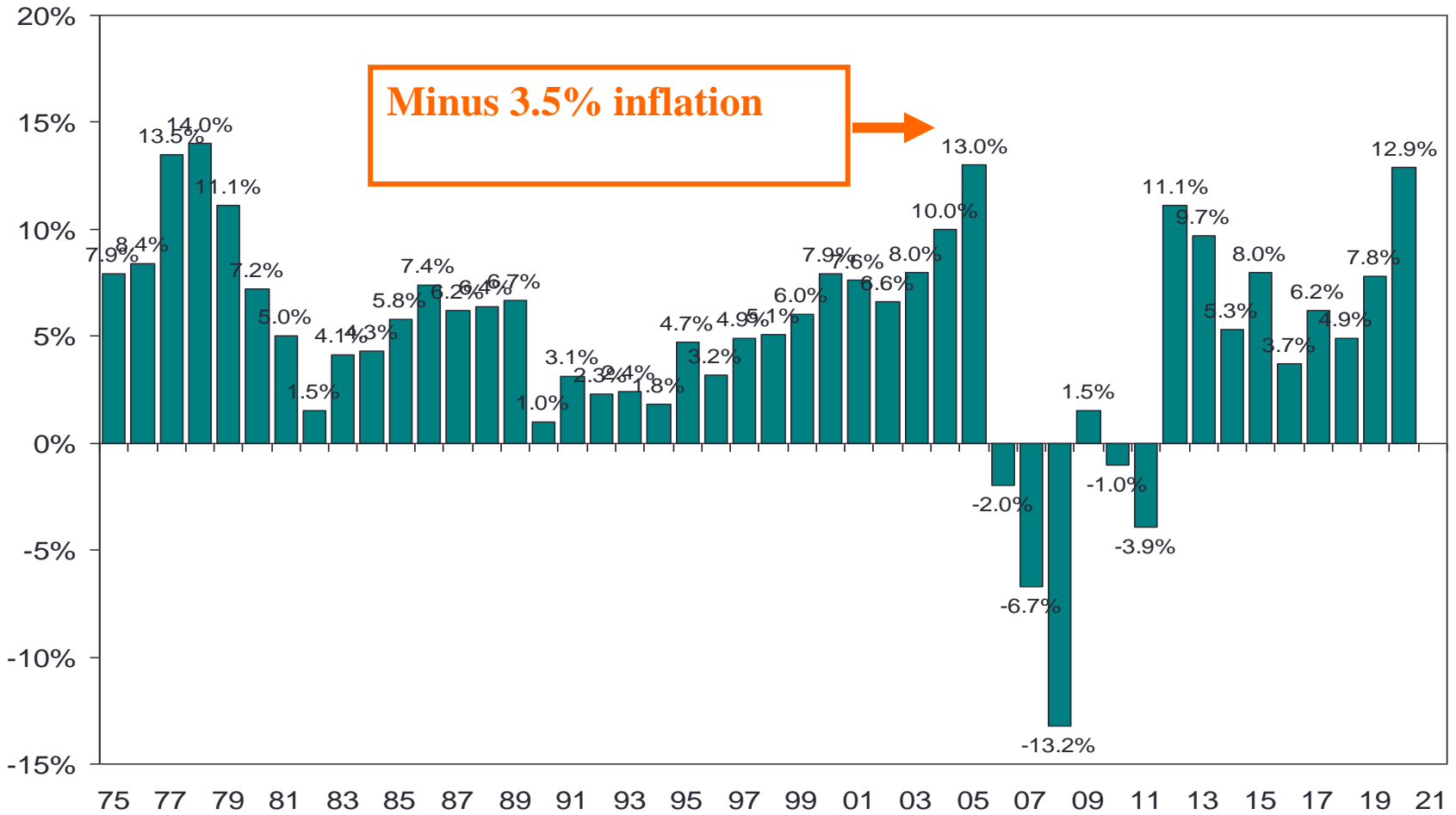
(Nominal Annual Home Price Increases)



Source: National Association of Realtors.

Median Existing Home Prices

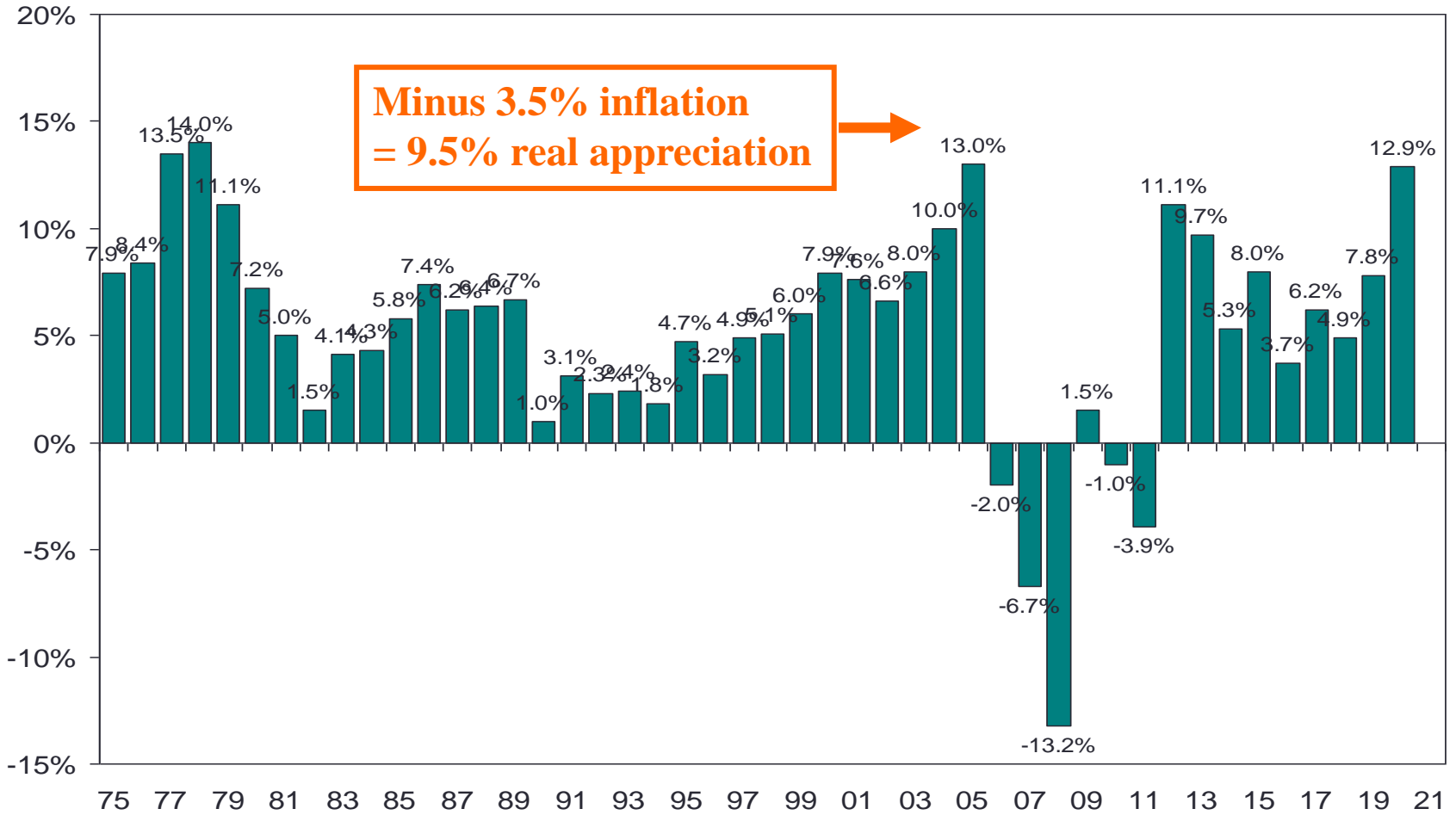
(Nominal Annual Home Price Increases)



Source: National Association of Realtors.

Median Existing Home Prices

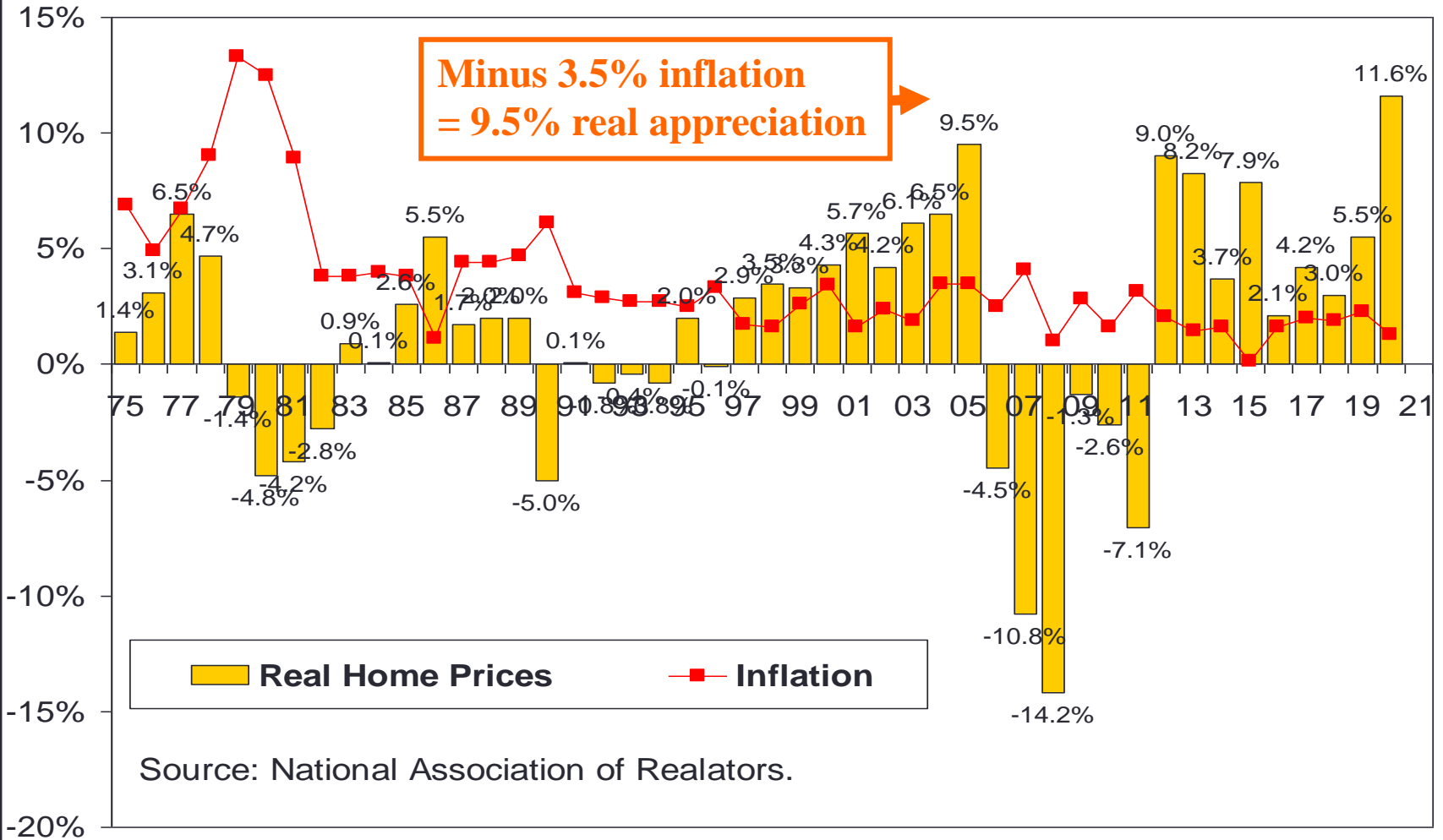
(Nominal Annual Home Price Increases)



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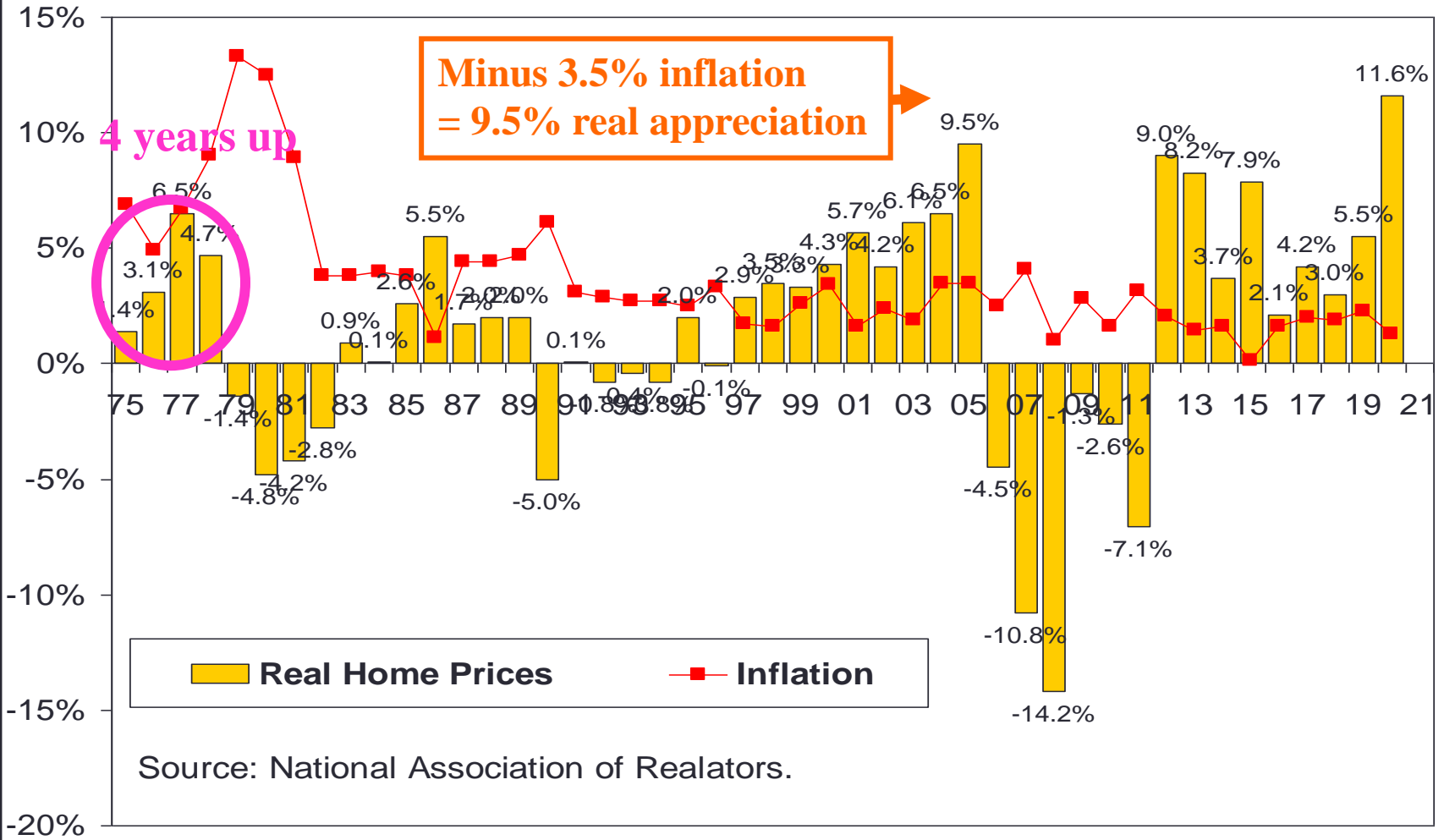
The Housing Cycle

(Inflation-Adjusted Annual Home Price Increases)



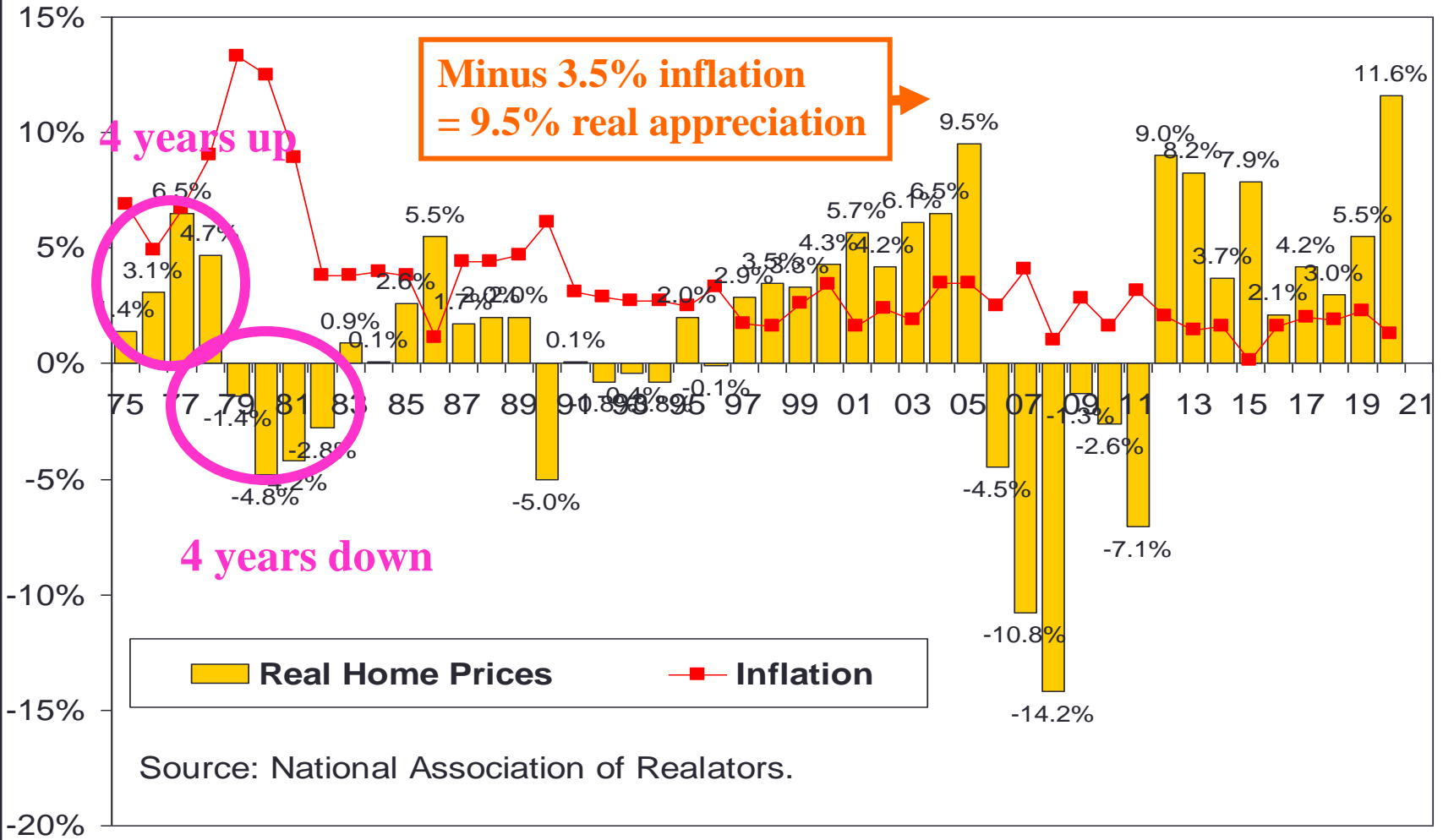
The Housing Cycle

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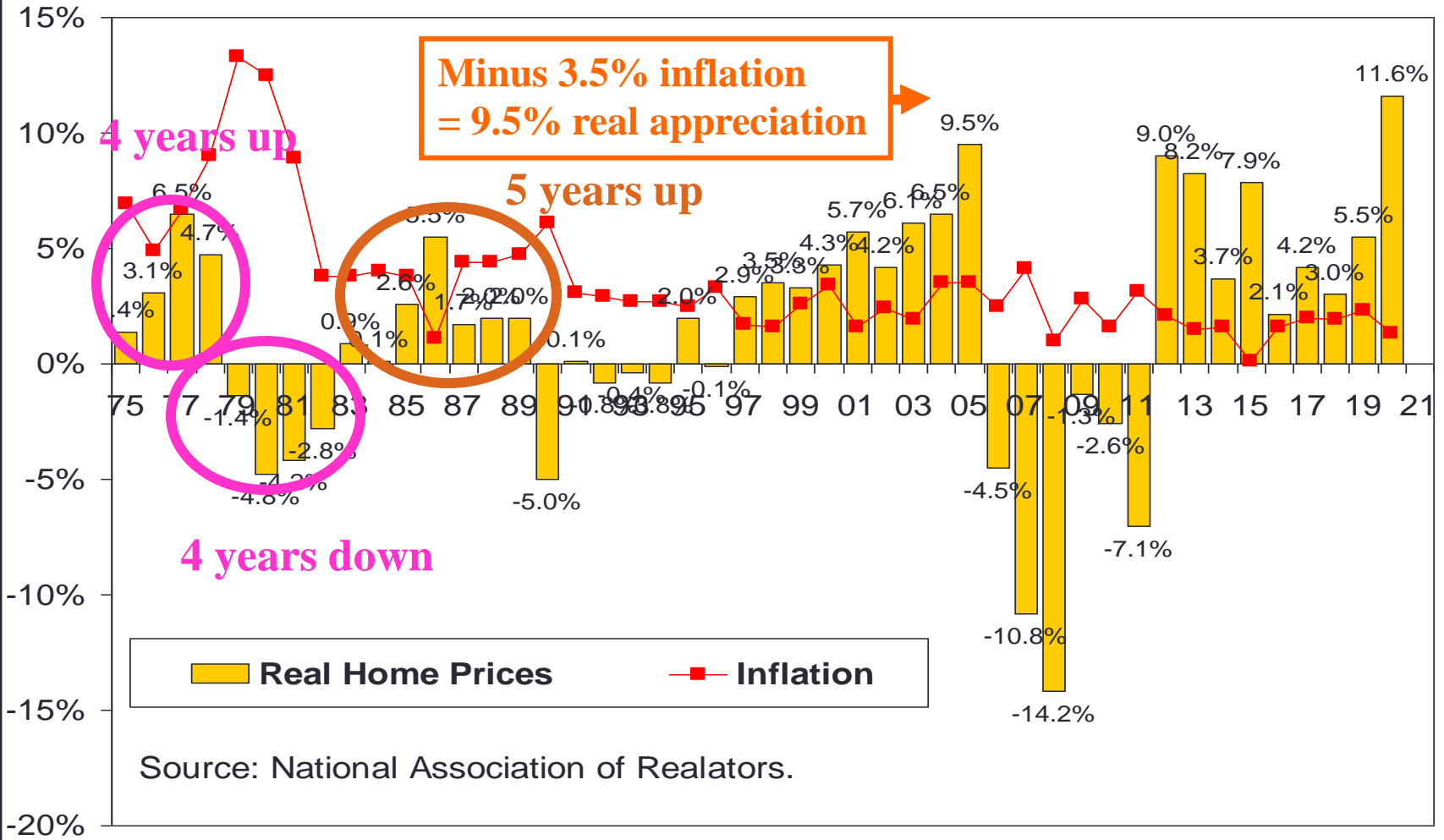
The Housing Cycle

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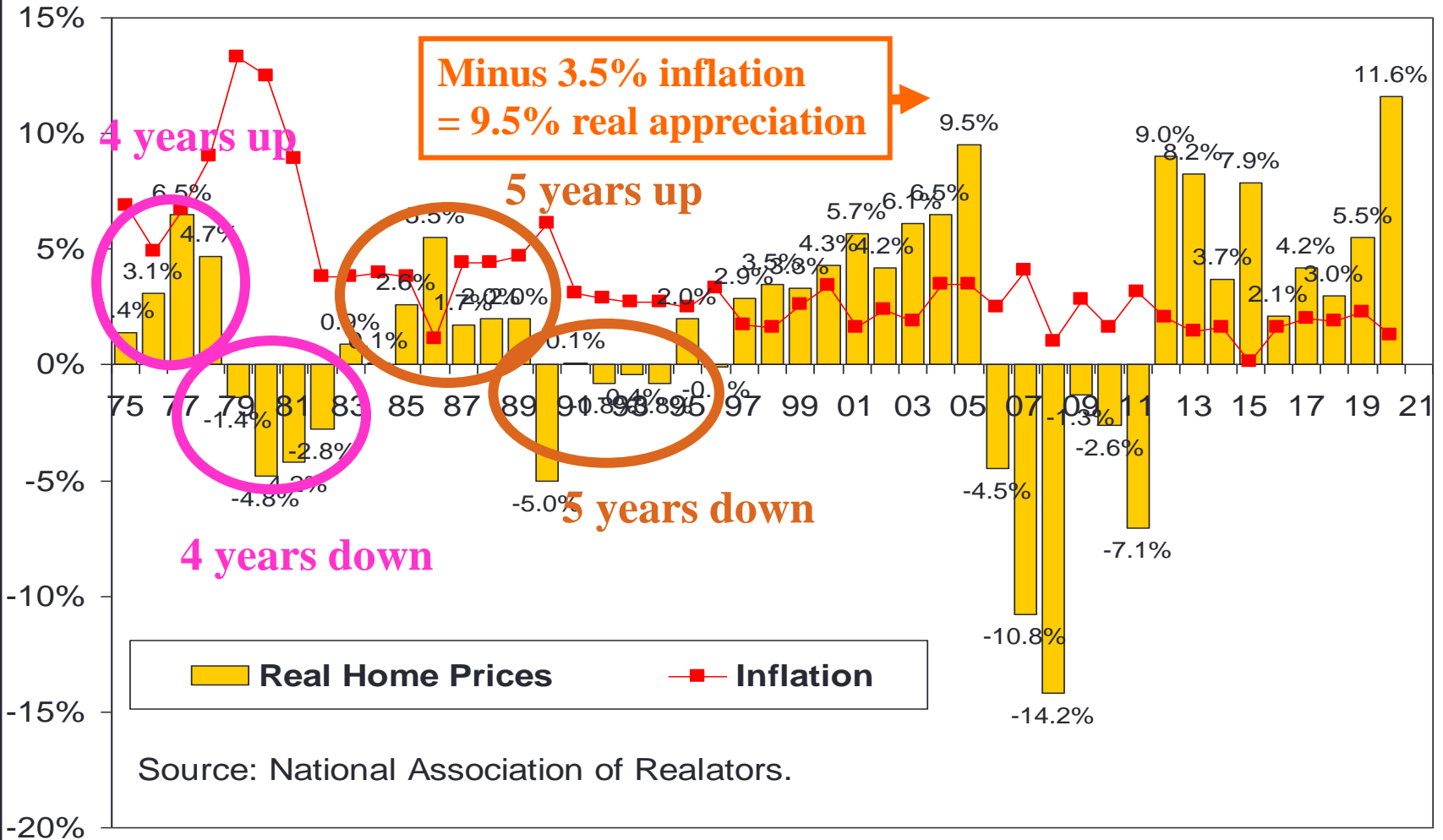
The Housing Cycle

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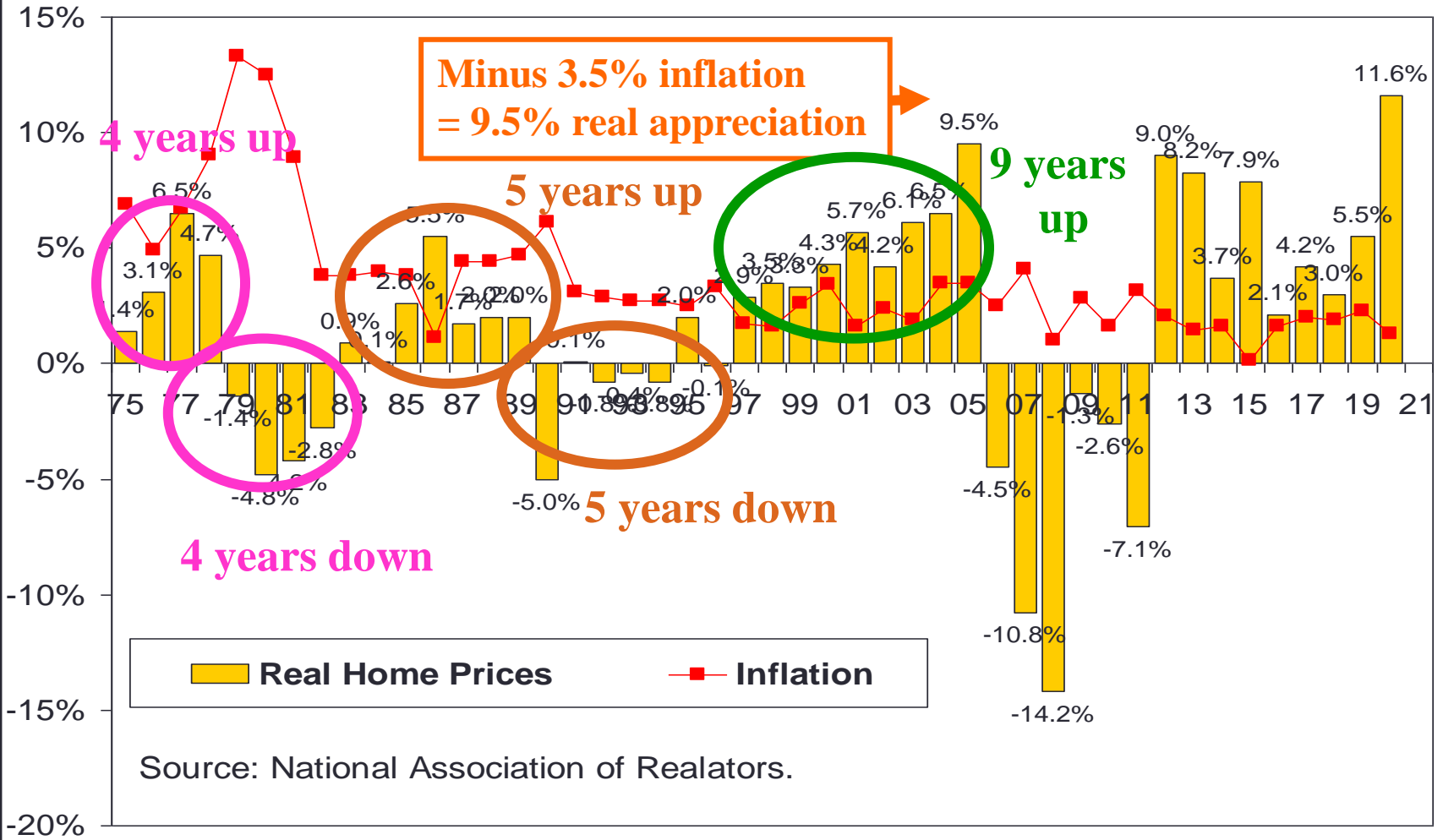
The Housing Cycle

(Inflation-Adjusted Annual Home Price Increases)



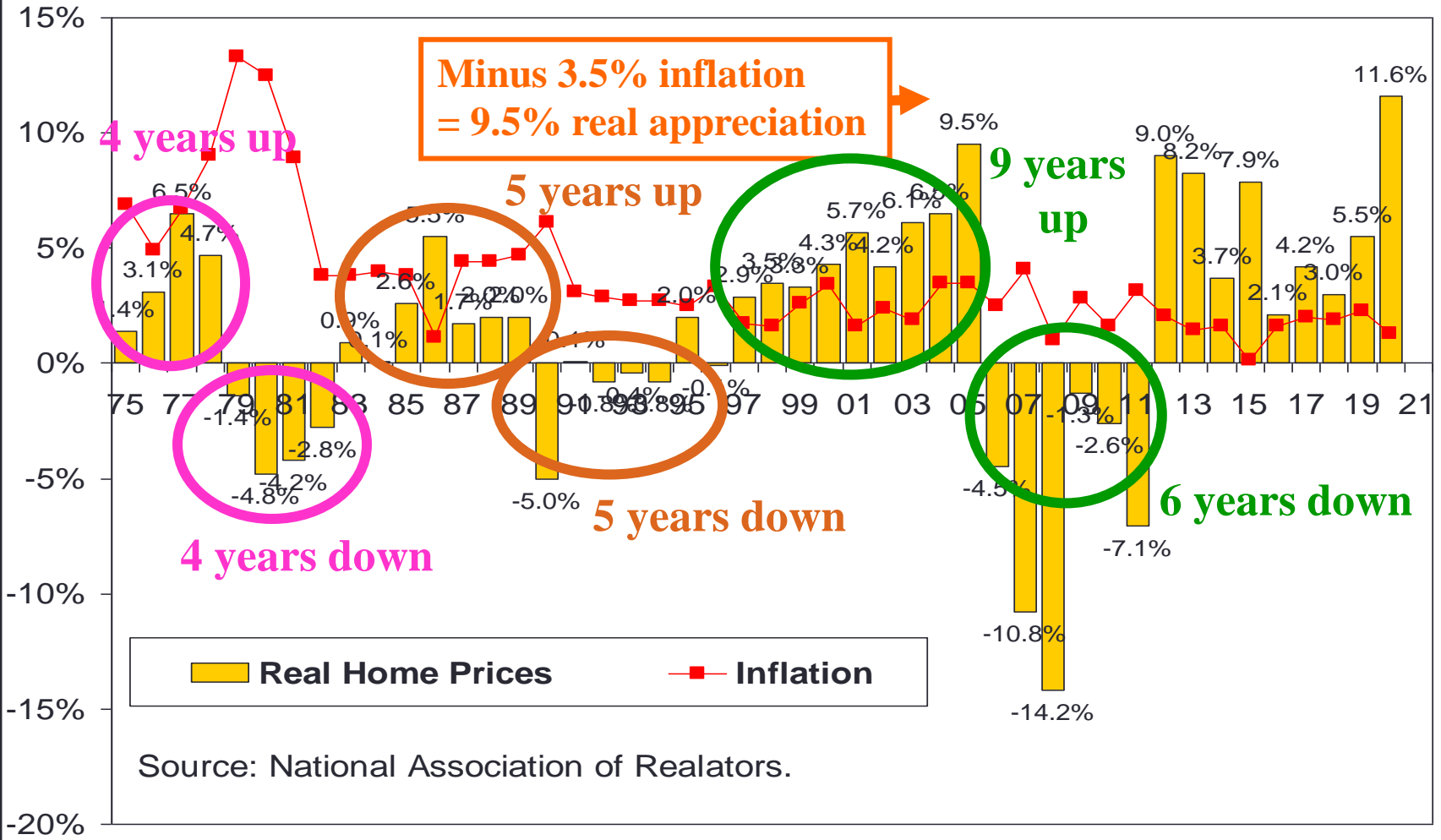
The Housing Cycle

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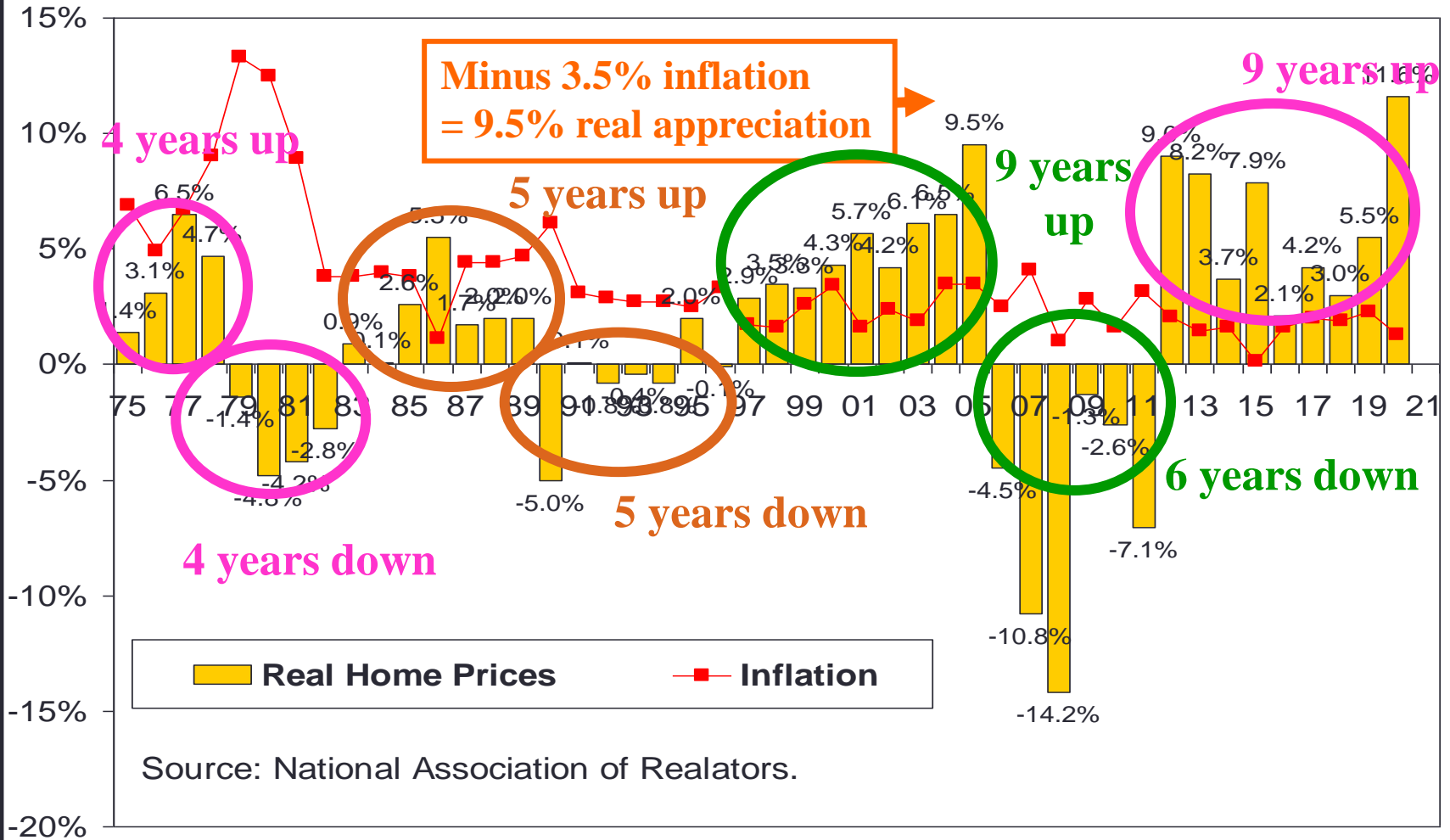
The Housing Cycle

(Inflation-Adjusted Annual Home Price Increases)



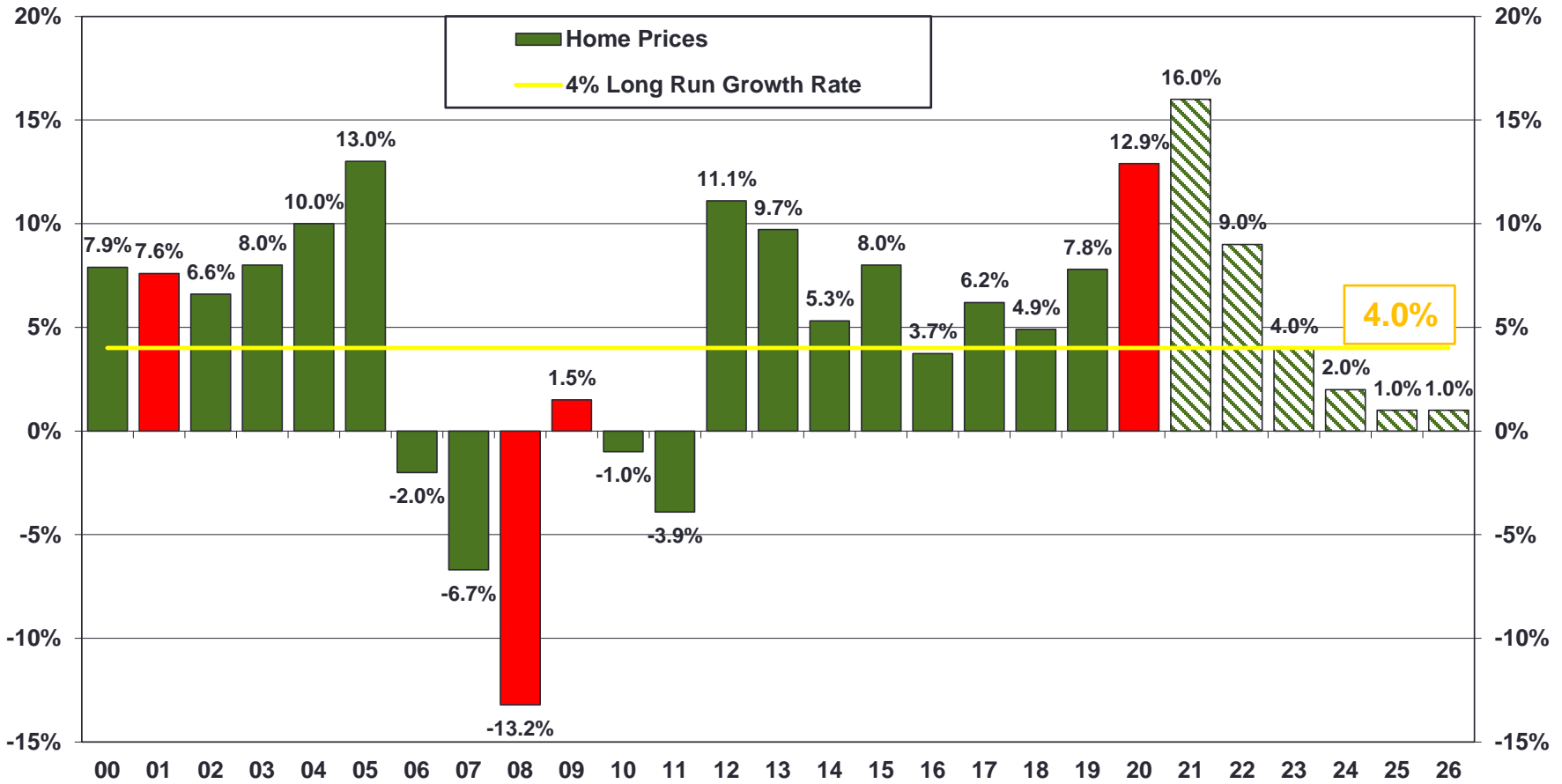
The Housing Cycle

(Inflation-Adjusted Annual Home Price Increases)



Home Price Growth Rate Slowing

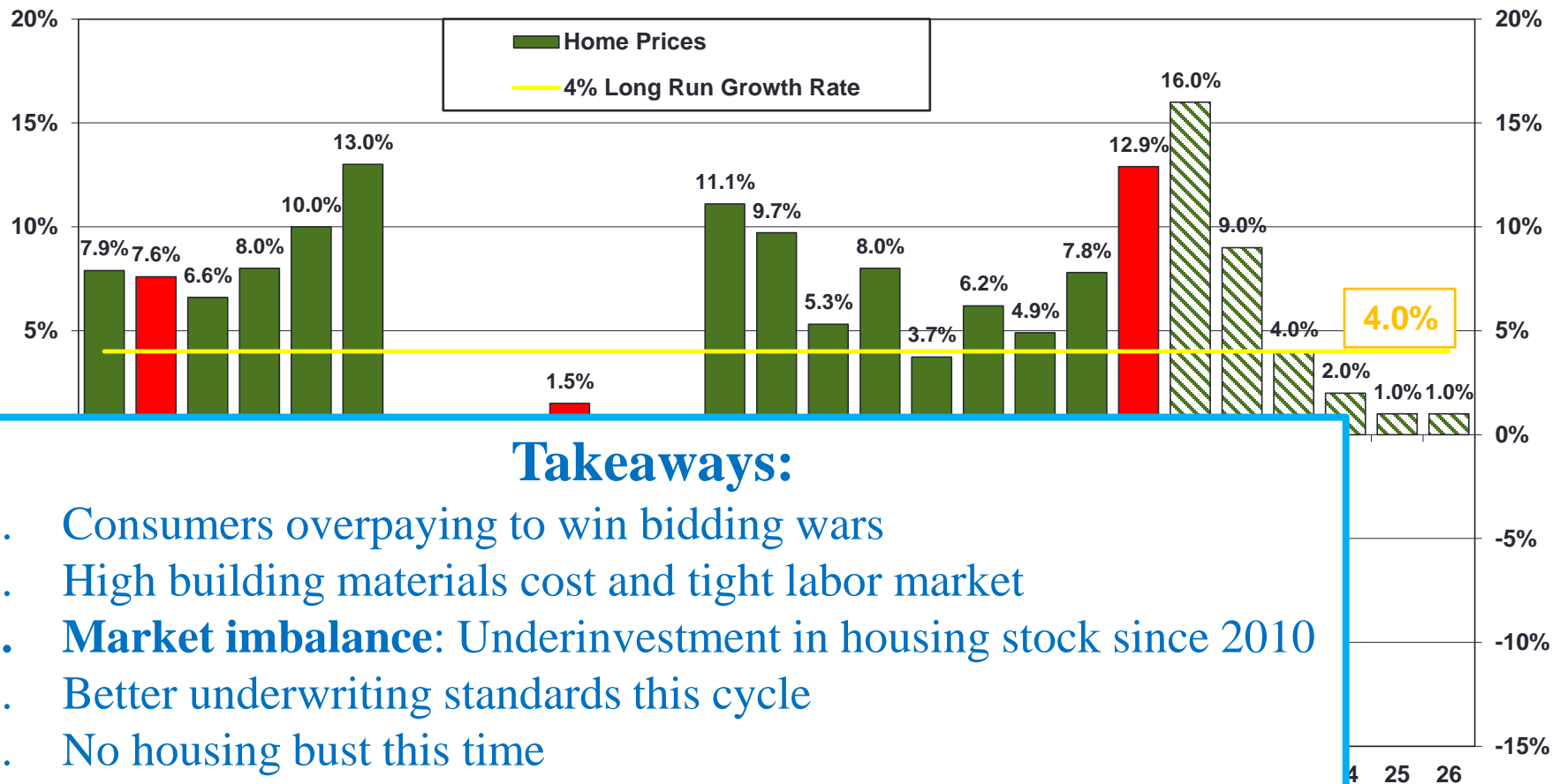
U.S. Home Prices



Source: Department of Commerce

Home Price Growth Rate Slowing

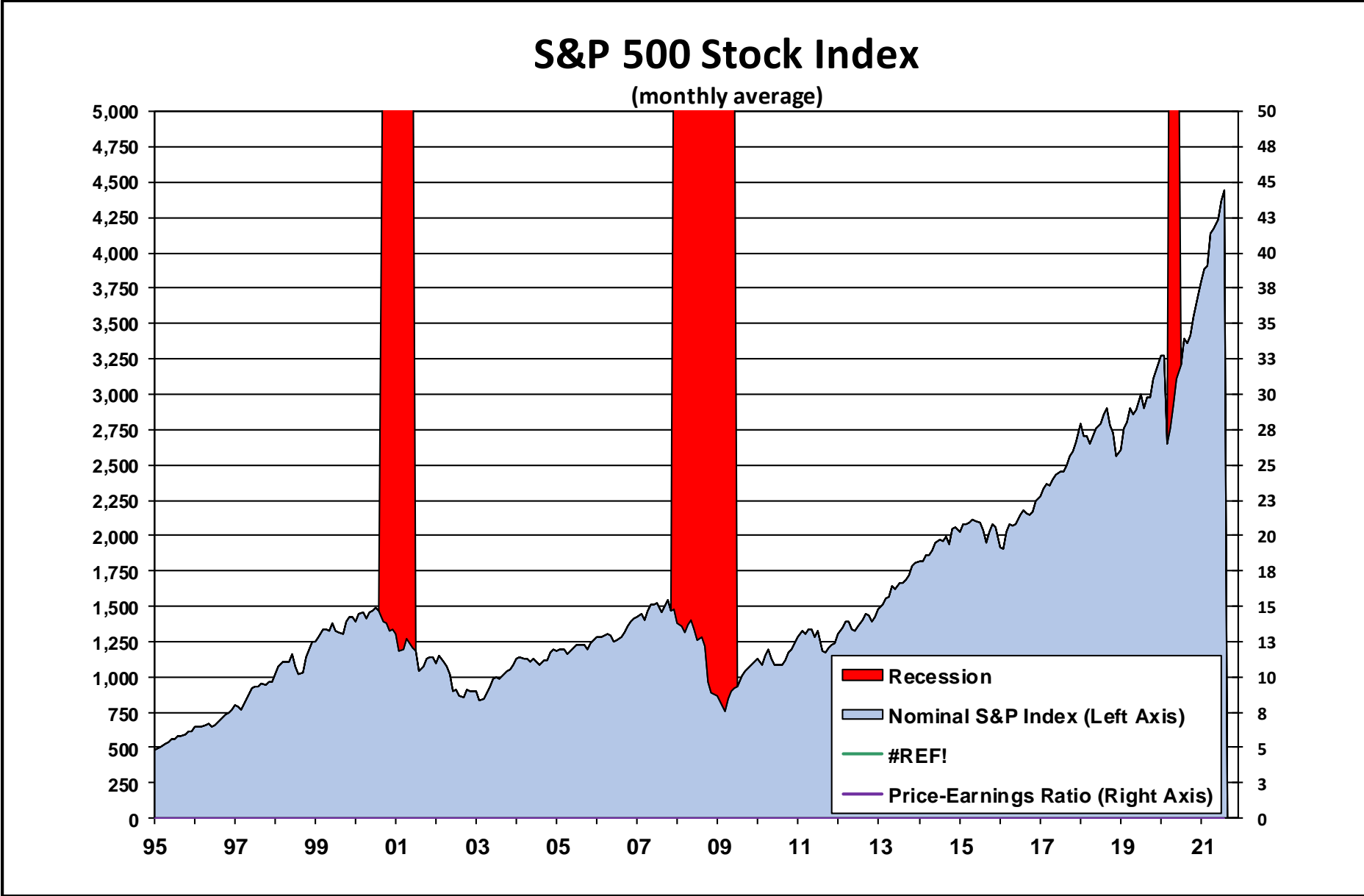
U.S. Home Prices



Takeaways:

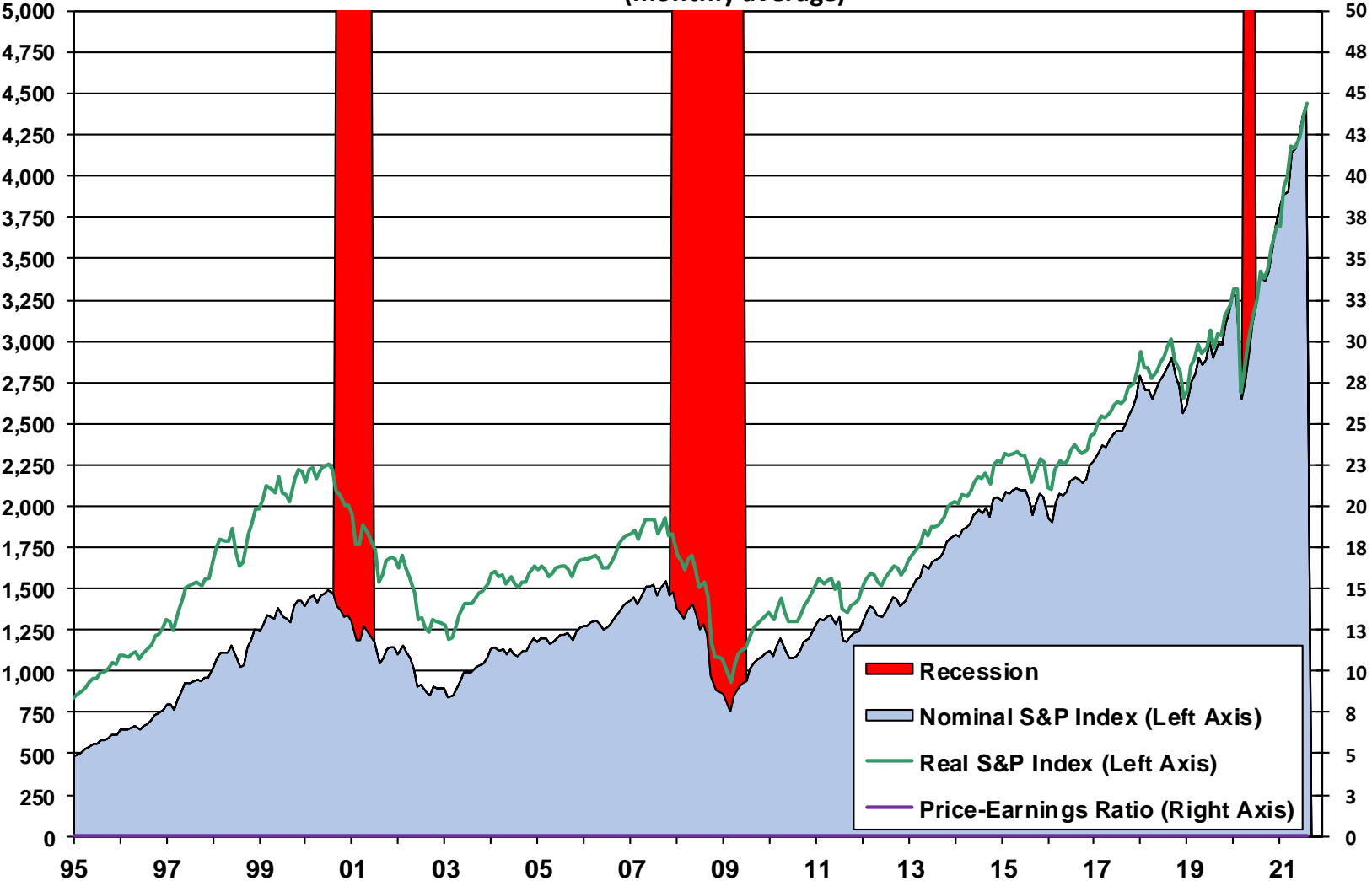
1. Consumers overpaying to win bidding wars
2. High building materials cost and tight labor market
3. **Market imbalance:** Underinvestment in housing stock since 2010
4. Better underwriting standards this cycle
5. No housing bust this time
6. Slowing growth in household wealth

High Stock Prices Producing “Wealth Effect” among High-Income Households

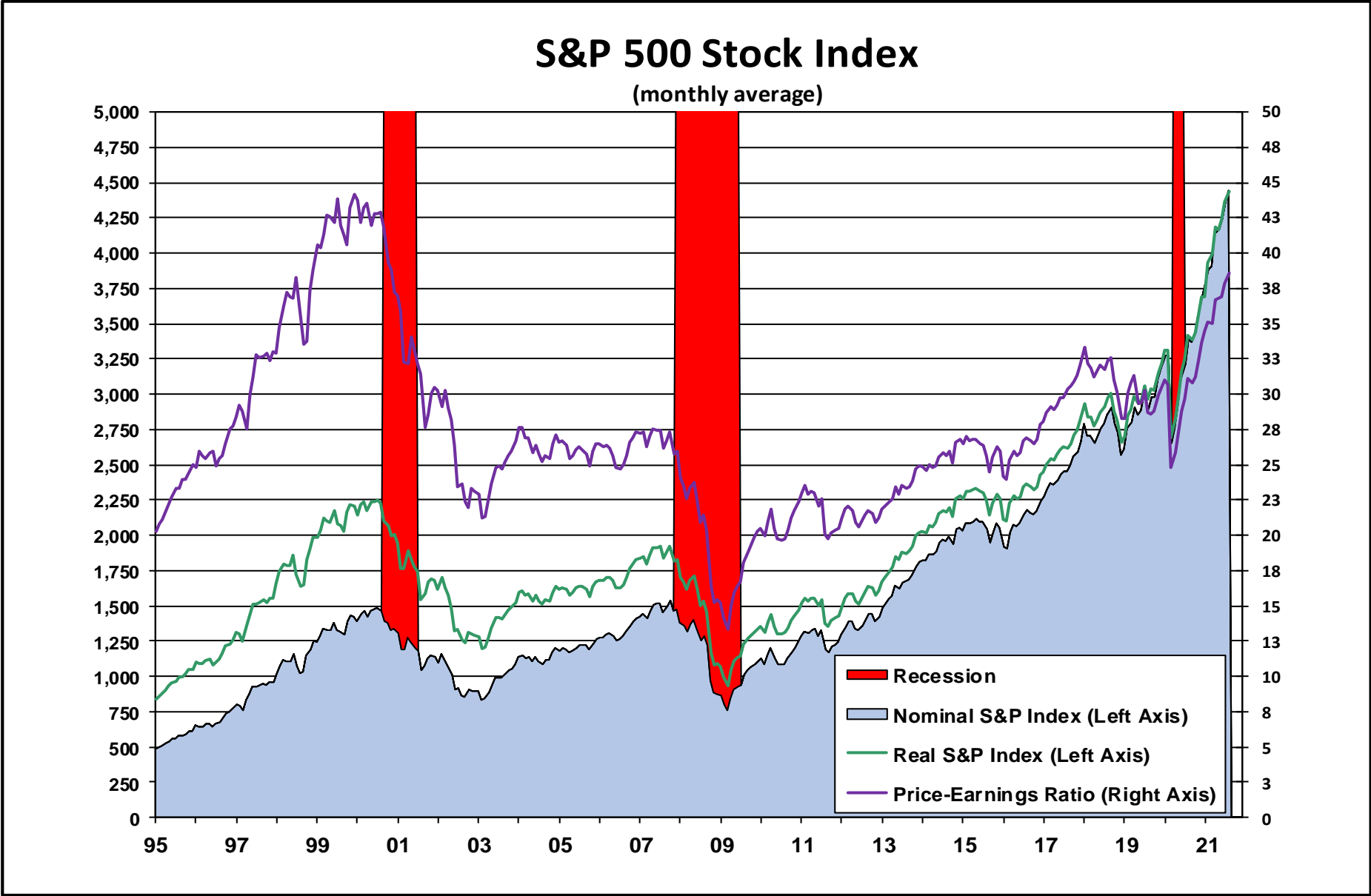


High Stock Prices Producing “Wealth Effect” among High-Income Households

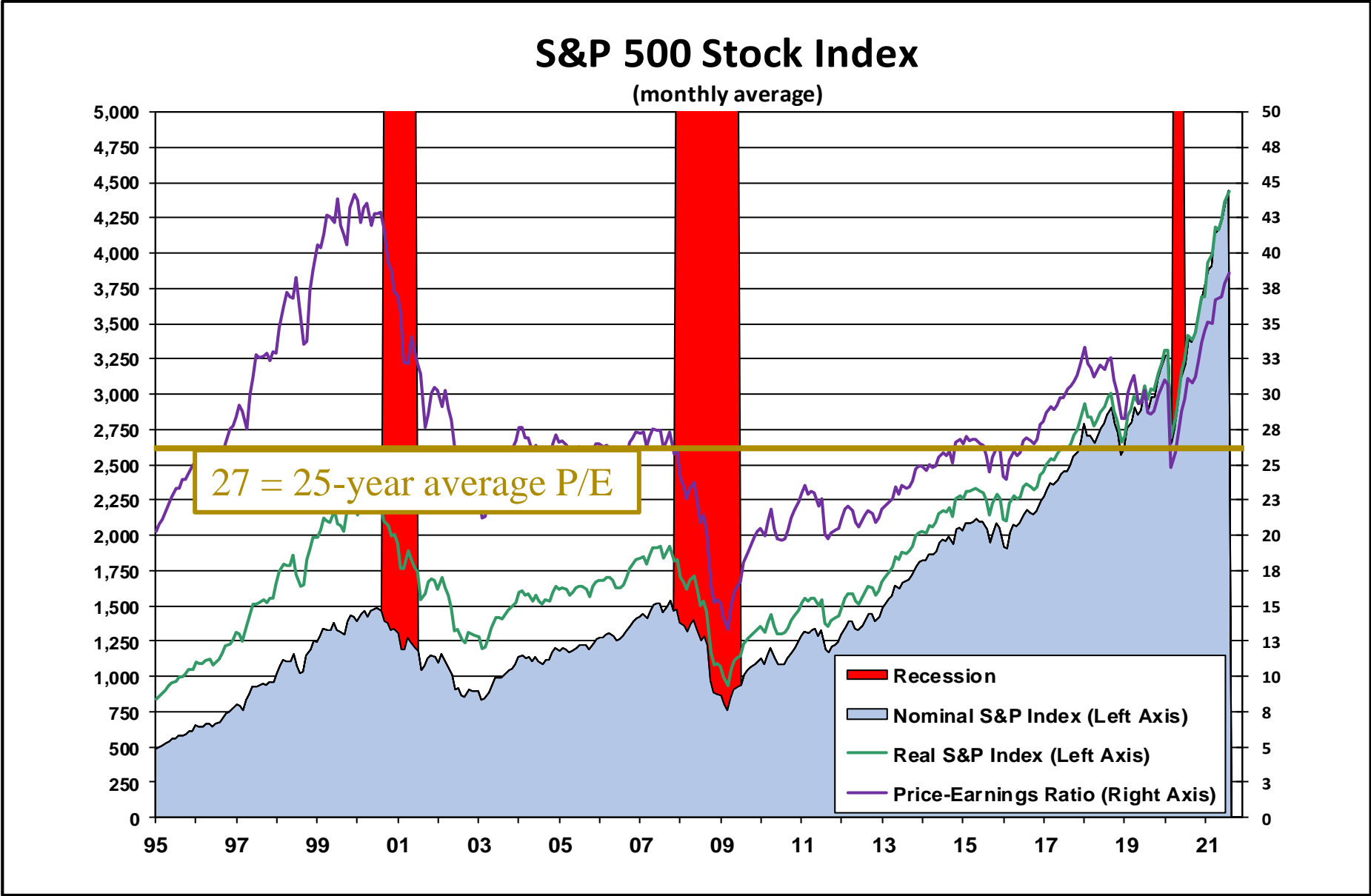
S&P 500 Stock Index (monthly average)



High Stock Prices Producing “Wealth Effect” among High-Income Households



High Stock Prices Producing “Wealth Effect” among High-Income Households

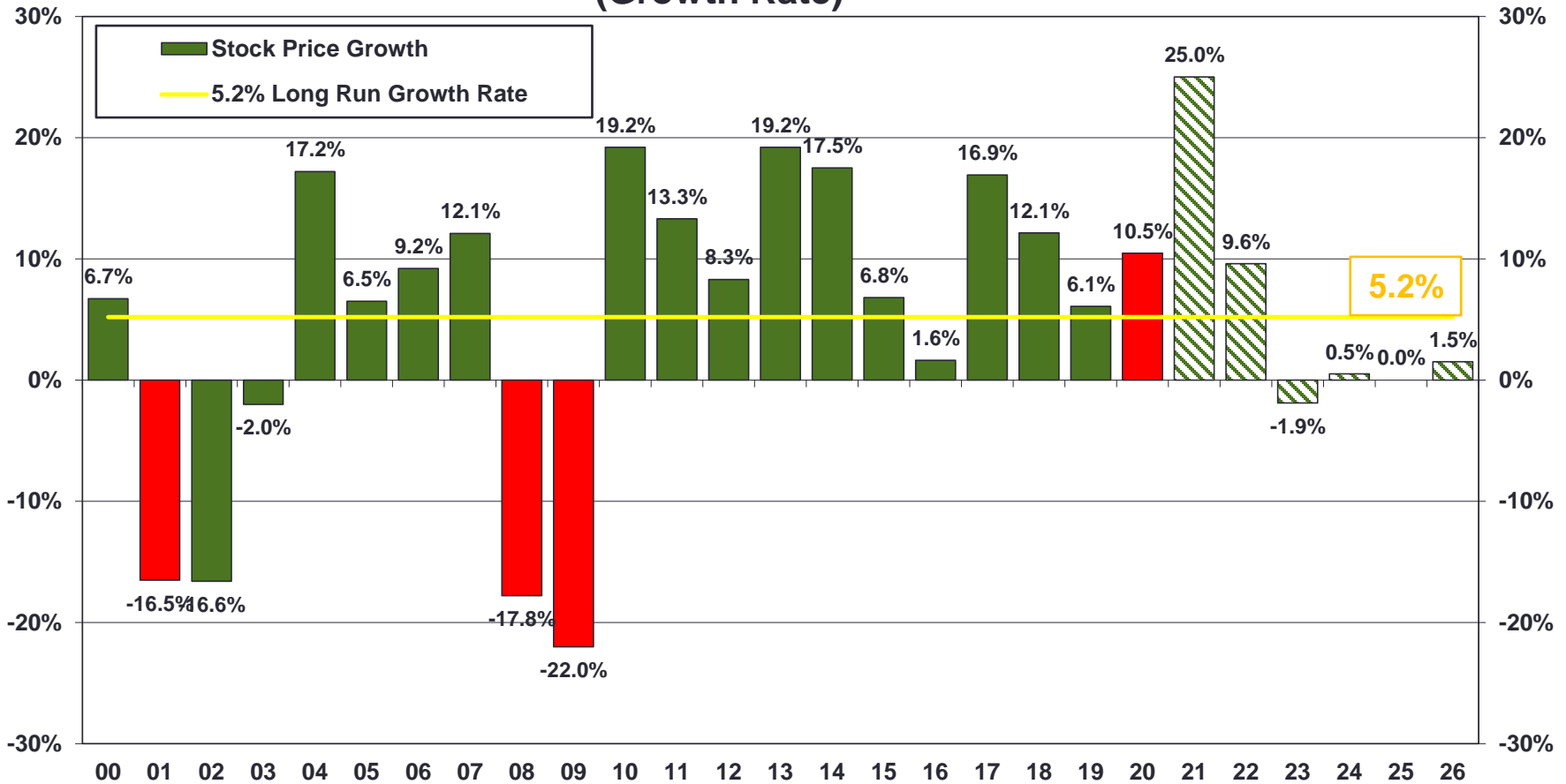


Top 10 Risks to the Stock Market:

1. Higher than expected inflation and bond yields
2. New COVID variants that elude vaccines
3. A central bank policy error
4. Strong economic growth failing to materialize
5. Geopolitics
6. Worries about the debt burden
7. A tech bubble bursting
8. Uneven global vaccinations and economic recoveries
9. Fiscal policy being tightened too quickly
10. Longer-term structural consequences of the COVID shock

Stock Price Growth Rate Slowing Leading to Slower Wealth Creation

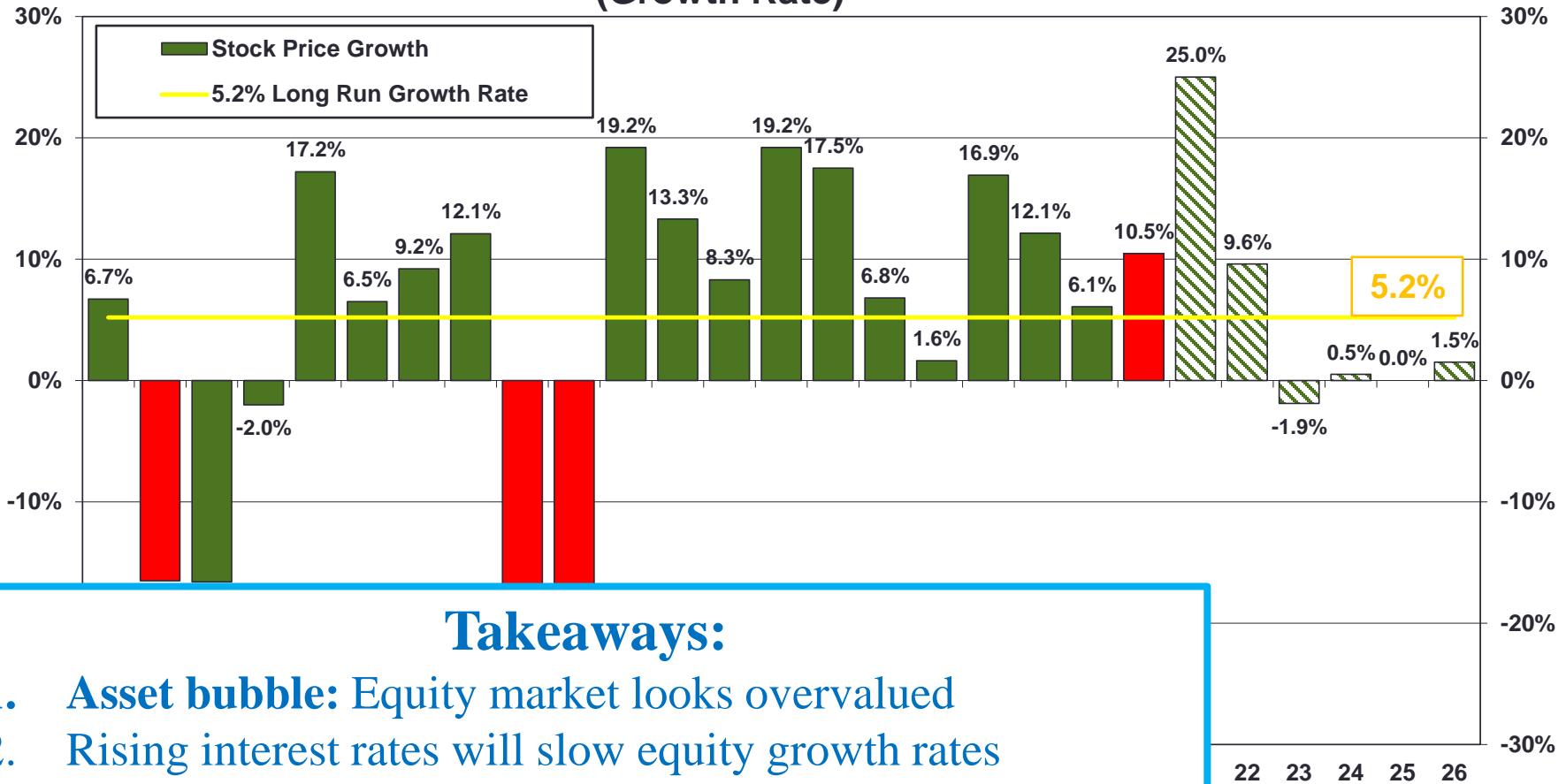
S&P 500 Stock Price (Growth Rate)



Source: Department of Commerce

Stock Price Growth Rate Slowing Leading to Slower Wealth Creation

S&P 500 Stock Price (Growth Rate)

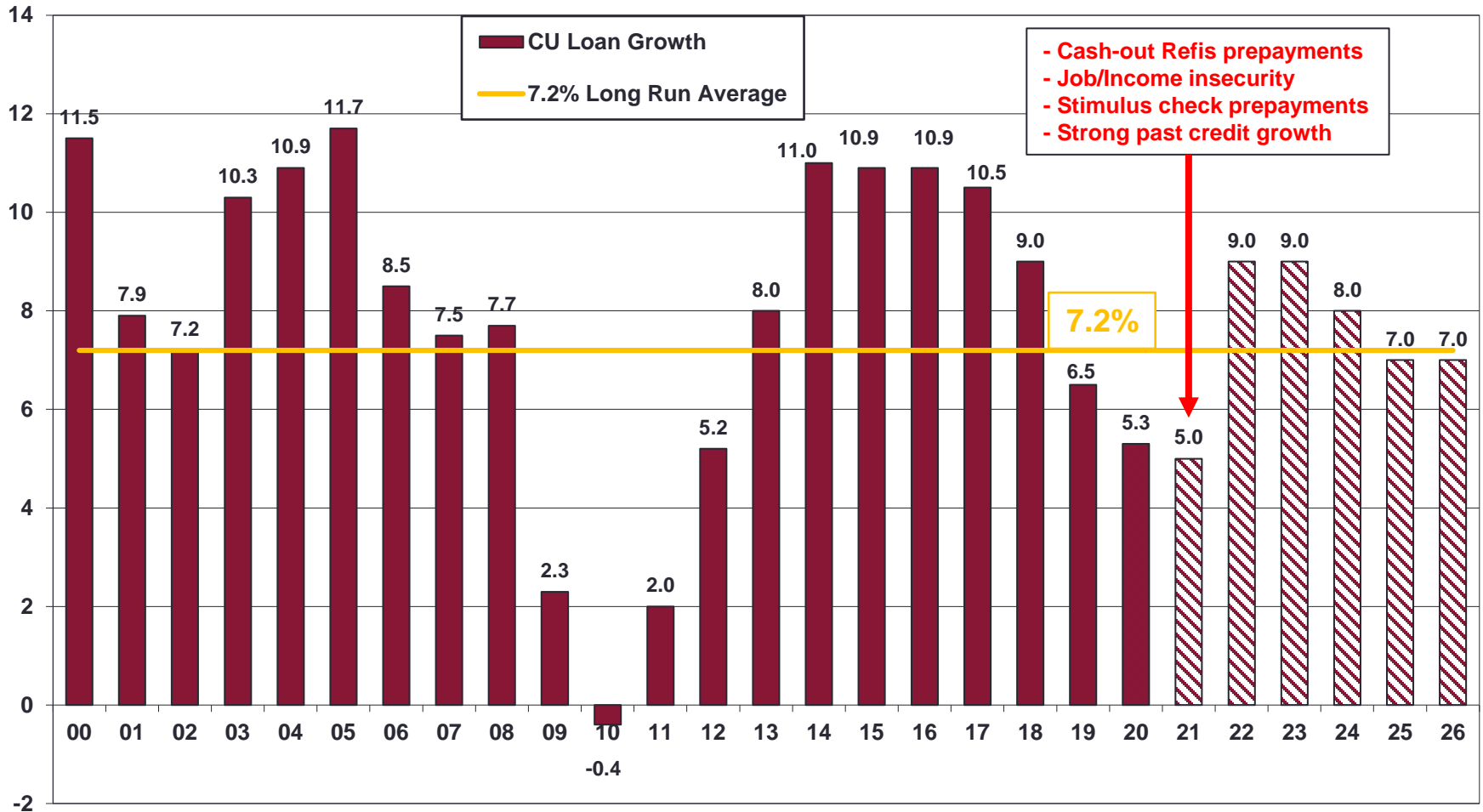


Takeaways:

1. **Asset bubble:** Equity market looks overvalued
2. Rising interest rates will slow equity growth rates
3. Slowing growth in household wealth

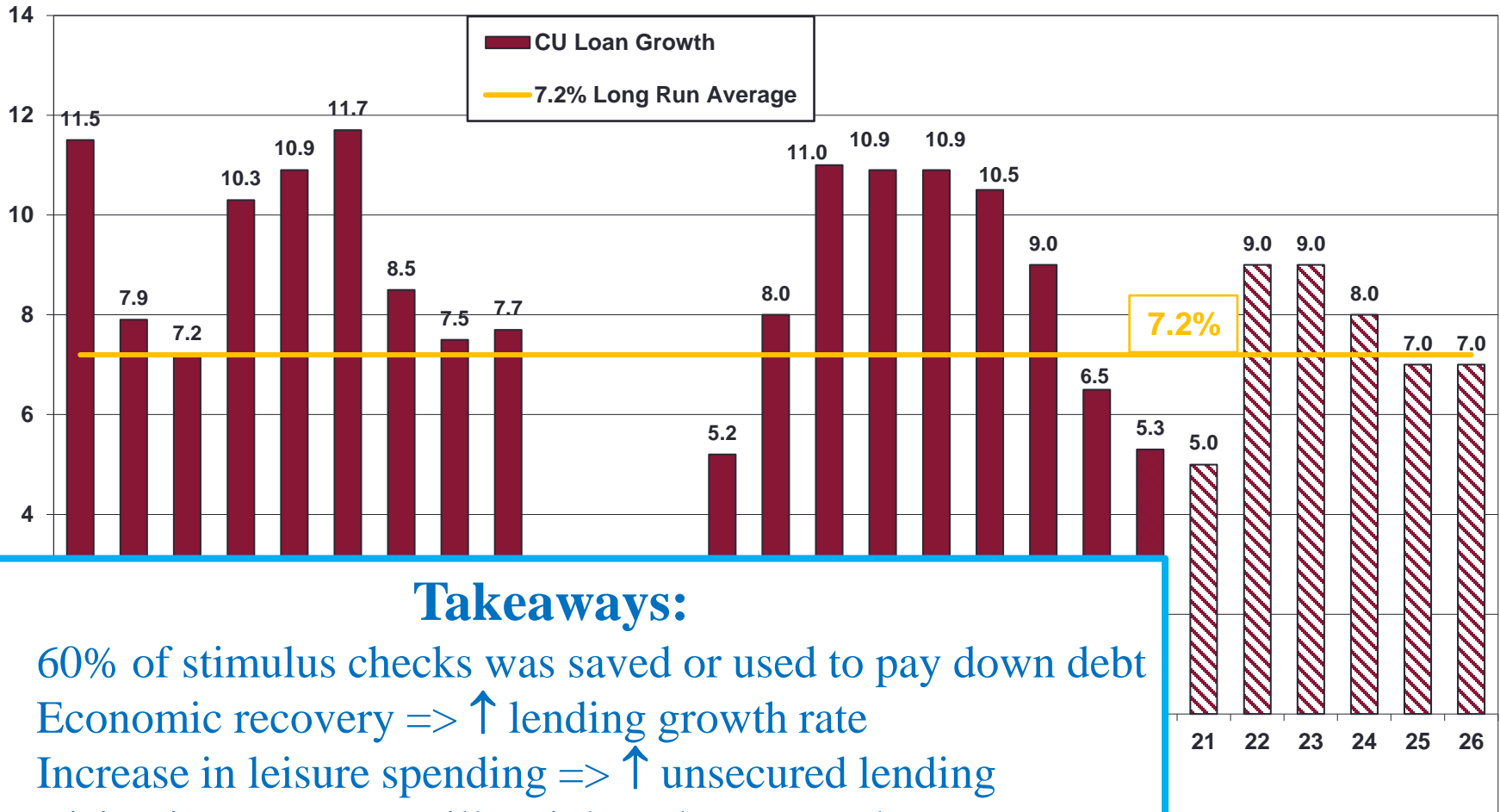
Above Trend Credit Union Loan Growth

Credit Union Loan Growth
(Annual Percent Growth)



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Credit Union Loan Growth
(Annual Percent Growth)

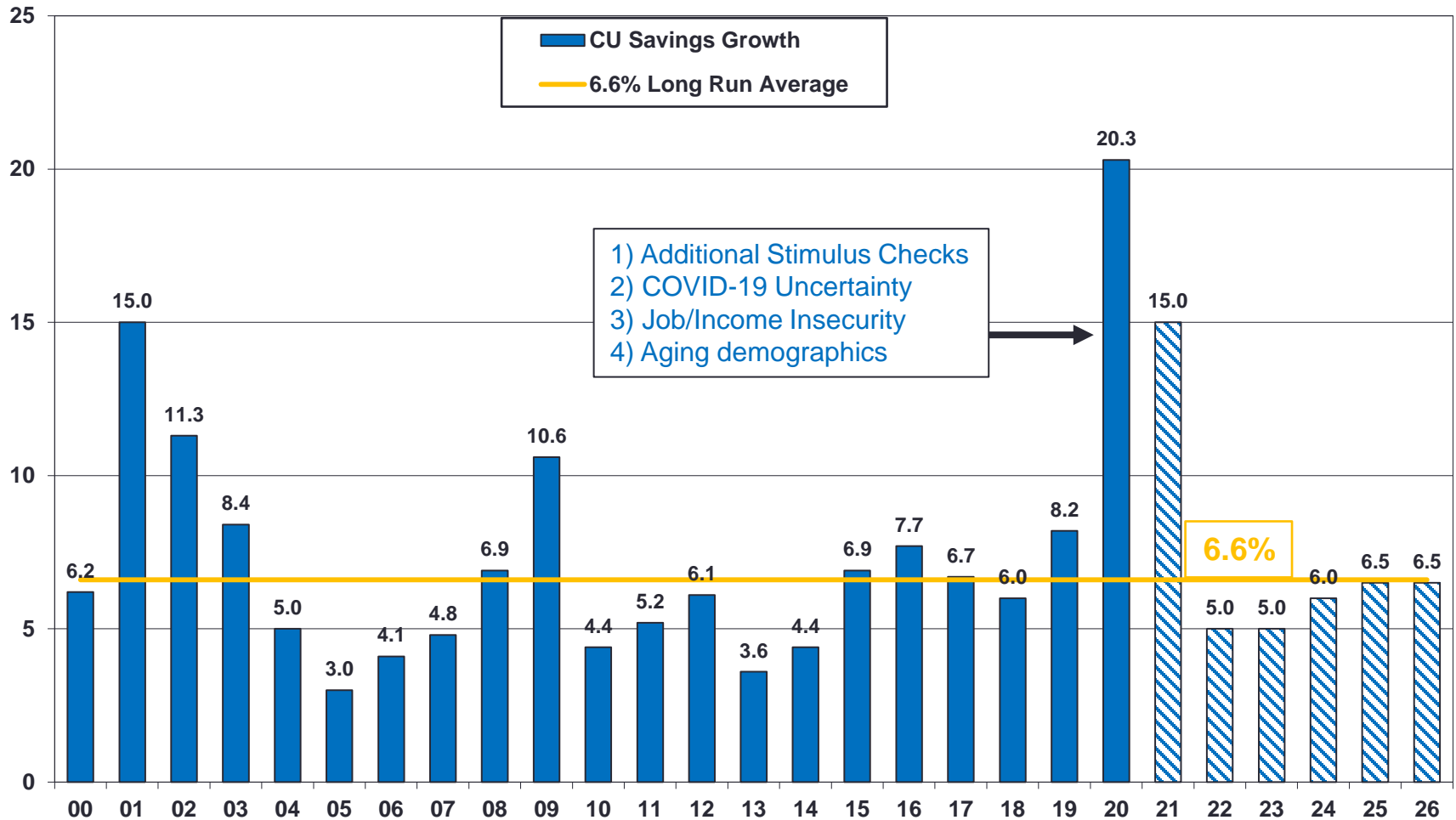


Takeaways:

1. 60% of stimulus checks was saved or used to pay down debt
2. Economic recovery => ↑ lending growth rate
3. Increase in leisure spending => ↑ unsecured lending
4. Rising interest rates will weigh on loan growth

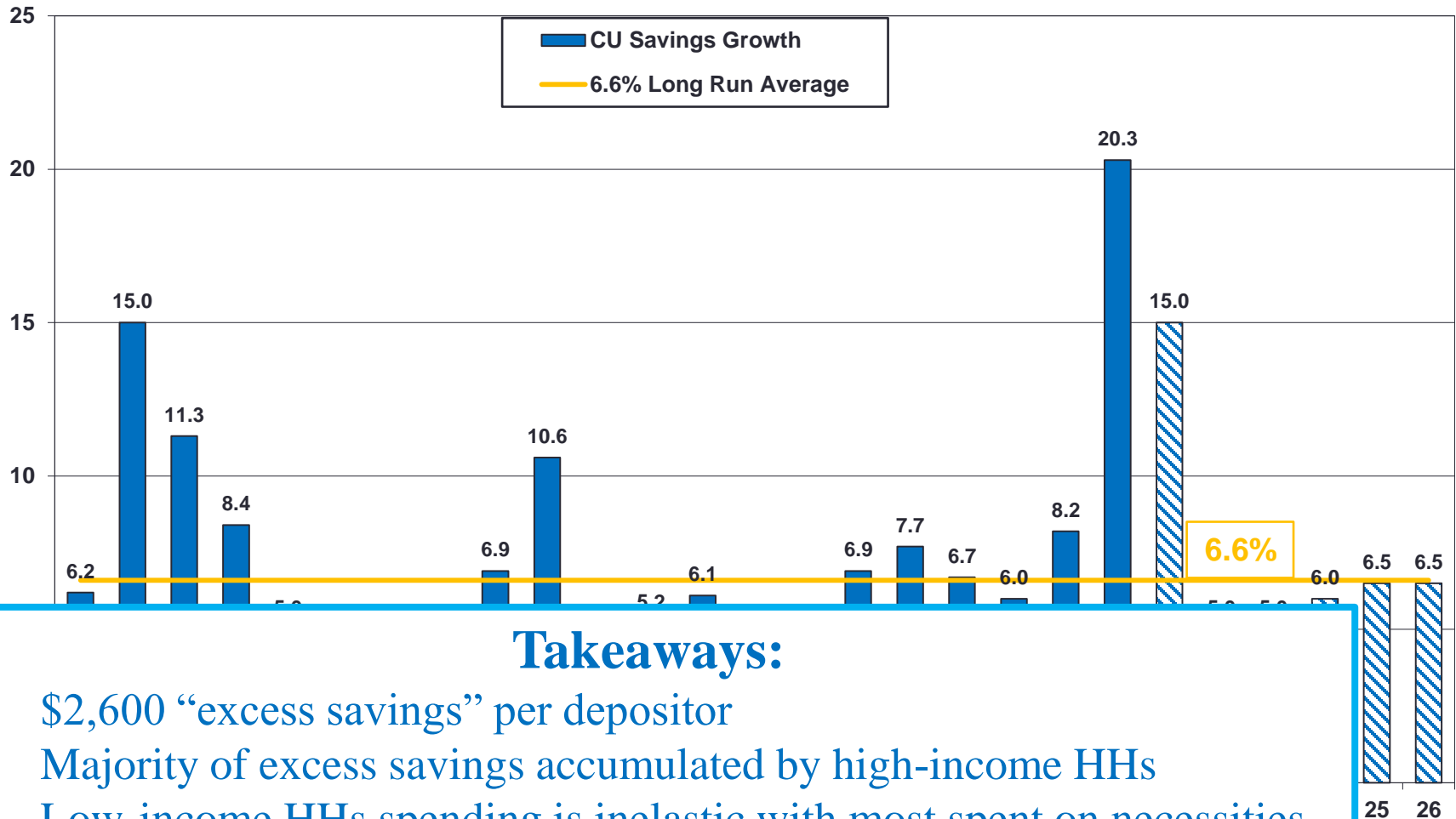
Below Trend Credit Union Saving Growth

Credit Union Savings Growth
(Annual Percent Growth)



Below Trend Credit Union Saving Growth

Credit Union Savings Growth
(Annual Percent Growth)



Takeaways:

1. \$2,600 “excess savings” per depositor
2. Majority of excess savings accumulated by high-income HHs
3. Low-income HHs spending is inelastic with most spent on necessities.

Economic Update Summary

2021-2022

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1. Very strong economic growth for the next 2 years

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Economic Update Summary

2021-2022

1. Very strong economic growth for the next 2 years
2. Long-term interest rates rising 1 percentage point over the next 2 years
3. Unemployment rate staying below normal for next few years
4. Housing construction to remain strong for the next few years
5. Stock and home price growth slowing after 2022



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